

A. PROJECT DESCRIPTION

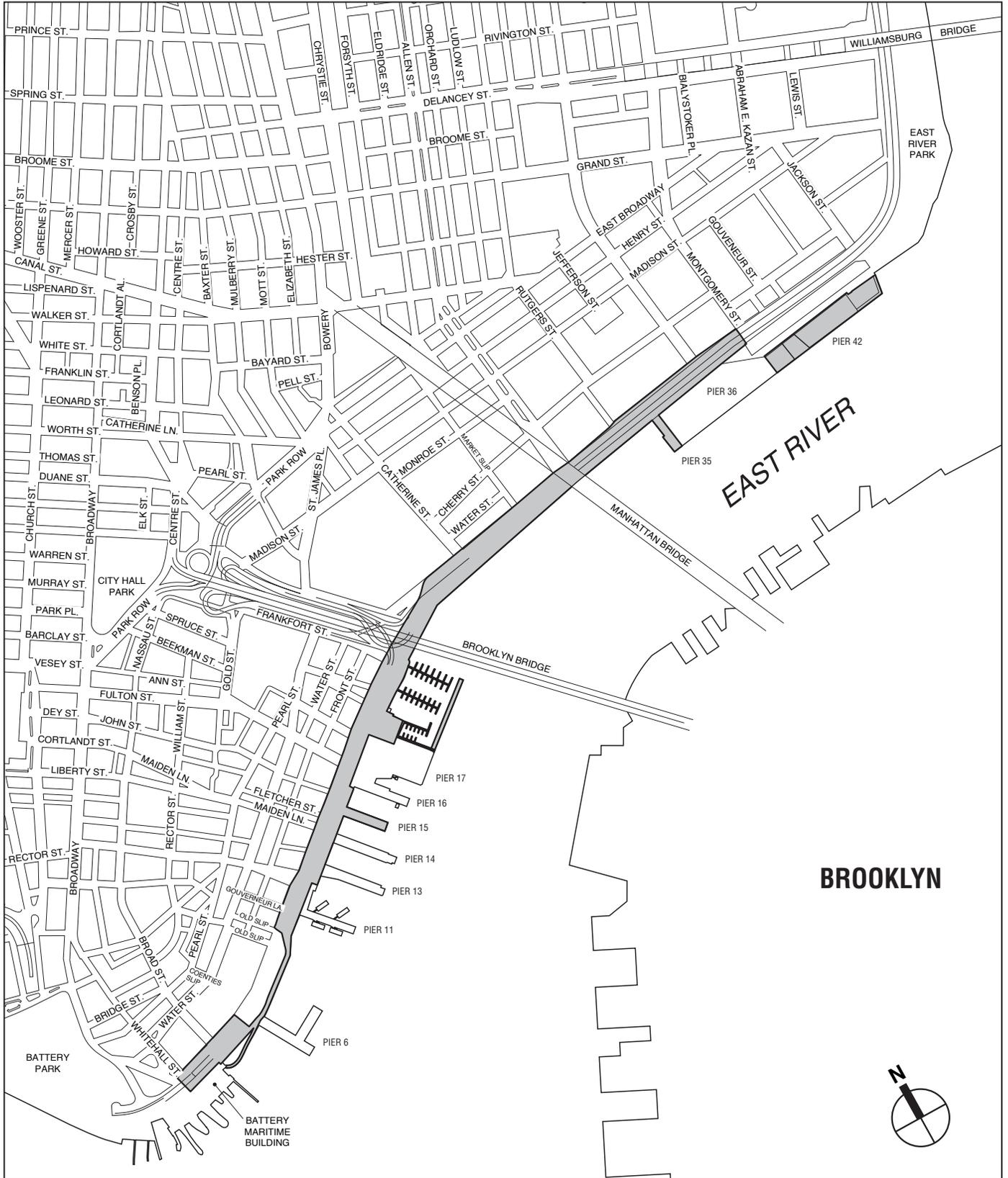
INTRODUCTION

The City of New York (the City) has proposed a plan for the revitalization of the East River waterfront (the Proposed Action) by improving a two-mile-long, City-owned public open space connecting the Whitehall Ferry Terminal and Peter Minuit Plaza to the south to East River Park to the north (see Figure S-1). The plan seeks to improve access to the waterfront, enhance pedestrian connectivity, and create waterfront amenities for public use and enjoyment. The existing esplanade would be enhanced, some new sections of esplanade would be created, and several piers would be renovated and redeveloped.

The Proposed Action would consist of a Program Zone under the Franklin D. Roosevelt (FDR) Drive for pavilions and temporary outdoor activities; a Recreation Zone along the edge of the water with seating, play spaces, and plantings; and a uniform bikeway/walkway along South Street. In addition, the Proposed Action analyzed in this Environmental Impact Statement (EIS) would include the construction of a new pedestrian plaza in front of the Battery Maritime Building (BMB), and improvements to Piers 15, 35, 36, and 42, as well as the New Market Building and pier. Although it is analyzed in the EIS for the Proposed Action, construction of the plaza in front of the BMB, the replacement for the New Market Building and the urban beach on Pier 42 are dependent on additional funding that is currently being sought by the City.

Lower Manhattan Development Corporation (LMDC) would provide a portion of the funding for the Proposed Action. Established in the aftermath of September 11, 2001, LMDC coordinates the rebuilding and revitalization efforts in Lower Manhattan. LMDC is a subsidiary of the New York State Urban Development Corporation, doing business as Empire State Development Corporation (ESDC), a political subdivision and public benefit corporation of the State of New York. The Proposed Action is necessary to the continued revitalization of Lower Manhattan.

LMDC is conducting a coordinated environmental review of the Proposed Action pursuant to federal law as the recipient of U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant program funds (42 USC § 5304(g)) and as lead agency under the National Environmental Policy Act (NEPA). The New York State Environmental Quality Review Act (SEQRA), City Environmental Quality Review (CEQR), and their implementing regulations are referenced as appropriate. When an EIS is prepared pursuant to NEPA, a state agency has no obligation to prepare an additional EIS pursuant to SEQRA. 6 NYCRR Section 617.15(a). State agencies must, however, make findings pursuant to SEQRA. 6 NYCRR Section 617.15(b) and 6 NYCRR Section 617.11. The FEIS for the Proposed Action would serve as the basis for LMDC's record of decision pursuant to NEPA and findings pursuant to SEQRA. Because the Proposed Action is entirely within New York City and will involve actions by the City Planning Commission (CPC), the *CEQR Technical Manual* generally



Project Site



East River Waterfront Esplanade and Piers

serves as a guide with respect to methodologies and impact criteria for evaluating the Proposed Action in this Final Environmental Impact Statement (FEIS). The City is serving as a cooperating agency through relevant departments including the New York City Departments of Parks and Recreation (DPR), City Planning (DCP), and Transportation (NYCDOT). The New York City Economic Development Corporation (EDC) will continue to work with the City in connection with the Proposed Action.

BACKGROUND AND PLANNING CONTEXT

Prior to the arrival of Europeans in what would become New York City, Lower Manhattan's East River shoreline ran roughly along Pearl Street. The Dutch located their earliest wharves along the East River. In the late 1600s the City began a process of landfilling to extend the shore into the river. By 1730 the eastern edge of Lower Manhattan was Water Street, and by 1780 the island extended to Front Street. In 1800 the creation of land to South Street was the last extension of the filling. New York and its East River piers thrived with maritime traffic. In the 1850s over 40 piers occupied the nearly two-mile stretch of waterfront included in the project site. The Brooklyn Bridge was built in 1867-83 and the Manhattan Bridge was built in 1910-15. The BMB was built at the foot of South Street in 1909. The Battery Park Underpass (BPU) was built in 1950, and in 1954 the elevated FDR Drive structure was built from the underpass north to Jackson Street. By that time, following a long and steady decline in maritime activity on the East River, the Fulton Fish Market was one of the few major maritime related uses remaining in this area south of the East River Park at Corlears Hook.

PLANNING CONTEXT

Since the 1950s there have been a series of ambitious plans and projects to redevelop and revitalize Lower Manhattan focusing on its East River waterfront, and several have been realized.

In 1959, Robert Moses proposed a seven-block Battery Park Urban Renewal Area from Whitehall Street to Coenties Slip. A later plan called for the area to be the new home of the New York Stock Exchange (NYSE). The plan called for the City to use its Urban Renewal Act (URA) powers to acquire the properties, consolidate them by eliminating cross streets, and sell them to NYSE. When NYSE subsequently withdrew, the owner was free to develop the sites. The result was the creation of four large office buildings along Water Street.

In 1960, the Downtown-Lower Manhattan Association proposed a plan for the development of a mixed use office and hotel complex called the World Trade Center. The complex was intended to diversify the Lower Manhattan market by creating a center for global commerce which would complement the increasingly global stock exchanges and banks in the area. The World Trade Center towers were completed in 1970 and 1972.

In 1965 CPC released the City's vision for Lower Manhattan looking forward to 2000 and envisioning the expansion of Lower Manhattan by landfill into both the East and the Hudson Rivers, and extending streets and plazas to the waterfront.

In 1972 Mayor John Lindsay and David Rockefeller announced Manhattan Landing, a one-mile-long, \$1.2 billion dollar development to be built on an 88-acre platform over the East River. The complex financing needed never materialized and the project did not go forward. Also in 1972, CPC adopted the Special South Street Seaport District as a means of ensuring the historic character of the area, including Schermerhorn Row, and regulating the transfer of development

rights within the District. The South Street Seaport Historic District was designated by the New York City Landmarks Preservation Commission (LPC) in 1977 and expanded in 1989. It was also listed on the State and National Registers of Historic Places in 1978. The Seaport is a major tourist destination in the area. It includes a relatively new retail building on Pier 17 and a historic ship museum across South Street.

In 1984 the City again considered development over the East River between the newly opened South Street Seaport and the Downtown Heliport. The downturn in the financial market and the New York real estate market terminated consideration of this plan.

Planning for the current restoration of the BMB began in the late 1990s, when the building's grand cast-iron façade was reportedly held together by layers of drab green paint over crusts of rust. Work on the structure and its exterior is now expected to be completed in 2007. At grade the building has three ferry slips, two of which serve Governors Island. EDC expects to name a developer for the rehabilitation by summer 2007.

In October 2002, the Downtown Alliance, with Community Board 1, released a Concept Plan for the East River waterfront. The plan builds upon transportation initiatives that enhance the pedestrian experience and promote intermodal transit. The plan envisions the transformation of the FDR Drive into an integral element of pedestrian and regional vehicular transit way, and allows Lower Manhattan to reengage more forms of water transit.

On December 12, 2002, Mayor Michael Bloomberg released the *Vision for a 21st Century Lower Manhattan* with the stated purpose of connecting Lower Manhattan to the world around it, building new neighborhoods, and creating appealing public places. The plan describes various initiatives to help revitalize and improve Lower Manhattan as a global center of business by creating new regional transportation links.

In July 2004, Manhattan Community Board 3's Waterfront Task Force, in partnership with the National Park Service Rivers and Trails Program and the City College of New York's Architectural Center, released the Charette Report and Design Principles. The report's recommendations and design principles, as endorsed by the Waterfront Task Force, provide ideas for improving the waterfront between the Brooklyn Bridge and East River Park.

CONCEPT PLAN FOR THE EAST RIVER WATERFRONT

In 2004, as a result of the *Vision for a 21st Century Lower Manhattan*, DCP, EDC, NYCDOT, and DPR, with funding from LMDC, undertook a year-long study of the East River waterfront in Lower Manhattan. The design team, working closely with the local community, area elected officials, City and State agencies, and civic associations, developed a waterfront concept plan. The planning was an extraordinary participatory and interactive process comprising over 70 separate meetings with community boards, tenant associations, civic leaders, maritime experts, and local elected officials. The resulting plan consists of a comprehensive vision for a continuous waterfront esplanade well connected to adjacent neighborhoods and replete with waterfront amenities and new community, cultural, and recreational uses. The plan includes bold new architectural and landscape architectural design ideas flexible enough to adjust to local conditions and respond to the diverse neighborhoods and communities adjacent to the East River.

During development of the concept plan, a wide variety of alternatives were carefully considered, including alternative scenarios for development of the esplanade and the BMB Plaza.

PURPOSE AND NEED FOR THE PROPOSED ACTION

LMDC FUNDING

The attacks on the World Trade Center and the continuing recovery have had a profound impact on Lower Manhattan's residents, businesses, and communities. Throughout the recovery, Lower Manhattan residents have shown remarkable resolve to remain in their communities. LMDC is committed to ensuring Lower Manhattan emerges from this tragedy even better than it was before.

In addition to the planning currently under way for the World Trade Center site, an integral part of LMDC's efforts to revitalize Lower Manhattan have included a series of projects that address short-term and long-term solutions to the challenges facing Lower Manhattan's neighborhoods in the wake of September 11, 2001. LMDC provided financial support to the City for the creation of the concept plan, which the Proposed Action would implement.

EAST RIVER WATERFRONT ESPLANADE AND PIERS PROJECT

The Proposed Action is an essential component of the ongoing revitalization of Lower Manhattan. It represents a bold and ambitious plan for an important stretch of East River waterfront from Peter Minuit Plaza north to East River Park, which suffers from weak connections, a profound lack of amenities, and underutilization of the waterfront. The purpose of the Proposed Action is to enhance connections, improve the function and appearance of the waterfront, and provide amenities—open space as well as appropriate retail, cultural, and community uses—to facilitate access to and use of the waterfront by adjacent communities and neighborhoods.

The Proposed Action also recognizes the rapidly increasing residential population in Lower Manhattan. Those new residents, as well as the traditional office population of Lower Manhattan, create a heightened demand for open space.

The specific goals of the Proposed Action are as follows:

- Provide open space amenities to Lower Manhattan communities currently underserved by the City's parks. The reconstruction of Pier 15 and the New Market Building pier and the reinforcement of Piers 42 and 35 are essential parts of that effort and will create new recreational space and waterfront access where there are few alternative locations for such space. The piers would provide recreation space that is removed from the traffic and noise of Lower Manhattan;
- Create a vibrant, active and welcoming water's edge;
- Improve public access to the waterfront;
- Find new uses for the waterfront by providing basic infrastructure to support waterfront and community activities;
- Open certain piers to community uses, including reinforcing existing Pier 35 and Pier 42 as necessary and reconstructing the New Market Building pier;
- Provide a place for recreational, community, and maritime activities;
- Enhance maritime activities along the traditional working waterfront, including through the construction of a new marina at the New Market Building pier, and historic ships and other maritime educational programming at Pier 15;

- Claim the space under the FDR Drive for community, cultural, and limited commercial development;
- Replace the outmoded New Market Building;
- Improve access to and around the BMB; and
- Expand the existing esplanade between the BMB and Old Slip to provide a larger and safer connection between the BMB and Battery Park to the south and the esplanade improvements and existing East River Park to the north.

PROJECT SITE

The area of the Proposed Action generally would encompass the waterfront, the upland area adjacent to and under the elevated FDR Drive, and South Street extending from the Whitehall Ferry Terminal and Peter Minuit Plaza on the south to East River Park on the north. Piers 15, 35, and 42, as well as the New Market Building pier and a portion of Pier 36, would be included in the Proposed Action. The total land area would be approximately 17 acres, all of which would be in the 100-year floodplain. The project site is described from south to north below.

