

FOR CONSIDERATION

May 22, 2023

TO: The Directors

FROM: Hope Knight

SUBJECT: New York City (New York County) – 5 World Trade Center;
World Trade Center Memorial and Cultural Program
Land Use Improvement and Civic Project

REQUEST FOR: Affirmation of Amendment to Modified General Project Plan; Override of
Local Zoning Regulations; Determination of Responsibility; Authorization
to Acquire and Dispose of Real Property; Authorization to Execute Initial
Agreement, Lease, Project Documents, and Lease Administration
Agreement; and Authorization to Take Related Actions.

I. PROJECT SUMMARY

Property Location: 5 World Trade Center, southern portion of the former 130 Liberty Street, MN Block 54 Lot 1 (the “**Development Site**” or “**Site 5**”).

The Development Site, approximately 33,000 square feet in area fronting on Greenwich Street to the east, Washington Street to the west, and Albany Street to the south, is a portion of a larger site (the “**Project Site**”) south of Liberty Street consisting of approximately 92,800 square feet that also includes the World Trade Center vehicular entrance and security center (the “**VSC**”), the open space above the VSC known as “**Liberty Park**”, both of which are owned by The Port Authority of New York and New Jersey (“**PANYNJ**”), and the Saint Nicholas Greek Orthodox Church and National Shrine (the “**St. Nicholas Church**”) in the northeast corner of Liberty Park north of the Development Site. The Development Site and the Project Site are within the larger World Trade Center Site (“**WTC Site**”).

Property Owner: Lower Manhattan Development Corporation (“**LMDC**”),
a subsidiary of ESD.

Conditionally Designated Developer: 5WTC LLC (“**Developer**”)
225 Liberty Street, 43rd Floor, New York, New York 10281

Development Partners: Brookfield Properties (“**Brookfield**”)
Silverstein Properties, LLC (“**SPI**”)
Omni New York LLC (“**Omni**”)
Dabar Development Partners (“**Dabar**”)
(collectively “**Development Partners**”)

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Modified General Project Plan: As described in the World Trade Center Memorial and Cultural Program General Project Plan dated June 2, 2004, as amended through April 21, 2022 (the “**MGPP**”), the objectives of the redevelopment of the WTC Site are to honor the victims of the attacks of September 11, 2001 and February 26, 1993 and to revitalize Lower Manhattan. The MGPP provides for a memorial and museum (the “**Memorial Uses**”) and other cultural uses, as well as a commercial redevelopment program (the “**Redevelopment Program**”). The Redevelopment Program is carried out by PANYNJ,

and includes commercial and retail development, open space, and infrastructure improvements at the WTC Site. Most of the redevelopment anticipated by the MGPP has been completed, with Site 5 remaining as one of the last undeveloped parcels. The MGPP allows commercial or mixed-used development, including residential use, on the Development Site.

Proposed Project: The proposed project (the “**Proposed Project**”) is the development and operation of an approximately 1.345 million square-foot mixed-use building (“**Tower 5**” or the “**Building**”) with office, retail, community facility, and residential uses, including affordable housing, as described in more detail below.

Proposed Amendment to MGPP: On July 21, 2022, the Directors adopted, for purposes of a public hearing, an amendment to the MGPP to override certain provisions of local zoning in connection with the Proposed Project (the “**Proposed Amendment**”). The Proposed Project would be subject to Mixed-Use Design Guidelines described in Section VI.B below.

Revised Amendment to MGPP: It is proposed that the Proposed Amendment be affirmed, with the modifications described below.

Proposed Property Transfers: On July 21, 2022, the Directors adopted, for purposes of a public hearing, essential terms for the following property transfers (the “**Proposed Property Transfers**”):

- LMDC will grant a permanent easement to PANYNJ for certain encroachments and installations on the Development Site that support the VSC and Liberty Park (the “**VSC Easement**”);
- LMDC will transfer fee title to the Development Site to ESD, subject to PANYNJ’s rights in the Proposed Project (the “**Deed**”);
- ESD will enter into a 99 year triple net ground lease (the “**Lease**”) with Developer for construction and operation of the Proposed Project;
- in consideration for PANYNJ’s provision of property it owns to LMDC or its designee for the Memorial Uses, including entering into a 99-year ground lease and purchase option for nominal consideration with LMDC’s designee for the development and operation of the Memorial Uses (the “**Memorial Lease**”), PANYNJ will receive rent under the Lease equivalent to the commercial value of the Development Site (except for certain potential future shared revenue) and receive fee title at the end of the Lease term.

LMDC/ESD Costs: The Lease, and the Initial Agreement and Lease Administration Agreement described in Section V.A. below, would include cost

reimbursement provisions for ESD and LMDC costs associated with the Proposed Project.

Project Team:

Real Estate: Arden Sokolow, Tobi Jaiyesimi, Terence Cho

Legal: Matthew Acocella

Contractor &
Supplier Diversity: Danielle Adams

Environmental: Eram Qadri

II. PROJECT DESCRIPTION

A. Background

The WTC Site was expanded in 2004 to accommodate the inclusion of the memorial and cultural uses (the “**Memorial Program**”) and open space, reducing density in the redevelopment of the World Trade Center. LMDC acquired property in the expanded southern portion of the WTC Site for transfer to PANYNJ for the Redevelopment Program. In exchange, PANYNJ agreed to provide LMDC or its designee with property owned by PANYNJ for the Memorial Program for nominal consideration. In furtherance of this exchange, LMDC used funds from a U.S. Department of Housing and Urban Development (“**HUD**”) Community Development Block Grant (the “**HUD Grant**”) to acquire property at 130 and 140 Liberty Street, and to clear 130 Liberty Street (the former Deutsche Bank building; 140 Liberty Street was a parking lot), for transfer to PANYNJ.

The exchange is nearly complete. In 2017, LMDC transferred property to PANYNJ for open space and infrastructure elements of the Redevelopment Program (the VSC and Liberty Park), as well as a site for the St. Nicholas Church, which allowed PANYNJ to acquire the former church site for the Redevelopment Program. PANYNJ then entered into a 99-year ground lease and nominal purchase option (the “**PAC Lease**”) with LMDC’s designee for development and operation of the planned performing arts center, The World Trade Center Performing Arts Center, Inc. d/b/a The Performing Arts Center at the World Trade Center. PANYNJ has also negotiated the Memorial Lease with LMDC’s designee for development and operation of the memorial and memorial museum, National September 11 Memorial and Museum at the World Trade Center (“**NS11MM**”), which will be in effect before LMDC transfers the Development Site to ESD. The remaining parcel in the exchange – the Development Site – is the subject of the recommended ESD Board actions today.

In 2019, ESD, LMDC and PANYNJ agreed to jointly issue an RFP for Site 5 that would allow for as-of-right commercial development or mixed-use development, including a requirement for an affordable housing component. The selection criteria for the RFP weighed the financial viability of the proposals, the project program, design, and proposed community benefits, as well as the Developer’s experience, and diversity practices.

In February 2021, after a competitive process, a mixed-use development, proposed by a team comprising SPI, Brookfield, Dabar, and Omni, was conditionally designated by the LMDC Directors. In April 2022, following a public hearing and comment period, and the environmental review described below in Section VI.C, ESD and LMDC affirmed the modification to the MGPP permitting a mixed-use building, including residential use with affordable housing, on the Development Site.

In July 2022, the Directors adopted, for purposes of a public hearing, the Proposed Amendment to the MGPP to override certain provisions of local zoning in connection with the Proposed Project. As discussed further in Section III below, a duly noticed public hearing was held on September 15, 2022, to receive oral and written comments from the public on the Proposed Amendment and/or the Proposed Property Transfers.

On May 16, 2023, the LMDC Directors unanimously voted to: (1) affirm the Revised Amendment to the MGPP, (2) override local zoning regulations, as described in these materials; (3) authorize the disposition of the Project Site to ESD, as well as (4) authorize executing the Initial Agreement, VSC Easement, Deed, and other project documents to facilitate the Proposed Project.

