



POLICE DEPARTMENT

**To:** Robert Kulikowski, Ph. D., Director  
New York City Mayor's Office of Environmental Coordination

**From:** Assistant Commissioner David Kelly  
New York City Police Department Counterterrorism Bureau

**Re: Notice of Completion of a Draft Environmental Impact Statement –  
World Trade Center Campus Security Plan  
CEQR# 12NYP001M**

**Date:** April 8, 2013

Please find attached a copy of the Draft Environmental Impact Statement (DEIS) for the proposed World Trade Center Campus Security Plan. The New York City Police Department accepted the DEIS as adequate for purposes of commencing public review and is issuing the attached *Notice Of Completion*.

# NOTICE OF COMPLETION OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

## WORLD TRADE CENTER CAMPUS SECURITY PLAN

### Project Identification

CEQR# 12NYP001M

SEQRA Classification: Unlisted

### Lead Agency

New York City Police Department

One Police Plaza

New York, NY 10038

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Pursuant to City Environmental Quality Review (CEQR), Mayoral Executive Order No. 91 of 1977, CEQR Rules of Procedure of 1991, and the regulations of Article 8 of the State Environmental Conservation Law, State Environmental Quality Review Act (SEQRA) as found in 6 NYCRR Part 617, a Draft Environmental Impact Statement (DEIS) has been prepared for the action described below. Copies of the DEIS may be reviewed at the New York City Office of Environmental Coordination, 100 Gold Street, 2nd Floor, New York, NY 10038. The DEIS is also available online through a link on the Counterterrorism page of the New York City Police Department's website at:

[http://www.nyc.gov/html/nypd/html/crime\\_prevention/counterterrorism.shtml](http://www.nyc.gov/html/nypd/html/crime_prevention/counterterrorism.shtml)

The proposal involves actions by the New York City Police Department. **A public hearing will be held on April 23, 2013 at 4:00 PM.** Oral and written comments on the DEIS will be accepted at the public hearing. In addition, written comments on the DEIS are requested and will be received and considered by the NYPD through **Wednesday May 8, 2013** (through the 30th day following this Notice of Completion). Written comments may be sent to:

Assistant Commissioner David Kelly

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## A. INTRODUCTION

The New York City Police Department (NYPD) proposes to implement a Campus Security Plan for the 16-acre World Trade Center (WTC) Campus in Manhattan Community District 1 (the "Proposed Project") in collaboration with other New York City agencies, the Port Authority of New York and New Jersey (PANYNJ) and other WTC stakeholders. Implementation of the Proposed Project is the "Proposed Action."

The Campus Security Plan would create a comprehensive vehicle security perimeter for the WTC Campus (the "Campus Security Plan") to protect against vehicle-borne explosive devices while ensuring an open environment that is hospitable to remembrance, culture, and commerce. The Campus Security Plan bars unscreened vehicles from entering the WTC Campus and certain areas at the perimeter of the

Site and creates increased stand-off distances to reduce the risk of catastrophic damage to persons and property. A vehicle seeking to enter restricted areas would be subject to credentialing to determine whether entry is authorized and screening to ensure the vehicle does not contain dangerous material. The creation of a Trusted Access Program<sup>1</sup> (TAP), in which WTC office tenants with parking privileges on site, residents and owners of businesses located in non-WTC buildings within the secure zone (Liberty Street between Greenwich Street and Trinity Place), for-hire vehicle operators, and delivery vehicle operators could enroll, is expected to facilitate entry for those vehicles with destinations within the WTC Campus. It is possible that yellow cabs would also be permitted to enroll in TAP; however, specific criteria have not yet been finalized.

The Vehicular Security Center (VSC) planned in conjunction with the WTC development irrespective of the Proposed Action controls access to the underground traffic network that serves the entire WTC Campus, including the loading docks for each building and parking areas. The parking garage will not allow general public parking; rather, the parking garage will be restricted to use by tenants. All vehicles entering the VSC, including tenants that park on site, tour buses and delivery vehicles will be processed and screened at the VSC. PANYNJ will operate and be responsible for screening vehicles entering the VSC and will be responsible for screening there. As it is anticipated that demand for on-site delivery, tour bus and private occupancy vehicle (POV) parking will be considerable, PANYNJ is developing a management strategy, including scheduling of tour buses and truck deliveries, to ensure orderly and efficient operations.

The NYPD and PANYNJ have coordinated to develop conceptual plans for the design and location of the proposed security infrastructure, which is discussed in more detail in Section E, below. The Project Area includes all streets, sidewalks and buildings that would be directly affected by the installation of the WTC site's security infrastructure. This area is generally bounded by Barclay, West, Albany and Church Streets. Four vehicular entry points are planned under the proposed Campus Security Plan at: Washington Street and Barclay Street; West Broadway and Barclay Street; Trinity Place/Church Street and Liberty Street; and Liberty Street and West Street/Route 9A. Exits from the secure zone are proposed at the following five locations: Church Street at Vesey Street; Vesey Street at West Street/Route 9A; Fulton Street at West Street/Route 9A; Liberty Street at West Street/Route 9A; and Greenwich Street at Cedar Street. The secure perimeter would consist of various types of vehicle interdiction devices, which would include static barriers (such as bollards) and operable barriers to allow vehicle access, all under NYPD control.

The Proposed Action also includes the reconfiguration of Trinity Place/Church Street from Cedar Street north to Vesey Street to create a northbound lane for screened vehicles within the security zone as well as an exit area north of Vesey Street. This secure lane would be created by constructing a four-foot-wide raised median on Church Street. An approximately 11-foot-wide inner secure lane would provide additional stand-off distance between the planned WTC buildings and the general traffic flow on Church Street. Three lanes of northbound Church Street traffic, having an approximate total width of 33 feet, would remain outside the secure zone.

Construction of the Proposed Action is expected to commence in 2013. With or without the Proposed Action, it is unlikely that the planned street network within the WTC Campus would be completely constructed and accessible prior to 2019. As such, 2019 has been selected as the analysis year for the environmental analyses in this Environmental Impact Statement (EIS). It is anticipated that the security measures associated with the Proposed Action would be implemented as construction of the WTC buildings progresses through 2019. Construction sequencing would be scheduled based on the need to accommodate construction activities at the WTC site, the progress of development and the security needs

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<sup>1</sup> PANYNJ is currently developing the TAP program.

of the tenants as new buildings are completed and occupied. Prior to the installation of the permanent security measures, it is likely that some interim measures would be installed adjacent to the occupied buildings to provide security while construction of adjacent WTC buildings and on-site streets and infrastructure is on-going. The specific sequencing of the proposed security measures would be determined once the future construction schedule for development at the WTC site becomes more defined.

A variety of new developments and conversions are anticipated to be completed within the quarter-mile study area by 2019. It should be noted that 5 WTC has not been included as within the Campus Security Plan or as a development that would occur by the time of the Proposed Action. At this time the only building program proposed for 5 WTC is the 57-story, approximately 1.6-million-square-foot office tower that was contemplated in the 2004 *World Trade Center Memorial and Redevelopment Plan FGEIS* with anticipated completion by 2015. Due to the current economic climate, however, it is unlikely that the PANYNJ will pursue development of the 5 WTC site in the near term. With the ongoing construction of 1 WTC and 4 WTC and the recent completion of 7 WTC, demand for new Class A office space is being met in Lower Manhattan in the near term. This EIS conservatively assumes that 2 WTC and 3 WTC would be fully constructed and occupied by 2019 even though the full build-out of 2 WTC and 3 WTC is predicated on the ability to viably market the office space. Therefore, it is unlikely that the demand exists in the current market for construction of the additional 1.6-million square feet of office space that would be made available if 5 WTC were developed as once contemplated.

Any other proposals for development of 5 WTC would be purely speculative at this juncture as no developer has been selected and no alternative plans have been developed for the site at this time. As such, it is projected that 5 WTC would not be developed by 2019. With so many details surrounding the 5 WTC site unresolved, extending the analysis year beyond 2019 would not be useful because there is no information available that would provide reasonable guidance on when construction of the site could be completed. Additionally, the 5 WTC site is located outside of the security zone as proposed. For the reasons outlined, therefore, 5 WTC is not included in the analysis.

As the City of New York would provide a portion of the funding for the Proposed Action and NYPD is the chief decision maker with regard to its design and implementation, NYPD is conducting an environmental review pursuant to the New York State Environmental Quality Review Act (SEQRA) and City Environmental Quality Review (CEQR), and their implementing regulations. The NYPD is acting as lead agency under SEQRA/CEQR. Other City agencies are involved or interested agencies; these include the New York City Departments of City Planning (DCP), Environmental Protection (NYCDEP) and Transportation (NYCDOT). The New York State Department of Transportation (SDOT) is also an involved agency. NYPD will continue to work with the City and State in connection with the Proposed Action.

The EIS for the Proposed Action would serve as the basis for NYPD's findings pursuant to SEQRA. Because the Proposed Action is entirely within New York City, the *CEQR Technical Manual* generally serves as a guide with respect to methodologies and impact criteria for evaluating the Proposed Action in this Draft EIS. Therefore, this EIS has been prepared in conformance with applicable laws and regulations, including Executive Order No. 91 of 1977 and the CEQR regulations, and follows the guidance of the 2012 *CEQR Technical Manual*.

While the NYPD would provide a portion of the funding for the Proposed Action, other potential funding sources include the Federal Emergency Management Agency/U.S. Department of Homeland Security (FEMA/DHS) and PANYNJ. Federal agencies are responsible for complying with the National Environmental Policy Act (NEPA), which has procedural requirements that are similar to, but jurisdictionally distinct from, SEQRA. The information provided in this SEQRA EIS is intended to

provide a basis for a subsequent NEPA environmental review by FEMA/DHS if Federal funding is allocated for this project. Accordingly, this SEQRA EIS will be conducted in a manner to ensure consistency with Federal review requirements.

The EIS includes review and analysis of all relevant impact categories identified in the 2012 *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 Proposed 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 FOR THE PROPOSED ACTION**

As described above, the WTC Campus Security Plan was developed in response to the continued security concerns at the WTC site. The Proposed Action bars unscreened vehicles from entering the WTC Campus and certain areas at the perimeter of the WTC site and creates increased stand-off distances between unscreened vehicles and WTC buildings. A vehicle seeking to enter restricted areas would be subject to credentialing to determine whether entry is authorized and screening to ensure the vehicle does not contain dangerous material. As indicated above, the proposed security measures are intended to safeguard the WTC Campus while allowing access for screened vehicles.

The WTC Campus Security Plan is a direct undertaking by the NYPD and would be paid for, at least in part, with New York City funds. Therefore, the Proposed Action is subject to environmental review pursuant to SEQRA and CEQR.

## **C. PROJECT SITE AND ITS CONTEXT**

The WTC Campus Security Plan encompasses the approximately 16-acre parcel bounded by Vesey Street on the north, Liberty Street on the south, Church Street on the east and West Street/Route 9A on the west. As previous studies have been conducted for the site, the following sections provide a description of the earlier versions of the plans for the WTC site.

### ***2004 World Trade Center Memorial and Redevelopment Plan FGEIS***

The LMDC-sponsored *World Trade Center Memorial and Redevelopment Plan FGEIS* was issued in 2004. The building program analyzed in the FGEIS, referred to as the Master Plan, included construction that was anticipated to occur across the entire 16-acre site, including: the National September 11th Memorial and Museum, cultural facilities, up to 10 million gross square feet (gsf) of Class A office space, plus associated non-office space such as storage, mechanical, loading, and subgrade parking, up to 1 million gsf of retail space, a hotel with up to 800 rooms and up to 15,000 gsf of conference space, open space areas, and infrastructure improvements. This FGEIS evaluated a site plan and street configuration that proposed to restore vehicular access through the WTC site both from north to south and from east to west.

The overall site plan considered in the 2004 FGEIS also accounted for infrastructure and utilities to support the proposed building program. Traffic circulation was proposed to flow south on Greenwich

Street and West Broadway from Tribeca to the area south of Liberty Street. Vehicular traffic was proposed to flow west on Fulton Street. Whereas the 2004 FGEIS indicated that all traffic would typically flow through the site in an unrestricted manner, the report also acknowledged that these streets might be restricted or closed from time to time, but did not specify the circumstances for such closures or restrictions (Section 1.5.4). Additionally, the FGEIS mentioned that public safety and law enforcement agencies such as the NYPD and Fire Department would be consulted to develop detailed security plans and systems for all areas of the WTC Campus. However, no specific measures that were considered for implementation are specified in the 2004 FGEIS for security reasons.

Traffic flow along Cedar Street was proposed to flow west. Washington Street was proposed to be eliminated north of Cedar Street, which would have required vehicles traveling north on Washington Street to turn left on Cedar Street to access West Street/Route 9A.

Access to the on-site parking facility for buses, trucks, and automobiles was proposed along the north side of Liberty Street, with access only available from the west via West Street/Route 9A. Alternatively, automobiles could access and exit the on-site parking garage via a ramp on the south side of Vesey Street at Washington Street. Under the original plan, all vehicles would have exited the site via the Liberty Street or Vesey Street ramps, or via an exit ramp onto the northbound West Street/Route 9A median.

### ***2005 Environmental Assessment for Proposed Refinements to the Approved Plan***

As LMDC worked with stakeholders and lessees to implement the Approved Plan for the WTC site, certain adjustments and refinements were made based on aesthetics, commercial viability, cost, and technical, security, and practical considerations. During December 2004, LMDC issued Generic Project Plan (GPP) Amendments to the Approved Plan for public review, with a public hearing in January 2005. LMDC then prepared an Environmental Assessment to evaluate whether previously approved mitigation measures would be adequate to support the proposed Amendments.

The Amendments relocated the entrance ramp for the underground parking and service network from the north side of Liberty Street to the south side of Liberty Street. Operation of Liberty Street was also modified from the originally proposed one-way eastbound flow to two-way operation between West Street/Route 9A and Church Street. Reconfiguration of below-grade space resulted in the reduction of bus parking capacity from 100 to approximately 67 parking spaces and enlargement of the WTC bathtub area to accommodate turning movements.

Under the updated 2005 plan, all vehicles would access the on-site garage via Liberty Street. All vehicles would exit the parking garage via eastbound Liberty Street as no vehicles would be permitted to turn left out of the VSC toward West Street/Route 9A. Automobiles would also be permitted to exit onto Cedar Street under this amended plan.

Liberty Park was redesigned to provide additional clearance by raising certain areas by 20 to 30 feet. The Amendments would result in a larger Liberty Park as well as the relocation of St. Nicholas Church from the western to the eastern portion of the park.