BATTERY MARITIME BUILDING PEDESTRIAN PLAZA

The area that would be developed with the proposed BMB Plaza comprises the ramp to the BPU and the multiple traffic lanes at grade surrounding the ramp on the south, east, and west. In the midst of all the traffic, there is small seating area with concrete benches, surrounded by concrete barrier walls. In front of the BMB, a very narrow sidewalk protected by jersey barriers separates the ornate 1908 façade of the BMB from passing traffic. The project site does not include the BMB itself, and its current restoration is not part of the Proposed Action.

BATTERY MARITIME BUILDING TO PIER 11

North of the BMB this narrow sidewalk becomes a somewhat wider waterfront walkway. To the heliport pier (Pier 6), the sidewalk is approximately eight feet wide—too narrow for a safe bikeway/walkway. The at-grade roadway (which would be depressed in order to move the tunnel mouth north and create the BMB Plaza) is also part of the project site.

The heliport pier is an active daytime use outboard of the project site. North of heliport, the walkway is out over the water outboard of two local traffic lanes along the east side of the ramp to the elevated FDR Drive structure. Buses frequently park in the outside lane, next to the walkway. The walkway curves back in to meet the granite bulkhead at the north side of Old Slip where the two local traffic lanes run underneath the FDR Drive to intersect South Street.

North of Old Slip the project site expands upland to include the area under the FDR Drive, and South Street becomes its western edge. The edge of the esplanade is the granite bulkhead, which is just outboard of the FDR Drive overhang. A bikeway/walkway is delineated in the pavement, dividing the benches near the water from the parked vehicles under the FDR Drive. The bikeway ends after a short distance as bikers are directed by a sign to walk their bikes approaching Pier 11.

PIER 11 TO FULTON STREET

The esplanade provides access to Pier 11, where five ferry lines serve Lower Manhattan's workforce. Nautical dock bollards have been placed in the esplanade outside the pier for security and safety measures.

At Wall Street the project site widens out over the water on a concrete platform supported on round concrete piles. The platform continues the line of the metal grid platform to the south. However, a fence keeps the public away from the water's edge and Piers 13 and 14. Piers 13 and 14 are not part of the project site. Under the FDR Drive structure, buses are parked perpendicular to South Street from Pier 11 north to Maiden Lane. At Wall Street the project site widens out over the water on a concrete platform supported on round concrete piles. However, a fence keeps the public away from the water's edge and Piers 13 and 14. The piers, which are not part of the project site, are in very poor condition structurally and are expected to be demolished in the near future. A service building also blocks the esplanade, further separating visitors from the water.

Under the FDR Drive structure, motor bikes are parked just north of Wall Street, and from Pine Street to Maiden Lane, buses park perpendicular to South Street. There is a short length of bikeway painted on the asphalt between the north side of Wall Street and the south side of Maiden Lane. In good weather, street vendors spread out their wares on the esplanade near Pier 14 and the foot of Maiden Lane.

Approximately opposite the north side of Maiden Lane, the concrete platform ends where Pier 15 has been removed. The granite bulkhead is against the water's edge, and the walkway slopes down about three feet to its level. The esplanade is very narrow, and parked cars occupy the area under the FDR Drive. Several concrete block buildings have been erected under the drive.

The location of Pier 15 (just north of Fletcher Street) is marked by four wooden pilings still standing in the water. Another service building separates the esplanade from the water in this area on the south side of John Street.

From John Street north, the project area is limited to the area under the FDR Drive and South Street. On the outboard side the heavy timber platform on round concrete piers is not part of the project site. Historic ships, including the *Peking*, the *Wavertree*, the *Ambrose*, the *Pioneer*, and three tugboats, are berthed along the river and are connected with the South Street Seaport Museum.

FULTON STREET TO THE BROOKLYN BRIDGE

The project area continues north, passing inboard of the Tin Building and Pier 17 north of Fulton Street. Between Fulton Street and Beekman Street the area is dark and uninviting, with decrepit-looking sheds of the former fish stalls close to both sides of the FDR Drive blocking the sun. There is public parking all day long under the FDR Drive north past the Brooklyn Bridge.

Beyond the Tin Building, the project area expands again to the water and includes the New Market Building and its pier. The New Market Building is a nondescript two-story, modern, industrial structure clad in corrugated metal siding and painted beige that was part of the Fulton Fish Market. It blocks views to the river. Next to the refuse containers for Pier 17, its water side is even less attractive.

From the New Market Building to Dover Street the esplanade is on a concrete platform behind a concrete wall overlooking large rocks near the water's edge. The esplanade has been improved

with benches and plantings. Beginning opposite the north side of Peck Slip, bikeway markings are painted on the pavement outboard of the FDR Drive columns. From Dover Street almost to the Brooklyn Bridge, a small section of the esplanade outboard of the bulkhead is on wooden planks. At this point, both lanes of the bikeway are outside the FDR Drive columns.

Beneath the Brooklyn Bridge the esplanade overlooks a narrow sand and pebble beach. Heavy timbers and other debris litter the area, and the East River current is strong. Due to safety concerns, there is no beach access from the esplanade, and the beach is not part of the project site. Under the FDR Drive there is some car parking. This paved area is wide and dark, holds water, and is not well used.

BROOKLYN BRIDGE TO PIER 35

The esplanade is shaded by the access ramp to the northbound FDR Drive as it curves outboard overhead. The ramp footings are outside the bulkhead almost to Market Street. Near the Governor Alfred E. Smith Houses, the bulkhead curves to the east .

Cars are parked under the FDR Drive from south of the Brooklyn Bridge to opposite the Governor Alfred E. Smith Houses. Approximately 15 parking spaces for New York City Department of Citywide Administrative Services (DCAS) employees are located in this area.

The esplanade continues east behind the bulkhead intermittently in shadow or sunlight where the structure above permits. By Market Street the piers for the outside lane of the FDR Drive access ramp are no longer outside the bulkhead. In the area of Market Street the esplanade bows out, and a large number of fishermen are often lined up along the water's edge. There are plenty of benches for on-lookers.

There is bus parking under the west overhang of the FDR Drive structure along the east side of South Street from Catherine Slip under the Manhattan Bridge all the way north to Rutgers Slip. Between Market Street and the Manhattan Bridge there is also bus parking on the west side of South Street adjacent to the large playing fields.

Generally the asphalt paved area under the west side of the FDR Drive is not dedicated to any use, and it holds water after it rains.

PIER 35 TO MONTGOMERY STREET

Near Pier 35 the waterfront is fenced off. Perpendicular to the shoreline, Pier 35 is wide, flat, and unused. It abuts Pier 36, which is used by the New York City Department of Sanitation (DSNY), Fire Department Rescue Units, and Police Department. The wide platform between the pier shed and the FDR Drive service road is a parking lot for the vehicles of the various services. Pier 36 is not part of this project except for the northern end abutting Pier 42. Public open space would be created on this portion of Pier 36. The esplanade is entirely under the FDR Drive, and it becomes a narrow strip at Pier 35 because of the parking areas for Piers 35, 36, and 42. The portion of the esplanade that is part of the project site ends at Montgomery Street where the FDR Drive begins to return to grade. The proposed public open space at Pier 36 would be north of Montgomery Street along the waterfront where trucks and other types of heavy machinery are currently parked in an area of the pier leased to NYCDOT. This portion of the pier houses equipment used by NYCDOT's Division of Roadway Repair and Maintenance for the resurfacing of streets in Manhattan. Vehicles stored at this site include equipment trailers, milling machines, paving machines, and asphalt rollers. Other equipment stored at the site

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includes cylinders containing propane, drums of asphalt cement, and various utility hardware adjustment rings and other roadway materials.

PIER 42

Pier 42 is similar to Pier 36 in comprising a wide paved area and a pier shed near the water. Painted beige, the pier shed is derelict, with windows open to the elements and various kinds of construction materials stored on the paved yard. The pier shed would be the location of the urban beach that is being studied as part of this project. A small sign announces the New York Greenway continuing north in East River Park.

ELEMENTS OF THE PROPOSED ACTION

The Proposed Action would consist of a Program Zone under the FDR Drive for pavilions and temporary outdoor activities; a Recreation Zone along the edge of the water with seating, play spaces, and plantings; and a uniform bikeway/walkway along South Street. In addition, the Proposed Action analyzed in this EIS would include the construction of a new pedestrian plaza in front of the BMB, and improvements to Piers 15, 35, 36, and 42, as well as the New Market Building and pier. Although they are analyzed as part of the Proposed Action, construction of the plaza in front of the BMB, the replacement for the New Market Building, and the urban beach on Pier 42 are dependent on additional funding that is currently being sought by the City of New York.

The City plans to develop an entity that would be responsible for the maintenance of the open spaces and pavilions that would be constructed under the Proposed Action.

PROGRAM ZONE

Approximately 14 pavilions totaling up to 150,000 square feet would be built in the Program Zone under the FDR Drive. They would be programmed and built for community, cultural, and commercial uses. Each program would correspond to the unique local needs of its location and surrounding community. Examples of such programs could include a flower market, dance studio, martial arts studio, day care center, and community center. Although their exact locations have not been determined, the pavilions would be placed between Pine Street and Clinton Street and positioned to avoid blocking view corridors. As envisioned, the pavilions would have glass skins to promote transparency and openness. However, other materials may be examined in the course of the design process.

In and immediately adjacent to the South Street Seaport Historic District, elements of the design would be developed to be appropriate to the context of the district.

The open space under the FDR Drive could be programmed for temporary uses, such as farmers' markets, performances, exhibitions, active and passive recreation, and community events. Portions of the underside of the FDR Drive may be improved with cladding intended to reduce noise from the overhead roadway and improve the appearance of the viaduct.

RECREATION ZONE

Plantings and seating would be provided to enhance passive recreation opportunities in the Recreation Zone. Components would include benches, railings, and planters. The railing would include enhanced lighting, fishing rod holders, and brackets for attaching historic placards and

viewfinders for sights of interest. Different types of planters would be used to address different soil conditions. Elements of the Recreation Zone are described from south to north.

Battery Maritime Building to Pier 11

Between the BMB and Old Slip, the existing narrow esplanade (approximately 1,140 linear feet) would be widened to approximately 35 feet with a new, approximately 15- to 25-foot-wide structure built out over the water. The expansion area is expected to be an independent structure on pilings rather than a cantilever. The new overwater esplanade structure may pull away from the existing bulkhead line between the BMB and Pier 6, creating an archipelago with gaps where the historic bulkhead structure would be visible. The total overwater coverage associated with this expansion is expected to be approximately 34,400 square feet (0.79 acres).

Pier 11 to Fulton Street

Between Pier 11 and the Brooklyn Bridge, the existing esplanade is approximately 58 feet wide, as it has been extended beyond the bulkhead except in the area of Pier 15. To take advantage of the greater width, larger plants and trees in planter boxes would be interspersed between the seating. Within the boundaries of the South Street Seaport Historic District, elements of the esplanade and pier design would be developed to be appropriate to the context of the district.

Pier 15, demolished in 2002/2003, would be rebuilt within its original footprint (approximately 559 feet long and 80-82 feet wide), now outlined by four remaining piles. It is expected that the piles would be spaced approximately 25 feet apart. Reconstruction of Pier 15 has already been permitted by the New York State Department of Environmental Conservation (DEC) and the U.S. Army Corps of Engineers (USACE). It is not considered new overwater coverage.

The pier could be a deep truss structure with two levels and enclosed uses. It would be designed to allow vessels to dock along both sides. The *Wavertree* may be moved to this location and, if so, it is anticipated that dredging would be required in this area. Similar to the portion of the esplanade within the boundaries of the South Street Seaport Historic District, the design of this pier would be developed to be appropriate to the context of the historic district.

Bus parking perpendicular to South Street under the FDR Drive structure would be eliminated.

Fulton Street to Brooklyn Bridge

Directly north and west of Pier 17, the New Market Building would be demolished as part of the Proposed Action and a new structure of approximately 40,000 square feet is envisioned. Although it is analyzed in the EIS for the Proposed Action, the design and construction of a new New Market Building is dependent on additional funding that is being sought by the City of New York. The New Market Building pier would be reconstructed as part of the Proposed Action. A new transient marina using floating platforms, wave attenuation structure, and a breakwater supported on piles would be created to provide opportunities to temporarily berth small- to mid-sized vessels. The width of the floating platforms would range from 5 to 8 feet for the piers and 8 to 12 feet for the main docks. Approximate overwater coverage associated with the marina would be 34,483 square feet (0.79 acres). Neither Pier 17 nor the Tin Building is part of the Proposed Action.

Brooklyn Bridge to Pier 35

From the Brooklyn Bridge to Pier 35 north of the Manhattan Bridge, the esplanade is approximately 24 feet wide and does not extend beyond the bulkhead. The Proposed Action

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would enhance the esplanade while keeping it upland of the bulkhead; the esplanade would not be widened north of the Brooklyn Bridge.

Pier 35 to Montgomery Street

At Pier 35 the Proposed Action could provide a two-tiered open space. The existing pier structure is sound with the exception of the upland portion, which has sunk due to the failure of the relieving platform and would be replaced. Depending on final design, some reinforcement of piles may be necessary. A multilevel landscape could be created to enhance the open space and block the view of the existing adjacent building on Pier 36, which would continue to be used by DSNY. A gently sloping path could rise to an elevated platform at the southeastern end of the pier. The entire pier would provide open space opportunities for family gatherings. Public open space would be created at the northern end of Pier 36. This open space on Pier 36 would require the relocation of the facility used by NYCDOT's Division of Roadway Repair and Maintenance for the storage of equipment used for resurfacing Manhattan's roadways. While a new site has not yet been identified, the facility would not be relocated until a suitable new location for NYCDOT's roadway resurfacing operations is secured.

At the south end of Pier 42, a cove would be created for public enjoyment and temporary mooring of small boats. A protected open water area with a small craft launch would be created at the northern end of Pier 42. The Proposed Action is being designed so there would not be an increase in the amount of overwater coverage that is not associated with water-dependent activities, to preserve the extent and quality of marine habitat within its bounds and to minimize any potential impacts to marine ecology. Approximately 20,000 square feet of existing overwater structure would be removed in this area.

DESIGN ELEMENTS

Designers of the esplanade and piers have envisioned a system of components that would create a consistent yet unique identity signaling a new waterfront environment. These components share material and form and can be placed to best meet community needs and to take advantage of local conditions. Components would include benches, railings, and planters. A modular reinforced concrete paving system would run the length of the esplanade, providing a continuous material identity from the BMB to Pier 36. The benches could be configured in numerous ways to create a variety of social interactions: enjoying waterfront views, having intimate conversation, playing a game of chess, or participating in a family picnic. Enhanced lighting, fishing pole holders, and brackets for attaching historic placards and viewfinders for sights of interest could be integrated into the stainless steel rail structure. Two different types of planters would be used to address different soil conditions. For the portion of the project site within the South Street Seaport Historic District, a set of design elements appropriate to the context of the district would be developed. The project elements that would be located within the boundaries of the South Street Seaport Historic District and Extension—including the reconstruction of Pier 15 and the New Market Building pier, the redevelopment of the New Market Building site, and the creation of pavilions between Maiden Lane and Fulton Street and between Peck Slip and Dover Street—are the subject of a Programmatic Agreement (PA) that is being developed between LMDC and the New York State Historic Preservation Office (SHPO).

The Proposed Action, including the various in-water actions, has been designed to address public health and safety considerations. In particular, the marina at the New Market Building pier will provide a safe location for recreational boating and will be designed with input from relevant regulatory agencies.