It is contemplated that, upon receipt of all approvals, LMDC would transfer the Development Site to ESD, and ESD would enter into the Lease with Developer. In exchange for providing the Memorial Lease and PAC Lease to LMDC's respective designees for nominal consideration, PANYNJ would receive the commercial value of the Development Site in the form of rent paid under the Lease and would receive fee title at the end of the Lease term. If the rental income under the Lease exceeds the value of the originally planned commercial use of Tower 5, PANYNJ will share the excess ("**Shared Revenue**"), with 75% going to the City (as successor to LMDC's HUD Grant program income) and 25% going to PANYNJ. If the Proposed Project and the Proposed Property Transfers are approved by the Directors after consideration of public comments, the detailed terms of the Shared Revenue arrangement would be negotiated by senior staff.].

B. Proposed Project

The Proposed Project is a mixed-use building with the following program elements (the "**Program Elements**"): residential rental apartments (the "**Residential Component**"), including the Affordable Component described below; Class "A" commercial office and/or retail uses; a not-for-profit community center (the "**Community Facility**"); and access to Liberty Park, north of the Development Site (the "**Bridge**").

The mix of uses will support Lower Manhattan's revitalization and the transition from a predominantly office district to a mixed-use neighborhood, consistent with new residential development in the area and the many residential conversions that have occurred in nearby older office buildings. The requirement that a portion of the residential units be permanently affordable is in keeping with federal, state, and city policies promoting development of affordable housing, as well as expressed community priorities.

C. Proposed Amendment to MGPP

The Proposed Amendment provided for the override of certain provisions of the New York City Zoning Resolution including the Special Lower Manhattan District regulations, as needed to allow sufficient density on the Development Site in accordance with the revised Mixed-Use Design Guidelines (described in Section VI.B below) to support the goals and public elements of the Proposed Project.

III. PUBLIC HEARING AND WRITTEN COMMENTS RECEIVED

Pursuant to authorization granted by the Directors on July 21, 2022, ESD and LMDC held a duly noticed virtual public hearing on September 15, 2022, at which oral and written comments were received from the public. The purpose of the hearing was to (1) inform the public about the Proposed Amendment and Proposed Property Transfers, and (2) give all interested persons an opportunity to provide oral or written statements and to submit other documents concerning the Proposed Amendment and/or the Proposed Property Transfers, pursuant to Sections 6 and 16 of the New York State Urban Development Corporation Act. Written comments on the Proposed Amendment and the Proposed Property Transfers were accepted through October 17, 2022. A transcript of the hearing and copies of all written comments received are available on ESD's website at <https://esd.ny.gov/wtc-site5-public-meetings>.

A total of 27 commenters provided testimony during the September 15 virtual public hearing.

There were 19 commenters, including the offices of local elected officials and the Coalition for 100% WTC Site 5, who proposed an increase in the amount of affordable housing on site of up to 100% of all units; proposing eligibility for affordable units, including income levels, local residency, and first responder status. Commenters proposed sustainability requirements for the Project, and specific retail and community facility programming options. Others expressed concern about the public review process and community engagement by the Project Team.

There were 8 supportive comments highlighting the opportunity to create thousands of construction jobs and develop a mixed-use tower with hundreds of affordable units without direct public cash subsidy.

A total of 18 written comments were submitted by the October 17 deadline; 14 comments urged for increased affordability and three comments provided general support for the Proposed Project. In addition, the New York City Planning Commission expressed overarching support of the WTC GPP and the amendments related to the Proposed Project subject to consideration of comments on the proposed through-site connection, pedestrian circulation space, and the second-floor passageway and connection to Liberty Park.

IV. INCREASED AFFORDABLE HOUSING REQUIREMENTS

The Residential Component will be approximately 1,200 units of rental housing, including affordable units, operated by an affiliate of Developer.

Except as provided for in footnote 1, a minimum of 30% of the residential units (such residential units, collectively, the “**Affordable Component**”) will be leased to households earning an income at or below an average of 85% area median income (“**AMI**”), provided that (x) at least 10% of the residential units within the Project shall be leased to households earning an income at or below 60% AMI, and (y) at least an additional 10% of the residential units within the Project shall be leased to households earning an income at or below 85% AMI, and (z) none of the units comprising the Affordable Component shall be leased to households earning an income above 110% AMI (collectively, the “**Affordability Requirements**”).¹ Subject to the availability of public funding by April 15, 2024, the Project may deliver additional affordable housing units.

The Affordable Component will be regulated by the New York State Division of Housing and Community Renewal (“**HCR**”) and Developer will be required to enter into a regulatory agreement (the “**Affordable Housing Regulatory Agreement**”) with the New York State Housing Finance Agency. Once the Residential Component is built, the Affordability Requirements will be permanent.

V. ACQUISITION AND DISPOSITION OF PROPERTY

A. Transaction Structure and Timeline

Subject to requisite public approvals, the Project Sponsors and Developer would sign an Initial Agreement Regarding Lease Escrow (the “**Initial Agreement**”), placing the authorized form of the Lease in escrow and establishing the timing for the Lease closing and delivery of possession of the Development Site to Developer (the “**Turn-Over Date**”). The Initial Agreement also would include agreed forms of the VSC Easement, the Affordable Housing Regulatory Agreement, an agreement with the City for payments-in-lieu-of-real-estate-taxes, and a declaration of restrictions and agreement requiring Developer to develop the Residential Component (including the Affordable Component), the Community Facility, and the Bridge (collectively, the “**Project Documents**”), to be held in escrow pursuant to the Initial Agreement and to be signed and released from escrow on or before the Turn-Over Date. Separately, ESD and PANYNJ will enter into an agreement (the “**Lease Administration Agreement**”) addressing lease administration, rent, costs and indemnity matters during the term of the Lease.

The Turn-Over Date is currently expected to occur up to 21 months from final approvals. During the period between necessary approvals and the Turn-Over Date, PANYNJ will complete the relocation of the World Trade Center Command Center off the Development Site and Developer

¹ At the written request, received by June 15, 2023, of the New York State Senator and Assembly Member representing the district(s) in which the Proposed Project is located, the Affordability Requirements may revert to the terms adopted by the Directors at the July 21, 2022 meeting, such that 25% of the residential units (such residential units, collectively, the “**Original Affordable Component**”) would be leased to households earning an income at or below an average of 50% AMI, provided that (x) at least 10% of the residential units within the Proposed Project would be leased to households earning an income at or below 40% AMI, (y) at least an additional 10% of the residential units within the Proposed Project would be leased to households earning an income at or below 60% AMI, and (z) none of the units comprising the Original Affordable Component would be permitted to be leased to households earning an income above 80% AMI.

will obtain equity and financing commitments, prepare construction documents, and begin the permit process with the City Department of Buildings. Developer will be required to commence construction within 6 months after the Turn-Over Date and to achieve Substantial Completion with 60 months after the Turn-Over Date.

Staff recommends that the Directors approve the Proposed Property Transfers and execution of the Initial Agreement, Lease, Project Documents and Lease Administration Agreement, as described herein, to facilitate the Proposed Project.

B. Proposed Grant of VSC Easement from LMDC to PANYNJ

Subject to requisite public approvals, LMDC would grant a permanent easement to PANYNJ for the encroachment of a portion of the VSC foundation wall and a concrete barrier, and for the location of certain VSC flood protection measures, on the Development Site.

C. Proposed Transfer of Development Site from LMDC to ESD

Subject to requisite public approvals, LMDC would convey fee title to the Development Site pursuant to the Deed to ESD, subject to PANYNJ's rights in the Proposed Project as set forth in these materials.

D. Proposed Transfer of Museum/Memorial Site

Before LMDC transfers the Development Site to ESD, PANYNJ will provide NS11MM with the Memorial Lease for the Memorial Uses.

E. Proposed ESD Lease to Developer

Subject to requisite public approvals, ESD would enter into the Lease with Developer on the terms adopted by the Directors at the July 21, 2022 meeting, with the following modifications:

- the increased Affordable Component and Affordability Requirements would be part of the Project Requirements, unless otherwise requested by the New York State Senator and Assembly Member representing the district(s) in which the Proposed Project is located.