Other modifications were proposed as a result of the amended plan, including: the possible creation of a cul-de-sac aligned with Cedar Street immediately to the north of Tower 5; shifting up to 300,000 gsf of office space from Tower 5 to other towers on the WTC site; relocation of vehicular elevators for the subgrade parking area from Vesey Street opposite Washington Street to a location east of Washington Street within the PAC building; and increased open spaces as a result of plan refinements.

### ***Subsequent Plan Refinements***

In 2005 former Governor George Pataki established a taskforce to develop a security plan for the WTC Campus. The taskforce, which included experts on the federal, state, and local level, was convened to recommend strategies to protect the WTC Campus from future threats.

Following the 2005 plan amendments, stakeholders continued to coordinate to develop the master plan for the WTC site. One major development was the redesign of 1 WTC (the Freedom Tower) to increase building security. A second major development was that PANYNJ would be responsible for development of the WTC Vehicular Security Center and Tour Bus Parking Facility (VSC). The primary design change to the VSC during this time was the use of a single ramp structure to accommodate all vehicle types.

In September 2006, LMDC issued a Negative Declaration and Finding of No Significant Impact for the World Trade Center Memorial and Redevelopment Plan Environmental Assessment for Further Refinements to the Approved Plan (2006 EA). The 2006 EA evaluated various changes to the WTC Memorial and changes in the construction phasing for the planned on-site office towers. The VSC was included as part of the baseline condition for the 2006 EA.

In November 2006, a comprehensive set of agreements were established that outlined the City's rights and obligations to, and real property interests in, the WTC Site. This document detailed agreements on the following types of issues: real property rights, land swaps, insurance deals, ownership of streets and sidewalks, construction methodology and sequencing, site operations and maintenance, dispute resolution, disposition of tie-back easements, permanent subsurface easements at buildings around the site, design guidelines for the commercial towers, vertical gores, liberty bond financing, etc.

This EIS provides a description of the proposed security measures and evaluates the potential for the Proposed Action to result in significant adverse environmental impacts.

### ***WTC Campus Development Program***

Construction of the various components of the WTC development is expected to occur irrespective of the Campus Security Plan. However, as the current WTC development program differs from the program assumed in the 2004 FGEIS, descriptions of both plans are provided herein. As shown in **Table NOC-1**, the development program contemplated under the 2004 Master Plan provided for the construction of a Memorial and Museum Pavilion, up to 10 million square feet of office space, up to 1 million square feet of retail space, a hotel with up to 800 rooms and up to 150,000 square feet of conference space, a 2,200-seat performance space, up to 240,000 square feet of cultural facilities; up to 290,000 square feet dedicated to the Memorial Center, up to 30,000 square feet of restaurant/café uses, and a 1,200 to 1,400-car underground parking garage. Also present on the project site was the permanent WTC terminal for PATH trains to New Jersey. Additionally, a VSC accessed from Liberty Street was included as part of the program for screening of all vehicles that sought access into the below grade parking garage loading areas.

The current program for the WTC Campus includes the National September 11th Memorial and Museum, approximately 8.5 million square feet of office space, approximately 441,000 square feet of retail space, no hotel rooms or conference space, a 1,000-seat performance space, an approximately 290,000 square-foot Memorial Center, approximately 14,000 square feet of restaurant/café uses, and an underground parking garage consisting of up to approximately 500 parking spaces for autos and 67 bus parking spaces. The WTC terminal for PATH trains to New Jersey is present in both versions of the plan. Additionally, the VSC would remain as part of the program for screening of all vehicles that seek access into the below grade parking garage loading areas.

**Table NOC-1  
Comparison of Current WTC Development Program with 2004 FGEIS**

Project Component	2004 FGEIS Program (2015 Build Year)	Current Estimated Program	Net Change
Office	10 million sf	8.5 million sf	-1.5 million sf
Retail	1 million sf	441,000 sf	-559,000 sf
Hotel/Conference Space	800 rooms/150,000 sf	0 rooms/0 sf	-800 rooms/150,000 sf
Performing Arts Center	2,200 seats	1,000 seats	-1,200 seats
Memorial Center	290,000 sf	290,000 sf	0
Cultural Facilities	240,000 sf	0 sf	-240,000 sf
Restaurant/Café Uses	30,000 sf	14,000 sf	-16,000 sf
Garage	1,200-1,400 spaces	+/-500 spaces	Approx. 700-900 spaces
<b>Notes:</b> Memorial included in both programs.			

***Site Plan and Vehicular Circulation***

The proposed street configuration under the 2004 Master Plan included extending Fulton Street east-west through the site and Greenwich Street north-south through the site. Fulton Street would operate one-way westbound and Greenwich Street would operate one-way southbound, and it was understood that both streets might be restricted or closed to traffic from time to time. The area to the south of the WTC site would be reconfigured to open Cedar Street between Greenwich and Washington Streets and close Washington Street between Liberty and Cedar Streets. Cedar Street would operate one-way westbound, with all traffic northbound on Washington Street turning left onto Cedar Street to West Street/Route 9A.

The extensions of Fulton and Greenwich Streets would divide the project site into four quadrants. It was planned that the Memorial, Museum Pavilion and cultural buildings would occupy the southwest quadrant, while the tallest of five proposed towers (1 WTC) and cultural space would occupy the northwest quadrant. Three additional towers and the PATH Terminal would occupy the two eastern quadrants while the fifth tower would be located at the south end of the site between Albany, Washington, Cedar and Greenwich Streets.

Under the 2004 Master Plan, it was assumed that four buses would stop to discharge and pick up passengers along the west side of Greenwich Street, and that these buses would be parked in a below-grade parking area which they would enter at the VSC via a ramp on Liberty Street east of West Street/Route 9A. Trucks en route to below-grade service levels on the WTC site were also assumed to enter at the VSC via this ramp, while autos belonging to building tenants would be allowed to enter and exit the 1,200-to-1,400-space below-grade parking areas via a ramp on the south side of Vesey Street at Washington Street. All vehicle types could exit the on-site service and parking areas via the Liberty Street or Vesey Street ramps, or via an exit ramp onto the northbound West Street/Route 9A median. Subsequent plans for the WTC Campus have resulted in Liberty Street as the primary access to and from the VSC with the West Street/Route 9A exit eliminated.

**Current World Trade Center Site Development Program**

As described above, the development program for the WTC site has evolved since the 2004 FGEIS was released. Numerous factors, including the financing of the entire building program as described in the 2004 FGEIS, the current conditions of the financial market, and the process of finding tenants for the proposed office and retail space, have resulted in modifications to the building program that was originally considered. As shown in **Table NOC-1**, the incremental difference between the 2004 FGEIS

program and the building program that is currently being considered is a reduction of over 2 million square feet. As indicated in the table above, the hotel that was originally considered for the site has been eliminated from the building program. Additionally, the capacity of the PAC has been reduced from 2,200 seats under the plan analyzed in the 2004 FGEIS to approximately 1,000 seats. Other than the PAC and the memorial, no additional square footage is currently being planned for cultural uses.

Operational controls such as bus reservations and the scheduling of deliveries are expected to be implemented by PANYNJ in conjunction with the VSC under the No-Action condition. Bus loading could take place adjacent to the National September 11th Memorial and Museum along the east side of West Street/Route 9A, along the north side of Liberty Street, or along the west side of Greenwich Street.

Additionally, subsequent to the 2005 redesign of 1 WTC it was determined that no unscreened vehicles could be permitted to access Fulton and Vesey Streets immediately adjacent to 1 WTC as a measure to enhance security at-grade. Version 10.0 of the PANYNJ Master Plan incorporates sally ports along Fulton and Vesey Streets which would result in the management of traffic flow adjacent to 1 WTC. Therefore, this EIS considers Fulton and Vesey Streets managed streets under No-Action conditions as these streets would be controlled-access streets irrespective of the Proposed Action. As described above, this is one of the many changes to the WTC site redevelopment plan that have occurred since the 2004 FGEIS was published and which are reflected in this EIS.

#### **D. DESCRIPTION OF PROPOSED ACTION**

The Proposed Action would control vehicular access to and traffic movement within the WTC Campus. This would be accomplished through the creation of a secure perimeter around the WTC Campus that is intended to prevent unscreened vehicles from driving within close proximity to the National September 11th Memorial plaza and the museum building, commercial towers, and transportation facilities located within the WTC Campus. Therefore, selected portions of streets in and around the WTC Campus are proposed to be restricted access streets that would be closed to general vehicular traffic. No restrictions or controls would be implemented on pedestrians as a result of the Proposed Action. Implementation of the Proposed Action would involve installation and utilization of security infrastructure in the immediate vicinity of the WTC Campus. Vehicles destined for the WTC site seeking entry onto these streets would be subject to credentialing to determine whether entry to the WTC Campus should be permitted, and then screening to confirm that these vehicles pose no threat. The Proposed Action would not alter the building program that is currently planned for the site. Instead, the Proposed Action would manage vehicular traffic to and through the site.

The Project Area includes all streets and sidewalks that would be directly affected by the installation of this security infrastructure. The Project Area is generally bounded by Barclay Street and Park Place on the north, Albany Street on the south, Trinity Place/Church Street on the east and West Street/Route 9A on the west. The perimeter of the WTC Campus would be secured through the installation of various types of vehicle interdiction devices under the control of the NYPD. These could include static and operable barriers and traffic lane delineators. Screening of all vehicles entering the WTC Campus would utilize both mechanical and manual processes, and would be facilitated through the use of sally ports which, as described previously, would consist of a personnel booth controlling a set of two operable barriers with sufficient space between them to accommodate a motor vehicle undergoing screening. An additional booth would be installed at each credentialing location. It is anticipated that the sizes and locations of the booths and any ancillary structures will be refined as project design advances.

The Proposed Action would modify the vehicular access and traffic flow patterns considered in the 2004 WTC Memorial and Redevelopment Plan FGEIS. A secure zone is proposed to provide limited vehicular access on the following streets:

- Greenwich Street from Vesey Street to Cedar Street;
- West Broadway from Barclay Street to Vesey Street;
- Washington Street from Barclay Street to Vesey Street;
- Vesey Street from Church Street to West Street/Route 9A;
- Fulton Street from Church Street to West Street/Route 9A; and,
- Liberty Street from Trinity Place/Church Street to West Street/Route 9A.

Additionally, the Trinity Place/Church Street corridor<sup>2</sup> would be divided by a raised median with a static barrier, from Cedar Street to just north of Vesey Street. It is anticipated that to the east of the median the street would remain open to general traffic with three northbound moving lanes, while one additional moving lane to the west of the median would be located within the security perimeter and would be accessible only to screened vehicles.

As indicated above, PANYNJ Master Plan Version 10.0 intends to create a secure zone around 1 WTC by securing and restricting access to Vesey Street and Fulton Street between Greenwich Street and West Street/Route 9A. As such, these street segments would be managed streets irrespective of the Proposed Action. Additionally, it is expected that Greenwich Street from Barclay Street to Vesey Street would continue to be limited for use only by 7 WTC tenants in the No-Action condition (as outlined in a December 5, 2007 reciprocal easement agreement among the City of New York, 7 WTC ownership, PANYNJ and LMDC); therefore, this section of Greenwich Street would be a controlled access street irrespective of the Proposed Action.

All vehicles seeking access to the WTC Campus would be subject to screening and vehicle operators would be required to provide credentials prior to being granted access to the interior of the WTC site. Credentialing zones are proposed at the following locations:

- On West Broadway between Barclay Street and Park Place;
- On Barclay Street in the southern-most lane at the westbound approach to West Broadway;
- On Barclay Street in the southern-most lane at the westbound approach to Washington Street;
- On Trinity Place in the western-most lane at the northbound approach to Thames Street and Cedar Street;
- On West Street/Route 9A in the eastern-most lane at the northbound approach to Liberty Street; and,
- On West Street/Route 9A in the two southbound left turn lanes at the southbound approach to Liberty Street.

The proposed security sequence for entries consists of three zones: approach zones, credentialing and authorization zones, and screening zones. Approach areas would vary in size, detail and security elements installed depending on the anticipated vehicle volumes and the roadway geometry leading to the security station. It is expected that new signage would be installed to alert vehicles that they are approaching a secure zone and, where possible, to re-direct traffic that does not need to be credentialed.

TAP would allow for expedited vehicle entry into the secure zone. While specific operational details of the TAP program cannot be released for security purposes, a brief overview of the program is provided here. Enrollment in the TAP program would be open to:

- WTC office tenants with parking privileges on site;
- For-hire vehicle operators;

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<sup>2</sup> Trinity Place becomes Church Street north of Liberty Street.

- Delivery vehicle operators; and,
- Residents and owners of businesses located in non-WTC buildings within the secure zone (on Liberty Street between Trinity Place and Greenwich Street).

Both drivers and vehicles would be enrolled in the TAP. TAP credentials would be checked as vehicles approach entry points to the WTC Campus, and authorized vehicles would then be admitted to a sally port for expedited security screening. Drivers and vehicles with business at the WTC site, but not enrolled in the TAP, would be permitted into the WTC Campus; however, these drivers and vehicles would be subject to more rigorous credentialing and screening. This arrangement would help to facilitate access for those who seek entry. Vehicles without the proper credentials would be denied entry per NYPD policy.

It is expected that when the security zone is first implemented, some vehicle operators without proper credentials may unknowingly attempt to enter the WTC Campus. However, after the program has been active for a short time there would likely be fewer attempts to enter the campus without proper credentials.

Screening would include the visual and physical inspection of vehicles. The physical design of screening areas would vary slightly, depending on the anticipated primary users of each specific screening zone. For example, screening areas that are expected to have high bus or delivery vehicle volumes would be sized to fit these vehicle types, with larger sally ports. Personnel booths at each sally port would house barrier controls, data systems and other equipment. They will be designed to meet these operational requirements while having the smallest possible footprint to minimize potential pedestrian conflicts.

Screening procedures for individuals and vehicles enrolled in the TAP program would differ from screening procedures for non-TAP individuals and vehicles. Overall screening times for vehicles enrolled in TAP and for non-TAP vehicles are described in Chapter 8, "Transportation." As described in Chapter 8, screening time for non-TAP vehicles is longer than TAP screening as it is more extensive and requires additional manual and mechanical screening processes.

Exit-only security stations would manage all traffic exiting the WTC Campus. The dimensions of sally ports at exits would vary in size based on their location and the size of the primary vehicle type expected to use them.

The following describes the security infrastructure and traffic changes that would be implemented under the Proposed Action.

#### *TRINITY PLACE/CHURCH STREET*

The western-most lane at the Trinity Place approach to Liberty Street would be an entry-only sally port that would serve as the primary point of entry for tour buses en route to the National September 11th Memorial and Museum. Only buses with reservations to park on-site would be granted access. All others would be turned away in the credentialing zone. This policy would be strictly enforced.