SOUTH STREET IMPROVEMENTS

The Proposed Action would narrow South Street between Old Slip and Montgomery Street, and create a uniform sidewalk and bikeway along the east side of the street. The street improvements would be designed generally as follows:

- Between Old Slip and Robert F. Wagner Sr. Place (Wagner Place) just north of the Brooklyn Bridge, South Street would accommodate a single through-lane in each direction and a center turn lane. Drop-off and pick-up lanes would be provided at strategic locations.
- Between Wagner Place and Montgomery Street, South Street would consist of a striped median with left-turn bays for northbound traffic, a single through-lane in each direction, and parking on the west side of the street. The City has secured the funds needed to carry out the planned improvements to South Street north of the Brooklyn Bridge.

The South Street improvements would remove on-street public automobile parking south of the Brooklyn Bridge. The East River Waterfront Access Projects, which are independent projects being undertaken by the City, would add on-street parking north of the Brooklyn Bridge. It should be noted that in the future without the Proposed Action, the portion of South Street south of the Brooklyn Bridge would be reconstructed in its current configuration.

Buses currently permitted to lay-over along South Street and under the elevated FDR Drive between Old Slip and Burling Slip would be displaced as a result of the Proposed Action. The displacement totals approximately up to 45 bus layover spaces in this area. Approximately 20 additional bus layover spaces would be displaced along South Street near the Manhattan Bridge. As part of a larger study for Lower Manhattan Street Management, NYCDOT is conducting a study for Bus Management in Lower Manhattan from Canal Street to the Battery. It will entail conducting a market analysis, possible alternative parking site selection, and possible bus management strategies.

BATTERY MARITIME BUILDING PEDESTRIAN PLAZA

Although it would not be funded by LMDC, the construction of a new BMB pedestrian plaza is being analyzed as part of the Proposed Action because the City is currently seeking additional funding for this important improvement. If funding is obtained, the BMB Plaza would be built along with the Proposed Action. As the southern gateway to the new esplanade, the current roadway and sidewalk configuration in front of the BMB creates an unpleasant and potentially unsafe pedestrian experience as well as a difficult connection from the East River waterfront to Peter Minuit Plaza and Battery Park. The BMB, which has recently been restored, is currently the gateway to Governors Island. It has suffered for some years with a perilously narrow sidewalk fronting South Street. When funding is available, the entrance to the BPU would be moved approximately 350 feet to the northeast, creating the space for a new $\frac{3}{4}$ -acre pedestrian plaza at the entrance of the BMB above the existing entrance to the underpass and highway. The plaza would connect the bikeway/walkway from the esplanade to Peter Minuit Plaza and would use design elements that would be appropriate to the context of the historic BMB. A pedestrian bridge over the tunnel entrance in front of the BMB may be constructed as an interim solution until the BMB Plaza is completed.

The new plaza would also create additional vehicular access to both the BMB and Whitehall Ferry Terminal via a pick-up/drop-off lane. Some reconfiguration of the traffic flow is proposed to minimize pedestrian-vehicular conflicts at the BMB and Whitehall Ferry Terminal and improve traffic flow along Water Street and South Street, such as reconfiguring South Street

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between Whitehall Street and Broad Street to be one-way in the northeasterly direction with three lanes of northbound traffic and providing a drop-off lane to the west of the plaza. This drop-off lane would create additional access to Whitehall Ferry Terminal. Final design of the BMB Plaza would also consider access needs for Governors Island. The BMB Plaza extension will be designed consistent with existing agreements between the City and the Triborough Bridge and Tunnel Authority. All necessary ventilation, lighting, drainage, and fire suppression systems will be evaluated as part of the design process and incorporated into the final design.

The design of the plaza and any interim pedestrian bridge would be submitted to NYCDOT's Division of Bridges for approval prior to construction. The pedestrian bridge, if constructed, would be designed in accordance with the New York State Department of Transportation (NYSDOT) Bridge Manual in order to ensure adequate vertical clearance.

PIER 42 BEACH

The Pier 42 pier shed would be removed and the existing pier reinforced. The shed would be replaced by a new "urban beach" above the East River, with berms reminiscent of dunes separating the continuing esplanade and the beach. Beach volleyball courts could be included on the pier.

Although it is analyzed in the EIS for the Proposed Action, the construction of a new beach at Pier 42 is dependent on additional funding that is currently being sought by the City. If funding is obtained, the Pier 42 beach would be built along with the Proposed Action. The level of LMDC funding for this component of the Proposed Action has not yet been determined. The site of the Pier 42 beach is in Community District 3.

NEW MARKET BUILDING REPLACEMENT

At approximately the site of the existing New Market Building, a new building of up to approximately 40,000 square feet is envisioned, potentially housing a mix of uses. The new building would be situated to allow a view corridor through to the water along the north side of Pier 17. It is expected to have an open floor plan for community, cultural, and/or commercial uses. Similar to the beach at Pier 42, the replacement building is being analyzed as part of the Proposed Action because the City is seeking alternate funding for this structure.

The goals of the redevelopment at this site are to create a highly visible and exciting node along the East River waterfront, to draw people to and encourage them to move along the waterfront, and to create community interest, while complementing the East River Esplanade and Piers Project. For the purposes of this environmental review, DCP developed physical design parameters to ensure that the New Market Building would be surrounded by open space, allow ample circulation, and provide public access to the waterfront. The height of the building is assumed to be approximately 50 feet, with a footprint of roughly 146 by 137 feet. The building would be required to be at least 40 feet from the northern and southern edges of the pier; 30 feet from the eastern edge of the pier; 53 feet from the Tin Building; and 74 feet from the Pier 17 building. The assumed building height and footprint would require a special permit from CPC.

ACTIONS AND APPROVALS

The Proposed Action is subject to review under NEPA, SEQRA, CEQR, and the 2001 *CEQR Technical Manual* are referenced as appropriate. LMDC is the lead agency for the environmental

review, which is being coordinated with the project reviews required by other federal, state, and local laws as well as the regulations of HUD.

The EIS will serve as the basis for LMDC's Record of Decision under NEPA and findings under SEQRA. LMDC's review of the Proposed Action under Section 106 of the National Historic Preservation Act, Endangered Species Act, HUD regulations and other regulations are incorporated into this EIS.

The Proposed Action may require regulatory agency actions, permits, and/or approvals on the federal, State, and City level.

The City of New York, as the entity which will carry out the Proposed Action, will seek various approvals for the project. Some elements of the project would be subject to approval under the City's Uniform Land Use Review Procedure (ULURP). The City will also make findings under SEQRA and CEQR. Additional local approvals may also apply.

B. FRAMEWORK FOR ANALYSIS

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.

SCHEDULE

For analysis purposes it has been assumed that the Proposed Action would be completed by 2009. The reconstruction of South Street between Whitehall and Dover Streets would be timed to correspond with the esplanade improvements. While funding for the BMB Plaza, the New Market Building replacement, and the beach on Pier 42 has not yet been identified, the City is seeking funding for those elements and would pursue them concurrently with the Proposed Action, if possible. It has been conservatively assumed that construction of the Proposed Action and the independent nearby projects would take place concurrently.

CONSTRUCTION PERIOD CUMULATIVE EFFECTS ANALYSIS

A number of major recovery projects are under way in Lower Manhattan and will continue to be in construction through the analysis year for the Proposed Action. As Lower Manhattan will be subject to these major rebuilding efforts over the next decade, a method for considering the cumulative impacts of these projects has been developed focusing on five areas of potential concern during the construction period that have been identified by and agreed to by LMDC and the various cooperating/involved agencies:

- Air quality;
- Access and circulation;

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- Cultural resources;
- Noise and vibration; and
- Economic effects.

Other areas of potential cumulative effects during construction will also be reviewed as appropriate, including waste disposal, water quality, neighborhood character, and traffic.

Although the construction of the Proposed Action would be of a far smaller scale than the major recovery projects, its potential impacts are considered in relation to the potential cumulative impacts of those larger projects; in particular, the closest ones—the South Ferry Subway Terminal and the Fulton Street Transit Center.

The analysis presents both the individual construction period environmental impacts of the Proposed Action and the environmental conditions resulting from the combined impacts of the Proposed Action and the major Lower Manhattan projects.

C. PROBABLE IMPACTS OF THE PROPOSED ACTION

LAND USE, ZONING, AND PUBLIC POLICY

LAND USE

Project Site

The changes associated with the Proposed Action would greatly improve land use on the project site. The proposed improvements to the existing esplanade and bikeway on the project site would create new opportunities for recreational use in addition to making the area more attractive visually. New recreational space created on piers and cultural and retail space created in pavilions under the FDR Drive would draw visitors to the area and add activity to this section of the Lower Manhattan waterfront that is currently underutilized despite its dramatic views and recreational potential. Therefore, the Proposed Action would result in no significant adverse impacts on land use on the project site.

Primary Study Area

The Proposed Action would be consistent with land uses and trends in the adjacent areas and would complement existing and planned open space and recreational uses. The Proposed Action would result in the creation of a continuous esplanade and bikeway between Battery Park and East River Park. The recreational opportunities provided by Proposed Action would support the residential and office uses in the primary study area. Additionally, the Proposed Action would complement other planned open space and recreational projects including the proposed Basketball City facility on Pier 36 and the East River Waterfront Access projects, which would help to link the adjacent neighborhoods to a functionally and aesthetically improved waterfront. The Proposed Action would also maintain the current access to the heliport on Pier 6, and would be compatible with this land use. The restored BMB would be enhanced by the improved esplanade and the new BMB Plaza. Therefore, the Proposed Action would not result in any significant adverse impacts on land use in the primary study area.

Secondary Study Area

The dense population of office workers and the increasing residential population in the Financial District would benefit from the new and improved passive and active recreational opportunities

that the Proposed Action would provide. The Proposed Action would also provide needed recreational space for the residential neighborhoods of Chinatown and the Lower East Side, which include dense, tenement-style housing. The Proposed Action would create an open space that would function as part of a broader Harbor District, which will include new waterfront parks in Brooklyn and on Governors Island. Overall, the Proposed Action would result in no significant adverse impacts on land use in the secondary study area.

ZONING AND CITY MAP

Project Site

The Proposed Action would not result in any changes to zoning districts on the project site. The construction of a new building on the site of the New Market Building would require a special permit to modify the height and bulk provisions of the waterfront zoning regulations that govern the site. A special permit may also be required for use and bulk changes on the reconstructed Pier 15. Because the project site is located on waterfront blocks, a waterfront zoning certification pursuant to ZR 62-711 is required. In order to create the proposed pedestrian plaza in front of the BMB, the Proposed Action would require a change to the City Map.

Primary Study Area

The Proposed Action would introduce land uses compatible with the primary study area's zoning districts, which permit a mix of commercial, residential, and light industrial uses. Therefore, the Proposed Action would not result in any significant adverse impacts on zoning in the primary study area.

Secondary Study Area

The Proposed Action would not result in changes to zoning in the secondary study area.

PUBLIC POLICY

The Proposed Action would be consistent with the public policies that apply to the project site and the surrounding areas and would help to achieve longstanding policy goals relating to waterfront access and open space. The Proposed Action would improve access to an underutilized waterfront and create new recreational, cultural, and retail spaces that would draw activity to the waterfront area. The Proposed Action would therefore be consistent with waterfront policies as outlined in the New York City *Comprehensive Waterfront Plan*, the *Plan for the Manhattan Waterfront*, the *Manhattan Waterfront Greenway Plan*, and the *City Vision for a 21st Century Lower Manhattan*. The Proposed Action is also consistent with the City's policies focused on improving public access to the waterfront and with the Brooklyn Bridge Southeast Urban Renewal Plan, which governs the East River waterfront area from Whitehall Ferry Terminal to the Manhattan Bridge.

With its improvements to the existing esplanade and new recreational, cultural, and retail uses, the Proposed Action would contribute to the revitalization of Lower Manhattan and would provide amenities needed to sustain a growing mixed-use neighborhood. The Proposed Action would also help to fulfill the City's long-range vision of a revitalized Harbor District.

Overall, the Proposed Action represents an important step in achieving the public policy goals relating to the revitalization of Lower Manhattan and the reclamation of the City's waterfront for

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public use. Therefore, the Proposed Action would result in no significant adverse impacts with respect to public policy.

SOCIOECONOMIC CONDITIONS

DIRECT RESIDENTIAL DISPLACEMENT

The area of the Proposed Action currently contains no residential units. Therefore, no further analysis of this issue is necessary.

DIRECT BUSINESS AND INSTITUTIONAL DISPLACEMENT

Portions of the project site are currently occupied by Propark America, LLC, a private business with several scattered parking lots located under the FDR Drive that have a total capacity of 617 parking spaces. These spaces are divided among four attended parking lots with one attendant at each location. At all of these locations, parking uses would be displaced by the Proposed Action.

Given the availability of alternative parking garage facilities in close proximity to the project site as well as south of Canal Street, the parking facilities that would be displaced do not have a substantial economic value to the City or regional area. The parking businesses that would be directly displaced are not subject to regulations or publicly adopted plans to preserve, enhance, or protect them. The existing parking facilities do not contribute to the character of the neighborhood, nor do they define or substantially contribute to defining the neighborhood. No significant impact would result from the loss of the existing parking businesses.

INDIRECT RESIDENTIAL AND BUSINESS DISPLACEMENT

The Proposed Action does not include a residential component that would introduce more than 200 residential units, nor does it include more than 200,000 square feet of commercial development. Therefore, no significant adverse impacts would result from indirect residential or business displacement.

ADVERSE EFFECTS ON SPECIFIC INDUSTRIES

An adverse impact may occur when an action significantly affects business conditions in any industry or category of businesses within or outside the study area, or it indirectly substantially reduces employment or impairs the economic viability in the industry or category of business. The Proposed Action would have neither of these effects. The displaced parking business is not critical to any industry or category of business.

OPEN SPACE

The Proposed Action would improve existing open space and create new public open space along a two-mile stretch of the East River and would thus help alleviate the shortage of open space experienced by the dense residential and worker populations of Lower Manhattan. Lower Manhattan has a very limited amount of available land on which to create new open space, and the Proposed Action would enhance the utility and enjoyment of existing publicly accessible waterfront open space as well as create new open space on piers. Furthermore, the Proposed Action represents an important step in increasing public access to the waterfront and providing the recreational and open space amenities needed to support Lower Manhattan as a diverse, mixed-use neighborhood.

The Proposed Action would also create retail and cultural space in up to 14 pavilions and in a rebuilt New Market Building. However, it would not introduce any new residents to the project site, nor would the programmed pavilions and uses in the New Market Building introduce more than 500 workers. Furthermore, the Proposed Action would improve existing open space and increase the amount of open space in the area and as such does not pose a potential for adverse impacts on open space and recreational resources.

HISTORIC RESOURCES

Because the designs for some project components are not yet complete and because the actual presence of archaeological resources cannot be confirmed without field testing, LMDC, SHPO, and the City have concluded that it is appropriate to enter into a Programmatic Agreement (PA) pursuant to Section 106 of the National Historic Preservation Act. Any adverse effects on historic resources that are identified as the design process moves forward would be minimized or avoided to the maximum extent possible as set forth in a PA that is being developed between LMDC and SHPO. The City is a consulting party in the Section 106 process.