F. Public Authorities Law

Section 51(1) of the PAL requires the approval of the Public Authorities Control Board (the "**PACB**") prior to the acquisition, financing or construction of any project proposed by ESD or any subsidiary. Therefore, if the Proposed Project and the Proposed Property Transfers are approved by LMDC and ESD Directors after consideration of public comments, the terms of the proposed acquisition will be presented to the PACB for review and approval.

VI. AMENDMENT TO MGPP AND MIXED-USE DESIGN GUIDELINES

A. Revised Amendment to MGPP

A revised amendment to the MGPP is attached hereto as Exhibit A (the “**Revised Amendment**”), providing for the override of certain provisions of the New York City Zoning Resolution, including the Special Lower Manhattan District regulations, with one modification to those set forth in the Proposed Amendment, overriding the minimum length of loading berths.

Staff recommends that the Directors affirm the Revised Amendment and override certain local zoning regulations as set forth in the Revised Amendment to allow development in accordance with the Mixed-Use Design Guidelines. ESD previously adopted Land Use Improvement Project Findings and Civic Project Findings in connection with the MGPP, and found that it was and remains infeasible and impracticable for the Proposed Project to comply with all local zoning regulations. The zoning overrides would permit a taller building with a greater overall floor area ratio, among other variances, than what the underlying zoning for the site allows, to facilitate sufficient density on the Development Site to support the goals and public elements of the Proposed Project.

B. Mixed-Use Design Guidelines

A draft set of mixed-use design guidelines for the Development Site (the “**Mixed-Use Design Guidelines**”) was made available to the public in connection with the Proposed Amendment. After consideration of the oral and written comments received, the Mixed-Use Design Guidelines have been revised to enhance the guidelines for the Community Facility and for vertical circulation to the Community Facility, as set forth in the version attached hereto as Exhibit B. The Mixed-Use Design Guidelines incorporate the provisions of the PANYNJ’s WTC commercial design guidelines governing retail and signage.

C. Environmental Review

In June 2004, LMDC, serving as Lead Agency for environmental review pursuant to the National Environmental Policy Act and the New York State Environmental Quality Review Act, prepared and adopted a Final Generic Environmental Impact Statement (“**FGEIS**”) for the GPP, as reflected in the Record of Decision and Findings Statement adopted June 2, 2004. ESD consented to LMDC’s role as lead agency in 2003 and as an involved agency in the environmental review process. After 2004, design and engineering changes led to adjustments and refinements that were analyzed by LMDC in an Environmental Assessment dated April 2005, a Technical Memo dated September 2005, an Environmental Assessment dated September 2006, a Technical Memorandum in 2007, and an Environmental Assessment dated November 17, 2021 (the “**2021 EA**”). After review of the FGEIS and subsequent environmental review documents, LMDC, as the Lead Agency, determined that no new or substantially different significant adverse environmental impacts could result from the proposed development of a mixed-use building on the Development Site and related actions and adopted a Finding of No Significant Impact and a Determination of Non-Significance (the “**Lead Agency Findings**”). At the April 21, 2022 meeting, the ESD Directors

concluded with LMDC's Lead Agency Findings. The Revised Amendment to MGPP, the Mixed-Use Design Guidelines, and the Proposed Property Transfers are all within the scope of the 2021 EA and therefore no further environmental review is required in connection with the requested authorizations.

Environmental commitments and requirements with respect to the Proposed Project described in the 2021 EA will be set forth in a memorandum attached to the Lease and will constitute one of the Project Requirements (the "**Memo of Environmental Commitments**").

VII. RESPONSIBLE PARTY

Pursuant to State Finance Law Section 163 and the Corporation's policy related thereto, staff has: (a) considered the Developer's and the Development Partners' ability to undertake the Proposed Project, including but not limited to their financial and organizational capacities, legal authority to do business in New York, integrity of principals, and past performance on similar development projects; and (b) consulted the list of offerors determined to be non-responsible bidders and debarred offerors maintained by the New York State Office of General Services, among other sources. Based on the foregoing, staff considers Developer and the Development Partners to be responsible.

VIII. REQUESTED ACTIONS

The Directors are requested to: 1) affirm the Revised Amendment to the MGPP; 2) override local zoning regulations as set forth in these materials; 3) make a determination of responsibility with respect to the Developer and the Development Partners; 4) authorize acquisition and disposition of real property in accordance with and contingent on receiving all approvals under Public Authorities Law; 5) authorize execution of Initial Agreement, Lease, Project Documents and Lease Administration Agreement; and 6) authorize the taking of actions related to the foregoing.

IX. RECOMMENDATION

Based on the foregoing, staff recommends approval of the requested actions.

X. ATTACHMENTS

Resolutions

Exhibit A: Revised Amendment to MGPP

Exhibit B: Revised Mixed-Use Design Guidelines, including Retail and Signage Provisions of Commercial Design Guidelines

May 22, 2023

New York City (New York County) – 5 World Trade Center; World Trade Center Memorial and Cultural Program Land Use Improvement and Civic Project – Affirmation of Amendment to Modified General Project Plan; Override of Local Zoning Regulations; Determination of Responsibility; Authorization to Acquire and Dispose of Real Property; Authorization to Execute Initial Agreement, Lease, Project Documents and Lease Administration Agreement; and Authorization to Take Related Actions

RESOLVED, that, on the basis of the materials presented to this meeting (the “Materials”), a copy of which is hereby ordered filed with the records of the Corporation relating to the World Trade Center Memorial and Cultural Program Land Use Improvement and Civic Project (the “MGPP”), and pursuant to Section 16 of the New York State Urban Development Corporation Act (the “UDC Act”), after due consideration of (i) all oral and written comments received at the September 15, 2022 Public Hearing and during the public comment period thereafter (“Public Comment”), (ii) the UDC Act findings made at the November 18, 2021 and July 21, 2022 meetings, and (iii) applicable law, the Corporation does hereby affirm the Revised Amendment to the MGPP as presented to this meeting, a copy of which Revised Amendment is hereby ordered filed with the records of the Corporation; and be it further

RESOLVED, that, on the basis of the Materials, the Corporation hereby finds, pursuant to Section 16(3) of the Act, that it is not feasible or practicable for the Proposed Project described in the Materials to comply with all local zoning regulations and, accordingly, the Corporation hereby overrides the local zoning regulations as and to the extent described in the Revised Amendment for the specified purposes of the Proposed Project; and be it further

RESOLVED, that, on the basis of the Materials, the Corporation hereby finds Silverstein Properties, LLC and its Project-specific affiliate 5WTC LLC, as well as the development partners Brookfield Properties, Silverstein Properties, LLC, Omni New York LLC, and Dabar Development Partners, to be responsible; and be it further

RESOLVED, that, on the basis of the Materials, the Corporation hereby finds it is necessary and convenient for the Corporation to acquire the Development Site from LMDC, for its immediate or future use in furtherance of its corporate purposes in connection with the Proposed Project, subject to the rights of The Port Authority of New York and New Jersey as described in the Materials; and be it further

RESOLVED, that based on the Materials and Public Comment, the Corporation hereby authorizes execution of the Initial Agreement, Lease, Project Documents, and Lease Administration Agreement, as described in the Materials, together with such changes therein as any officer of the Corporation may deem appropriate, in such officer’s sole discretion, and hereby finds that the same are in conformity with the MGPP, as amended; and be it further

RESOLVED, that completion of the actions contemplated hereby remain expressly contingent upon: (1) approval of the Public Authorities Control Board, as applicable; (2) execution and delivery of the Memorial Lease by PANYNJ to LMDC's designee; and (3) receipt of all other necessary approvals; and be it further

RESOLVED, that the officers of the Corporation or any such officer's designee, acting singly, be, and each of them hereby is, authorized and directed in the name and on behalf of the Corporation to negotiate, execute and deliver any and all documents and to take any and all actions necessary or proper, in their respective sole discretion, as may be necessary or appropriate to effectuate the Proposed Project and the foregoing resolutions.