The proposed credentialing and screening locations would be used as flexibly as possible to allow operational decisions to be made in the field so that inbound vehicle traffic could be distributed efficiently to all entry points. For example, during the morning peak period and after the PM peak period, POVs and for-hire vehicles would use this entrance to access the WTC Campus as tour bus activity during these time periods is expected to be very low.

Vehicles would approach the Trinity Place/Church Street entrance from the south. Credentialing zones associated with this entrance would be delineated in a single lane along the west curb south of Cedar and Thames Streets at the approach to Liberty Street. A personnel booth is proposed on the western sidewalk

of Trinity Place/Church Street, just north of Thames Street near the front of the credentialing lane. As the proposed placement of the credentialing booth along the sidewalk at this location would narrow the pedestrian zone, the sidewalk in this area has been analyzed in the pedestrian section of Chapter 8, "Transportation."

Entry to the secure lane would be available from a screening zone located on Trinity Place at Cedar Street. The screening zone would consist of a single northbound lane that would be approximately 15 feet wide and approximately 55 feet long. Operable barriers would be located at the northern and southern ends of the sally port.

A personnel booth is proposed on the western sidewalk of Trinity Place adjacent to the sally port. Placement of the booth on the western side of Trinity Place would reduce the pedestrian space to just under 12 feet. Bollards are proposed between the curb and the building wall on the western sidewalk adjacent to the personnel booth. Bollards would be spaced four feet apart to allow adequate space for pedestrian flow, but also to serve as effective vehicle interdiction devices.

The Trinity Place/Church Street corridor would be divided by a raised median with fixed barriers (possibly bollards), from Cedar Street to just north of Vesey Street. A four-foot-wide north-south median would separate the two sections of Trinity Place/Church Street. It is anticipated that to the east of the median the street would remain open to general traffic with three northbound moving lanes, while the one moving lane of approximately 11 feet to the west of the median would be located within the security perimeter and would be accessible only to screened vehicles as a circulating roadway. Additionally, this median would include an operable barrier across Liberty Street. This barrier would be used to provide emergency egress by fire trucks stationed at the Ten House within the WTC Campus.

A second sally port would be located on Church Street at the northern end of the WTC Campus, just north of Vesey Street. This sally port would serve as an egress point for all vehicle types exiting onto northbound Church Street from the secure lanes located within the WTC Campus. The exit would be comprised of a single 16-foot-wide lane with a 55-foot-long sally port. The western sidewalk at this location would be extended to the east by a width of approximately eight feet and would extend approximately 125 feet to the north to accommodate a personnel booth to be staffed by NYPD. The sidewalk extension would allow for the entire width of the existing sidewalk to be maintained at approximately 16 feet wide. Bollards are proposed between the curb and the U.S. Post Office building's streetwall on the western sidewalk adjacent to the screening booth. Bollards would be spaced four feet apart to allow adequate space for pedestrian flow, but also to serve as effective vehicle interdiction devices.

While pedestrian crosswalks in the vicinity of these security elements would be unimpeded by operable security elements, bollards would be spaced at four-foot intervals to allow pedestrian flow through at all crossings. All operable security devices would be set back from crosswalks to maintain the pedestrian zone. Within the Liberty Street intersection, operable barriers would replace the static barriers to allow emergency vehicle access when necessary.

#### *WEST BROADWAY*

Southbound West Broadway at Vesey Street would function as an entrance to the WTC Campus for for-hire vehicles and POVs arriving from the north for southbound access into the site. While all vehicles with business in the WTC Campus would be granted access, vehicles registered in the TAP would have expedited entry, while non-TAP vehicles would have to undergo more rigorous credentialing and screening. All other vehicles would be turned away if proper credentials are not provided in the credentialing zone. This policy would be strictly enforced.

Vehicles would approach the West Broadway entrance from the north and the east. The credentialing/authorization zones associated with this entrance would be delineated in two locations: the two eastern-most lanes on West Broadway north of Barclay Street and a single lane on the southern curb of Barclay Street at the approach to West Broadway. One personnel booth associated with credentialing/authorization would be located on the eastern sidewalk of West Broadway, just north of Barclay Street; the second personnel booth associated with credentialing/authorization would be located on the southern sidewalk of Barclay Street, just east of West Broadway. Street signs would be placed on the road leading up to the credentialing zones to inform drivers of the upcoming secure zone as they approach the credentialing zones. As the placement of the personnel booths at two sidewalk locations adjacent to the credentialing/authorization lanes would narrow the pedestrian zones, a pedestrian analysis is provided for these areas in Chapter 8, "Transportation." Due to the street geometry at these locations, sidewalk extensions would not be possible.

Entry to the secure zone would be available from a screening zone located on West Broadway at the approach to Vesey Street. The screening zone would consist of two side-by-side southbound lanes that would each be approximately 11 feet wide. Therefore, this entry point would facilitate access of multiple vehicles simultaneously entering the WTC Campus. The screening zone would consist of two 55-foot-long sally ports, separated by static barriers. Operable barriers would be located at the northern and southern ends of the sally ports to provide ingress and egress.

Bollards would be used to delineate a single travel lane along the east curb adjacent to the sally port but outside of the secure perimeter in order to maintain access to the adjacent loading and service area for the U.S. Post Office building (the width of this lane varies from approximately 11 feet closer to Barclay Street to approximately 15 feet wide). Postal vehicles would enter the building at the south end of the block and utilize an internal roadway to exit the facility onto West Broadway near Barclay Street.

The personnel booth associated with the West Broadway entrance would be located on the eastern sidewalk of West Broadway adjacent to and south of the U.S. Post Office exit. As a 10-foot-wide by approximately 65-foot-long sidewalk extension is planned at this location to accommodate the inspection booth, the sidewalk width would be maintained at over 16 feet. Bollards are proposed around Vesey Park and at the southern limit of the U.S. Post Office access to ensure that no vehicles are able to bypass the screening zone. Bollards proposed to cross the sidewalk from the edge of the curb to the building wall at the northeast corner of Vesey Street and West Broadway would be spaced four feet apart to allow adequate space for pedestrian flow, but to also effectively serve as vehicle interdiction devices.

Crosswalks on West Broadway, Barclay Street, and Vesey Street in the vicinity of these proposed credentialing and screening zones would be unimpeded by security elements. All operable security devices would be set back from crosswalks to maintain an unobstructed pedestrian zone.

### *GREENWICH STREET*

It is anticipated that Greenwich Street from Barclay Street to Vesey Street would be limited for use only by 7 WTC tenants under future conditions (as outlined in a December 5, 2007 reciprocal easement agreement among the City of New York, 7 WTC ownership, PANYNJ and LMDC); therefore, this section of Greenwich Street would be a controlled-access street irrespective of the Proposed Action and would be closed to through traffic. The installation of operable vehicle barriers near the Vesey Street intersection would permit the use of this block for vehicle entry to the WTC campus in emergency situations when other entrances may be unusable. It is possible that operable barriers may also be installed on Greenwich Street near Barclay Street at the northern end of the block. Operable barriers at the north end of the block (default down) and the south end of the block (default up) would allow vehicular access to the adjacent 7 WTC building, but not into the secure zone. As noted above, the West Broadway

entrance would provide the primary access to the segment of southbound Greenwich Street traversing the WTC site.

At the south end of the WTC Campus, a sally port would be located on Greenwich Street approaching Cedar Street to provide egress for fire trucks stationed at the adjacent “Ten House” fire station on the south side of Liberty Street between Greenwich Street and Trinity Place/Church Street as well as for POVs and for-hire vehicles seeking access to the Greenwich South neighborhood and other local destinations.

Vehicles exiting the WTC Campus would approach the one-lane sally port from the north. The lane would be approximately 22 feet wide and the overall length of the sally port would be approximately 35 feet. The personnel booth would be located on a western sidewalk extension that would run the length of the block from Liberty Street to Cedar Street (approximately 15 feet wide by 160 feet long). This extension would allow an approximately 23-foot-wide clear zone for pedestrian circulation.

Bollards would be installed on the sidewalks adjacent to the operable barriers proposed within the street; on the eastern sidewalk they would extend to the building streetwall and on the western sidewalk they would extend the width of the sidewalk extension and intersect with the bollard line that is planned in conjunction with the No-Action streetscape plan.

#### *WASHINGTON STREET*

The screening zone at Washington Street between Barclay and Vesey Streets would serve as an entrance and exit point for oversized trucks en route to and from the PAC at-grade loading dock on Vesey Street and as a secondary entrance for other vehicles seeking to enter the WTC Campus. Delivery and service vehicles would also continue to use Washington Street to access the 7 WTC loading dock. Access to the PAC at-grade loading dock would only be required infrequently as most PAC deliveries would use below grade loading docks via the VSC.

The credentialing zone proposed in conjunction with the Washington Street screening zone would be delineated in a single lane along the south curb of Barclay Street, east of Washington Street. A personnel booth would be located on the southern sidewalk of Barclay Street, just east of Washington Street, near the front of the credentialing lane. As placement of the personnel booth along the sidewalk would narrow the pedestrian zone to slightly more than seven feet, this location was analyzed in the pedestrian section of Chapter 8, “Transportation.” Street signs would be placed on the road leading up to the credentialing zone to inform drivers of the upcoming secure zone as they approach the credentialing zone.

The Washington Street screening zone would consist of a southbound lane the full length of the roadway that would be approximately 163 feet long in order to accommodate the oversized vehicles that would deliver to the PAC. Operable barriers would be located at the northern and southern ends of the sally port.

A personnel booth would be located along the eastern side of Washington Street at the entrance to the sally port. The placement of the personnel booth on the eastern sidewalk would narrow the pedestrian zone to a width of approximately seven feet in the area immediately adjacent to the personnel booth. Based on field observations, this block is not heavily used by pedestrians.

Additional sidewalk elements would include fixed bollards, placed adjacent to the access and denial barriers (operable barriers at either end of the sally port) at four-foot intervals between the curb and the building wall on both the eastern and western sidewalks. Stop and signaling poles (includes lighting and stop and go signals for vehicles in the sally port) would be located at the northern end of the sally port, on both sidewalks as well. At the southern barrier, a light and equipment pole would be placed on both sides of the sally port.

While the With-Action Scenario would introduce new elements to the streetscape, it is important to note that the current site plan and vehicle circulation system for the WTC site incorporates security measures associated with the 2005 redesign of 1 WTC. Under these measures, both Vesey Street and Fulton Street would function as “managed streets” west of Greenwich Street. This would be achieved through the installation of operable barriers and sally ports on Vesey, Fulton and Washington Streets to restrict vehicular access. As such, there would only be a minor incremental change in the appearance of the intersection of Washington and Vesey Streets.

#### *VESEY STREET*

The portion of Vesey Street that would be located within the WTC Campus extends from Church Street on the east to West Street/Route 9A to the west. The block of Vesey Street from Church Street to West Broadway would be converted from eastbound to westbound operation under the Proposed Action. Vesey Street would operate two-way between Greenwich and Washington Streets and one-way westbound between Washington Street and West Street/Route 9A. Vesey Street would remain one-way eastbound east of Church Street and vehicles would not be able to travel from the managed corridor on the west side of Church Street onto eastbound Vesey Street due to the proposed configuration of Church Street which would include a raised median that would separate an inner secure lane from the rest of northbound Church Street.

Vesey Street at West Street/Route 9A would consist of a two-lane exit to West Street/Route 9A (northbound and southbound) for all vehicles exiting the WTC Campus. An approximately 35-foot-long sally port is proposed at this location. The sally port would be approximately 24 feet wide, accommodating two-lanes of westbound exiting vehicles. The sally port would be operated from a personnel booth located on an extended portion of the northern sidewalk in the area adjacent to the sally port. The proposed sidewalk extension would allow the sidewalk to be maintained for unobstructed pedestrian flow.

Fixed bollards would be installed across the sidewalk at both ends of the sally port. These bollards would be placed at four-foot intervals, from the southern edge of the sidewalk extension north across the sidewalk where they would end adjacent to the existing building.

The proposed sidewalk extension would be approximately eight feet wide and it would run the entire length of the proposed sally port. Placement of the personnel booth on the sidewalk extension would allow for the minimum impact on pedestrian use of the sidewalk in this area. As detailed in Chapter 8, “Transportation,” the sidewalk extension would maintain the existing sidewalk width for pedestrian circulation on the northern sidewalk. Further, the security elements would be set back from West Street/Route 9A to ensure free-flow of pedestrians in the crosswalk.

While the With-Action Scenario would introduce new elements to the streetscape, it is important to note that the current site plan and vehicle circulation system for the WTC site incorporates security measures associated with the 2005 redesign of 1 WTC. Under these measures, Vesey Street would function as a “managed street” west of Greenwich Street. This would be achieved through the installation of operable barriers and sally ports on Vesey and Washington Streets to restrict unscreened vehicular access adjacent to 1 WTC. As such, there would only be a minor incremental change in the appearance of Vesey Street as a result of the Proposed Action.

#### *FULTON STREET*

The portion of Fulton Street that would be located within the WTC Campus extends from Church Street on the east to West Street/Route 9A to the west. Under the Proposed Action, the block of Fulton Street between Greenwich and Church Streets would be converted from one-way westbound to one-way

eastbound operation to facilitate drop-off and pick-up activity at the adjacent 2 WTC and the Transit Hub. The segment of Fulton Street west of Greenwich Street would remain one-way westbound as would Fulton Street east of Church Street (outside of the proposed secure zone). There would be no vehicular access on Fulton Street across the raised median and static barriers that would be installed along Church Street between Vesey Street and Cedar Street, although pedestrian access would be maintained.

A 35-foot-long, 15-foot-wide sally port is proposed on Fulton Street at the westbound approach to West Street/Route 9A. It would consist of a single exit lane for vehicles exiting the WTC Campus. A sidewalk extension would be installed along the north side of the roadway for the length of the sally port to accommodate the personnel booth at this location. The sidewalk extension would allow for an approximately 25-foot-clear pedestrian zone on the adjacent sidewalk. Fixed bollards would be placed at four-foot intervals between the curb and the northern end of the sidewalk extension where they would intersect with the bollards planned at the perimeter of each block on the WTC Campus as part of the No-Action condition. The north-south pedestrian crossing on the east side of West Street/Route 9A would be located within the sally port so that the required stand-off distance from the western-most barrier to 1 WTC can be provided.

While the With-Action Scenario would introduce new elements to the streetscape, it is important to note that the No-Action site plan and vehicle circulation system for the WTC site similarly incorporates security measures associated with the 2005 redesign of 1 WTC. Under these measures, Fulton Street would function as a “managed street” west of Greenwich Street. This would be achieved in the No-Action condition through the installation of operable barriers and sally ports on Fulton Street at West Street/Route 9A on the west and a point west of Greenwich Street on the east to restrict vehicular access. As such, there would only be a minor incremental change in the appearance of the Fulton Street when comparing the No-Action and With-Action conditions.