Pre-inundation surfaces that may have been exploited in the pre-contact era are at depths greater than 6.6 feet below current street levels, which is deeper than the potential subsurface disturbance for the Proposed Action, except in the new ramp area north of the BMB to Vietnam Veterans Plaza. Given that the potential for survival of pre-contact resources in this small location is very low, and the time, expense, and danger involved in recovery are great, further investigation of potential pre-contact resources is not considered practical or reasonable. Based on the preliminary assessment disturbance report prepared by Historical Perspectives, Inc., there are a number of areas within the archaeological area of potential effect for which additional research will need to be conducted in order to fully understand documented disturbance and the potential for historic-period archaeological sensitivity to still exist. Further clarification of deeply buried potential pre-contact resources is ongoing. Thus, there is the potential that the project could have adverse effects on historic-period archaeological resources. To avoid this potential, Phase 1A(s) will be prepared, and based on the conclusions of the Phase 1A(s), and in consultation with SHPO and LPC, a suitable treatment plan would be devised for any areas of potential sensitivity. The preparation of any research not completed as part of the EIS, as well as the preparation of the treatment plan, would be part of the PA that is being developed between LMDC and SHPO.

The original granite East River bulkhead between Broad Street and Coenties Slip would be visible from the new, independent structure to be created to carry the archipelago esplanade; however, the bulkhead structure itself would not be altered. In addition, the original granite bulkhead would be visible at other locations within the project area. The minor, new attachments to the bulkhead that could be required at Pier 15, the New Market Building pier, and Pier 42 would be constructed in a sensitive manner in order to remove as little of remaining, original granite bulkhead material that still exists. The proposed final PA includes the review of any project design elements that could affect the East River bulkhead.

The project elements that would be located within the boundaries of the South Street Seaport Historic District and Extension are another subject of the PA. Any adverse effects that are identified as the design process moves forward would be minimized or avoided to the maximum extent possible as set forth in the PA. The proposed final PA also provides for consultation between LMDC and SHPO regarding the design of the proposed plaza in front of the BMB. If agreement on the design of the New Market Building site's redevelopment cannot be reached

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during consultation, it is possible that this redevelopment could have a significant adverse effect on historic resources (the redevelopment of the New Market Building site is not being funded by LMDC as part of the Proposed Action). As the design of the Proposed Action progresses, EDC, in conjunction with the City, will submit any project design elements that directly involve New York City Landmark (NYCL) and NYCL-eligible properties to LPC for their review and comment.

In general, the Proposed Action would be expected to enhance the context of surrounding historic resources by improving and enhancing public open spaces with new amenities such as benches, planters, lighting, and brackets for attaching historic placards and viewfinders for sights of interest. The pavilions to be constructed beneath the FDR Drive would not compete visually with the structures in the surrounding area, because of their low scale and location beneath the viaduct structure, and would be sited so as not to obscure views to historic resources. Since some of the areas under the FDR Drive are currently used for parking, new, well-designed buildings would provide a more attractive context for surrounding historic resources than the existing uses. The removal of pier shed structures on Pier 42 to create a beach would be expected to enhance the visual context of the former Gouverneur Hospital and Gouverneur Hospital Dispensary buildings. The narrowing of South Street between Old Slip and Montgomery Street would not have any significant impacts or adverse effects on architectural resources. The Proposed Action would not require any construction within 90 feet of the anchorages for the Brooklyn and Manhattan Bridges.

URBAN DESIGN AND VISUAL RESOURCES

URBAN DESIGN

The 14 pavilions and space for temporary outdoor activities below the FDR Drive in the area between Pine and Clinton Streets would be positioned to avoid blocking existing views from streets perpendicular to the project site. Most pavilions would be faced in glass to promote transparency. However, in and immediately adjacent to the South Street Seaport Historic District, the Program Zone elements would be developed in consultation with LPC and SHPO to be appropriate within the context of the historic district. Further, the removal of automobile parking areas beneath the FDR Drive and along South Street and their replacement with pavilions would establish a streetscape that would complement the streetscape of the adjacent study area.

The underside of the FDR Drive may be clad in a material to reduce noise from the overhead roadway. The cladding would change the urban design and visual character of this elevated transportation structure, but this change would not be adverse.

The expansion of the existing narrow walkway/bikeway areas, improvements to existing esplanades, and the creation of new similar features would enhance the project site's urban design. The project site would also have plantings and seating areas, and would include features such as benches, railings, and planters. The railing would have enhanced lighting, fishing rod holders, and brackets for attachment information placards about the area and viewfinders for sights of interest.

The relocation of the mouth of the BPU would allow for the creation of the BMB pedestrian plaza. These changes would improve the urban design of this area of the project site by replacing a narrow walkway/bikeway and roadway with a landscaped, publicly accessible plaza and a new walkway/bikeway. The BMB Plaza would enhance the streetscape in the areas closest to it by

removing traffic from this area and improving accessibility to the streetscape features, the new Whitehall Ferry Terminal, and the historic BMB.

The project site's existing esplanade between Pier 11 and the Brooklyn Bridge would be landscaped with larger plants and trees in planter boxes among the seating areas. The area of the project site within the boundaries of the South Street Seaport Historic District would be developed to be appropriate to the context of the historic district. As part of the Proposed Action, Pier 15 would be rebuilt and could have two levels with enclosed uses. The new pier would allow vessels to dock along both sides. The structure would be developed in consultation with LPC and SHPO to be appropriate to the context of the historic district. Bus parking would be eliminated from this section of the project site. The proposed changes to the project site would improve the urban design of the project site by making it more easily accessible.

The new two-story New Market Building would be located at approximately the same location as the existing structure and would be faced in highly transparent materials. It would improve the urban design of this section of the project site by creating an attractive and accessible community resource. The existing parking area on the pier structure between Pier 17 and the New Market Building would be removed, and this area would be improved with a publicly accessible landscaped pier. The existing esplanade on the project site between the New Market Building and Pier 35 would be improved with new pavement, benches, and lighting.

Pier 35 could be developed with a landscaped two-tiered structure. The north end of Pier 36 would be developed with public open space, and a cove for small boats would be created at the south end of Pier 42. Pier 42 would be developed with a new urban beach with berms similar to dunes. These changes to Piers 35, 36, and 42 would greatly alter the urban design of the existing piers, as they would be transformed from publicly inaccessible surface parking and pier sheds into publicly accessible waterfront amenities.

The street pattern along some sections of South Street would be modified with the Proposed Action; however, these changes would improve accessibility to the project site and study area. The widening and more consistent location of the walkway/bikeway and the extensions and enhancements of the esplanades would improve the urban design of the project site. The public amenities proposed for the project site piers would improve accessibility to the waterfront and would provide additional open space and recreation areas in an area of Manhattan where such features are limited.

VISUAL RESOURCES

The new buildings proposed for the project site would include the approximately 14 pavilion structures that would be built beneath the FDR Drive and located within the areas adjacent to the existing blocks in the study area west of the project site. By locating these structures in these areas and by using highly transparent building materials, these pavilions would maintain most views to and from the project site. In the South Street Seaport Historic District, these structures would be designed in consultation with LPC and SHPO to blend with or complement the historic district. View corridors along adjacent streets in the study area would remain unobstructed.

The area below the FDR Drive could be used for temporary functions that would change the visual context of this area depending on the use, such as small performance spaces and farmers' markets. The proposed pavilions and temporary uses would enliven the project site by attracting more visitors and activities to the project site.

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The approximately ¾-acre BMB Plaza would have design elements appropriate to the context of the historic BMB and would visually connect Peter Minuit Plaza on the south to the project site north of the BMB. The relocated mouth of the BPU would not significantly alter the visual character of this section of the project site.

The proposed reconstruction of Pier 15 would create a new visual amenity that would improve views to and from the project site. The pier design and any landscaping would visually relate to the nearby historic district but would also become a visual resource itself.

The reconstructed New Market Building would allow the creation of a view corridor to the water in the area between it and Pier 17 to its south. The parking area on the pier between the New Market Building and Pier 17 would be removed, and this area would be redeveloped with a publicly accessible esplanade with some landscaping features.

The proposed two-tier structure at Pier 35 would be landscaped with open space that would greatly improve the appearance of this currently unused pier structure. The proposed landscaping could be developed to obstruct views of the existing building on adjacent Pier 36. A sloping path could rise to an elevated platform at the southeastern end of the pier. Public open space would be created at the northern end of Pier 36. At the south end of Pier 42 a cove would be created that would attract small boats to the area, changing the visual appearance of this current service area into a publicly accessible recreation destination. The proposed changes to Pier 42 would transform this derelict-looking pier and pier shed into a publicly accessible urban beach with berms reminiscent of dunes that would separate the continuing esplanade and the beach area. These changes would be an improvement over current conditions. Views of Piers 35, 36, and 42 would change as these largely unattractive piers would become visual resources in the study area as they would be activated by the Proposed Action.

The Proposed Action would improve views of the project site from the Brooklyn Bridge by replacing views that include the parked automobiles currently located beneath the FDR Drive with views of the proposed pavilion structures, improvements to the esplanades, the New Market Building north of Pier 17, and the improvements to Pier 15. Similarly, the view of the project site from the Manhattan Bridge would be improved with views of the proposed pavilion structures that would be located below the FDR Drive. Views north toward the project site would be improved by the proposed changes to Pier 35 as the enhanced pier structure would obstruct some views to the surface parking and structures on Pier 36 to its north. Views to Piers 35, 36, and 42 may also include several boats that would be moored at these piers.

NEIGHBORHOOD CHARACTER

The Proposed Action would substantially improve the neighborhood character of the project site and the surrounding neighborhoods. The Proposed Action would improve the design and functioning of the existing waterfront esplanade and would create new open spaces in areas that have long been inaccessible to the public. These open spaces would serve as recreational amenities for the residential and worker populations of Lower Manhattan. By removing vehicle parking below the FDR Drive, the Proposed Action would also improve connectivity/access between the surrounding neighborhoods and the East River waterfront. The New Market Building would be reconstructed to house retail and cultural space, and new retail and community space would be created in pavilions below the FDR Drive. These new land uses would attract visitors from the adjacent neighborhoods to the waterfront area, thus enlivening the waterfront and helping to connect it with the surrounding communities. No significant adverse impacts on neighborhood character would result from the Proposed Action.

However, the removal of up to 45 commuter and tour bus parking spaces beneath the FDR Drive adjacent to Piers 13 and 14 and up to 20 spaces near the Manhattan Bridge could potentially have an adverse effect on the neighborhood if bus operators were to seek parking in the adjacent Lower Manhattan neighborhoods. Bus operators would be expected to seek alternative parking locations for layover periods both within and outside Lower Manhattan. This EIS recognizes that increased bus circulation as well as legal and illegal bus parking elsewhere in Lower Manhattan could result in limited adverse effects on neighborhood character. However, the wide distribution of buses over areas adjacent to the two-mile esplanade and outside Lower Manhattan would minimize the adverse effects of bus displacement. The City's enforcement of existing parking regulations would further disperse buses and minimize adverse effects.

NYCDOT is conducting a study for Bus Management in Lower Manhattan from Canal Street to the Battery as part of a larger study for Lower Manhattan Street Management. If an alternative bus parking location is not identified, operators would need to seek alternative parking, which could increase bus circulation as well as legal and illegal bus parking elsewhere in Lower Manhattan and other areas of the City. Absent an off-street location for these buses, management strategies may be adopted to require that operators park buses outside of Lower Manhattan in other areas of the city that are deemed appropriate by NYCDOT. The removal of the existing parking spaces could potentially have an adverse effect on neighborhoods near the project site. However, even if some of the buses that now park on the project site beneath the FDR Drive and near the Manhattan Bridge continue to circulate or idle within the adjacent neighborhoods, this would not constitute a significant adverse impact on neighborhood character. Traffic conditions are one of several components of neighborhood character, and the potential for an increased presence of buses in the adjacent neighborhoods at some periods would not significantly impact overall neighborhood character. Overall, no significant adverse impacts on neighborhood character would result from the Proposed Action.

NATURAL RESOURCES AND FLOODPLAIN

The Proposed Action is not expected to result in any significant adverse impacts on water quality or natural resources. During grading and excavation activities associated with the construction of the Proposed Action, any hazardous materials encountered would be handled in accordance with federal, state, and local requirements to minimize potential impacts on groundwater. Furthermore, because groundwater is not used as a potable water supply in Manhattan, the Proposed Action would not have the potential to affect drinking water supplies.

Although the entire project site is within the 100-year floodplain, the construction of the archipelago and the expanded esplanade on piles between the BMB and Pier 11, and the other elements of the Proposed Action, would not be expected to affect the floodplain's ability to contain flood waters and would not exacerbate flooding conditions within or adjacent to the project site. Additionally, the Proposed Action will comply with applicable New York City Building Codes and FEMA requirements regarding non-residential structures within the 100-year floodplain to reduce exposure to flood hazards.

In-water construction activities may result in a small loss of DEC littoral zone tidal wetlands within the footprint of the individual piles and in the vicinity where dredging will occur. However, this small loss would not be expected to result in significant adverse impacts on DEC littoral zone tidal wetlands resources within the project area or the East River. In addition, the bottom material to be dredged will be required to undergo testing for contaminants in accordance with DEC specification in order for DEC and USACE to authorize dredging within

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the site. The wider pile spacing (25 feet) for the reconstructed Pier 15 and the reconstructed New Market Building Pier, and wide spacing for the archipelago and esplanade expansion between the BMB and Pier 11, would be designed to minimize the potential for sediment deposition and the potential for adverse impacts on littoral zone wetlands.

Implementation of erosion and sediment control measures and stormwater management measures during construction of the Proposed Action would minimize potential impacts on water quality and aquatic biota of the East River associated with stormwater runoff during land disturbing activities that would occur in upland areas and on the piers. Any hazardous materials encountered during these construction activities would be handled and removed in accordance with local, state, and federal requirements to minimize potential adverse impacts to water quality. Any groundwater recovered through dewatering activities would be treated, as necessary, prior to discharge to the combined sewer system and would not be expected to result in adverse impacts on surface water quality.

In-water construction activities that would result in sediment disturbance include pile driving and dredging to facilitate the relocation of the *Wavertree*, and the temporary mooring of attraction vessels on the south side of Pier 15. No in-water activities would be conducted during the period established by regulatory agencies to protect certain species of overwintering fish within the East River. Any increase in suspended sediment would move away from the area of in-water construction and would be expected to dissipate shortly after the completion of these activities, and would not be expected to result in significant long-term adverse impacts to water quality or aquatic biota. Similarly, any contaminants released to the water column as a result of sediment disturbance would be expected to dissipate rapidly and would not be expected to result in significant long-term impacts on water quality or aquatic biota.

The operation of the proposed archipelago, esplanade, pavilions, and refurbished piers would not be expected to result in increased stormwater runoff and may result in a reduction of stormwater flow to the river with the introduction of pervious surfaces on Piers 35 and 42, and the BMB Plaza. The operation of the pavilions would result in minimal increase in discharges to the municipal combined sewer system, and therefore, would not be expected to result in adverse impacts on water quality.

The operation of the marina would not be expected to result in any significant adverse impacts on water quality, fish, or macroinvertebrates within the project area. Water depths within the proposed marina area are sufficient to minimize the potential for increased suspended sediment from boat activity. Although marina activities present a small increase in the potential for accidental petroleum or sewage spills to the river, as there would be no fueling facilities at the marina, the likelihood of a large-scale accidental discharge is small. Likewise, the breakwaters associated with the marina would not be expected to result in significant adverse impacts to tidal wetlands. In addition, the design of the marina and small craft launch area will allow sufficient flushing (exchange of an amount of water within a region of interest) to occur to minimize potential water quality impacts. Therefore, the operation of the marina and small craft launch area would not be expected to result in significant adverse impacts on water quality or aquatic biota.