* * *

**Amendment to
World Trade Center Memorial and Cultural Program
General Project Plan
May 16-22, 2023**

The World Trade Center Memorial and Cultural Program General Project Plan as amended through April 21, 2022 (the “MGPP”), a copy of which is attached hereto, is being modified by Lower Manhattan Development Corporation (“LMDC”) and the New York State Urban Development Corporation, doing business as Empire State Development (“ESD”), in connection with the proposed development of the Redevelopment Site labeled “Tower 5” (known as “Site 5”) on the World Trade Center Memorial and Redevelopment Plan, Proposed Site Plan as of April 2022, attached to the MGPP. The modifications to the MGPP described in this amendment relate only to Site 5. Capitalized terms used but not defined herein have the meanings set forth in the MGPP.

1. The MGPP allows development of Site 5 as a commercial-only building, in accordance with certain commercial design guidelines administered by an agreement between PANYNJ and the City, or as a mixed-use building with residential, fitness and community facility uses, in addition to commercial office space and retail uses, in accordance with mixed-use design guidelines to be adopted by ESD. The mixed-use design guidelines provide that only provisions of the commercial design guidelines governing retail and signage apply to any mixed-use building on Site 5.

2. To the extent that the development plan described above would otherwise be subject to the New York City Zoning Resolution, it would not be feasible or practicable to comply with such law, to the extent set forth below, in connection with implementation of a mixed-use development. Therefore, development of a mixed-use building on Site 5 would be exempted from certain provisions of the Zoning Resolution pursuant to the UDC Act. Such override would permit a mixed-use development more reflective of, and consistent with, federal, state and city goals for the revitalization of Lower Manhattan. The design guidelines would constitute a significant component of the land use plan and controls for mixed-use development on Site 5, while remaining flexible enough to accommodate design innovation and the need for adjustment and modification in response to changing conditions.

3. The development of any mixed-use building on Site 5 would be subject to and conform with the applicable provisions of the New York City Zoning Resolution (the “ZR”) and New York City Building Code, except as provisions of the New York City Zoning Resolution are overridden by ESD and LMDC pursuant to the New York State Urban Development Corporation Act as proposed below:

- (i) Override the definition of “zoning lot” (ZR Section 12-10) to allow for creation of a zoning lot comprising the “project site” as set forth in the mixed-use design guidelines;
- (ii) Override the maximum floor area ratio (“FAR”) of 15.0 permitted pursuant to ZR Sections 91-21 & 91-22 to allow a maximum FAR of 15.0 for the mixed-use building on Site 5 without regard to any additional floor area attributable to improvements on other portions of the project site;

- (iii) Override the maximum residential FAR of 10.0 (ZR Section 91-21 & 91-22) to allow an overall residential base FAR on the project site of 12.0 without provision of recreational space or utilization of floor area increase regulations (ZR Section 91-23);
- (iv) Override height and setback controls of ZR Section 91-30 *et seq.*, including the regulations pertaining to street walls and maximum base heights (ZR Section 91-31), setbacks (ZR Section 91-32), and the maximum horizontal dimension for tall buildings (ZR Section 91-34);
- (v) Override (a) the Special Lower Manhattan District curb cut regulations (ZR Section 91-52) to allow curb cuts on Greenwich Street without authorization from the City Planning Commission or Commissioner of Buildings, and (b) the underlying zoning regulations related to the location of curb cuts for loading berths (ZR Section 36-682) and the minimum length of loading berths (ZR Section 13-31);
- (vi) Override the Mandatory District Plan Elements of the Special Lower Manhattan District regulations (ZR Section 91-40 *et seq.*), including regulations related to: (a) pedestrian circulation space (ZR Section 91-42), (b) the amount of lobby frontage permitted on Greenwich Street (ZR Section 91-411), (c) access and glazing of retail space (ZR Section 91-412), and (d) special urban design regulations (ZR Section 37-50 *et seq.*);
- (vii) Override residential building signage regulations (ZR Sections 22-32, 22-34 & 32-68); and
- (viii) Override any other provision of the Zoning Resolution not listed above to construct the mixed-use building in compliance with the mixed-use design guidelines.

Such override is conditioned upon compliance with the substance and procedures of the mixed-use design guidelines, including those provisions of the commercial design guidelines made applicable to mixed-use development on Site 5.

**Amendment to
Lower Manhattan Development Corporation
World Trade Center Memorial and Cultural Program
General Project Plan
April 20, 2022
and
Adoption by Empire State Development
April 21, 2022**

The World Trade Center Memorial and Cultural Program General Project Plan (the “GPP”), a copy of which is attached hereto, is being modified by Lower Manhattan Development Corporation (“LMDC”) and adopted as modified by the New York State Urban Development Corporation, doing business as Empire State Development (“ESD”), to allow mixed-use development on the Southern Site. Also attached is an updated version of the World Trade Center Memorial and Redevelopment Plan, Proposed Site Plan as of April 2022. The modifications to the GPP described in this amendment relate only to the Redevelopment Site labeled “Tower 5” on such Proposed Site Plan (known as “Site 5”). Capitalized terms used but not defined herein have the meanings set forth in the GPP.

In view of Lower Manhattan’s transition from a predominantly office district to a mixed-use neighborhood, the GPP would be amended as follows to permit a building to be developed on Site 5 with residential, fitness and community facility uses, in addition to commercial office space and retail uses:

1. A mixed-use building on Site 5 could be up to approximately 1.345 million square feet, inclusive of commercial and retail uses, with an up to approximately 1.1 million square-foot residential component, of which a minimum of 25 percent of the units would be permanently affordable housing units; a connection to Liberty Park; and a minimum of approximately 10,000 square feet of community facility space if any residential component is included.

2. LMDC, ESD and the Port Authority would cooperate in developing and implementing the plan for any mixed-use building to be located on Site 5, which could be completed by 2028. If a mixed-use building is to be constructed on Site 5, it is expected that ESD would own Site 5.

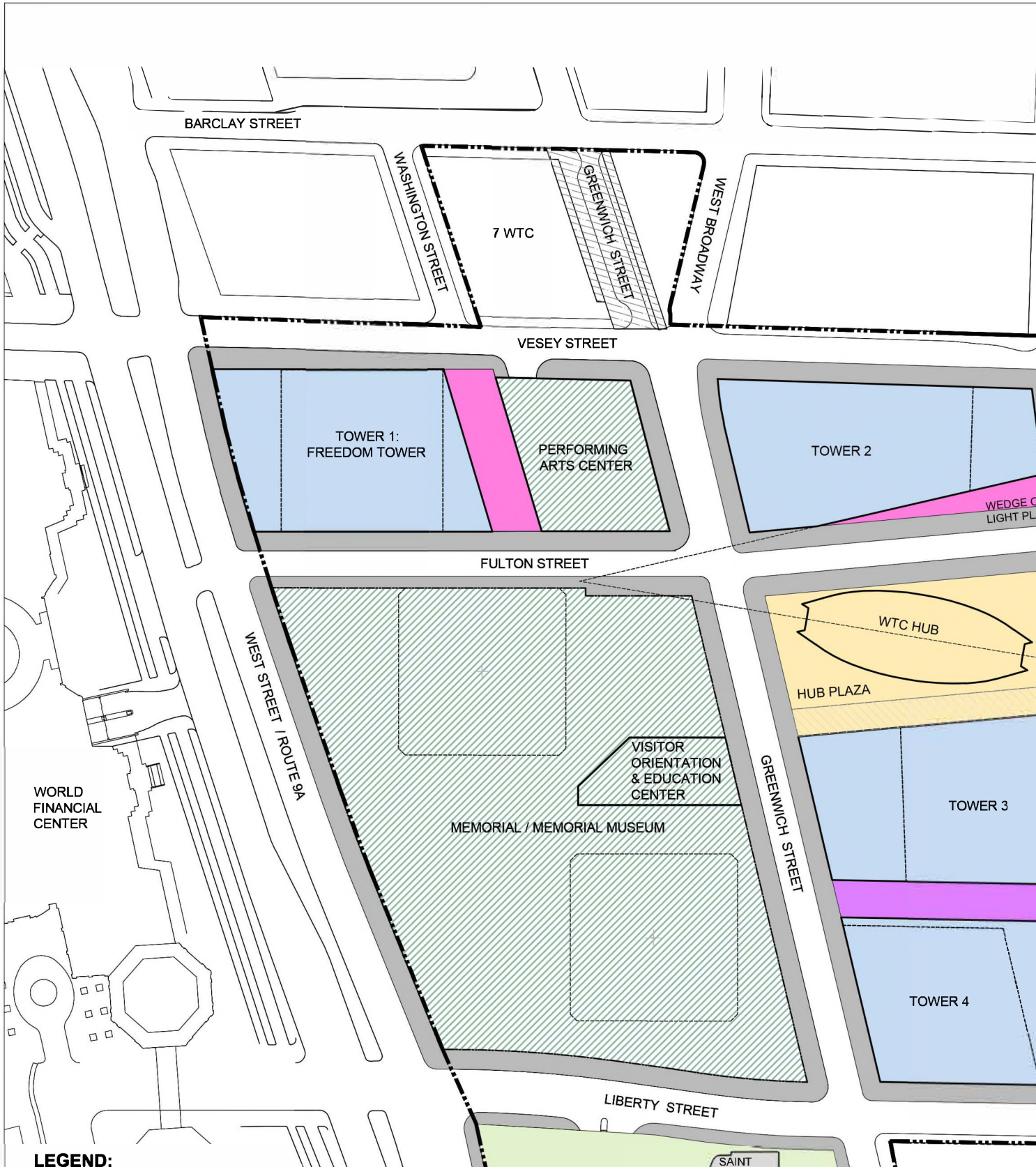
3. A set of mixed-use design guidelines would be adopted by ESD in connection with any proposal for a mixed-use building on Site 5. The mixed-use design guidelines would guide future development of any such mixed-use building in a manner consistent with this amendment to the GPP and the goals for any mixed-use commercial, residential, retail and community facility development on Site 5. Following their adoption by ESD, ESD would administer the mixed-use design guidelines.