#### *LIBERTY STREET*

The portion of Liberty Street that would be located within the WTC Campus extends from Church Street on the east to West Street/Route 9A to the west. Under the Proposed Action two-way operation would continue on Liberty Street, and it would function as the primary point of access and egress for the VSC.

Two sets of sally ports would be installed on Liberty Street to the west of the VSC entrance in the With-Action scenario to accommodate entering and exiting vehicles. The secure access that would be constructed to the west of the VSC would consist of two approximately 11-foot-wide exit lanes and two approximately 11-foot-wide entry lanes. The entry from West Street/Route 9A would primarily serve POVs and various delivery and service vehicles entering the WTC Campus’s parking areas by way of the VSC. The overall length of the entry and exit sally ports is planned to be approximately 55 feet long. The personnel booth would be located in Liberty Street between the inbound and outbound lanes.

Credentialing zones for the entry sally port would be located on West Street/Route 9A, north of Liberty Street for the two southbound left-only designated turning lanes and also south of Liberty Street in the eastern-most lane for vehicles that make the northbound right turn into the site. Vehicle screening would occur inside of the VSC. The personnel booth associated with the southbound credentialing zone would be located along West Street/Route 9A’s central median, and the personnel booth associated with the northbound credentialing zone would be located on the eastern sidewalk, allowing a clear pedestrian zone of nearly 18 feet wide.

Liberty Street east of the VSC entrance and exit would accommodate two-way traffic flow, with two lanes of westbound traffic and one lane of eastbound traffic. An operable barrier would be installed across the eastbound and westbound lanes. This barrier would be in the default up position to prevent

unauthorized vehicles from bypassing the VSC screening. A personnel booth would be located in the Liberty Street median between the eastbound and westbound lanes to control access at this location.

Vehicles already within the secure perimeter (tour buses, for example) would be able to enter the VSC from the east on Liberty Street. As indicated above, access to the VSC from the east would be through an operable barrier located immediately to the east of the VSC entrance/exit. Most vehicles departing the VSC would exit onto westbound Liberty Street to reach West Street/Route 9A. (A secondary exit would be provided on Cedar Street west of Washington Street to be used primarily in the event that a vehicle was allowed to enter Liberty Street in error from the credentialing zone on West Street/Route 9A.)

Another operable barrier would be located on Liberty Street in-line with the Church Street median. This barrier would be used to provide emergency egress from the WTC site for fire trucks stationed at the Ten House within the WTC Campus.

Under future conditions with the Proposed Action, it is anticipated that tour bus access would be similar to future conditions without the Proposed Action. It is anticipated that tour buses with passengers en route to the National September 11th Memorial and Museum and Tower 1 viewing platform would unload passengers along the north curb of Liberty Street west of Greenwich Street or along the west curb of Greenwich Street adjacent to the Memorial Center before proceeding to the VSC. Buses departing the VSC onto eastbound Liberty Street were assumed to loop north on Church Street and west on Fulton Street (under No-Action conditions) or west on Vesey Street (under With-Action conditions) to reach potential loading locations along the west curb of Greenwich Street, the north curb of Liberty Street and possibly the east curb of northbound West Street/Route 9A north of Liberty Street.

#### *CEDAR STREET*

Under both the No-Action and With-Action conditions, Cedar Street would be eliminated between Greenwich and Washington Streets, with the segment to the west operating one-way westbound as an outlet to West Street/Route 9A for northbound Washington Street. As noted above, a secondary exit from the VSC would be provided on Cedar Street west of Washington Street to be used primarily in the event that a vehicle was allowed to enter Liberty Street in error from the credentialing zone on West Street/Route 9A. The segment of Cedar Street between Greenwich Street and Trinity Place would operate one-way westbound under the Proposed Action.

#### *BARCLAY STREET*

As noted above, under the Proposed Action two credentialing zones would be established along the south curb of Barclay Street. One would be located immediately to the east of the screening zone on West Broadway, and the second would be located immediately to the east of the screening zone on Washington Street.

### **Bus and Delivery/Service Vehicle Scheduling**

Delivery vehicles en route to the WTC site would need to be scheduled and would undergo a credentialing check as they approach the VSC. It is anticipated that in the No-Action condition, some delivery vehicles would arrive unscheduled, and would be diverted to an off-site reconciliation area where they would wait until WTC staff could confirm their status before being allowed to return to the VSC. For traffic assignment purposes, it was assumed that when the WTC site initially becomes operational 15 percent of delivery vehicles arriving at the VSC in the No-Action condition would be unscheduled. These vehicles would be diverted out of the VSC via the secondary exit on Cedar Street, and it is assumed that they would use West Street/Route 9A to travel to an off-site reconciliation area located to the north of the WTC site. As people who make deliveries to the WTC site become more accustomed to the WTC delivery policies, it is anticipated that attempts to make unscheduled deliveries would become negligible

over time. A more extensive system of security measures would be implemented under the Proposed Action. As vendors and delivery companies become accustomed to the more stringent security procedures, it is anticipated that there would be relatively few unscheduled deliveries in the With-Action condition. Any vehicles making an unscheduled delivery would not be permitted access to the WTC Campus or the VSC.

Credentialed vehicles, including tour buses, black cars, and delivery vehicles, would be permitted access into the Site. All private vehicles with reserved parking spaces and prior authorization to park on-site would access the VSC from the east or west via Liberty Street. In the With-Action condition, all tour buses en route to the National September 11th Memorial and Museum and 1 WTC observation deck would enter the WTC Campus via the security station on Trinity Place at Cedar Street, and it is expected that most if not all would unload along the north curb of Liberty Street west of Greenwich Street before proceeding to the VSC. Buses departing the VSC are assumed to pick up passengers at one of two locations: the west curb of Greenwich Street adjacent to the Memorial Plaza or the east curb of northbound West Street/Route 9A north of Liberty Street, similar to the No-Action condition.

As indicated above, it is anticipated that all deliveries will need to be scheduled as a result of policies implemented under No-Action conditions. Incoming delivery vehicles would be directed to the dedicated loading area for the appropriate building – through the VSC and below-grade road network, following screening.

Construction of the Proposed Action may require the relocation of utilities in some areas. The appropriate agencies or utility companies would be contacted prior to construction. Areas of potential utility conflicts would be identified. Utilities in these areas would either be relocated or alternate designs would be proposed to avoid conflicts.

## **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*.

This EIS follows the customary approach to presenting an impact analysis under NEPA, SEQRA, and CEQR starting with a baseline of existing conditions in the relevant study areas and then forecasting those conditions forward to a time in the future that is appropriate for assessing project impacts. Future year conditions with and without the Proposed Action are then compared as a basis for presenting incremental change and identifying impacts. The reference point of conditions without the project is established by adjusting existing conditions to account for other known developments, policy initiatives, and trends that are expected to influence future conditions in the study area. This future condition without the project is then modified by overlaying the development and activity expected from the proposal under review to form a depiction of future conditions with the project in place. This comparison of future conditions with and without the project identifies the project impacts and the need, if any, for mitigation.

As stated above, the 2012 *CEQR Technical Manual* generally serves as a guide with respect to methodologies and impact criteria for evaluating the Proposed Action in this EIS. The analysis in each substantive area of impact assessment is consistent with federal, State and City requirements and guidelines, which are identified in each chapter as applicable.

The full range of environmental areas identified in the 2012 *CEQR Technical Manual* was considered. However, based on the guidelines in that document, it was determined that detailed analysis of the following environmental areas would not be necessary because the Proposed Action does not meet the criteria to warrant such analysis: open space, shadows, natural resources, water and sewer infrastructure, solid waste and sanitation services, and energy. This was documented in the Environmental Assessment Statement prepared for this project.

Although the National September 11th Memorial and Museum is located within the WTC Campus and Liberty Park will be constructed on the south side of Liberty Street east of West Street/Route 9A, the proposed security overlay would not prevent public access to these areas. Further, no significant new sources of noise, air pollutant emissions, odors, or shadows are anticipated immediately adjacent to open space areas as a direct result of the Proposed Action that would not be present under No-Action conditions, as described in detail in Chapter 9, "Air Quality" and Chapter 10, "Noise." Finally, there would be no significant new residential or worker population that would potentially create new indirect effects on open spaces. Therefore, an open space analysis was not required.

As the proposed security plan would consist of a variety of low-scale elements, it would not cast new shadows on local open spaces or historic resources. As such, a shadows analysis is not required for either public open space or historic resources.

The Proposed Action is a physical and operations security infrastructure overlay that would be incorporated into the planned WTC streetscapes. The proposed security elements would be installed on City streets and sidewalks in a well-developed area of Lower Manhattan. No natural resources exist in the areas that would be used for the security elements. Therefore, no assessment of natural resources is warranted.

It was also determined that an analysis of water and sewer infrastructure, solid waste and sanitation services, and energy would not be necessary, as the Proposed Action would not introduce substantial new demands on these services. However, while the Proposed Action would not place new demands on local water and sewer infrastructure, the construction chapter provides an assessment of the Proposed Action's potential to affect existing water and sewer infrastructure as a result of construction activities.

### **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 occupancy, 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 WTC Campus Security Plan is expected to be completed and fully operational by 2019.

In the 2019 future without the Proposed Action, it is anticipated that the planned WTC street network would be completely constructed and accessible. It is expected that construction activities for various planned WTC developments will continue through 2019. As such, 2019 has been selected as the analysis year for the environmental analyses in the EIS. It is anticipated that the security measures associated with the Proposed Action would be implemented in phases through 2019, based on the need to accommodate construction activities at the WTC site, the progress of development and the security needs of the tenants as new buildings are completed and occupied. Prior to the installation of the permanent security measures, it is likely that some interim measures would be installed to provide security while construction of

adjacent WTC buildings and on-site streets and infrastructure is on-going. The anticipated sequencing of the proposed security measures is described in Chapter 13, "Construction."

While some level of interim implementation of the security plan may occur, an interim analysis is not provided as the interim condition would not represent the reasonable worst case development scenario for the WTC Campus. Later phases of construction, including the completion of the PAC, 2 WTC tower and 3 WTC tower are expected to require lane closures to accommodate construction staging and related construction activities. It is expected that traffic circulation within the WTC Campus and along Church Street may be limited or restricted altogether at times. The construction of streets within the WTC Campus and the availability of interior and exterior streets due to construction activities will determine specific access routes during each phase of construction. Access routes may change during a particular phase as construction activity allows. Finally, as the WTC buildings would not be fully occupied, the interim condition does not represent the worst case in terms of travel demand. Therefore, the 2019 year of completion is assessed as the only analysis year; no additional interim conditions are evaluated.

### **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 close proximity to the boundaries of the proposed secure zone. 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 2019 Future Without the Proposed Action (No-Action Condition)***

In the 2019 scenario without the Proposed Action (No-Action), it is anticipated that the WTC Campus would be fully redeveloped. As described above, the 5 WTC site, which is not located within the proposed WTC Campus security perimeter, is not expected to be developed during this timeframe. At present, the only building program available for 5 WTC is the approximately 1.6-million-square-foot office tower that was contemplated in the 2004 *World Trade Center Memorial and Redevelopment Plan FGEIS* with an anticipated completion in 2015. Due to the current economic climate, however, it is unlikely that the PANYNJ will pursue development of the 5 WTC site in the near term. With the ongoing construction of 1 WTC and 4 WTC and the recent completion of 7 WTC, there is expected to be a substantial amount of new Class A office space available in Lower Manhattan in coming years. To be conservative, the analyses in this EIS assume that 2 WTC and 3 WTC would also be fully constructed and occupied by 2019, even though full build-out of 2 WTC and 3 WTC is predicated on the ability to viably market their office space. Given the current market for office space and amount of new development

planned, it is considered unlikely that there would be sufficient demand to justify the development of an additional 1.6-million square feet of office space on the 5 WTC site by 2019.

Any other scenarios for development of 5 WTC would be purely speculative at this juncture as no developer has been selected and no alternative plans have been advanced for the site at this time. As such, it is expected that 5 WTC would not be developed by 2019. With numerous details surrounding the 5 WTC site remaining unresolved, extending the analysis year beyond 2019 to incorporate 5 WTC would not be practicable as there is currently no information available that would provide reasonable guidance on when construction of the site could be completed. Additionally, the 5 WTC site is located outside of the security zone as proposed. As such, 5 WTC is not included in the analysis.

The current No-Action site plan for the WTC site includes the development of a VSC on the south side of Liberty Street east of West Street/Route 9A. All autos and tour buses en route to below-grade parking at the WTC site would undergo screening at this facility, as would delivery vehicles en route to below-grade loading areas for Towers 1 through 4. Operational controls such as bus reservations and the scheduling of deliveries at the VSC are expected to be implemented under the No-Action condition.

The entrance to the VSC would be located on the south side of Liberty Street. In the No-Action condition, all vehicles departing the VSC would exit onto eastbound Liberty Street. While there would continue to be an entrance/exit ramp to/from the underground road network on Vesey Street (referred to as the "Helix"), current plans call for it to be used primarily for emergency access. There are expected to be a total of up to approximately 500 parking spaces for autos and approximately 67 spaces for tour buses located in below-grade facilities on the WTC site.

With redevelopment of the World Trade Center, both Greenwich Street and Fulton Street would be extended through WTC site and Vesey and Liberty Streets would be reopened to traffic. In the No-Action condition, Greenwich Street is expected to operate one-way southbound with three moving lanes from Vesey Street to Fulton Street, and with two moving lanes and two curbside lanes south of Fulton Street. West Broadway between Barclay and Vesey Streets would remain open to southbound through-traffic, providing access to Greenwich Street through the WTC site. However, it is anticipated that the segment of Greenwich Street between Barclay and Vesey Streets, which is a privately-controlled street pursuant to a December 5, 2007 reciprocal easement agreement between the City of New York, 7 WTC ownership, PANYNJ, and LMDC, would primarily serve as an access point to the adjacent 7 WTC as at present. The parallel segment of Washington Street would operate two-way. It is expected that the intersections of Greenwich Street with Vesey, Fulton and Liberty Streets would be signalized, as would a midblock pedestrian crossing of Greenwich Street at Cortlandt Street.

Fulton Street would operate one-way westbound through the WTC site from Church Street to West Street/Route 9A in the No-Action condition. Vesey Street would operate one-way eastbound to the east of Greenwich Street, two-way between Greenwich and Washington Streets, and one-way westbound to the west of Washington Street.