The relocation of the combined sewer overflow (CSO) outfall to the east of its current location as part of the extension of the BPU by 350 feet to the northeast would not result in additional CSOs to the East River and would not be expected to result in significant adverse impacts on water quality. The relocation of this CSO closer to Pier 6 has the potential to improve water

quality as a result of greater flushing expected to occur near Pier 6, compared with the current location adjacent to a wall that extends down to the mud line.

Pile driving would not be expected to result in significant adverse impacts on aquatic biota. The permanent loss of benthic habitat and some macroinvertebrates within the pile footprints, as well as the loss of macroinvertebrates within the area to be dredged, would not significantly impact the food supply for fish foraging in the area. Additionally, the new piles will provide additional attachment sites for algae and sessile invertebrates, and some piles may provide suitable refuge to fish.

The Proposed Action is being designed with no net increase in the amount of overwater coverage that is not associated with water-dependent activities such as the marina or small boat basin (i.e., the approximately 34,400 square feet (0.79 acres) of overwater coverage due to the archipelago and expansion of the esplanade), to minimize potential adverse impacts on existing marine resources due to shading. In order to achieve this, the proposed cove between Piers 36 and 42 would be developed through the removal of approximately 20,000 square feet (0.46 acres) of the southern portion of Pier 42. The remaining area of overwater coverage to be removed to complete the offset for the overwater coverage added for the archipelago and expansion of the esplanade (approximately 14,400 square feet [0.33 acres]) will also be located within the project area. Therefore, the Proposed Action would not be expected to result in significant adverse impacts on aquatic habitat due to shading. Furthermore, many of the overwater structures associated with the water-dependent recreational activities that would be added as a result of the Proposed Action (i.e., marina finger piers, docks, gangways, floating wave attenuator, and breakwater; and small craft launch area wave attenuator/breakwater) are narrow (less than 15 feet wide) and would permit some light to reach the water under them. Therefore, these narrow water-dependent structures would not be expected to result in significant adverse impacts on aquatic habitat due to shading.

Neither Essential Fish Habitat nor the endangered shortnose sturgeon would be adversely affected by the Proposed Action. Four federally and State protected species of marine turtles would not be expected to occur within the project area except as occasional transient individuals. Because they neither nest nor reside in the area year-round, and are only rarely observed in this portion of the estuary, these turtles would not be expected to be impacted by the construction or operation of the Proposed Action. The Proposed Action would not affect the availability of the state-endangered peregrine falcon nesting locations that are at least 500 feet from the project site.

No significant adverse impacts on terrestrial resources are anticipated as a result of construction of the Proposed Action. Existing wildlife habitats within the project site and vicinity are limited to the wading bird and waterfowl foraging habitat found within the beach area under the Brooklyn Bridge, and the low-quality terrestrial habitat found under the FDR Drive and the existing portions of the esplanade. Adverse impacts would occur on some individual birds and other wildlife currently using this limited wildlife habitat if construction activities cause them to leave the project area and there are no suitable habitats that are available nearby. However, the wildlife species found within the project area are common to urban areas, and the loss of some individuals would not result in a significant adverse impact on the bird and wildlife community of the New York City region. Landscaping plants proposed as part of the Proposed Action will provide structural habitat as well as increased forage that will benefit wildlife.

HAZARDOUS MATERIALS

Although hazardous materials are potentially present both in the subsurface (related primarily to localized current or former gas stations, releases, dump sites, and historic fill either on the site or on neighboring properties to the west) and inside buildings or on bridges/overpasses (primarily related to asbestos and lead-based paint), with the implementation of a variety of measures prior to and during construction (including both testing and health and safety procedures), no significant adverse impacts related to hazardous materials would be expected to occur as a result of construction of the Proposed Action. Although some hazardous materials would likely still remain in the subsurface, the project would have reduced the long-term risks associated with contaminated materials by removing some prior contaminated materials and isolating any remainder. Following construction of the Proposed Action, there would be no additional potential for exposure.

WATERFRONT REVITALIZATION PROGRAM

The City has developed plans for the East River Esplanade and Piers to be consistent with and support all the applicable federal, state, and local coastal zone policies. The Proposed Action reflects a commitment to consistency with Waterfront Revitalization Program (WRP) coastal policies and the WRP's goals of enlivening the waterfront and attracting the public to the City's coastal areas. The Proposed Action is an appropriate coastal zone development because it would attract the public to the project area and create livelier pedestrian corridors along the East River waterfront. The Proposed Action would enliven and improve the East River waterfront by connecting Whitehall Ferry Terminal and Peter Minuit Plaza to the East River Park with a continuous walkway/bikeway and esplanade as well as adding retail and cultural uses that would attract visitors to the area. The Proposed Action would be consistent with WRP policies.

INFRASTRUCTURE, SOLID WASTE, AND ENERGY

The Proposed Action is not expected to result in any significant adverse impacts on infrastructure. The water demand expected to result by 2009 from the Proposed Action is 70,550 gallons of water per day (gpd). Thus, the Proposed Action would constitute an increase of 70,550 gpd over the existing and future without the project conditions. As compared with the expected demand of 1.2 billion gpd Citywide, and 420 million gpd in Manhattan, this increase would not significantly impact the water supply system. The sanitary sewage generation expected to result from the Proposed Action is 38,250 gpd. This incremental increase would not overburden the sewage treatment capacity at Newtown Creek Water Pollution Control Plant. Because the construction of the BMB Plaza would require moving the entrance to the BPU approximately 350 feet to the northeast, the CSO outfall at Broad Street would be relocated during the construction of the plaza. Relocation of this outfall would be coordinated with DEP and DEC. Overall, the Proposed Action is not expected to have a significant adverse impact on the New York City combined sewer system or on the water quality of the East River.

In addition, no significant impacts on solid waste handling and disposal services would occur, and the Proposed Action would be compatible with the City's new Solid Waste Management Plan. Moreover, the Proposed Action would result in an incremental increase in energy demand, which would be met by the electricity, natural gas, and/or steam supply systems expected to be in place in 2009.

Therefore, there would be no potential for significant adverse impacts on infrastructure, solid waste, and energy systems.

TRAFFIC AND TRANSPORTATION

The Proposed Action would generate new trips in the vicinity of the project site, which would increase demand for transportation service. Based on travel demand estimates, the Proposed Action is not expected to exceed analysis thresholds for transit (subways and buses) services, but it would exceed thresholds for vehicular traffic and pedestrians. Furthermore, the Proposed Action would result in the direct displacement of public parking facilities as well as parking for commuter and tour buses; therefore, a parking analysis was prepared.

The Proposed Action would result in significant adverse traffic impacts, which can be fully mitigated, at eight intersections within the study area. These impacts are mostly attributed to proposed geometric changes along South Street as well as the reconfiguration of access to the BPU. While these impacts can be fully mitigated as part of this project, the reconstruction of the Brooklyn Bridge ramps from the FDR Drive, an independent City project, which is expected to be completed in 2013 or 2014, would also substantially improve operations on South Street by diverting Brooklyn-bound vehicles from local streets.

The Proposed Action would result in the removal of commuter and tour bus parking in some locations; authorized City vehicle parking; and public parking along South Street. While the removal of commuter and tour bus parking would require that operators find alternative locations to lay over, passengers would not be impacted, since they do not board or alight buses at this location, and the removal of authorized City vehicle parking would not be significant since this parking area does not serve emergency vehicles. The removal of four public parking lots beneath the FDR Drive would result in a shortfall of parking. However, unmet demand for parking would either (1) use facilities outside the study area with excess capacity, or (2) shift their mode of travel in the future, and this impact would not be considered significant.

The Proposed Action would remove up to 45 commuter and tour bus parking spaces beneath the FDR Drive adjacent to Piers 13 and 14. It would also remove approximately 20 spaces along South Street near the Manhattan Bridge. Bus operators would be expected to seek alternative parking locations for layover periods both within and outside Lower Manhattan. This EIS recognizes that increased bus circulation as well as legal and illegal bus parking elsewhere in Lower Manhattan could result in limited adverse effects on neighborhood character. However, the wide distribution of buses over areas adjacent to the two-mile esplanade and outside Lower Manhattan would minimize the adverse effects of bus displacement. The City's enforcement of existing parking regulations would further disperse buses and minimize adverse effects.

The Proposed Action would generate new pedestrian trips in the study area, but there would not be severe congestion problems resulting in significant adverse impacts on existing crosswalks that serve the project site. Furthermore, the Proposed Action would improve pedestrian circulation by providing for an enhanced north-south esplanade along the East River and by creating a new pedestrian plaza in front of the BMB.

AIR QUALITY

MOBILE SOURCES

The highest 8-hour average carbon monoxide (CO) concentration adjacent to the Water Street and Broad Street intersection in 2009 was predicted to be 3.6 parts per million (ppm) in the No Build condition, and was predicted to increase to a maximum of 3.9 ppm in the Build condition due to the traffic diversion related to the Proposed Action. The total concentration of 3.9 ppm

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would be lower than the relevant National Ambient Air Quality Standards (NAAQS) level of 9 ppm, and the maximum increment of 0.5 ppm would be lower than the *de minimis* level of 3.0 ppm. Since this location and time period exhibited the highest predicted traffic volume increments under the worst predicted level of service of any of the peak time periods and intersections, impacts at other locations or during other peak periods are expected to be even lower. The open spaces that would be created or enhanced as part of the Proposed Action would not experience significant adverse impacts with respect to air quality because traffic volumes would not be high enough to cause impacts with respect to mobile sources. Therefore, the Proposed Action would not have any significant adverse impacts on air quality from the proposed changes in traffic patterns.

HEATING SYSTEMS

The only building included in the Proposed Action where the emissions from heating systems were screened for potential air quality impacts was the New Market Building.

The New Market Building was evaluated and any nearby projected residential development of similar or greater height was analyzed as a potential receptor. The maximum development floor area of the building, 40,000 square feet, was used as input for the screening analysis. It was assumed that steam, electric, natural gas, or No. 2 fuel oil would be used in the heating system, and that the stack would be located 3 feet above roof height (as per the *CEQR Technical Manual*) at a maximum height of 53 feet.

Based on the initial screening, there would be no significant adverse air quality impacts for the heating system at buildings located at a distance of 65 feet or more from the stack. Since there would be no residential or other sensitive buildings at such a close proximity to the New Market Building, the heating system would not be predicted to cause any significant adverse air quality impacts.

BATTERY PARK UNDERPASS

When funding is available, the BPU portal at BMB Plaza would be moved approximately 350 feet to the northeast by extending the tunnel and moving the ramp. This would extend the overall length of the tunnel, and increase the associated overall quantity of pollutants emitted from the tunnel ventilation systems, by approximately 15 percent. This change would not be expected to have a significant adverse impact on air quality, since the tunnel ventilation would be expanded proportionately, and therefore, although the overall quantity of pollution traveling through the ventilation system would increase, the dilution of pollutants would increase as well, and the ensuing concentrations would remain the same.

Overall, the Proposed Action is not expected to have a significant adverse impact on air quality.

NOISE

The noise analysis for the Proposed Action consisted of a field measurement program to determine existing noise levels, and a screening analysis to determine whether there are any locations where changes in traffic due to the Proposed Action would have the potential for resulting in significant adverse noise impacts. As the Proposed Action would not have the potential for significantly increasing noise levels, consequently, no detailed analysis was needed.

However, noise levels within some of the new open space areas created as part of the Proposed Action would be above the 55 A-weighted decibel (dBA) L₁₀ noise level for outdoor areas

requiring serenity and quiet contained in the *CEQR Technical Manual* noise exposure guidelines. Noise levels within some of the new open space areas would also exceed the HUD goal of a maximum L_{dn} noise level of 55 dBA for exterior noise levels with the intention of achieving 45 L_{dn} within residences (HUD does not have noise standards pertaining specifically to outdoor public open space). Based on HUD noise standards, the noise levels at these new open space areas would result in potentially significant adverse noise impacts on their users. Because of safety and aesthetic considerations, there are no practical and feasible mitigation measures that could be implemented to reduce noise levels to below the 55 dBA $L_{10(1)}$ guideline within the open space areas. Although noise levels in some of these new areas would be above the 55 dBA $L_{10(1)}$ guideline noise level, they would be comparable to noise levels in a number of open space areas that are also located adjacent to heavily trafficked roadways, including the Hudson River Park, the East River Drive Park, Central Park, Riverside Park, and other urban open space areas.

CONSTRUCTION

As with most development in New York City, construction of the Proposed Action may be disruptive to the surrounding area for limited periods of time throughout the construction period. Based on the conceptual approach for the construction analysis, it is not expected that construction of the Proposed Action would result in any significant adverse impacts other than the potential temporary traffic and air quality impacts described below.

TRAFFIC AND TRANSPORTATION

Construction worker travel would be primarily by public transportation, with a smaller percentage by private auto. Therefore, vehicle trips associated with construction workers would not be likely to have any significant adverse impacts on surrounding streets.

While the esplanade and piers could be constructed from barges, construction of the BMB Plaza would involve trucks to remove soil during excavation and to carry supplies to and from the site. Up to approximately 10 to 15 trucks per day are anticipated during various stages of construction. Wherever possible, the scheduling of deliveries and other construction activities would take place during off-peak travel hours. As a result of the anticipated future levels of traffic and scheduling measures to avoid peak periods, significant interruptions of traffic would not be expected during the construction period.

As much of the work as practical would be undertaken from the water side. To the extent that there would be any disruption in traffic flow from construction of the project, the changes would generally be minor, except in the case of the BMB Plaza. The possible closure of the BPU could result in temporary significant adverse impacts with respect to traffic circulation during the construction period. However, in order to avoid or mitigate such impacts to the extent practical, the City would coordinate construction with the Lower Manhattan Construction Command Center (LMCCC).

Street Lane and Sidewalk Closures

Lane and/or sidewalk closures associated with construction of the Proposed Action would be limited to South Street and the roadway from the BPU and the elevated FDR Drive. While it is expected that traffic would continue to flow in both directions during construction, a portion of the tunnel may have to be closed for part of the approximately 27-month construction period. During this period, some traffic may be diverted from the BPU.

AIR QUALITY

Temporary significant adverse impacts on air quality due to changes in traffic conditions cannot be ruled out during the construction of the BPU extension for the BMB Plaza, should closure or partial closure of the tunnel be necessary. Any potential adverse impacts from this closure would be minimized to the greatest extent practicable through coordination of construction activities with LMCCC. Overall, construction of all other segments of the Proposed Action is not expected to have a significant impact on air quality.

CUMULATIVE IMPACTS

The Proposed Action would be located in the area south of Canal Street and its construction would be within the jurisdiction of LMCCC. All construction documents would specify adherence to the EPCs utilized by LMDC for minimizing construction impacts on air quality and noise during construction.

As identified above the two closest major recovery projects are the Fulton Street Transit Center and the South Ferry Terminal. Though construction on the Fulton Street Transit Center may overlap with the Proposed Action, given its distance from South Street, there are unlikely to be any overlapping or cumulative impacts with the Proposed Action. Construction of a planned mixed-use development at the site of the NYU Downtown Hospital on Beekman Street just north and west of Gold Street will overlap with the construction of the Proposed Action. However, because this project is approximately six blocks away from the site of the Proposed Action, and because construction is expected to be well under way in advance of the Proposed Action, it will not likely result in cumulative construction impacts.

Movement of materials during the finishing stages of the South Ferry station's construction would take place underground via train and is therefore not likely to cause overlapping or cumulative impacts with the Proposed Action. Construction of the Proposed Action would also overlap with the planned East River Waterfront Access Projects, which will include improvements to Peck, Catherine, Rutgers, and Montgomery Slips and the upland portion of Pier 42. On the upland portion of Pier 42, an improved pedestrian and bike path would be created to connect the existing East River waterfront esplanade to East River Park. Construction of this East River connector may be coordinated with the construction of the Proposed Action's beach on Pier 42.