4. LMDC, acting as lead agency under both NEPA and SEQRA, has prepared an Environmental Assessment (“2021 EA”), made available to the public on November 17, 2021. The 2021 EA concluded that this amendment to the GPP and the possible development of a mixed-use building on Site 5 are not expected to have any significant adverse environmental impacts not previously disclosed in the 2004 Final GEIS. Based on the 2021 EA, LMDC determined that a supplemental environmental impact statement is not required under NEPA or SEQRA and issued

a Finding of No Significant Impact and Determination of Non-Significance, made available to the public on November 17, 2021.

5. The Southern Site is zoned for commercial, residential and community facility uses under the New York City Zoning Resolution (zoning classification C6-9). Development of a mixed-use building on Site 5 would be exempted from some or all provisions of the Zoning Resolution pursuant to the UDC Act. Any such override of the Zoning Resolution would be determined in connection with the proposal for a mixed-use building on Site 5. Any mixed-use building would be developed in substantial conformance with mixed-use design guidelines that would be consistent with the 2021 EA as it may be supplemented from time to time and would form part of the land use plan and controls for Site 5.

6. The GPP would continue to allow potential future commercial-only development on Site 5. However, with respect to the potential mixed-used development described above, this amendment supersedes any contrary provisions of the GPP. Certain factual conditions in the GPP reflect factual conditions as of the adoption of the 2007 GPP and have not been updated.



LEGEND:

SAINT

Attachment 2

World Trade Center Memorial and Cultural Program General Project Plan
June 2, 2004, As Amended February 14, 2007

[see attached]

**Lower Manhattan Development Corporation
World Trade Center Memorial and Cultural Program
General Project Plan
June 2, 2004, As Amended February 14, 2007**

1. Introduction

The Lower Manhattan Development Corporation (“LMDC”) is charged with assisting New York City in recovering from the terrorist attacks on the World Trade Center and ensuring that Lower Manhattan emerges as a strong and vibrant 21st century central business district. The centerpieces of LMDC’s efforts are the creation of a permanent memorial remembering and honoring the thousands of innocent men, women, and children lost in the terrorist attacks (the “Memorial”) and cooperation with other public and private entities in the revitalization and redevelopment of the World Trade Center site (as described specifically in Section 4 below, the “WTC Site”) and adjacent areas to the south of the WTC Site (as described specifically in Section 4 below, the “Southern Site”) and to the north of the WTC Site (as described specifically in Section 4 below, the “Northern Site”) in the Borough of Manhattan in New York City. The WTC Site and the Southern Site, but not the Northern Site, will be referred to collectively as the “Site.”

LMDC, a subsidiary of the Empire State Development Corporation (“ESDC,” a political subdivision and public benefit corporation of the State of New York), is proposing to undertake, pursuant to the New York State Urban Development Corporation Act (“UDC Act”) and in cooperation with the United States Department of Housing and Urban Development (“HUD”) and The Port Authority of New York and New Jersey (“Port Authority”), the World Trade Center Memorial and Cultural Program (the “Memorial Program”). The Memorial Program, for which construction began in 2006, includes the planning, selection, coordination and construction of a Memorial and Memorial Museum, and the planning and possible construction of memorial-related improvements and cultural uses at the Site to complement the redevelopment of commercial office space, retail space, conference center and hotel facilities, open space areas, a reconstructed church and certain infrastructure improvements at the Site (the “Redevelopment Program”). LMDC and Port Authority will plan these Programs together to constitute a land use improvement and civic project for the redevelopment of the Site (the “WTC Memorial and Redevelopment Plan” or the “Plan”), extending to the Northern Site solely for the purposes described below. The planning process will also include other appropriate public and private entities.

2. LMDC and Port Authority Roles

LMDC will be responsible for implementation of the memorial and cultural uses that comprise the Memorial Program, while the Port Authority will be responsible for the commercial, retail, conference center and hotel facilities, open space areas, and infrastructure components of the Redevelopment Program to be located at the WTC Site. LMDC and the Port Authority will cooperate in developing a plan for implementation of the components of the Redevelopment Program and other activities to be located at the Southern Site. The WTC Memorial and Redevelopment Plan may also require or involve consents, approvals or other supporting actions by other local, state or federal agencies in connection with its approval and implementation. As described in Section 10 below, LMDC has conducted a coordinated environmental review of the combined WTC Memorial and Redevelopment Plan.

In carrying out the Memorial Program, LMDC conducted an international competition that in January 2004 resulted in the selection of a winning Memorial design, “Reflecting Absence,” by Michael Arad and Peter Walker. An interpretive museum will be developed, known as the Memorial Museum, that will tell the story of the events of September 11, 2001 and February 26, 1993. LMDC will provide initial funding for the design, development, and construction of the Memorial and Memorial Museum, will plan for memorial-related improvements and cultural facilities and uses, and will oversee the overall implementation of the Memorial, Memorial Museum and cultural programming and, possibly, elements of the Redevelopment Program, including all required coordination with the Port Authority, HUD, the State of New York, The City of New York (the “City”), and other public and private entities. LMDC will also continue to coordinate the Memorial Program with the plans and implementation schedule for the Redevelopment Program.

3. Project Objectives

The rebuilding of the Site as a mixed-use center of commerce, public spaces, and culture, with a Memorial at its heart, will advance the goals of the UDC Act, the objectives developed by LMDC and the goals articulated by the Governor of the State of New York and the Mayor of the City of New York—to remember and honor the victims of the terrorist attacks while revitalizing Lower Manhattan.

a. Remembering the Victims of the Terrorist Attacks

The Memorial will ensure that future generations never forget the thousands of people who died on September 11, 2001 in New York, in Shanksville, Pennsylvania and at the Pentagon in Virginia, as well as those who died in the terrorist bombing at the World Trade Center on February 26, 1993. The Memorial will be set in a context that bustles with the activity of Lower Manhattan yet provides a quiet and respectful setting for remembrance and contemplation. Visitors from around the world will come to the Site to learn about the events of September 11, 2001 and February 26, 1993 and to remember those who were lost. The proposed plan described below and graphically depicted on Attachment 1 (World Trade Center Memorial and Redevelopment Plan, Proposed Site Plan as of November 2006) provides appropriate access, circulation, structural support, utilities and other necessary services to the Memorial and Memorial Museum.

b. Revitalizing Lower Manhattan

The current conditions of the Site are “substandard and insanitary” under the UDC Act and impair the sound growth and development of Lower Manhattan. In addition, there is a need for the development of cultural, recreational, community and other civic facilities in Lower Manhattan.