At the south end of the WTC site, Liberty Street would be reopened to traffic between Church Street and West Street/Route 9A, and would operate two-way with one to two moving lanes in each direction. The exit from the VSC onto this block of Liberty Street would be stop-controlled, and left-turns from the VSC onto westbound Liberty Street would be prohibited in the No-Action condition. It is expected that the segment of Washington Street between Albany and Cedar Streets would be reopened to northbound traffic, and that the segment of Cedar Street from Washington Street to West Street/Route 9A would be reopened to westbound traffic. It is also expected that the segment of Cedar Street between Church and Greenwich Streets would be returned to one-way westbound operation.

With the completion of towers 2, 3 and 4 and the Transit Hub at the WTC site, lane closures associated with construction activity would no longer be needed along Church Street, and it is anticipated that the street would be restored to four lanes from Liberty Street to Vesey Street. The eastern-most lane would again function as an exclusive bus lane from 7 AM to 10 AM and from 4 PM to 7 PM on weekdays.

It is also expected that the reconstruction of West Street/Route 9A in the vicinity of the WTC site would be completed in the No-Action condition. This would include the installation of a traffic signal at a new intersection with Fulton Street. All traffic westbound on Fulton Street would turn onto northbound West Street/Route 9A as there would be no access across the median to the southbound lanes. Two crosswalks would be installed at this location, one on West Street/Route 9A on the north side of the intersection, and the second on the Fulton Street approach. To the south at Liberty Street, both northbound and southbound double left-turn lanes would be provided. The existing northbound left-turn at Albany Street would be eliminated. Lastly, it is anticipated that a new traffic signal would be installed at the intersection of Barclay Street with northbound West Street/Route 9A to accommodate new traffic generated by development at the WTC site.

It should be noted that the 2004 *World Trade Center Memorial and Redevelopment Plan FGEIS* acknowledged a need for security measures such as vehicular screening to secure buildings at the WTC site. The potential need to periodically close street segments within the WTC site was also recognized in the 2004 *FGEIS*, which includes an assessment of the potential traffic effects of closing both Fulton Street and Greenwich Street through the site. The No-Action site plan and vehicle circulation system assumed for the analyses in this EIS reflect the PANYNJ's master plan for the WTC (Version 10) and security measures associated with the 2005 redesign of 1 WTC. Under these measures, both Vesey Street and Fulton Street would function as "managed streets" west of Greenwich Street, reflecting security engineering for 1 WTC that require that unscreened vehicles be prohibited from accessing the portions of these streets adjacent to the building. Implementation of managed street segments adjacent to 1 WTC is therefore reflected in the No-Action condition as restrictions on unscreened vehicles would still be needed to secure 1 WTC in the absence of the proposed Campus Security Plan. (A qualitative discussion of the effects on traffic flow from the managed operation of Vesey Street and Fulton Street in the No-Action condition is provided in Chapter 8, "Transportation.")

As the specific means to manage these street segments were not identified by the PANYNJ, it was assumed that in the No-Action condition they would be managed through the installation of sally ports and operable barriers, a common method for controlling access in similar situations (and one that would be employed more extensively at the WTC site under the Proposed Action). Each sally port would consist of a personnel booth and equipment house controlling a set of two operable barriers with sufficient space between them to accommodate one or more motor vehicles. In operation, the first barrier would be lowered to permit authorized vehicles to enter, and then raised to prevent entry by other vehicles. After completing a screening process, the second barrier would be lowered to allow vehicles within the sally port to exit. Two sally ports would be located on Fulton Street, one at West Street/Route 9A and the second west of Greenwich Street. As it is anticipated that the west barrier on Fulton Street at West Street/Route 9A would be installed immediately adjacent to the West Street/Route 9A travel lanes, the crosswalk on Fulton Street would likely be located within the sally port.

Two sally ports would also be located on Vesey Street, one to the east of West Street/Route 9A (set back from the north-south crosswalk on the east side of West Street/Route 9A) and a second sally port would be required west of Greenwich Street in front of the helix access to prevent unauthorized vehicles from approaching 1 WTC. Additionally, an additional operable barrier would be installed on the Washington Street approach to Vesey Street that would remain raised as a default condition, and lowered only as needed to permit entry by authorized vehicles.

Under the No-Action plan as described, there would be unrestricted vehicular access along Greenwich Street between Vesey Street and Liberty Street through the WTC site. Autos and trucks destined for the below-grade parking or loading docks at the WTC would have unrestricted access to the VSC via Liberty Street, while trucks en route to the loading docks at the PAC would likely have to pass through the barriers on Washington Street and/or Vesey Street. Tour buses are expected to drop off passengers destined for the National September 11th Memorial and Museum on the west side of Greenwich Street or on Liberty Street west of Greenwich Street before proceeding to the VSC via Liberty Street. It is possible that tour buses may also drop off curbside on West Street/Route 9A. Buses that park in the VSC would exit the VSC onto eastbound Liberty Street, northbound Church Street and westbound Fulton Street to return to Greenwich Street to retrieve their passengers. Taxi and black (livery) car pick-up/drop-off activity would likely occur along both curbs of Greenwich Street as well as along both sides of Church Street as conditions permit, although there are many bus stops along east side of Church Street in this area. While black cars would also be expected to traverse the sally ports along Fulton and Vesey Streets to access 1 WTC, taxis would be unlikely to do so, and would be expected to pick-up/drop-off along nearby unrestricted streets such as Greenwich Street and West Street/Route 9A (if permitted by the prevailing curbside regulations).

As noted above, there are now expected to be up to approximately 500 underground parking spaces for office-tenant autos and approximately 67 for tour buses at the WTC site compared to 1,200 to 1,400 parking spaces under the original program analyzed in the LMDC FGEIS. It is therefore anticipated that under the current development program, some of the parking demand generated by WTC office tenants as well as all of the parking demand generated by other uses at the WTC site would be distributed among off-street public parking facilities on the periphery. Many of these vehicles would therefore not actually enter the WTC site nor traverse intersections within its boundaries. All on-site parking spaces are expected to be reserved for tenants under an agreement with PANYNJ. No public parking would be permitted.

In addition to reflecting Version 10.0 of the PANYNJ's master plan for the site and the security measures associated with the 2005 redesign of 1 WTC, the No-Action condition assumed for this EIS also reflects other changes made to the WTC redevelopment plan subsequent to the publication of the 2004 *World Trade Center Memorial and Redevelopment Plan FGEIS*. These include changes to the building program now envisioned for the WTC site, including a reduction in the overall size of the program and changes in the uses proposed for the site.

Lastly, in addition to the planned WTC build-out, Lower Manhattan is expected to experience moderate growth in commercial office, retail, residential, hotel and community facility uses by 2019. The developments that are anticipated within the area by 2019 are described in Chapter 2, "Land Use, Zoning and Public Policy."

### ***2019 Future With the Proposed Action (With-Action Condition)***

The Proposed Action would result in the implementation of the WTC Campus Security Plan which includes a secure perimeter with limited vehicle access, vehicle credentialing and screening areas, and some proposed changes to street direction. The details of the Proposed Action are provided in more detail above.

The security elements, street configurations, and access restrictions being considered as part of the Proposed Action would be overlaid on the full build condition of the WTC development. The incremental differences between the two conditions that would result from the Proposed Action would be documented and evaluated for their potential to result in significant adverse environmental impacts pursuant to the impact criteria described in the CEQR Technical Manual.

It should be noted that the design of the proposed WTC Campus Security Plan has not yet been finalized, and may be refined as the project design process advances. Consequently, the analyses in some technical areas in this EIS (transportation, air quality and noise, for example) will be updated as needed between the DEIS and FEIS to reflect any substantial changes in the project design.

### **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., transportation, 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 15, “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 EIS, 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 16, “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. REQUIRED APPROVALS**

The WTC Campus Security Plan is a direct undertaking by the NYPD and would be paid for, at least in part, with New York City funds. Therefore, the Proposed Action is subject to environmental review pursuant to SEQRA and CEQR.

## **G. FUTURE WITH THE PROPOSED ACTION (WITH-ACTION CONDITION)**

### **Land Use, Zoning and Public Policy**

No significant adverse impacts on land use, zoning, or public policy, as defined by the guidelines for determining impact significance set forth in the 2012 *CEQR Technical Manual*, are anticipated in the future with the Proposed Action on the Project Site or within the quarter-mile Study Area. The Proposed

Action would not generate land uses that would be incompatible with underlying zoning, nor would it cause a substantial number of existing structures to become non-conforming. Furthermore, the Proposed Action would not result in land uses that conflict with public policies applicable to the Project Site or Study Area.

The Proposed Action would implement a vehicle security overlay at the perimeter of the WTC Campus, but would not introduce any new buildings other than small personnel booths that would be installed at all vehicular entries and exits. When compared to future No-Action conditions, the Proposed Action is not expected to result in any significant land use changes on the Project Site or within the Study Area. Some local businesses and residents who live within the proposed secure zone may have to modify the way they receive deliveries. Additionally, persons and vehicles would have to pre-register to obtain access into the WTC Campus. While the Proposed Action would result in minor land use changes in the Project Site and Study Area, these changes would not be significant or adverse as detailed in Chapter 2 of the EIS.

### **Socioeconomic Conditions**

The detailed analysis finds that the Proposed Action would not result in any significant adverse impacts as measured by the five socioeconomic areas of concern prescribed in the *CEQR Technical Manual*. The following summarizes the conclusions drawn from the analysis.

#### ***Direct Residential Displacement***

Direct residential displacement (sometimes called primary displacement) is the involuntary physical displacement of residents from the site of (or a site directly affected by) a proposed project. The Proposed Action would not directly displace any residents, and therefore, would not result in significant adverse direct residential impacts. The Proposed Action is a comprehensive Campus Security Plan for the WTC site that involves the installation and utilization of security infrastructure to restrict the access of unauthorized vehicles from the roadways adjacent to and within the WTC site. Infrastructure related to the Proposed Action would be located within some streets and on select sidewalks at the periphery of the WTC Campus, and would not entail any new development, or introduce new land uses to the Project Site.<sup>3</sup>

#### ***Direct Business and Institutional Displacement***

Direct business and institutional displacement (sometimes called primary displacement) is the involuntary physical displacement of businesses or institutions from the site of (or a site directly affected by) a proposed project.

The Proposed Action would not result in significant adverse direct business or institutional impacts. As noted above, the Proposed Action is a security plan which involves the installation and utilization of security infrastructure to restrict vehicular access from roadways situated adjacent to the WTC site (i.e., Project Site). The Proposed Action, which would be located within some streets and sidewalks, does not entail any new development, and does not involve any involuntary displacement of business or institutions within the security zone. Although the Proposed Action would establish a credentialing zone on the east side of West Broadway between Barclay Street and Park Place zone where the Downtown PATH Greenmarket currently operates every Tuesday throughout the year, according to GrowNYC<sup>4</sup> this

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<sup>3</sup> The Project Site comprises the directly affected area or proposed security zone, which is generally bounded by Barclay, Church, Cedar and West Streets.

<sup>4</sup> GrowNYC is a hands-on non-profit organization which improves New York City's quality of life through environmental programs that transform communities block by block and empower all New Yorkers to secure a clean and healthy environment for future generations. The non-profit organizes the network of outdoor urban farmers markets in New York City.

is a temporary location for the Greenmarket. It is anticipated that the Greenmarket will relocate to a more prominent permanent location when the WTC Site begins to reopen, which is expected to occur prior to the project build year of 2019. Formerly, the Greenmarket had operated at the World Trade Center prior to 9/11, and most recently the Greenmarket had been located at Zuccotti Park, which is located to the southeast of the WTC site, and bounded by Liberty Street, Broadway, Cedar Street, and Trinity Place. Therefore, the Proposed Action would not result in any direct business or institutional displacement and no further analysis is warranted.

### ***Indirect Residential Displacement***

Indirect residential displacement (sometimes called secondary displacement) is the involuntary displacement of residents that results from a change in socioeconomic conditions created by a proposed project. Pursuant to *CEQR Technical Manual* guidelines, the potential for indirect residential displacement is based on whether a project could result in rising property values, and thus rents, making it difficult for some residents to afford their homes.

A preliminary assessment found that the Proposed Action would not result in significant adverse impacts due to indirect residential displacement. As none of the residential units within the primary study area house populations at risk of involuntary displacement (i.e., residents that have incomes sufficiently low to be vulnerable to sharp rent increases), the Proposed Action would not result in significant adverse impacts due to indirect residential displacement in the primary study area. Furthermore, as the Proposed Action is a campus security plan that would not result in any new development or introduce any new land uses, it would not result in an indirect residential displacement in the secondary study area.

The proposed security plan would limit vehicular accessibility within the primary study area, and would result in some changes in vehicular accessibility for the residents of three multi-unit residential buildings (located at 110-112 Liberty Street, 114 Liberty Street, and 120-122 Liberty Street) containing a total of 47 dwelling units within the primary study area. Residents of these three residential buildings could encounter some inconveniences related to vehicular access to their homes and businesses as well as receiving deliveries and guests. However, these residents could choose to enroll in the planned TAP to make arrangements for vehicular access within the secure perimeter. The TAP program would allow the residents residing within the security zone to obtain expedited vehicle entry through the security stations and into the secure zone. Deliveries and guests of the residential buildings that need to enter the security zone in a vehicle would have to be pre-arranged and scheduled.

As the future traffic network with the Proposed Action would somewhat resemble the existing street network (in terms of free-flow traffic), the proposed security perimeter is not expected to significantly affect accessibility in the secondary study area, as compared to existing conditions. Most of the streets within and immediately adjacent to the WTC site either have not been built, are presently closed to through traffic or have reduced capacity due to construction activity or security concerns.

Lower Manhattan is a dense urban environment that contains a concentration of high profile corporations, financial headquarters, the City's civic center, as well as an increasingly vibrant residential community. It is also home to a number of museums, cultural venues and historic landmarks. In the aftermath of 9/11, the issue of security surrounding major corporate entities, civic operations, and prominent New York landmark locations has become of increased importance and various security measures have been implemented as well as further enhanced to protect these potential targets, especially in Lower Manhattan. There are three multi-block security zones that have been effectuated and maintained south of Canal Street in Lower Manhattan, and all three of these security zones are closed to unauthorized vehicle traffic.

Two of the existing security zones, the NYSE Security Zone and One Police Plaza Security Zone, encompass buildings that include residential uses. The establishment and maintenance of these controlled security perimeters in Lower Manhattan do not seem to have resulted in the indirect displacement of residents from within these two security zones. For example, the NYSE Security Zone has experienced a large influx of market-rate residential units since the late 1990s subsequent to the establishment of the secure perimeter. As such, it does not appear that the NYSE Security Zone has hindered positive trends for the area, nor has it impeded efforts to attract residential investment in the area or created a climate for disinvestment. Furthermore, the sales prices of the residential cooperative units of Chatham Towers and Chatham Green, which are located immediately adjacent to and within the One Police Plaza Security Zone (established after 9/11) have generally increased since the establishment of the security perimeter. Although the average sale prices and average cost per square foot of these cooperative apartments are lower than average cost of apartments in Lower Manhattan, Chatham Towers and Chatham Green are older construction (built in the early 1960s) originally built for middle-income housing. The median sales prices of apartments in the Chatham Towers and Chatham Green are comparable to the median sales prices of apartments in the Civic Center area of Lower Manhattan, which includes both Chatham Towers and Chatham Green. Therefore, it is not anticipated that the Proposed Action would result in significant adverse impacts on indirect residential displacement in the study area.