ENVIRONMENTAL JUSTICE

A project's adverse effects fall disproportionately on a community of concern for environmental justice if they are adverse and are predominantly borne by a minority and/or low-income community, or they are appreciably more severe or greater in magnitude than the adverse effects that will be suffered by the non-minority or non-low-income population. None of the East River Waterfront Esplanade and Piers Project's potential adverse impacts would fall disproportionately on minority or low-income communities in the study area. Overall, the Proposed Action would have a positive effect on the neighboring communities by creating and enhancing public open space and providing new waterfront access. In addition, the Proposed Action would be in compliance with all applicable NEPA and HUD regulations related to environmental justice protections. In summary, there are no environmental justice concerns expected with the Proposed Action.

MITIGATION

Where significant adverse impacts have been identified, measures are proposed to minimize or avoid them. Mitigation measures are proposed in the areas of traffic and transportation, and construction.

TRAFFIC AND TRANSPORTATION

The Proposed Action would result in significant adverse impacts at eight study area intersections. To alleviate these impacts, implementable mitigation measures were identified for all the project-generated impacts. With the recommended mitigation measures in place, all impacted intersection approaches/lane groups would operate at equal or better service conditions as compared with No Build levels, or at acceptable service conditions (45.0 or less seconds of delay). In addition, the implementation of these measures would not result in significant adverse impacts on other intersection approaches and lane groups.

South Street between Montgomery Street and Robert F. Wagner Sr. Place

The Proposed Action would result in the reconfiguration of South Street from two to one southbound lane, which would result in significant adverse impacts at its intersections with Pike Street, Market Slip, and Catherine Slip. To mitigate these impacts it is recommended that parking be prohibited, to allow for an additional southbound travel lane through this section of South Street. In addition, a signal timing adjustment would be required at the intersection of South and Pike Streets.

South Street and Fulton Street

The Proposed Action's PM peak hour impact at this location would be fully mitigated by transferring signal time from the pedestrian-only phase to the north-south traffic phase. This timing adjustment would not adversely affect pedestrian circulation, since a wide crossing area is provided and the remaining signal time would be adequate to safely cross South Street.

Water Street and Broad Street

The Proposed Action's traffic impacts in the AM and PM peak hour at Water and Broad Street would be fully mitigated by transferring 10 seconds of signal time from the north-south signal phase to the east-west signal phase. There would be adequate capacity for the north-south approach to accommodate a shorter signal phase without resulting in adverse impacts to its operation.

Water Street and Whitehall Street

The Proposed Action's impact at this location would be mitigated with a combination of lane striping and signal timing and phasing. The existing northbound approach is unmarked and operates as a wide, single traffic lane. However, this approach could accommodate two lanes within the existing alignment of the roadway, which has been recommended as mitigation for the proposed project. In addition, a new signal timing plan is suggested for the AM peak hour. Although not required as mitigation, the signal plan would also be used for PM peak hour operations.

Pearl Street and Broad Street

The Proposed Action's AM peak hour impact at this location would be fully mitigated by transferring 1 second of green time from the southbound phase to the east-west phase. Although this would reduce the green time for southbound traffic, this approach would operate at Level of

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Service (LOS) D during the AM peak hour. Mitigation is not required at this location during the PM peak hour.

State Street and Broad Street

The Proposed Action's AM peak hour impact at this location would be fully mitigated by transferring 7 seconds of green signal time from the east-west phase to the southbound phase. Although this would reduce the green time for eastbound and westbound traffic, these approaches would operate at LOS D or better during the AM peak hour. Mitigation is not required at this location during the PM peak period.

CONSTRUCTION

To the extent that there would be any disruption in traffic flow from construction activities, the changes would generally be minor, except in the case of the BMB Plaza. This could potentially require the closure of the BPU, which could result in temporary significant adverse impacts with respect to traffic circulation and air quality during the construction period. Construction would be coordinated with other construction work taking place in the area through the LMCCC. Working with LMCCC and the Environmental Protection Commitments of LMDC, any potential adverse impacts of construction for the Proposed Action would be minimized to the greatest extent possible.

ALTERNATIVES

As part of developing the Proposed Action, a number of alternatives have been considered and examined. They include alternatives for development of the esplanade, alternatives for the BMB Plaza, an alternative without the BMB Plaza and the Pier 42 beach, alternative in-water configurations south of Pier 15, and an alternative retaining half of the existing automobile parking under the FDR Drive.

NO ACTION ALTERNATIVE

Under the No Action Alternative, the project area would remain as it is in its current condition. LMDC would not provide funding, and the City would not take any of the necessary land use actions. The waterfront esplanade would not be improved or expanded, Pier 15 would not be rebuilt, pavilions would not be constructed under the FDR Drive, and the New Market Building would not be demolished and a new building would not be built in its location. The proposed disposition of the pavilions, a special permit for and disposition of the proposed rebuilt New Market Building, and mapping actions for the BMB Plaza and tunnel and for South Street would not be undertaken, and other state or federal actions required for the Proposed Action would not be sought. Under this alternative, however, the portion of South Street south of the Brooklyn Bridge would be reconstructed in its current configuration.

If the Proposed Action is not implemented, there would not be a substantial positive effect on land use on the project site. Allowing the waterfront area to remain in its current underutilized condition would not be consistent with applicable public policies, which focus on waterfront access and the continued revitalization of Lower Manhattan. Therefore, the No Action Alternative would conflict with public policy.

The No Action Alternative would not result in the displacement of the parking facility on the project site. Neither the No Action Alternative nor the Proposed Action would result in the indirect displacement of residents or businesses.

By comparison with the Proposed Action, the No Action would not result in the improvements to the East River esplanade, the New Market Building pier, and Piers 35, 36, and 42. With the expected increase in Lower Manhattan's residential population, the open space ratio would decline under this alternative.

This alternative would not involve changes to the bulkhead or to views of the bulkhead due to construction at the bulkhead line, creation of an archipelago between the BMB to Pier 6, and the widening of the esplanade beyond the bulkhead from Pier 6 to Old Slip, as would the Proposed Action. The context of surrounding historic resources would not be improved under this alternative. Under the No Action Alternative, there would be no improvements to urban design on the project site. Design enhancements to the esplanade would not be made, and vacant piers would not be transformed into publicly accessible open space. Views of the East River, the Harbor, and visual resources such as the Brooklyn and Manhattan Bridges would not be improved under the No Action Alternative.

The No Action Alternative would not result in improvements to neighborhood character. Unlike under the Proposed Action, there would be no corresponding increase in traffic and noise that could affect neighborhood character. Neither the No Action Alternative nor the Proposed Action would create a significant adverse impact on neighborhood character.

The No Action Alternative would not involve excavation, grading, or in-water construction. Like the Proposed Action, this alternative would not result in significant adverse impacts on natural resources.

Under this alternative, there would not be an increased potential for exposure to hazardous materials. However, because contaminated materials on the project site would not be removed or isolated under the No Action Alternative, there would be no reduction in the long-term risks associated with contaminated materials.

Unlike the Proposed Action, this alternative would not be consistent with all applicable WRP policies, particularly those encouraging public access to the water's edge.

While the Proposed Action would introduce new uses that would place some demands on infrastructure, solid waste, and energy systems, the No Action Alternative would not introduce a new user population into the area. Neither the Proposed Action nor the No Action Alternative would have significant adverse impacts on infrastructure, solid waste and sanitation services or energy

Under the No Action Alternative the existing traffic congestion on and near the project site would continue and certain intersections would continue to operate at LOS E or F. The significant adverse impacts associated with the Proposed Action would not occur. Under the No Action Alternative, vehicle parking would remain under the FDR Drive and there would be no displacement of bus parking. As under the Proposed Action, the study area would experience a parking shortfall. Unlike under the Proposed Action, there would be no changes to roadway configuration associated with the relocation of the entrance to the BPU and no resulting diversion of traffic at the southern end of the project site. As under the Proposed Action, sidewalks and crosswalks would function at acceptable levels.

Under the No Action Alternative noise levels on the project site would remain high, as they are under existing conditions, and users of the existing esplanade would be subjected to high noise levels. However, the potential significant adverse impact of high noise levels on users of the new open space would not occur under this alternative.

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The temporary disruptions that would result from construction associated with the Proposed Action, including the potential temporary significant adverse impacts on traffic and air quality that could result from the relocation of the entrance to the BPU, would not occur. Likewise, the economic benefits associated with construction related to the Proposed Action, resulting from expenditures on labor, materials, and services, would not occur.

ESPLANADE DEVELOPMENT ALTERNATIVES

Other esplanade developments that were considered as part of the planning process for this project included an alternative with residential buildings built over the elevated FDR Drive south of Brooklyn Bridge, and an alternative with the FDR Drive at grade south of the Brooklyn Bridge.

Residential Buildings over the FDR Drive

This alternative would allow for the development of new residential buildings west of the East River bulkhead and above the FDR Drive. The new buildings would be elevated on columns above the FDR Drive, potentially requiring the removal of two lanes of roadway. The buildings would be constructed through the middle of the roadway, requiring a reconfiguration of the roadway structure. The lobbies for the building would be located below the FDR Drive viaduct. Pavilions could still be constructed beneath the FDR Drive north of the Brooklyn Bridge.

Devised as a means of funding the open space improvements, this alternative was considered as a series of scenarios with more towers supporting more open space; for every square foot of residential use development, one square foot of park space would be developed. The parkland would be created on a new structure that would cantilever out from the bulkhead, creating more overwater coverage. The revenue stream from the residential development was also intended to create a source of funding for the construction and future operations of the enhanced esplanade and parkland. The new residential development within the FDR Drive alignment would be designed to respect higher-level views from existing buildings along South Street, and would respect the South Street Seaport Historic District and Extension by limiting the development area to south of the historic district's southern boundary at Maiden Lane.

Although this alternative was considered during the planning process, it was ultimately eliminated as unviable for several reasons, primarily the difficulty of construction above and around the FDR Drive, the potential adverse effects of creating additional overwater coverage, and the blocking of existing views. In addition, there is currently no identifiable funding strategy for this alternative.

Similar to the Proposed Action, the Alternative with Residential Buildings over the FDR Drive would have a substantial positive effect on land use by improving the design of and adding amenities to the esplanade and bikeway that runs through the project site. Development of the residential towers would require additional land use and zoning actions. However, this alternative would be consistent with public policies that focus on waterfront access and the continued revitalization of Lower Manhattan.

Similar to the Proposed Action, the Alternative with Residential Buildings over the FDR Drive would displace a parking facility on the project site. While it was intended to provide funding to increase the public open space, the complexities of construction may make this alternative infeasible or at least not as financially beneficial as intended.

By comparison with the Proposed Action, this alternative would increase the demand for community facilities related to residential use, specifically schools, which are already a considerable concern to the growing residential community in the Financial District. Unlike the Proposed Action, this alternative would introduce new public school students and would therefore have the potential to have a significant adverse impact on public schools.

This alternative is intended to produce more open space than would be provided with the Proposed Action by providing a revenue source to finance the creation of additional open space. At the same time it would increase the user population by creating residential units which the Proposed Action does not include. Because this alternative would provide an increased amount of open space in addition to introducing new residents, it would not be expected to result in a significant adverse impact on open space.

Unlike the Proposed Action this Alternative would create tall new structures which would cast new shadows on the waterfront from the midday into the afternoon. Since the waterfront is currently in shadow later in the afternoon from the tall buildings east of the FDR Drive, this increment would be most noticeable in the early afternoon before the existing shadows reach the waterfront. While the residential buildings could cast new shadows on open space created as part of the project, they would not be considered a significant adverse impact since the additional open space would not be possible without the construction of the residential buildings.

As the new parkland to be created in this alternative would be developed on a structure cantilevered out from the bulkhead, views of the bulkhead would be more extensively obscured than under the Proposed Action. This alternative also would require more extensive subsurface disturbance than the Proposed Action, to create the new residential development within the FDR Drive alignment, and therefore could affect to a greater extent areas of potential archaeological sensitivity.

Generally, the context of surrounding historic resources would be improved under this alternative. However, views of some historic resources from some locations could be obscured by the residential buildings.

Unlike the Proposed Action, this alternative would include up to six residential buildings with heights of up to 492 feet located between Old Slip and Maiden Lane. These would be located so as not to block view corridors from the upland neighborhood to the East River. The new buildings would be consistent with the urban design of the adjacent neighborhood.

This alternative would introduce additional traffic to the neighborhood due to the creation of new residential units and would therefore constitute potentially less of an improvement to neighborhood character than would the Proposed Action. However, the additional new open space as well as the increased activity brought about by the new residents would constitute an improvement to neighborhood character. Overall, like the Proposed Action, this alternative would not result in a significant adverse impact on neighborhood character.

The additional open space created on piers platforms under this alternative would add new overwater coverage and may have the potential to result in additional impacts on natural resources.

Like the Proposed Action, this alternative would be consistent with all applicable Waterfront Revitalization Program policies. Residential buildings would be located so as to preserve views of and access to the waterfront. Revenue from the residential buildings would allow a greater amount of waterfront open space to be created.

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The residential development associated with this alternative would introduce a new residential population to the area and would therefore place additional demand on infrastructure, solid waste and sanitation services, and energy. However, no significant adverse impacts are expected.

The FDR Drive south of the Brooklyn Bridge is underutilized. This alternative would maintain the separation of through traffic on the FDR Drive from South Street. However, it would potentially require the elimination of one or possibly two lanes of traffic on the FDR Drive. Additional trips generated by the residential development associated with this alternative would have the potential to result in significant adverse impacts on traffic.

The new residential population introduced to the project site under this alternative would result in increased demand for transit service as well as increased pedestrian traffic. Therefore, this alternative has the potential to result in significant adverse impacts on transit and pedestrians.

The heating systems in the residential buildings would produce stationary source emissions, and the vehicle trips generated by the new residents would produce mobile source emissions. Therefore, this alternative has the potential to result in significant adverse impacts on air quality.

The additional vehicle trips generated by residents introduced to the project site under this alternative would add to the high noise levels on and around the project site. Attenuation measures would need to be taken to achieve an acceptable interior noise level in the residential buildings given their proximity to noise sources, including the FDR Drive, the Brooklyn Bridge, and the heliport on Pier 6.

Tower cranes would be used to construct the proposed buildings. Construction would likely require some lane closures on the FDR Drive and South Street. Because of the difficult logistics of building large structures over an active highway, this alternative is not feasible or financially viable.

FDR Drive at Grade South of Brooklyn Bridge

This alternative would dismantle and remove the elevated FDR Drive from the Brooklyn Bridge to Broad Street and create a green, tree-lined boulevard on South Street. The elevated section of the FDR Drive north of the Brooklyn Bridge would transition to an at-grade intersection just north of Robert F. Wagner Sr. Place. The South Street/FDR Drive roadway south of the resulting intersection to Broad Street would be 10 lanes wide with five lanes in each direction. The roadway would exceed the available space between the building lines on the west side of South Street and the bulkhead line of the East River. Therefore, the roadway would cantilever over the existing bulkhead, potentially requiring its reconstruction.

This alternative would require a significant reconfiguration of the existing South Street roadway as well as considerable modifications to the existing ramp structures that connect the FDR Drive to the Brooklyn Bridge. A number of existing intersections along the South Street/FDR Drive alignment would also have to be reconfigured and/or signalized to accommodate the new roadway. No pavilions would be developed in this alternative. As with the Proposed Action, public parking and commuter and tour bus parking that currently exists under the FDR Drive would be eliminated. At present, there is no identifiable funding for the roadway reconfiguration.