Restoring the Site as a functioning part of Lower Manhattan is a priority objective for this project. This project is intended to re-establish the Site as a locus of commerce, civic space and amenities, including appropriate commercial and retail uses, as well as supporting facilities, utilities and infrastructure, for the downtown area. While Lower Manhattan is a center of world finance and a major economic engine for the entire region, downtown has also become the fastest growing residential neighborhood in New York City and a major destination for regional, national

and international travelers. The loss of commercial office space on September 11, 2001 has impaired Lower Manhattan's ability to grow as a world-class 21st century central business district. Restoration of this commercial space is critical to Lower Manhattan's future. To serve the resulting mix of workers, residents and visitors, revitalization of Lower Manhattan should include cultural and other amenities that help make the area a lively environment all day, every day.

The long-term presence of an essentially empty, excavated space in the heart of New York's financial district would also be a blight that makes the area less attractive for businesses, residents and visitors. It is important to New York City's economy that, as business leases in Lower Manhattan come up for renewal, businesses will have confidence that the Site will be redeveloped as quickly as possible to reduce its blighting effect on the immediate area. In addition, Lower Manhattan's status as the nation's third largest central business district will be threatened without the redevelopment of the Site.

4. Project Location

The Site is located in Lower Manhattan on two sites, as shown on Attachment 1:

(i) the WTC Site, bounded as follows:

Beginning at the intersection of the eastern right of way line of Route 9A/West Street and the northern curb line of Vesey Street,

East along the northern curb line of Vesey Street to the western right of way line of West Broadway,

North along the western curb line of West Broadway to the northern right of way line of Vesey Street,

East along the northern right of way line of Vesey Street to the eastern right of way line of Church Street,

South along the eastern right of way line of Church Street to the southern right of way line of Liberty Street,

West along the southern right of way line of Liberty Street to the intersection with the eastern right of way line of Route 9A/West Street,

North along the eastern right of way line of Route 9A/West Street to the point of beginning;

and

(ii) the adjacent Southern Site immediately to the south of the WTC Site, bounded as follows:

Beginning at the intersection of the eastern right of way line of Route 9A/West Street and the southern right of way line of Liberty Street,

East along the southern right of way line of Liberty Street to the eastern right of way line of Greenwich Street,

South along the eastern right of way line of Greenwich Street to the southern right of way line of Cedar Street,

West along the southern right of way line of Cedar Street to the western curb line of Greenwich Street,

South along the western curb line of Greenwich Street to the northern curb line of Albany Street,

West along the northern curb line of Albany Street to the eastern curb line of Washington Street,

North along the eastern curb line of Washington Street to the southern right of way line of Cedar Street,

West along the southern right of way line of Cedar Street to the intersection with the eastern right of way line of Route 9A/West Street (and including subsurface property below a depth of approximately 32'10" from the top of the existing grade and extending up to 50'5" south from the southern right of way line of Cedar Street), and

North along the eastern right of way line of Route 9A/West Street to the point of beginning.

The Southern Site includes those properties commonly known as 130 Liberty Street, 140 Liberty Street and 155 Cedar Street.

The Northern Site, located in Lower Manhattan immediately to the north of the WTC Site as shown on Attachment 1, is bounded as follows:

Beginning at the intersection of the northern curb line of Vesey Street and the eastern right of way line of Washington Street,

North along the eastern right of way line of Washington Street to the southern curb line of Barclay Street,

East along the southern curb line of Barclay Street to the western curb line of West Broadway,

South along the western curb line of West Broadway to the northern curb line of Vesey Street,

West along the northern curb line of Vesey Street to the point of beginning.

The original 7 World Trade Center occupied a superblock site, blocking the continuation of former Greenwich Street through the Northern Site. Consistent with LMDC's early planning principles, 7 World Trade Center was redesigned and constructed to preserve the possibility of reintroducing the Greenwich Street corridor as a public street for pedestrian and/or vehicular access through the Northern Site ("Greenwich North"), extending north of the new Greenwich Street on the WTC Site under the Plan. The Northern Site is included in this general project plan to facilitate that possibility and to facilitate the transfers of certain property interests within the Northern Site among the involved governmental entities and possibly the net lessee of 7 World Trade Center, as described in Section 7 below, and not to subject the Northern Site to any other requirements or procedures for any other purpose.

5. Project Setting

The Site is located in Lower Manhattan, the historic “downtown” core of New York City. Today, downtown is characterized by narrow, winding canyons of first-generation skyscrapers standing beside modern office towers located on open plazas and along the district’s principal streets. Rich in history and historic architecture of every era and style, Lower Manhattan is a global center of finance, the center of New York City’s government, the home of several major educational institutions, and the site of many new and established museums, historical and cultural institutions.

The Site is surrounded by several distinct neighborhoods, each with different characters and uses. Tribeca, to the north of the Site, has evolved since the construction of the original World Trade Center into one of Manhattan’s premiere residential neighborhoods through the conversion of mid-rise office and warehouse buildings into loft apartments. Immediately to the south of the Site is the Greenwich South district, characterized by Class B and C office buildings, some of which are being converted to residential use by private developers. East of the Site lies the Fulton corridor, a commercial area in which aging building stock is slowly being converted to residential use. Wall Street and the historic financial core are located southeast of the Site. Immediately to the west of the Site is Route 9A/West Street, a state highway that formerly lined the Hudson River and formed the western edge of the island. Across West Street from the Site, Battery Park City has been developed over land fill as a mixed-use neighborhood, including a substantial residential community, the World Financial Center and other office towers, retail stores, riverfront parks, and open space.

One of the densest concentrations of mass transit in the United States is situated in and around the Site, serving a downtown with one of the highest percentages of transit riders of any business district in the country. Fourteen subway lines run within one-quarter mile of each other, spanning from the Port Authority Trans-Hudson (“PATH”) terminal in the middle of the Site to an MTA New York City Transit facility that runs along Fulton and Dey Streets east to William Street. Numerous city and private bus lines also serve the area.

On September 11, 2001, terrorist attacks destroyed every structure on the WTC Site: the World Trade Center office towers, commercial and government low-rise buildings, the hotel, and the underground concourse, PATH terminal and subway stations. The properties constituting the Southern Site, adjacent to the WTC Site, were also destroyed or damaged and blighted by the events of September 11, 2001: the Deutsche Bank office tower at 130 Liberty Street was severely damaged, remains uninhabitable, and will be deconstructed; the small St. Nicholas Church at 155 Cedar Street was destroyed; and the property at 140 Liberty Street was and remains blighted by dust, debris and the condition of the surrounding properties. Several other buildings surrounding the Site were also severely damaged, including one that housed two electrical substations, with some remaining unoccupied today. Some streets remain closed or occupied by safety installations and construction equipment. Many businesses and residents in the area surrounding the WTC Site were at least temporarily displaced—others have still not returned, including the activities formerly conducted at the Southern Site. While most of the WTC Site remains closed to the public, a wide sidewalk and viewing area with a commemorative viewing wall has been created along the east side of the site on Church Street. The portion of Liberty Street between the WTC Site and the Southern Site also contains a commemorative viewing wall and is open to pedestrians from Church Street to the temporary bridge over West Street to Battery Park City. On the Northern Site,

construction on the new 7 World Trade Center has been completed. The reopening of the Con Edison electrical substations at the base of 7 World Trade Center took place in May 2004.

Construction began on a temporary PATH station in the summer of 2002 and was completed in November 2003. This station restores service to the WTC Site until the WTC Hub (formerly referred to as the Permanent WTC PATH Terminal) can be constructed. The WTC Hub would be constructed within the Site but is not part of the WTC Memorial and Redevelopment Plan. The WTC Hub is expected to include an architecturally prominent station building, underground concourses, and expansion of the capacity of PATH trains with additional platforms and longer platform lengths.

The MTA New York City Transit is planning a redevelopment of the Fulton and Dey Street transit facility into a large, central transit center to be located at Broadway between Fulton and John Streets. This project, which is not part of the WTC Memorial and Redevelopment Plan, will rehabilitate, reconfigure, and enhance the multilevel complex and subway stations serving nine different lines.