### ***Indirect Business and Institutional Displacement***

Indirect business and institutional displacement (sometimes called secondary displacement) is the involuntary displacement of businesses, institutions, or employees that results from a change in socioeconomic conditions created by a proposed project.

A preliminary assessment found that the Proposed Action would not result in significant adverse impacts due to indirect business and institutional displacement. As the Proposed Action is a comprehensive security plan, it would not introduce any new economic activity or alter existing economic patterns, nor would it add to the concentration of a particular sector of the local economy. The Proposed Action also would not directly displace uses of any type that directly support businesses in the area or bring people to the area that form a customer base for local businesses. The study areas already have well-established commercial and residential markets. The Proposed Action would not result in any direct residential displacement and limited business displacement, and the Proposed Action is also not expected to indirectly displace a substantial number of residents, business establishments/institutions, workers, or visitors who form the customer base of existing businesses in the study areas.

The Proposed Action would alter accessibility for vehicles picking up or dropping off people and making pickups from and deliveries to existing residents, businesses, and institutions within and immediately adjacent to the proposed secure zone, potentially disrupting established business routines and customer patterns. Moreover, the Proposed Action could affect conditions in the real estate market due to the increased security measures and changes in vehicular accessibility.

TAP would allow for expedited vehicle entry into the secure zone. While specific operational details of the TAP program cannot be released for security purposes, a brief overview of the program is provided here. Enrollment in the TAP program would be open to:

- WTC office tenants with parking privileges on site;
- For-hire vehicle operators with business on the site;
- Delivery vehicle operators; and
- Residents and owners of businesses located in non-WTC buildings within the secure zone (Liberty Street).

It is anticipated that the program would help to accommodate the needs of businesses and residents located within and immediately adjacent to the secure zone. Both drivers and vehicles would be enrolled in the TAP. TAP credentials would be checked as vehicles approach entry points to the WTC Campus, and authorized vehicles would then be admitted to a sally port for expedited security screening. Drivers and vehicles with business at the WTC site but not enrolled in the TAP would be permitted into the WTC Campus but would be subject to more rigorous credentialing and screening. This arrangement would help to facilitate access for those who seek entry. The NYPD policy for all vehicles without the proper credentials would be to deny entry.

The Proposed Action is not expected to significantly affect vehicular accessibility in the secondary study area as compared to current conditions. The future traffic network with the Proposed Action would somewhat resemble the existing street network (in terms of free-flow traffic).

### ***Adverse Effects on Specific Industries***

It may be possible that a given project may affect the operation and vitality of a specific industry not necessarily tied to a specific location. The Proposed Action would not result in significant adverse impacts on specific industries within the study areas, or in the City more broadly. The Proposed Action is not expected to significantly affect business conditions in any industry or any category of business within or outside of the study areas, and would not substantially reduce employment or impair economic viability in any industry or category of business.

### **Community Facilities and Services**

The Proposed Action would not have a significant adverse impact on community facilities. This conclusion is drawn from the comparison of conditions in the future with the Proposed Action in 2019 (With-Action conditions) to the future without the Proposed Action in 2019 (No-Action conditions), when full development is expected, and therefore the potential for impacts is greatest. This analysis examines potential impact of the Proposed Action under current conditions, and takes into consideration development that is currently planned, proposed, or underway.

The Proposed Action is a result of extensive measures that have been taken on local, state, and national levels to reduce the likelihood of another terrorist attack and increase emergency preparedness. These measures include: the relocation of the city's Office of Emergency Management (OEM) from 7 WTC in Lower Manhattan to a new location; street closings and increased security in Lower Manhattan; increased training and coordination among emergency response providers including NYPD, FDNY, and Port Authority Police Department (PAPD); increased security in building design; and legislation such as the Homeland Security Act. However, even with these measures, the possibility exists for large-scale emergencies in the future. The Proposed Action would not interfere with the emergency service response to such an event and is intended to decrease the likelihood of future threats.

As no new population would be introduced to the area as a result of the Proposed Action, no new demands would be placed on the delivery of the existing community services. The Campus Security Plan would introduce security measures at the perimeter of the WTC Campus to eliminate unscreened vehicles from entering the site.

### ***New York City Fire Department***

The Proposed Action would not have an adverse impact on FDNY services or operations. FDNY does not anticipate that the Proposed Action would have any adverse impacts on its level of service in the area surrounding the Project Site. It is expected that the FDNY response within the WTC Campus from Engine

Company 10, Ladder Company 10 (“Ten House”) would be comparable to the No-Action condition. Response from the Ten House outside the WTC Campus may even improve over No-Action conditions due to the low traffic volumes anticipated within the WTC Campus that would allow for more expedited circulation through the proposed secure zone, even when taking into account the potential for increased traffic surrounding the WTC Campus under the Proposed Action. FDNY response units other than the Ten House would be facilitated through coordination at a centralized emergency response command center, checkpoints and responding units. The Proposed Action would not physically alter any station house. As described in Chapter 4, the Proposed Action includes measures to give priority to emergency vehicles so that the WTC Campus Security Plan would not alter operations of or access to or from any engine or ladder company.

### ***New York City Police Department***

The WTC Campus will be a heavily policed area with virtually instantaneous police response. NYPD response by non-WTC Command units would be facilitated through coordination at a centralized emergency response command center, checkpoints and responding units. Overall emergency service delivery to WTC campus would not be affected. As NYPD continually evaluates its level of service and makes changes as they are deemed necessary, no significant adverse impacts are expected as a result of the Proposed Action.

### ***Port Authority Police Department***

The Proposed Action would not result in any changes to PAPD staffing or allocation of resources as the NYPD would staff the proposed screening and credentialing locations. As described in Chapter 4, the perimeter security plan would not create any impediments to the PAPD services and would not be expected to result in slower response times. As such, the Proposed Action is not expected to adversely impact PAPD services or operations.

### ***Health Care Facilities***

The demand for health care facilities in the future with the Proposed Action would be no greater than the demand for health care facilities in the future without the Proposed Action. As described in Chapter 4, ambulances and other emergency vehicles would be granted expedited access into and through the site with the assistance of the central operations coordination center and the NYPD-controlled operable barriers. Private occupancy vehicles (POV’s) headed to local health care facilities would likely avoid the credentialing and screening zones associated with the Proposed Action as the people utilizing these facilities would be familiar with the area and understand the traffic patterns. Instead, most health care facilities would likely be accessed by using the routes that are currently available. Further, patients may have to alter established routines to access the privately funded *Medhattan Immediate Medical Care* urgent care facility at 106 Liberty Street by vehicle; however, pedestrian access would remain largely unchanged from future No-Action conditions to future conditions with the Proposed Action.

### ***Other Community Facilities***

No changes to other area community facilities are expected as a direct result of the Proposed Action. As indicated in Chapter 4, no significant new population would be added to the WTC Campus as a result of the Proposed Action. As such, there would be no new demand on other community facilities associated with the Proposed Action.

These proposed security elements would not obstruct pedestrian crosswalks and would introduce limited obstructions on sidewalks, medians, or sidewalk extensions adjacent to select screening and credentialing

zones. Pedestrian flow into, out of, and throughout the WTC Campus would generally be unimpeded. Further, all operable barriers that are proposed within the street right-of-way would be set back from pedestrian zones and would include safety features to prevent safety hazards. Vehicle access to the area's existing community facilities is expected to remain similar to the routes currently taken.

### **Historic and Cultural Resources**

The Proposed Action would not be expected to result in significant adverse impacts to the WTC site as the proposed security components would be small in scale and located largely at the perimeter of the WTC site and would not obstruct views or significantly alter the context of the WTC site. The project components also would not obstruct views from the Project Area to nearby architectural resources. Therefore, the Proposed Action would not be expected to adversely affect any architectural resources within the Project Area.

The proposed security checkpoints would not be expected to adversely affect the context of the study areas' architectural resources. However, as described in Chapter 5, a Construction Protection Plan (CPP) would be developed and implemented prior to the commencement of any construction-related activities in the Project Area to protect the architectural resources that are located within 90 feet of proposed construction activities. The CPP would follow the New York City Department of Buildings (DOB) *Technical Policy and Procedure Notice (TPPN) #10/88*,<sup>5</sup> regarding procedures for the avoidance of damage to historic structures resulting from adjacent construction, and would be prepared in consultation with the New York State Historic Preservation Office (SHPO) and the New York City Landmarks Preservation Commission (LPC). *TPPN #10/88* requires a monitoring program to reduce the likelihood of construction-related damage to adjacent architectural resources (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed.

Overall, the Proposed Action is not expected to result in any significant adverse impacts to cultural resources on the project site or in the study areas.

### **Urban Design and Visual Resources**

According to the 2012 *CEQR Technical Manual*, in terms of streetscape elements, a significant adverse impact would result if a project would add to, eliminate, or alter a critical feature of a streetscape. As described below and in Chapter 1, "Project Description," new security elements would be installed at the perimeter of the WTC Campus within some street beds and on the sidewalks that are immediately adjacent to the proposed credentialing and screening zones. The design of the proposed streetscape elements has been developed to ensure clear pedestrian zones by widening the sidewalk, where possible. According to the NYPD, the proposed security measures are necessary to protect the WTC Campus from a vehicle-borne explosive device as it is considered a potential terrorist target. Because there have been two previous attacks on the WTC site, the implementation of increased security precautions is necessary at the WTC Campus.

While security elements are not typically considered to be aesthetically pleasing, they have become more commonplace throughout the City since 2001. The proposed security plan would implement a uniform design approach with standardized security components such as static barriers and booths that resemble commonly used designs, intended to blend with streetscape elements widely-used around the City. However, the Proposed Action also includes some unique design elements that are intended to minimize

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<sup>5</sup> *TPPN #10/88* was issued by DOB on June 6, 1988, to supplement Building Code regulations with regard to historic structures. *TPPN #10/88* outlines procedures for the avoidance of damage to historic structures resulting from adjacent construction, defined as construction within a lateral distance of 90 feet from the historic resource.

the visual impact of the Proposed Action. Therefore, the proposed addition of security elements at the perimeter of the WTC Campus has the potential to alter the urban design characteristics of the area. While the changes to the urban design of the area resulting from the Proposed Action could be considered adverse negative impacts, they would not be significant because the plan would implement a cohesive design with elements that are intended to be consistent with other street furniture that is commonly seen around the City. A conscious effort has been made during the initial design phases to use the latest available technology for the security elements and to use materials and finishes that would blend with the surroundings for personnel booths and static and operable barriers. The Proposed Action would not result in any changes to street pattern, block form, or building arrangement. Therefore, the Proposed Action is not expected to result in any significant adverse impacts to urban design in the quarter-mile study area surrounding the WTC Campus.

As detailed in Chapter 6 of the EIS, the Proposed Action would not have a significant adverse impact on visual resources or view corridors on the WTC Campus (Project Site) or within the Study Area. Major visual resources in the Project Site and Study Area include historic buildings, such as the Woolworth Building, the Barclay-Vesey Building, and Trinity Church, modern buildings, such as the World Financial Center (WFC) and the WTC towers (many of which are under construction), and open space and natural features, such as the WTC memorial, Zuccotti Park, the Battery Park City (BPC) esplanade and Hudson River. Personnel booths located at screening and credentialing zones would have small footprints and would be located on sidewalk extensions where possible. All proposed security elements have a low-scale design. As such, the proposed security elements would not adversely affect public views to any visual resources.

### **Hazardous Materials**

The Phase I ESA identified potential sources of contamination, including: historical fill materials of unknown origin; debris and releases (e.g., petroleum and dielectric oil) associated with the collapse of the WTC, including the electrical substation at 7 WTC, a laboratory and petroleum storage; historical uses in the vicinity of the Property, such as manufacturing and filling stations; off-site regulatory listings (spills, petroleum storage, etc.). Previous studies conducted for the reconstruction of the WTC area indicated that debris associated with the collapse and historical petroleum storage tanks have been removed, significant remediation of soils and groundwater has occurred, and any residual contamination at the WTC campus would be encapsulated (e.g., beneath structures or pavement) to prevent potential exposure. Soil testing conducted in the 2000s in the eastern portion of the WTC Campus and on streets to the south (i.e., in or near the Project Area) indicated no evidence of petroleum impacts or elevated concentrations of asbestos or dioxins. Surface soils in this area contained slightly elevated concentrations of semi-volatile organic compounds (SVOCs) and metals, possibly associated with fill materials and/or the WTC collapse, and groundwater samples in this area contained slightly elevated concentrations of petroleum and solvent-related volatile organic compounds (VOCs). Soils in the vicinity of the former 7 WTC contained no elevated concentrations of polychlorinated biphenyls (PCBs), but soil and groundwater in this area showed evidence of petroleum and/or dielectric oil contamination; however, the testing was conducted prior to the construction of the new 7 WTC building and associated remediation.

Based on the above, soil and groundwater beneath the Project Area may have been affected by past and present, on- and off-site uses. However, significant remediation has occurred as part of WTC Campus redevelopment. Soil disturbance for the Proposed Action is expected to be limited to soils well above the water table – soils at or below the water table have a greater potential for being contaminated as moving groundwater can carry contaminants.

To reduce the potential for human or environmental exposure to contamination during and following construction of the Proposed Action, a Remedial Action Plan (RAP) and associated Construction Health

and Safety Plan (CHASP) would be prepared and submitted to the New York City Department of Environmental Protection (NYCDEP) for review and approval. The RAP and CHASP would be implemented during project construction. The RAP would address requirements for items such as soil stockpiling, soil disposal and transportation; dust control; quality assurance; and contingency measures, should petroleum storage tanks or contamination be unexpectedly encountered. The CHASP would identify potential hazards that may be encountered during construction and specify appropriate health and safety measures to be undertaken to ensure that subsurface disturbance is performed in a manner protective of workers, the community, and the environment (such as personal protective equipment, air monitoring, and emergency response procedures).

Lead-based paint, asbestos-containing materials (ACM) and PCB-containing electrical equipment and fluorescent lighting fixtures may be present on the Project Area. During and following construction for the Proposed Action, regulatory requirements pertaining to ACM, lead-based paint and PCBs and chemical use and storage would be followed.