Like the Proposed Action, the FDR Drive at Grade South of Brooklyn Bridge alternative would have a positive effect on land use. However, due to the increased width of the at-grade FDR Drive roadway, a smaller amount of open space would be produced under this alternative.

Due to the increased width of the at-grade FDR Drive roadway, a smaller amount of open space would be produced under this alternative. Furthermore, the widened at-grade roadway would create a barrier to pedestrians trying to access the waterfront esplanade and piers.

Compared with the Proposed Action, the pile-supported structure outboard of the bulkhead line would need to be wider in order to accommodate the widened at-grade roadway. Therefore, views of the East River Bulkhead, a historic resource, would be more extensively obscured than under the Proposed Action. It is also possible that portions of the original granite bulkhead might require extensive reconstruction, which could constitute a significant adverse impact. It is also possible that the Tin Building, which is a contributing building within the South Street Seaport Historic District and Extension, would have to be demolished in order to accommodate the roadway. This would constitute a significant adverse impact to historic resources. This alternative also would require more extensive subsurface disturbance to South and Marginal Streets than the Proposed Action, and therefore could affect to a greater extent areas of potential archaeological sensitivity.

This alternative would remove the physical and visual obstruction to views of the East River created by the elevated FDR Drive. However, the widened roadway at grade would be a physical barrier cutting off the upland neighborhood from the waterfront, the esplanade, and the piers. Additional lanes of traffic at grade would be unsightly.

This alternative would constitute less of an improvement to neighborhood character due to the additional lanes of traffic at grade, which would create a street-level barrier separating the upland neighborhood from the waterfront. Additionally, pedestrians would experience more traffic at street level, and noise levels would be correspondingly higher.

Compared with the Proposed Action, construction of this alternative would create a greater amount of new shade coverage over the East River and therefore could have a potential to adversely impact water quality and natural resources.

This alternative, like the Proposed Action, would be consistent with applicable WRP policies. However, while this alternative would provide continued public access to the waterfront, this access would be less readily available, since the widened at-grade roadway would create a physical barrier for pedestrians.

This alternative would disrupt traffic flow for extended periods of time, since it would be necessary to signalize intersections along the roadway to allow for pedestrian circulation and therefore has a potential to result in significant adverse impacts on traffic.

This alternative could adversely affect pedestrian safety by creating longer crosswalks and increasing through traffic on South Street. This alternative would not affect transit routes or access for operations, and could enhance access between the intersections of South Street/FDR Drive and Broad Street. The express bus routes that currently utilize the elevated FDR Drive to bypass South Street would be required to stop at the resulting signalized intersections. While this may affect the overall route times for these buses, it could provide an opportunity to install additional bus stops along the corridor. A dedicated bicycle route could be accommodated along the South Street/FDR Drive corridor, and this route could connect to the existing bicycle path under the elevated FDR Drive north of the Brooklyn Bridge. Other existing and planned bicycle routes would be maintained.

Compared with the Proposed Action, this alternative would result in worse conditions with respect to air quality. With a widened roadway at grade, exhaust from vehicles would be closer

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to pedestrians. Additionally, the signalization that would be required under this alternative would result in a greater concentration of emissions from vehicles idling on the project site.

Because an increased amount of traffic would be at street level under this alternative, there would be increased ambient noise levels on and near the project site south of the Brooklyn Bridge compared with the Proposed Action.

As the Brooklyn Bridge and the FDR Drive are major highway facilities within Manhattan, the construction of this alternative would require extremely complex maintenance and projection of traffic schemes that would extend the duration of construction. The required width of the resulting South Street/FDR Drive at grade roadway would require significant reconstruction of existing platforms and buildings along the East River bulkhead line as well as the construction of new overwater structures.

BATTERY MARITIME BUILDING PLAZA ALTERNATIVES

Two alternatives, a Stepped Ramp and a Partial Stepped Ramp, were considered as alternatives that would remove pedestrian-vehicular conflicts at the BMB entrance. The third alternative is the East River Esplanade and Piers project as proposed without any change to the BMB Plaza.

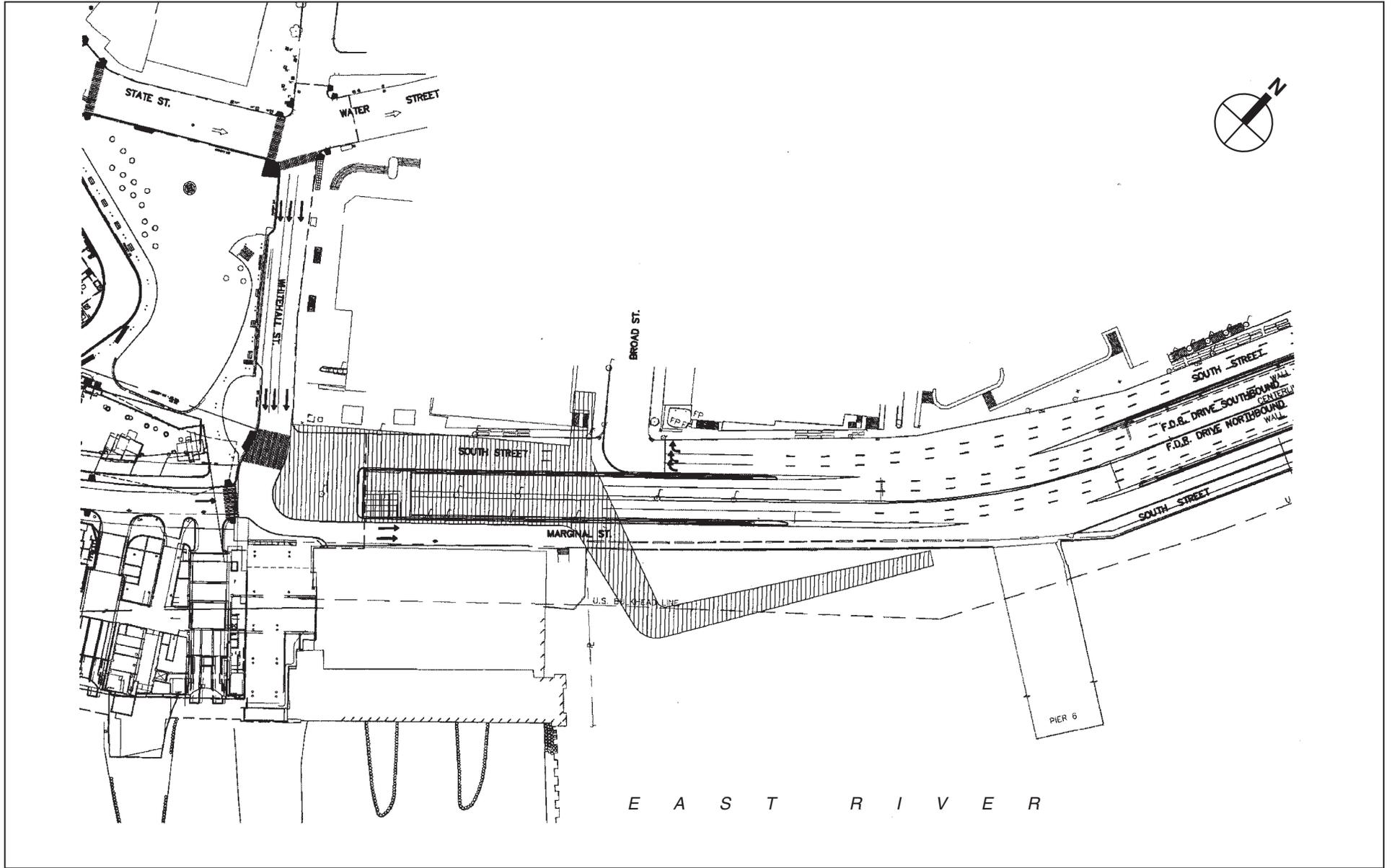
Stepped Ramp Alternative

The Stepped Ramp Alternative would provide a ramped pedestrian plaza connecting Peter Minuit Plaza, the East River Esplanade, and Broad Street through a stepped ramp that would elevate pedestrian traffic over the BPU (a potential configuration is shown in Figure S-2). This alternative would create an Americans with Disabilities Act (ADA)-compliant, grade-separated connection for pedestrians while providing the feel of an esplanade. The southern boundary of the stepped ramp would consist of an at-grade landing, approximately 110 feet wide, at the northern curb line of Whitehall Street between One New York Plaza and Marginal Street. The stepped ramp would rise from this landing at a rate that is consistent with that of the BPU until it reaches an elevation of approximately 24 feet, which corresponds to the northernmost point of the BMB. At this elevation, the stepped ramp would connect to a bridge/platform, which would span from the southwest corner of the intersection of South and Broad Streets and the East River Esplanade. Access from the intersection of Broad and South Streets to the elevated bridge/platform would be provided from the southern sidewalk of Broad Street via a staircase, while access from the East River Esplanade would be provided through a ramp. The entrance to the BPU would remain in its existing location under this alternative. This alternative would result in similar impacts as compared with the Proposed Action.

Under this alternative, the elevated ramped plaza would interfere with views of the BMB, a historic resource. However, this alternative would also involve the construction of an overwater esplanade structure from which the East River bulkhead, a historic resource, could be viewed. In this regard, this alternative would have a positive effect on historic resources.

The obstructed views of the BMB would result in a significant adverse impact on visual resources. However, the elevated ramp structure in front of the BMB and over the East River would create new views of the harbor and would in this way have a beneficial effect on visual resources.

Construction of the Stepped Ramp Alternative, with its raised esplanade ramp structure extending outboard of the bulkhead line, would have similar effects on natural resources and



water quality compared with the Proposed Action and would create approximately the same amount of new shade coverage over the East River as would the Proposed Action. The locations and amount of pile driving and dredging would be roughly the same as under the Proposed Action. This alternative, like the Proposed Action, would result in no significant adverse impacts on natural resources and water quality.

The Stepped Ramp Alternative would require the closure of South Street between Broad and Whitehall Streets. Therefore, the existing travel direction of Whitehall Street would be reversed to meet traffic circulation needs, and southbound traffic would be rerouted to Water Street. These changes would affect traffic operations at the intersections of Water and Broad Streets and Water and Whitehall Streets. In addition, the required foundations for the stepped ramp's eastern edge support structure would minimize the width of Marginal Street, the at-grade roadway east of the BPU. The narrower cross section of Marginal Street would affect access to and from the BMB, which could in turn affect future access to a re-activated Governors Island. No vehicle queuing/waiting area would be provided in front of the BMB. These changes would have the potential to result in significant adverse impacts on traffic.

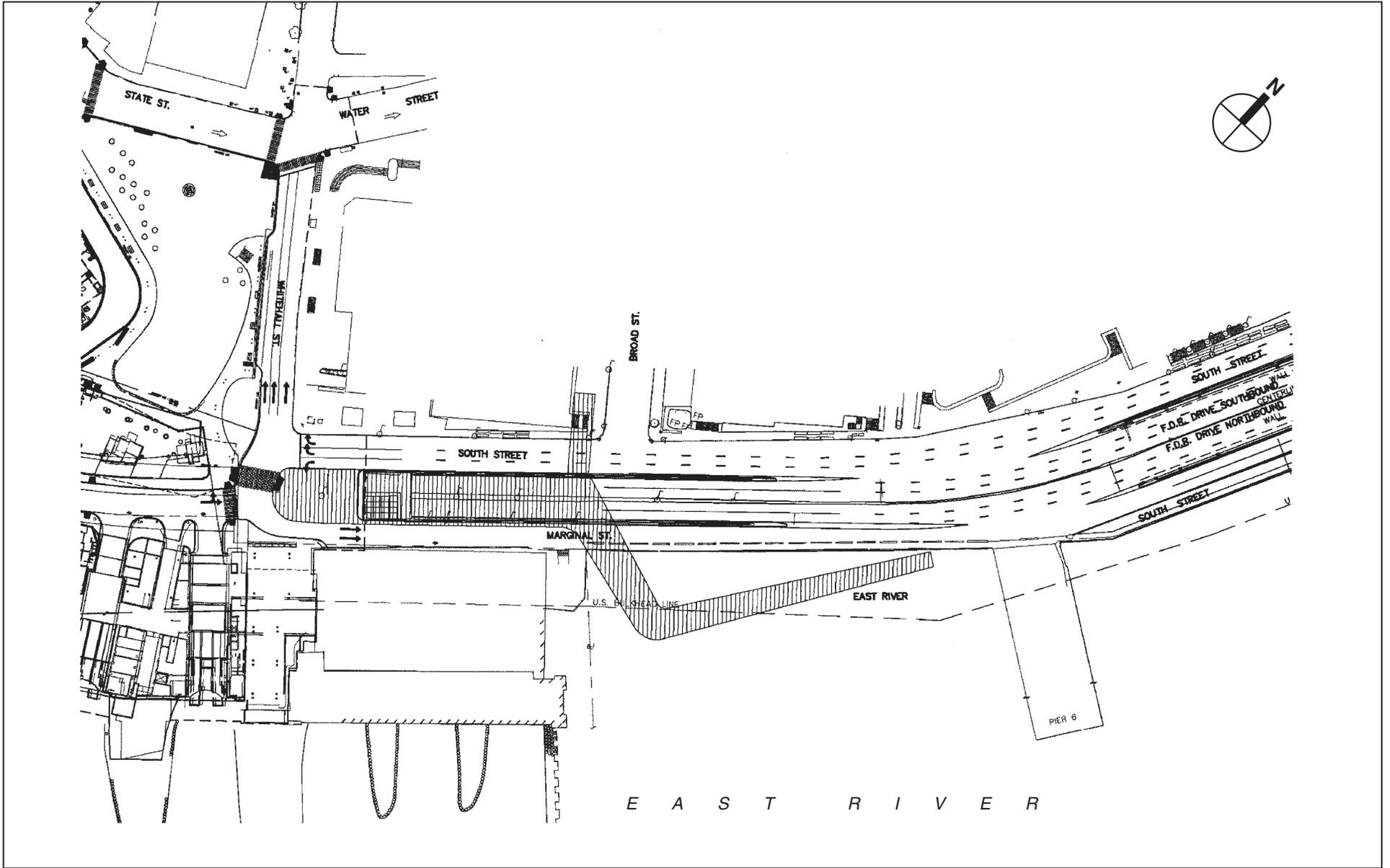
The Stepped Ramp Alternative would be expected to improve pedestrian circulation between the Whitehall Ferry Terminal/Peter Minuit Plaza and Broad Street, as well as the East River Esplanade, by creating a bridge between the three locations. However, it would require pedestrians to cross Whitehall Street at a signalized location. In addition, this alternative lacks a connection to the BMB and thus does not address pedestrian circulation to and from the BMB. Therefore, pedestrians accessing the BMB from either the Whitehall Ferry Terminal/Peter Minuit Plaza or the East River Esplanade would have to walk along the Marginal Street sidewalk, which is currently four feet wide, not programmed for reconstruction, and broken by curb cuts for vehicle access to the BMB.

The construction of the Stepped Ramp Alternative would require a significant support structure on the west curb line of Marginal Street, which would reduce the effective pavement width and adversely affect pedestrian circulation as well as bicycle operations. The Stepped Ramp Alternative does not accommodate bicyclists, and therefore would not significantly alter existing bicycle operations along the East River Esplanade. Traveling southbound along South Street between Broad and Whitehall Streets, bicyclists would be rerouted to Water Street until they can enter Battery Park. Along Marginal Street northbound, bicyclists would be accommodated as in existing conditions until they reach the East River Esplanade bikeway.