6. The Memorial Program

a. General

The Memorial Program, when combined with the Redevelopment Program, will create a new mixed-use development with a significantly different configuration than existed on the Site before September 11, 2001. New cultural facilities will make the site a destination for visitors throughout the region and bring new activity to the neighborhood after business hours and on the weekends. Most significantly, a Memorial, Memorial Museum, and Visitor Orientation and Education Center (“VOEC”) will sit at the heart of the Site, drawing visitors from around the world to learn about what happened on September 11, 2001 and on February 26, 1993, to remember those who died, and to provide a continually evolving context for these historic events.

b. Uses

i. Memorial

Almost immediately after the tragic events of September 11, 2001, a broad public consensus emerged that a fitting Memorial be created at the WTC Site, and that it be the defining element of the rebuilding process. The design of the Memorial is based on the concept “Reflecting Absence” by Michael Arad and Peter Walker, selected in January 2004 by an independent jury after an international competition. The winning design concept includes an approximately 3-acre at-grade landscaped plaza surrounding two pools of water recessed approximately 30 feet below grade. Names of victims will be inscribed around each of the pools. In addition, an approximately 1-acre at-grade public plaza extends north of the VOEC to the intersection of Greenwich and Fulton Streets.

The Memorial Museum will be located beneath the landscaped plaza. It will house artifacts that tell the story of the attacks on the World Trade Center and will provide access to a portion of the western slurry wall to the lowest level of the structural bathtub. Access to remaining box beam column base remnants will also be provided at the lowest level of the north and south tower

footprints, approximately 70 feet below grade. The VOEC will serve as the single-entry point to the Memorial Museum, in addition to having visitor amenities and its own exhibition and program spaces. Visitors would descend from the VOEC to the Museum, where views to the North and South pools and waterfalls would be available from windowed vestibules.

The Memorial is expected to attract millions of visitors each year. In addition to the challenge of creating a dignified and respectful setting within a thriving downtown, the Memorial setting, and these additional visitors must be accommodated in a manner that considers and complements the other uses on and around the Site.

ii. Cultural Buildings and Programming

Throughout the extensive public participation process organized by LMDC, numerous comments called for the development of cultural facilities and programming at the Site. A new cultural core in Lower Manhattan would celebrate life and diversify and revitalize the surrounding area. In addition to the Memorial Museum and VOEC described above, the site plan includes new cultural facilities in a performing arts center with 1,000-1,800 seats at the northwest corner of Fulton and Greenwich Streets. To enhance the architectural prominence of this venue and promote its identity as a major new cultural institution, the performing arts venue will be separated at grade from Tower 1 (“Freedom Tower”) by 60 feet.

7. The Redevelopment Program

The Memorial Program will be compatible with and complement the Redevelopment Program. The Redevelopment Program includes redevelopment of certain uses that existed on the Site prior to September 11, 2001, but reflects and respects the Memorial Program uses new to the WTC Site. Infrastructure and utilities will be located to allow for better integration with the Memorial Program and Redevelopment Program elements. Public open space will also be provided. The current configuration of the program elements described below is depicted in Attachment 1.

a. Commercial Office Space

The Site contained approximately 12.7 million square feet of above-grade office and governmental space: (1) the WTC Site contained approximately 10.9 million square feet of office space and associated unspecified amounts of below-grade areas in addition to approximately 700,000 square feet of space at the U.S. Customs House; and (2) the Southern Site contained approximately 1.3 million square feet of office space. The Redevelopment Program provides for the development of approximately 10 million square feet of Class A commercial office space, of which approximately 8.8 million square feet will be located in four buildings on the WTC Site, and up to approximately 1.3 million square feet will be located on the Southern Site in one building.

b. Retail

The World Trade Center contained highly diverse retail stores that served visitors and downtown workers as well as neighborhood residents. The new retail program at the Site will

provide for approximately 500,000 to 600,000 square feet of retail. Retail uses at or above grade will be maximized while providing spaces for other at-grade uses.

c. Hotel and Conference Center

The Marriott Hotel at the WTC Site was a 22-story hotel with 820 rooms, with meeting and support space. Most of its customers were business travelers. Lower Manhattan needs to replace this hotel space to serve existing and expected new businesses and residents, as well as the visitors to new cultural and Memorial uses.

Downtown lacks a large venue for conferences. Conference facilities and hotel are desirable on the Site because of its central location and excellent access to the regional transportation network. The Redevelopment Program could include a hotel with up to 800 rooms and up to 150,000 square feet of conference space. The location and conceptual design of any hotel is still being studied and will be determined by the City and the Port Authority at a later date.

d. Streets and Public Open Spaces

Prior to September 11, 2001, the World Trade Center occupied a superblock site, blocking the continuation of adjacent streets through the site. The WTC Memorial and Redevelopment Plan reintroduces Fulton and Greenwich Streets through the WTC Site, aligned as shown on Attachment 1. These streets will connect adjacent neighborhoods and support the active street life that is characteristic of New York City. Cortlandt Street will also be reintroduced between Church and Greenwich Streets as a pedestrian street, aligned as shown on Attachment 1. The area of the former Dey Street between Church and Greenwich Streets will be built as an open pedestrian way, incorporated into and designed as part of the adjacent “HUB Plaza” described below, as shown on Attachment 1. The Cortlandt and Dey Street rights of way within the WTC Site will be subject to recorded use restrictions developed by the City and the Port Authority which will be consistent with and, among other things, will effectuate the foregoing.

The existing mapped streets comprising the perimeter of the former superblock – Vesey, Church and Liberty Streets – will be realigned as shown on Attachment 1.

Within the Southern Site, Washington Street between Liberty and Cedar Streets will be closed and incorporated into Liberty Park. The portion of Cedar Street within the Southern Site will be realigned as shown on Attachment 1.

Within the Northern Site, it is anticipated that the Port Authority will own the portions of former Greenwich Street that are located within the footprint of the new 7 World Trade Center, as well as most of the subsurface portion of the remainder of former Greenwich Street, and that the City will continue to own the remainder of former Greenwich Street and will own additional parcels along the eastern and southern boundaries of former Greenwich Street. However, the future dimensions and use of Greenwich North are still being studied and may be the subject of easement agreements among the involved governmental entities and/or the net lessee of 7 World Trade Center.

In order to optimize the pedestrian experience, minimum sidewalk widths of 25 feet will be implemented throughout the Site, except that: (1) sidewalks along the northern edge of the

Memorial site along Fulton Street west of Greenwich Street shall be 15 feet; (2) no sidewalks shall be required along Cortlandt Street in view of the anticipated use of that street as a pedestrian street and gateway to the Memorial; and (3) the widths of sidewalks on the Southern Site will be subject to future discussion between the Port Authority and the City, but will be a minimum of 15 feet.

The re-introduction and realignment of streets within the Site will require the acquisition of property adjoining the former streets, to be incorporated into the newly aligned streets, and the disposition of portions of the former streets that will not be part of the newly aligned streets. The closing of portions of streets and incorporation of those streets and other City-owned property into the Plan also will require the acquisition of property, as discussed below.

In addition, subsurface portions of Church, Liberty, Washington and Cedar Streets, and subsurface areas below the new Fulton and Greenwich Streets, will be acquired and incorporated into the below-grade infrastructure at the Site. Also, easements for rock anchor tie-backs will be acquired within subsurface portions of Vesey, Church, Liberty, Greenwich and Cedar Streets.

Streets through the Site and the Northern Site* will be designed and built to meet or exceed New York City Department of Transportation (NYCDOT) standards and will have the following directions and lane capacity, except as may be agreed to by NYCDOT:

<u>Street</u>	<u>Direction</u>	<u>Lane Number</u>
Church	Northbound	4
Greenwich North*	Southbound*	2*
Greenwich (south of Vesey Street)	Southbound	4
Vesey	Eastbound	3
Fulton	Westbound	3
Liberty	Eastbound/Westbound	4

* Northern Site is still being studied.