With these above-described measures, the Proposed Action would not result in any significant adverse impacts related to hazardous materials.

## **Transportation**

### ***Traffic***

Weekday AM, midday and PM peak hour traffic conditions with the Campus Security Plan were evaluated at a total of 42 intersections generally located along the Broadway, Trinity Place/Church Street, West Broadway, Greenwich Street and West Street/Route 9A corridors from Chambers Street to Battery Place. A more limited study area was also analyzed for the Saturday midday focusing on a subset of 12 key intersections in the immediate vicinity of the WTC site that are most likely to be affected by diverted trips and weekend demand from visitors to the National September 11th Memorial and Memorial Center.

The traffic impact analysis indicates that there would be the potential for significant adverse impacts at 17 of the 42 analyzed intersections in the weekday AM peak hour, 10 in the midday and 13 in the PM peak hour, and three of the 12 analyzed intersections in the Saturday midday peak hour. The lane groups impacted in each peak hour are outlined below. Chapter 15, "Mitigation," discusses measures to mitigate these significant adverse traffic impacts.

#### **Weekday AM Peak Hour**

- Broadway and Chambers Street – eastbound approach;
- Broadway and Park Row/Barclay Street – southbound through movement;
- Broadway and Vesey Street/Park Row/Ann Street – southbound left-through lane group;
- Broadway and Fulton Street – westbound left turn;
- Church Street and Chambers Street – eastbound approach;
- Church Street and Fulton Street – westbound approach;
- Church Street and Cortlandt Street – westbound approach;
- Trinity Place and Rector Street – eastbound approach;
- Greenwich Street and Murray Street – eastbound approach;
- Greenwich Street and Battery Place – eastbound left turn;
- West Street/Route 9A and Chambers Street – eastbound approach and westbound left-through lane group;
- West Street/Route 9A and Warren Street – northbound left turn;

- West Street/Route 9A and Murray Street – eastbound left turn, westbound approach, and northbound through-right and left-turn lane groups;
- West Street/Route 9A and Liberty Street – northbound through-right and left-turn lane groups;
- West Street/Route 9A and Albany Street – eastbound approach;
- West Street/Route 9A and West Thames Street – southbound approach;
- West Street/Route 9A at the Brooklyn-Battery Tunnel – southbound approach; and
- West Street/Route 9A southbound service road at Battery Place – southbound left-turn and left-/right-turn lane groups.

*Weekday Midday Peak Hour*

- Broadway and Chambers Street – eastbound approach and southbound left-through lane group;
- Broadway and Park Row/Barclay Street – southbound through movement;
- Broadway and Vesey Street/Park Row/Ann Street – southbound left-through lane group;
- Church Street and Chambers Street – eastbound approach;
- Church Street and Barclay Street – westbound approach;
- Church Street and Fulton Street – westbound approach;
- Church Street and Cortlandt Street – westbound approach;
- West Street/Route 9A and Chambers Street – northbound approach;
- West Street/Route 9A and Warren Street – northbound left turn; and
- West Street/Route 9A and Murray Street – westbound approach and northbound and eastbound left turns.

*Weekday PM Peak Hour*

- Broadway and Chambers Street – eastbound approach and westbound left turn;
- Broadway and Warren Street – eastbound approach;
- Broadway and Park Row/Barclay Street – southbound through movement;
- Broadway and Vesey Street/Park Row/Ann Street – southbound left-turn and left-through lane groups;
- Broadway and Fulton Street – westbound approach;
- Church Street and Chambers Street – eastbound approach;
- Church Street and Fulton Street – westbound approach;
- Church Street and Cortlandt Street – westbound approach;
- Greenwich Street and Murray Street – eastbound approach;
- Greenwich Street and Battery Place – eastbound left turn;
- West Street/Route 9A and Murray Street – westbound left-turn and through-right lane groups and northbound and eastbound left turns;
- West Street/Route 9A and Liberty Street – eastbound right turn and northbound and southbound through-right lane groups; and
- West Street/Route 9A and Albany Street – eastbound approach.

*Saturday Midday Peak Hour*

- Broadway and Fulton Street – westbound approach;
- Church Street and Fulton Street – westbound approach; and
- Church Street and Cortlandt Street – westbound approach.

***Transit***

The proposed Campus Security Plan would not result in any significant adverse transit impacts with respect to subways and buses based on *CEQR Technical Manual* criteria. Much of the access between

transit facilities and new and existing development in the vicinity of the WTC site will occur below-grade and would not be directly affected by physical changes to the surface street network associated with the Proposed Action. Increased traffic congestion along some corridors such as Broadway and Chambers Street and increased taxi pickup and drop-off activity in the along the west curb of Church Street as a result of the Proposed Action may, however, lengthen travel times for the local and express bus services operating along these corridors.

The would not result in the development of new land uses that would generate additional demand on the transit systems serving the WTC site, although it is possible that the restrictions on vehicular access resulting from the Proposed Action may potentially reduce vehicular travel for persons en route to and from the World Trade Center and its environs. However, any potential increase in transit trips is expected to be relatively small in the context of the overall demand on the PATH system and the numerous subway, bus and ferry routes serving the site, and the numbers of such trips would be unlikely to exceed *CEQR Technical Manual* analysis thresholds for either the rail or bus modes at any one rail transit station or bus route.

### ***Pedestrians***

The Proposed Action would not generate new pedestrian demand or change pedestrian access routes in the vicinity of the WTC site. However, the installation of security infrastructure (e.g., static barriers, personnel booths, etc.) would reduce the amount of space available for pedestrian circulation at some locations. In addition, the Proposed Action may also result in some relatively small changes in pedestrian flow due the relocation of some taxi pickup/drop-off activity. Conditions in the weekday AM, midday and PM peak periods in the future with the Proposed Action were therefore analyzed at a total of 12 sidewalks, three corner reservoir areas and 10 crosswalks in the vicinity of the WTC site. The results of the analysis indicate that the installation of security infrastructure associated with the Proposed Action would result in significant adverse impacts in one or more peak hours at a total of two sidewalks. These include:

- Barclay Street (south) between West Broadway and Church Street in all periods; and
- Trinity Place (west) between Liberty and Cedar streets in the AM and PM.

The installation of static barriers such as bollards within crosswalks in conjunction with the proposed median along Trinity Place/Church Street is also expected to result in significant adverse impacts in one or more peak hours at a total of three analyzed crosswalks along this corridor. These include:

- The north crosswalk at Vesey Street in the AM;
- The north crosswalk at Fulton Street in the midday; and
- The north crosswalk at Cortlandt Street in the midday and PM.

Chapter 15, “Mitigation,” discusses measures to mitigate these significant adverse pedestrian impacts.

### ***Vehicular and Pedestrian Safety Evaluation***

Four intersections in proximity to the WTC site experienced five or more pedestrian and/or bicyclist injury crashes in one or more years from 2008 through 2010 and are therefore considered high accident locations. These locations include three intersections along Chambers Street at Broadway, West Broadway and West Street/Route 9A, and the intersection of West Street/Route 9A with Murray Street. None of these intersections (nor any within the traffic and pedestrian study areas) are located within a designated Senior Pedestrian Focus Area (SPFA).

The Campus Security Plan is not expected to generate substantial new vehicular or pedestrian demand within the study area, nor alter pedestrian flow patterns at any of the four intersections identified as high accident locations. However, all four intersections would likely experience changes in traffic flow patterns due to street closures associated with the Proposed Action. Some approaches at these intersections would experience increases in the numbers of turning vehicles conflicting with pedestrians in crosswalks while others would experience decreases.

The Proposed Action would also result in a substantial decrease in vehicular traffic along streets within the WTC Campus, as only pre-authorized vehicles with business at the World Trade Center would be allowed access. The potential for conflicts between vehicular traffic and pedestrians at intersections within the WTC Campus, including the many tourists expected to be visiting the Memorial and Memorial Center, would therefore likely be reduced compared to the No-Action condition.

### ***Parking***

The proposed Campus Security Plan would not result in any significant adverse impacts with respect to off-street or on-street parking based on *CEQR Technical Manual* criteria. The Proposed Action would not result in the development of new land uses that would generate additional parking demand, nor displace any existing or future off-street public parking capacity. The installation of credentialing locations and security stations would, however, potentially displace an estimated 23 curbside spaces designated for authorized vehicle parking (Postal Inspector, Department of Labor and NYC Law Department), nine to 11 spaces for truck loading/unloading and four spaces for bus layover along Trinity Place/Church Street, Barclay Street and West Broadway. The displacement of this number of authorized vehicle parking spaces would not be considered a significant adverse impact under *CEQR Technical Manual* criteria, and it is anticipated that NYPD would coordinate with affected agencies and NYCDOT to identify alternative locations for this displaced authorized vehicle, truck and bus parking. The PATH Greenmarket that currently occupies curbside space along the east curb of West Broadway north of Barclay Street on Tuesdays would likely need to be relocated from its current (temporary) location to accommodate the installation of a credentialing zone at this location.

### **Air Quality**

The air quality analysis concluded that maximum predicted pollutant concentrations and concentration increments from mobile sources with the Proposed Action would be below the corresponding guidance thresholds and ambient air quality standards. The Proposed Action would have an insignificant impact on region-wide criteria pollutant and greenhouse gas emissions, and would not require an analysis of conformity with the New York State Implementation Plans (SIP). Thus, the Proposed Action would have no significant adverse impact on air quality.

### **Noise**

The noise analysis determined that traffic diversions associated with the Proposed Action and stationary noise sources (i.e., operation of security barriers) would not result in any predicted exceedances of the suggested incremental thresholds in the city's *CEQR Technical Manual* at the selected receptors. Therefore, there would be no predicted significant adverse noise impacts from the Proposed Action.

### **Public Health**

The 2012 *CEQR Technical Manual* states that a public health assessment is not necessary for most actions. Where no significant unmitigated adverse impact is found in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise, no public health analysis is warranted. If,

however, an unmitigated significant adverse impact is identified in any of these other CEQR analysis areas, the lead agency may determine that a public health assessment is warranted for that specific technical area. As described in the relevant chapters of this EIS, the Proposed Action would not result in unmitigated significant adverse impacts in technical areas such as hazardous materials (Chapter 7), air quality (Chapter 9), and noise (Chapter 10). Furthermore, as described in Chapter 13, "Construction," the Proposed Action would not result in any significant adverse impacts related to construction noise levels or construction air quality. Therefore, the Proposed Action would not result in significant adverse public health impacts.

### **Neighborhood Character**

The Proposed Action is a physical and operational security infrastructure overlay that would be incorporated into the planned World Trade Center streetscapes. The proposed security elements would be installed on City streets and sidewalks in a well-developed area of Lower Manhattan. As described in earlier chapters in this EIS, the Proposed Action would not cause significant adverse impacts regarding land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; or noise. The redistribution of traffic due to the closure of street segments within the WTC site to unscreened vehicles under the Proposed Action would, however, result in a total of seven unmitigated significant adverse traffic impacts in the AM peak hour, four in the midday, two in the PM and one in the Saturday midday peak hour. These unmitigated impacts would occur primarily at intersections along Broadway, Church Street and West Street/Route 9A, all of which are known as heavily trafficked corridors. Additional traffic volumes on these streets would not significantly adversely affect the character of these major thoroughfares or the neighborhood's defining features.

The introduction of personnel booths and other security infrastructure elements along sidewalks and crosswalks in the vicinity of the WTC site is not expected result in unmitigated significant adverse pedestrian impacts, nor alter pedestrian flow patterns or the ability of pedestrians to freely access the Campus compared to the No-Action condition. The Proposed Action would, however, result in a decrease in vehicular traffic along streets within the WTC Campus, as only pre-authorized vehicles with business at the World Trade Center would be allowed access. The potential for conflicts between vehicular traffic and pedestrians at intersections within the WTC Campus, including the many tourists expected to be visiting the Memorial and Memorial Center, would therefore likely be reduced compared to the No-Action condition. The Proposed Action is therefore not expected to significantly adversely affect the character of pedestrian travel in the vicinity of the WTC site.

Overall, the Proposed Action would help to provide a secure and safe environment for visitors and workers at the World Trade Center while also ensuring that the site is hospitable to remembrance, culture, and commerce. It is not expected to have significant adverse neighborhood character impacts, as discussed in further detail in Chapter 12.

### **Construction**

Where possible, the Proposed Action would be constructed in sections of the roadways and sidewalks that would be closed for construction of the WTC towers and street system before those spaces are open to the public. Construction activities would be coordinated to ensure that the Proposed Action would be taken into consideration when streets and sidewalks are constructed within the WTC site so newly constructed streets and sidewalks would not have to be disturbed to accommodate the proposed security elements. Security elements proposed on streets and sidewalks outside of the WTC Campus which are accessible to the public would be constructed in halves so that no sidewalk or street would be completely closed to pedestrian or vehicular traffic as a result of the Proposed Action.

The inconvenience and disruption arising from the construction of WTC Campus Security Plan would likely result in some limited temporary diversions of pedestrians and vehicles, and would result in additional truck traffic in the area related to construction activities. Some of the construction would occur within the WTC site in locations that would still be construction zones that are off limits to the public (e.g., Vesey Street, Fulton Street, Liberty Street, and portions of Church Street), while construction would also occur in some areas that would remain publicly accessible (e.g., West Street/Route 9A, Washington Street, West Broadway, Trinity Place and Greenwich Street south of Liberty Street). Given the limited nature of the proposed security measures and the potential to complete some of the elements of the Campus Security Plan while the construction of the WTC buildings, streets and sidewalks is ongoing and the areas of disturbance would be part of the larger WTC construction site, the Proposed Action would not directly result in lengthy street closures or diversions. However, as the Proposed Action has the potential to affect elements of the City's transportation system at several locations, a preliminary assessment of potential construction impacts was prepared in accordance with the guidelines of the *CEQR Technical Manual*, and is presented in Chapter 13. As detailed in that chapter, construction for the Proposed Action has the potential to result in some short-term construction-period impacts related to traffic and pedestrian circulation.

Throughout the construction period, access to surrounding residences, businesses, institutions, and open spaces in the area would be maintained. In addition, throughout the construction period, measures would be implemented to control noise, vibration, and dust on the construction sites and minimize impacts on the surrounding areas in conformance with the City's building code. These measures would primarily include the erection of construction fencing and permitting to restrict work hours. Even with these measures in place, temporary impacts are predicted to occur. However, because none of these impacts would be continuous in any one location or permanent, they would not create significant impacts on land use patterns or neighborhood character in the area.