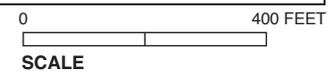
Unlike the Proposed Action, this alternative would not involve the relocation of the entrance to the BPU. The 30-month period of excavation and construction of the portion of the FDR Drive leading into the underpass would not occur under this alternative, nor would the potential significant impacts with respect to traffic and air quality during that construction period. It is expected that disruption of traffic through the BPU would be minimal during the construction of the stepped ramp in front of the BMB.

Partial Stepped Ramp Alternative

Similar to the Stepped Ramp Alternative, the Partial Stepped Ramp Alternative would provide a connection between Peter Minuit Plaza, the East River Esplanade, and Broad Street through a stepped ramp that elevates pedestrian traffic over the BPU (a potential configuration is shown in Figure S-3). Like the Stepped Ramp Alternative described above, this Alternative would create an ADA-compliant, grade-separated connection for pedestrians while providing the feel of an esplanade. However, the ramp in front of the BMB would not extend as far north as it would



E A S T R I V E R



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under the Stepped Ramp Alternative. The southern boundary of the partial stepped ramp would consist of an at-grade landing, approximately 65 feet in width, at the northern curb line of Whitehall Street between South and Marginal Streets. The partial stepped ramp would rise from the landing at a rate that is consistent with that of the BPU until it reaches an elevation of approximately 24 feet, which corresponds to the northernmost point of the BMB. At this elevation, the partial stepped ramp would connect to a bridge/platform, which would span between the southwest corner of the intersection of South and Broad Streets and the East River Esplanade. Access from the intersection of Broad and South Streets to the elevated bridge/platform would be provided from the southern sidewalk of Broad Street via a staircase, while access from the East River Parkway would be provided through a ramp.

Under this alternative, the potential impacts would be the same as those identified above under the Stepped Ramp Alternative with the exception of open space and traffic and parking. A slightly smaller amount of open space would be provided on the elevated ramped plaza in front of the BMB under the Partial Stepped Ramp Alternative.

The Partial Stepped Ramp Alternative would not require the closure of South Street between Broad and Whitehall Streets; however, it would require the elimination of an existing exclusive u-turn movement between South Street southbound and Marginal Street northbound. Therefore, traffic in this area would be rerouted to south of the partial stepped ramp. In addition, the construction of both the eastern and western foundations of the partial stepped ramp as it rises over the BPU would require some roadway narrowing of South and Marginal Streets between Broad and Whitehall Streets. The narrower cross section of Marginal Street would affect access to and from the BMB, which could in turn affect future links to the reactivated Governors Island. No vehicle queuing/waiting area would be provided in front of the BMB.

Alternative Without Changes in front of the Battery Maritime Building

Although this environmental review takes into consideration the plaza in front of the BMB, that project is dependent on funding that is currently being sought by the City of New York. Therefore, this alternative considers a scenario in which the proposed changes to the BMB Plaza do not receive funding and are not implemented. The current roadway and sidewalk configuration in front of the BMB, which creates an unpleasant pedestrian experience as well as a difficult connection from the East River waterfront to Peter Minuit Plaza and Battery Park, would be maintained. The ramp to the BPU and the multiple at-grade traffic lanes surrounding the ramp on the south, east, and west would continue to pose constraints to pedestrian and vehicular movement to and around the BMB. No additional vehicular access to the BMB and Whitehall Ferry Terminal would be created via a pick-up/drop-off lane.

Under this alternative, the area in front of the BMB would not be enhanced to become a landscaped plaza, and access to the BMB would not be improved as it would under the Proposed Action.

Compared with the Proposed Action, a smaller amount of new open space would be created, since the area in front of the BMB would continue to be used for vehicular circulation rather than being transformed into a landscaped pedestrian plaza.

The context of the BMB, an architectural resource, would not be improved with the creation of a new BMB Plaza. Views of the BMB would also not be improved under this alternative.

As the unsightly and dangerous pedestrian conditions would remain in front of the BMB, neighborhood character would not be improved in the area surrounding the BMB.

Unlike under the Proposed Action, there would be no changes to roadway configuration associated with the relocation of the entrance to the BPU and no resulting diversion of traffic at the southern end of the project site. Vehicular access to the BMB would remain constrained. Pedestrian access to the BMB would also continue to be constrained and dangerous. In contrast to the Proposed Action, no pedestrian plaza would be created in front of the BMB.

Similar to the Proposed Action, this alternative would alter traffic conditions and would introduce buildings with heating systems that would produce emissions. However, neither this alternative nor the Proposed Action would result in significant adverse impacts on air quality.

As with the Proposed Action, a slight increase in noise levels due to increased traffic would occur. Noise levels on the project site would remain high, as they are under existing conditions, and users of the existing esplanade would be subjected to high noise levels.

Unlike the Proposed Action, this alternative would not involve the relocation of the entrance to the BPU. The 30-month period of excavation and construction of the portion of the FDR Drive leading into the underpass would not occur under this alternative, nor would the potential significant impacts with respect to traffic and air quality during that construction period. The temporary disruptions that would result from construction would be greatly reduced and the potential temporary significant adverse impacts on traffic and air quality that could result from the BPU construction would not occur. Likewise, the economic benefits associated with construction, resulting from expenditures on labor, materials, and services, would be reduced.

ALTERNATIVE WITHOUT THE BMB PLAZA AND THE PIER 42 BEACH

This alternative considers the differences in impacts if both the BMB Plaza and the Pier 42 Beach and small craft launch area are not constructed. All other portions of the Proposed Action would remain the same and not be changed.

Without the BMB Plaza and the Pier 42 Beach, the substantial land use benefits associated with the Proposed Action would be reduced. They would affect a smaller area and the linkages to other open spaces to the south and the north would not be improved. The design of the esplanade would be improved and other new amenities would be provided. The bikeway/walkway would be improved beginning north of the BMB. Pier 42 would remain vacant, but Pier 35 would be redeveloped and the cove would be created at the south end of Pier 42. However, the setting of the cove would be less attractive without the Pier 42 Beach. This alternative would be less supportive of public policies that call for increased open space and public access to the waterfront and the overall beneficial impacts would be substantially less with this alternative than with the Proposed Action.

Similar to the Proposed Action, this alternative would result in improvements to the East River esplanade, the New Market Building pier, and Piers 35 and 36, and reconstruction of Pier 15. A beach would not be created on Pier 42, and the BMB Plaza would not be created. Without these two amenities, area residents, workers, and visitors would have substantially less public open space amenities to enjoy.

This alternative would involve changes to the East River bulkhead—a historic resource—and views of the bulkhead due to construction at the bulkhead line and the widening of the esplanade beyond the bulkhead from Broad Street to Old Slip. The context of surrounding historic resources would be generally improved under this alternative, with the exception of the BMB and the former Gouverneur Hospital and Gouverneur Hospital Dispensary. The BMB would still suffer from difficult access and the close proximity of moving traffic, and the derelict pier shed

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on Pier 42 may not be removed. Neither the Proposed Action nor this alternative would have significant adverse impacts on archaeological or architectural historic resources.

Under this alternative, two significant improvements to urban design on the project site would not occur. The new cove would be next to the vacant, unused pier shed of Pier 42, and the BMB would face directly on moving traffic.

As under the Proposed Action, there would be some increase in traffic and noise due to new trips to the site, but there would be no significant adverse impact on neighborhood character.

No reinforcement of Pier 42 would occur under this alternative. None of the excavation and construction associated with the BMB Plaza would occur. However, contaminated materials on other parts of the project site would be removed or isolated, reducing the long-term risks associated with those contaminated materials.

This alternative would be less supportive of WRP policies because it would leave a vacant unused structure on Pier 42 rather than creating a beach and it would not improve access to the BMB, a significant historic, maritime use.

The removal of the beach at Pier 42 would result in nominal, if any, effect on traffic circulation as compared to the Proposed Action. Unlike under the Proposed Action, there would be no changes to roadway configuration associated with the relocation of the entrance to the BPU and no resulting diversion of traffic at the southern end of the project site. Vehicular access to the BMB would remain constrained. As under the Proposed Action, sidewalks and crosswalks would function at acceptable levels.

To the extent there would be less new open space and fewer users of the open space, the potential significant adverse impact of high noise levels on users of the new open space would be reduced under this alternative.

Under this alternative, the improvements to the esplanade would be the same as with the Proposed Action, but less new open space would be created on piers. The Pier 42 pier shed would not be demolished and the beach would not be created. The major construction effort associated with the BMB Plaza—specifically, extension of the BPU tunnel—would not occur. The temporary disruptions that would result from construction would be greatly reduced, and the potential temporary significant adverse impacts on traffic and air quality that could result from the BPU construction would not occur. Likewise, the economic benefits associated with construction, resulting from expenditures on labor, materials, and services, would be reduced.

ALTERNATIVE IN-WATER CONFIGURATIONS SOUTH OF PIER 15

It is anticipated that DEC may require that up to two square feet of overwater shade be removed in order to compensate for every square foot of shade added over the water under the Proposed Action. Therefore, it may be necessary to reduce the overwater coverage south of Pier 15 in order to avoid an overall increase in overwater coverage and to meet DEC's requirements with respect to mitigating new overwater coverage. Since the City plans to demolish Pier 14 as part of an independent project, the City may agree to mitigate the Proposed Action's new overwater coverage by agreeing not to rebuild Pier 14 in the future. If the City were to commit to not rebuilding Pier 14 at this time, the reduced overwater coverage could be used to compensate for the new overwater coverage created as part of the East River Waterfront Esplanade and Piers Project.

Piers 13 and 14 are currently in poor condition and will be removed by the fall of 2007. There are no current plans to rebuild the piers, and no capital funding yet devoted to reconstruction. If, however, the piers are rebuilt at some time in the future, this redevelopment would occur beyond the Proposed Action's Build year. Currently, potential redevelopment scenarios contemplate either the rebuilding of both piers with retail pier shed structures and boats moored around their sides; the rebuilding of just Pier 13 with a retail pier shed structure; or the rebuilding of just Pier 13 for public access and for transportation (ferry) use. This alternative considers the potential effects of not rebuilding Pier 14 at some time in the future, assuming a reduction in net overwater coverage as a result of an increase in the overwater coverage is necessary for the project in order to meet the DEC requirements described above. Only land use and natural resources would be affected under this alternative.

Under this alternative, Pier 14 would not be reconstructed. The retail and/or maritime uses that might have been developed at this pier in the future beyond the Proposed Action's Build year would not be created. By 2009 absent the Proposed Action, it is anticipated that Pier 14 would be removed and not be rebuilt. Likewise, under this alternative, the pier would be removed and would not be rebuilt. Neither this alternative nor the Proposed Action would result in a significant adverse impact on land use.

Compared with the Proposed Action, this alternative would result in a smaller net amount of overwater coverage. However, because the removal of future overwater coverage at Pier 14 would compensate for the increases in overwater coverage associated with this project, this alternative would not have the potential to result in additional impacts on natural resources or water quality.

ALTERNATIVE RETAINING A PORTION OF AUTOMOBILE PARKING

This alternative assumes that approximately half of the automobile parking under the FDR Drive is retained. This would reduce the amount of recreational open space created by the Proposed Action. To the extent that this reduces the area where pavilions could be located under the FDR Drive, there would be fewer or possibly smaller pavilions. All other parts of the Proposed Action are assumed to remain unchanged.

This alternative would provide less public open space and would potentially reduce the number or size of the pavilions provided for recreational, cultural, and retail uses. The open space adjacent to the remaining parking areas would require visual buffers to make them less unattractive. However, this alternative would still constitute an improvement over current land use conditions. Therefore, as under the Proposed Action, there would be no significant adverse impacts on land use.

Like the Proposed Action, this alternative would involve changes to the East River bulkhead—a historic resource—and to views of the bulkhead due to construction at the bulkhead line and the widening of the esplanade beyond the bulkhead from Broad Street to Old Slip. Since this alternative would construct fewer or smaller pavilions, it would involve less subsurface disturbance, and therefore could affect areas of potential archaeological sensitivity to a lesser extent than the Proposed Action. The context of surrounding historic resources would not be as improved under this alternative, as views from and around the esplanade would still include parking below the FDR Drive.

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Retaining parking under the FDR Drive would reduce the urban design and visual benefits of the Proposed Action and would be less of an improvement to neighborhood character as compared with the Proposed Action.

This alternative would be less supportive of the WRP because it would retain some parking areas on the project site. The parking would be retained in areas distant from the water and would remain on sites that currently are used as parking and are devoid of natural resources. Therefore, the impacts of this alternative on natural resources would be the same as with the Proposed Action.

Under this alternative, a portion of the vehicle trips that would be diverted to off-site facilities with the Proposed Action would remain on the project site. As a result, delays at some of the analysis locations may increase as compared with the Proposed Action, but it is not expected that the proposed mitigation would need to be substantially different. Retaining these parking spaces would reduce the parking shortfall anticipated with the Proposed Action.

Retaining some parking under the FDR Drive would only divert a small number of vehicle trips and consequently would not affect air quality as analyzed for the Proposed Action. Neither this alternative nor the Proposed Action would result in significant adverse impacts on air quality.

UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

NOISE

Based on HUD standards, the noise levels at some of the new open space areas created as part of the Proposed Action would result in potentially significant adverse noise impacts on their users at some locations. Noise levels within the new open space areas created as part of the Proposed Action would be above the 55 dBA L_{10} noise level for outdoor areas requiring serenity and quiet contained in the CEQR Technical Manual noise exposure guidelines as well as the HUD goal of a maximum L_{dn} noise level of 45 dBA for interior noise levels of residences (HUD does not have noise standards pertaining specifically to outdoor public open space). Because of safety and aesthetic considerations, there are no practical and feasible mitigation measures that could be implemented to reduce noise levels to below the 55 dBA $L_{10(1)}$ guideline within the open space areas. While a wall made of either transparent Lucite or an opaque material could be constructed as a sound barrier, such a wall would block physical access to the waterfront, thereby defeating one of the Proposed Action's primary goals. An opaque wall would block visual access to the waterfront as well and would therefore have a detrimental effect on safety and urban design. A transparent barrier made of Lucite would be difficult to keep clean and would likely have graffiti scratched into it over time. This would greatly diminish the visual appeal of the open spaces that would be created or enhanced under the Proposed Action.

Although noise levels in some of these new areas would be above the 55 dBA $L_{10(1)}$ guideline noise level for CEQR and the 45 dBA HUD guideline, they would be comparable to noise levels in a number of open space areas that are also located adjacent to heavily trafficked roadways, including the Hudson River Park, the East River Drive Park, Central Park, Riverside Park, and other urban open space areas. Furthermore, current users of the existing esplanade are already exposed to noise levels over 55dBA $L_{10(1)}$. The 55 dBA $L_{10(1)}$ guideline is a worthwhile goal for outdoor areas requiring serenity and quiet. However, due to the level of activity present at most New York City open space areas and parks (except for areas far away from traffic and other typical urban activities), this relatively low noise level is often not achieved.

CONSTRUCTION

Construction of the BMB Plaza could potentially require the closure of the BPU, which could result in temporary significant adverse impacts with respect to traffic circulation and air quality during the construction period. As described above, any potential adverse impacts of construction for the Proposed Action would be minimized to greatest extent possible via coordination with the LMCCC. However, it is possible that there would be temporary significant impacts during the construction period that would not be fully mitigated. *