As discussed in Chapter 13, construction would likely begin in 2013 with various segments advancing through 2019 as the WTC street system is constructed and as the adjacent WTC buildings are completed. It is anticipated that much of the activities and traffic specifically related to the construction of the Campus Security Plan would occur in 2014 and 2015, with both years expected to have similar levels of construction activity. At peak construction, a maximum of 28 workers would be on-site to construct the proposed security measures (includes approximately ten workers per block, with up to ten additional trade workers required for some phases of construction and up to eight workers related to deliveries). With less than one third of the workers expected to drive to work on a typical work day, there would be less than ten new vehicle trips related to construction workers commuting to and from the area during the 6:00 to 7:00 AM and 3:00 to 4:00 PM peak hours. Further, the peak hours related to construction trips would not occur during the peak hour for general traffic in this area. As such, no new intersections are expected to experience significant adverse traffic impacts during the peak construction activities.

Due to the limited scope of the construction activities that would be required to install the security elements associated with the proposed Campus Security Plan on existing or planned streets and sidewalks, it is unlikely that any inadvertent damage would occur to local historic (architectural or archaeological) resources. However, the protective measures of the DOB's *TPPN #10/88* would apply and indirect significant adverse impacts resulting from construction would be avoided.<sup>6</sup>

It should be noted that, based on observations made at the Project Site, and on documentation provided in previous environmental impact statements which were conducted for the redevelopment of the WTC site, for the reconstruction of West Street/Route 9A, and for the permanent WTC Port Authority Trans-Hudson

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<sup>6</sup> *TPPN #10/88* was issued by DOB on June 6, 1988, to supplement Building Code regulations with regard to historic structures. *TPPN #10/88* outlines procedures for the avoidance of damage to historic structures resulting from adjacent construction, defined as construction within a lateral distance of 90 feet from the historic resource.

(PATH) Terminal, the Proposed Action would not affect any natural resources or endangered species. The proposed Campus Security Plan would be constructed in a dense urban environment on existing or planned streets and sidewalks in areas that have previously been disturbed. While the site is partially located within the City's coastal zone boundary, the Waterfront Revitalization Plan (WRP) assessment conducted for the Proposed Action concluded that the Campus Security Plan would not conflict with the goals of the WRP policies.

As also discussed in Chapter 13, construction-related activities resulting from the Proposed Action are not expected to have any long-term significant adverse impacts on transit or pedestrian conditions, air quality, noise, archaeological resources, or hazardous materials conditions, and a detailed analysis of construction impacts is not warranted. Moreover, the construction process in New York City is highly regulated to ensure that construction period impacts are reduced.

### **Environmental Justice**

As there are no large minority or low-income communities located within the Study Area, the Proposed Action is not expected to result in any disproportionately high or adverse effects on minority or low-income populations. In addition, the Proposed Action would be in compliance with applicable NEPA regulations related to environmental justice protections. Therefore, there are no environmental justice concerns anticipated with the Proposed Action.

## **H. MITIGATION**

The significant adverse impacts listed in earlier chapters of this DEIS and the number of impacts that could be mitigated through the implementation of practicable mitigation measures are described below. Impacts were identified in the area of transportation.

### **Transportation**

#### ***Traffic***

The traffic impact analysis in Chapter 8, "Transportation," indicates that there would be the potential for significant adverse impacts at 17 intersections in the weekday AM peak hour, 10 in the midday, 13 in the PM and three in the Saturday midday peak hour, as outlined below. All but seven of these significant impacts in the AM peak hour, four in the midday, two in the PM and one in the Saturday midday could be fully mitigated through a combination of traffic signal timing/phasing modifications, lane restriping, and changes to curbside parking regulations without any additional significant impacts to pedestrian or parking conditions. Based on *CEQR Technical Manual* criteria, the following significant adverse impacts would remain unmitigated:

#### **AM Peak Hour**

- Fulton Street at Church Street – westbound right turn;
- Chambers Street at Route 9A – Eastbound approach and westbound left-through lane group;
- Route 9A at Murray Street – eastbound left-turn, westbound approach and northbound through-right lane group; and
- Route 9A at Liberty Street – northbound through-right lane group.

#### **Midday Peak Hour**

- Chambers Street at Broadway – eastbound approach;
- Fulton Street at Church Street – westbound approach; and
- Murray Street at Route 9A – eastbound left turn and westbound approach.

### PM Peak Hour

- Fulton Street at Church Street – westbound approach; and
- Route 9A at Liberty Street – southbound through-right lane group.

### Saturday Midday Peak Hour

- Fulton Street at Church Street – westbound approach.

### ***Pedestrians***

The pedestrian impact analysis in Chapter 8, “Transportation,” indicates that installation of security infrastructure associated with the Proposed Action would result in significant adverse impacts due to reductions in pedestrian space in the weekday AM, midday and/or PM peak hours at a total of two sidewalks and three crosswalks. Recommended mitigation measures, which are subject to review and approval by NYCDOT, generally consist of sidewalk and crosswalk widening and minor signal timing changes. All of the significant adverse sidewalk and crosswalk impacts would be fully mitigated with the recommended pedestrian mitigation measures.

## **I. ALTERNATIVES**

### **No-Action Alternative**

The No-Action Alternative examines future conditions within the Study Area, but assumes the absence of the Proposed Action. Under the No-Action Alternative, the proposed Campus Security Plan would not be implemented, but Vesey Street and Fulton Street between Greenwich Street and West Street/Route 9A would operate as managed streets, as described in Chapter 1, “Project Description.” It is anticipated that the WTC Campus would be developed (including 1 WTC through 4 WTC, the VSC, the PAC, the PATH terminal and the National September 11th Memorial and Museum) and Lower Manhattan would remain a vibrant mixed-use community with one of the largest central business districts in the U.S. In the future without the Proposed Action, the Study Area would continue to experience growth in commercial, office, retail, residential, hotel, and community facility uses by 2019, including almost forty new developments, conversions, and street improvement projects discussed in further detail in Chapter 2, “Land Use, Zoning, and Public Policy.”

The technical chapters of the EIS have described the No-Action Alternative as the “Future Without the Proposed Action.” The significant adverse impacts anticipated for the Proposed Action would not occur with the No-Action Alternative. However, the No-Action Alternative would not meet the needs and goals of the Proposed Action and the benefits expected from the proposed Campus Security Plan would not be realized. The WTC Campus has been the target of two terrorist attacks in the past, and these types of attacks remain a threat to the WTC site in the future. Therefore, implementation of the No-Action Alternative would not be feasible as it would fail to meet the objective of protecting the WTC site against vehicle-borne threats.

### **No Unmitigated Significant Adverse Impact Alternative**

The No Unmitigated Significant Adverse Impact Alternative examines a scenario in which components of the Proposed Action are changed specifically to avoid the unmitigated significant adverse impacts associated with the Proposed Action.

The Proposed Action would result in unmitigated significant adverse traffic impacts at four intersections during the AM peak hour, three intersections during the midday peak hour, two intersections during the PM peak hour and one intersection during the Saturday midday peak hour. The specific lane groups with unmitigated significant impacts in each peak hour would include the following:

*AM Peak Hour*

- Fulton Street at Church Street – westbound right turn;
- Chambers Street at Route 9A – Eastbound approach and westbound left-through lane group;
- Route 9A at Murray Street – eastbound left-turn, westbound approach and northbound through-right lane group; and
- Route 9A at Liberty Street – northbound through-right lane group.

*Midday Peak Hour*

- Chambers Street at Broadway – eastbound approach;
- Fulton Street at Church Street – westbound approach; and
- Murray Street at Route 9A – eastbound left turn and westbound approach.

*PM Peak Hour*

- Fulton Street at Church Street – westbound approach; and
- Route 9A at Liberty Street – southbound through-right lane group.

*Saturday Midday Peak Hour*

- Fulton Street at Church Street – westbound approach.

The Proposed Action's significant traffic impacts are generally a consequence of the redistribution of traffic associated with the closures of various street segments within the WTC Campus to unscreened traffic, and the installation of a median along Church Street and curbside credentialing lanes on the perimeter of the Campus. These features are integral to providing the level of security deemed necessary to safeguard the WTC Campus, and the need to maintain traffic flow capacity to the greatest extent possible was considered in their design. Modifying the scale or the design of the proposed security measures to eliminate all of the unmitigated significant adverse traffic impacts would therefore not be practicable, as such modifications would likely compromise the Proposed Action's ability to provide the needed level of security. Consequently, the No Unmitigated Significant Adverse Impacts Alternative is not a practicable alternative to the Proposed Action as it would fail to meet the objective of protecting the WTC site against vehicle-borne threats.

### **Unrestricted Liberty Street Alternative**

Under this alternative, the vehicle restrictions proposed in conjunction with the Proposed Action would be modified to allow unscreened traffic to flow east-west on Liberty Street with no security controls. This would provide an additional east-west route in Lower Manhattan.

This proposed alternative was reviewed and evaluated by NYPD's Counter Terrorism Bureau and it was determined that this alternative would not allow sufficient protection for the WTC Campus. This proposed alternative would allow all types of vehicles onto Liberty Street and there would be no feasible way to mitigate against a possible threat with the stand-off distance that would be available under this alternative. As this stand-off distance would be reduced to an unsafe level, this alternative would not reach the objectives of the NYPD's Counter Terrorism Bureau to protect the WTC Campus, an area that is considered a potential terrorist target. This alternative would allow unrestricted vehicular access to the VSC entry point via Liberty Street, eliminating a layer of security for vulnerable areas of the WTC

Campus. The Unrestricted Liberty Street Alternative, while potentially improving traffic flow, is not feasible as it would not meet the security goals and objectives of the Proposed Action.

## **J. UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS**

Unavoidable significant adverse impacts occur when significant adverse impacts would be unavoidable if a project is implemented regardless of the mitigation employed (or if mitigation is impossible). As described in Chapter 15, “Mitigation” and as indicated in Chapter 17 “Unavoidable Significant Adverse Impacts,” traffic impacts have been identified in each analyzed peak period. It is anticipated that some of the traffic impacts would be unmitigated at several study area intersections. No other unavoidable adverse impacts are anticipated in any other technical areas analyzed in this EIS.

As the Proposed Action is a security overlay, it would not be feasible to modify or scale down the project in a manner that would achieve the required level of security and also eliminate the unmitigated impacts, as described in Chapter 16, “Alternatives.” The conclusion of the Alternatives chapter is that there are no alternatives which would eliminate or substantially reduce the traffic impacts while also meeting the security goals and objectives of the Proposed Action. Additional measures to further address all unmitigated significant adverse traffic impacts will be explored between the Draft and Final EIS. Absent the identification and implementation of such feasible and practicable measures, the Proposed Action could have unmitigated significant adverse traffic impacts at the locations identified in Chapters 15 and 17.

## **K. GROWTH-INDUCING ASPECTS OF THE PROPOSED ACTION**

Growth-inducing aspects of a proposed action generally refer to “secondary” impacts 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.

The environmental consequences of this growth are the subject of Chapters 2 through 17 of this EIS. No new residential or worker population would result from the Proposed Action as it is a security overlay that would be staffed by NYPD who would otherwise be working on the WTC Campus under No-Action conditions.

The Proposed Action would not result in more intensive land uses. However, it is expected that the enhanced safety measures would help to create a secure environment that would be supportive of existing and planned land uses on the WTC site. As stated in Chapter 3, “Socioeconomic Conditions,” the Proposed Action would not introduce a new economic activity that would alter existing economic patterns within the study area. As the study area already has a well-established residential market under existing conditions and a critical mass of non-residential uses, including retail, office, hotel and community facility uses, the Proposed Action would not create the critical mass of uses or populations that would induce additional development. Moreover, the proposed WTC Campus Security Plan does not include the introduction of new infrastructure or an expansion of infrastructure capacity that would result in indirect residential or commercial development. Therefore, the Proposed Action would not induce significant new growth in the surrounding area.

## L. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Resources, both natural and man-made, would be expended in the construction, renovation, reuse and operation of developments projected to occur as a result of the Proposed Action. These resources include the building materials used during construction or renovation; energy in the form of gas and electricity consumed during construction and operation of buildings by various mechanical and processing systems; and the human effort required to develop, construct, renovate, and operate various elements of projected and potential developments.

The building materials, energy, and human efforts used to construct and operate the proposed WTC Campus Security Plan are considered irretrievably committed because their reuse for some other purpose would be highly unlikely. The security elements that would be implemented in the Proposed Action are intended to safeguard the WTC Campus while allowing access for screened vehicles. While their use would be considered a short-term environmental loss, they would produce long-term benefits in enhancing public safety in and around the WTC Campus. The use of public roadway and sidewalk space to accommodate these proposed security elements could be considered a resource loss, though these areas would continue to be shared with vehicular and pedestrian traffic, respectively. Further, funds committed to the design, construction, and operation of the proposed security elements under the Proposed Action would not be available for other projects. However, the use of these irretrievable resources is necessary in order to maintain a secure and safe environment in the WTC Campus.



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Paul LeBrun, Federal Transit Administration, Lower Manhattan Recovery Office  
John M. Fowler, U.S. Advisory Council on Historic Preservation  
Judith Enck, U.S. Environmental Protection Agency, Region 2  
Patrick Foye, Port Authority of New York and New Jersey  
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Salvatore Cassano, FDNY Fire Commissioner  
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David Emil, Lower Manhattan Development Corporation  
Robert Tierney, New York City Landmarks Preservation Commission  
Seth Myers, NYC Economic Development Corporation  
Dennis Mehiel, Battery Park City Authority  
Kimberly Spring, Library Manager, New Amsterdam Library  
Liz Berger, Alliance for Downtown New York  
Scott Stringer, Manhattan Borough President  
Jerrold Nadler, Congressman, U.S. House of Representatives - District 8  
Catherine McVay Hughes, Manhattan Community Board 1  
Noah Pfifferblitt, Manhattan Community Board 1  
David Gruber, Manhattan Community Board 2  
Bob Gormley, Manhattan Community Board 2  
Daniel Squadron, State Senator, 26<sup>th</sup> District, The Senate, State of New York  
Margaret Chin, New York City Council Member - District 1  
Sheldon Silver, New York State Assembly Speaker, District 65  
Deborah J. Glick, New York State Assembly Member, District 66  
Kirsten Gillibrand, Senator, U.S. Senate  
Charles Schumer, Senator, U.S. Senate  
David Yassky, Taxi and Limousine Commission  
Douglas Durst, The Durst Organization, Inc.  
Betty Cohen, Century 21  
Mitch Rudin, Brookfield Properties  
Joseph Moinian, The Moinian Group  
Janno Lieber, Silverstein Properties  
Isaac Hera, Brack Capital Real Estate  
General Manager, The Millennium Hilton Hotel  
Postmaster, USPS Church Street Station  
Joseph Daniels, National September 11 Memorial & Museum at the World Trade Center  
Manager, Manhattan Restoration, Verizon  
Greek Orthodox Archdiocese & St. Nicholas Church