The WTC Site contained a public plaza raised above street level. The plaza contained a sculpture and was the setting for occasional public events such as concerts and dance performances. The Redevelopment Program calls for a series of public open spaces to be located throughout the Site including the “Wedge of Light” plaza at Fulton and Church Streets, the “HUB Plaza” at Greenwich Street south of the proposed WTC Hub entrance, and Liberty Park south of Liberty Street between Route 9A and Greenwich Street. A public plaza will also be located in front of the performing arts venue on Fulton Street, unless otherwise required by the program of the cultural institution selected for the site. These parks and plazas will accommodate a range of different active and passive recreational uses.

e. St. Nicholas Greek Orthodox Church

The WTC Memorial and Redevelopment Plan provides for reconstruction of the St. Nicholas Greek Orthodox Church, which was located on the southwestern portion of the Southern

Site and was destroyed on September 11, 2001. The church will be rebuilt within the new park area to the south of Liberty Street.

f. Infrastructure and Utilities

Infrastructure and service areas for the components of the WTC Memorial and Redevelopment Plan will be primarily located below-grade and accessed via the Liberty Street vehicular ramp at Liberty Park. These below-grade uses may require the acquisition of subsurface property, including portions of adjacent streets as described above. The majority of uses at the Site, including the Memorial, cultural, commercial office, retail and hotel, will share this below-grade servicing infrastructure.

The WTC Memorial and Redevelopment Plan will accommodate visitors to the Memorial Program in a dignified and respectful manner that considers and complements the Memorial setting. Visitor services and amenities will be provided at the Site. These will include a below-grade bus parking facility.

Mechanical equipment areas, utility zones, storage areas, and other building service areas and connections will also be located primarily below grade at the Site. Rock anchor tie-backs will be installed below certain streets and may be installed in certain private properties adjacent to the Site to support below-grade retaining walls. This may require the acquisition of subsurface easements from the City and certain private property owners.

8. Design Guidelines

The redevelopment of the Site will be carried out in phases over an anticipated period of approximately 12 years. In order to assure that the open spaces, buildings and other features designed and built throughout the entire development period reintegrate the site with the rest of Lower Manhattan, exemplify excellence in design, are consistent with the vision for the site, and are compatible with the intent of the WTC Memorial and Redevelopment Plan, a set of commercial design guidelines will be adopted by the Port Authority, which is responsible for implementation of the Redevelopment Program. The commercial design guidelines will guide future development for the Redevelopment Program in a manner consistent with this general project plan and the environmental review described below. LMDC, the City, the Port Authority and the Port Authority's net lessees have worked together in a cooperative manner with respect to the formulation of the commercial design guidelines. Following their adoption by the Port Authority, in a form acceptable to the City, administration of the commercial design guidelines will be governed by agreement between the Port Authority and the City.

In addition to specifying the uses described above, the commercial design guidelines will outline general building envelopes for each identified commercial development parcel, including height, bulk, massing, setbacks, streetwalls, and maximum buildable tower area. The commercial design guidelines will also establish parameters for (1) lobby locations and access points, including vehicular and service access; (2) retail location and orientation, minimum frontage, and other key features; (3) streetscape, sidewalk and public open space framework; (4) signage; and (5) sustainability.

The commercial design guidelines will constitute a significant component of the land use plan and controls for the Site, while remaining flexible enough to accommodate design innovation and the need for adjustment and modification in response to changing conditions.

The designs of the Memorial, Memorial Museum and VOEC, as described above, have progressed to a point at which design guidelines are no longer necessary. LMDC will continue to be responsible for determining consistency with this general project plan and the environmental review described below of the commercial design guidelines (including variances and amendments) and of the design of the performing arts venue.

9. Relocation

All above and below grade structures at the Site were destroyed or severely damaged on September 11, 2001. Structures that remain are unoccupied. Even before September 11, 2001, there were no residential occupants on the Site. No relocation will be caused by the proposed WTC Memorial and Redevelopment Plan.

10. Environmental Review

LMDC, acting as lead agency under both the National Environmental Policy Act (“NEPA”) and the New York State Environmental Quality Review Act (“SEQRA”), conducted a coordinated environmental review of the WTC Memorial and Redevelopment Plan. LMDC prepared a Generic Environmental Impact Statement (“GEIS”) as part of that review. The GEIS process included extensive opportunities for the public to comment on the environmental impacts of the proposed project prior to final approval by LMDC. Such review resulted in a Final GEIS released in April 2004, a Record of Decision and Findings Statement dated June 2, 2004. Supplemental reviews by LMDC have since resulted in an Environmental Assessment, Finding of No Significant Impact and Determination of Non-Significance dated May 19, 2005, and an Environmental Assessment, Finding of No Significant Impact and Determination of Non-Significance dated October 12, 2006.

11. Funding and Operation of the WTC Memorial and Redevelopment Plan

The Memorial Program will be administered and operated by public or not-for-profit entities. LMDC proposes to use existing HUD Community Development Block Grant funds and other public and private contributions for the Memorial Program.

The Port Authority will be responsible for the components of the Redevelopment Program to be located at the WTC Site.

LMDC and the Port Authority, working with the City, will cooperate in developing a plan for implementation of the components of the Redevelopment Program to be located at the Southern Site, which will be funded by a combination of public and private sources.

Redevelopment of the Site and any transfers associated with Greenwich North will require acquisition or disposition of property and/or lease or development agreements. In such case, LMDC, ESDC, the Port Authority, the City, or other governmental entities may acquire and/or transfer title to property, including subsurface and other easements. Property may be acquired by negotiated purchase, where possible, or by condemnation. Generally, it is anticipated that the Port

Authority will own the Site and hold the easements described above, except for the portions of the Site allocated for the Memorial Program, in which LMDC, The World Trade Center Memorial Foundation, Inc. or another designee of LMDC will hold an appropriate real property interest, and certain streets or interests in streets, which will be owned by the City.

12. Zoning; City Map

The WTC Site is zoned for commercial uses under the New York City Zoning Resolution (zoning classifications C6-4, C5-3). However, the WTC Site is exempt from zoning requirements because property at the Site owned, controlled or operated by the Port Authority is not subject to the jurisdiction of the city or state of New York.

The Southern Site is zoned for commercial uses under the New York City Zoning Resolution (zoning classification C6-9). Redevelopment of the Southern Site will be exempted from these zoning requirements pursuant to the UDC Act and/or as a result of having been incorporated into the World Trade Center site.

Instead, the Site will be developed in substantial conformance with the commercial design guidelines that will form part of the land use plan and controls for the Site. The proposed WTC Memorial and Redevelopment Plan is nonetheless consistent with local land use plans and nearby zoning classifications. Consistent with the program described in Section 7 above, the WTC Memorial and Redevelopment Plan currently includes open space, a church, and an approximate 57-story, up to approximately 1.3 million square foot commercial office tower on the Southern Site.

To the extent the Plan realigns or eliminates portions of mapped streets (including for purposes of easements as described above), it is inconsistent with the City Map. It will be infeasible and impracticable to comply with the official map and other local laws related thereto, including Sections 197-d, 198 and 199 of the New York City Charter due to the time constraints imposed by the construction schedule for the entire WTC Memorial and Redevelopment Plan. Given the substantial opportunity afforded the public to comment on the Plan, no additional public purpose would be served by the delay that would be associated with an amendment of the City Map.

As stated above, implementation of the WTC Memorial and Redevelopment Plan will involve acquisition or disposition of property interests by one or more governmental entities. To the extent that any such transaction would otherwise be subject to the New York City Uniform Land Use Review Procedure or other local law, it will not be feasible or practicable to comply with such law in connection with Plan implementation. Such compliance would not permit the public entities responsible for Plan implementation to meet construction schedules and, given the substantial opportunity afforded the public to comment on the Plan, no concomitant public purpose would be served by such delay.

Site 5 World Trade Center
Mixed-Use Design Guidelines
May 2023

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1. Introduction

a. Project Description

The project is the development and operation of Tower 5 at the World Trade Center pursuant to the World Trade Center Memorial and Redevelopment Plan described in the World Trade Center Memorial and Cultural Program General Project Plan dated June 2, 2004, as amended through May 22, 2023 (as may be further amended from time to time, the “WTC MGPP”). The project is envisioned to become a world class mixed-use residential and commercial building on a site (“Site 5” or the “Development Site” as defined below) at the southern edge of the World Trade Center.

b. Purpose of the Mixed-Use Design Guidelines

These guidelines (the “Design Guidelines”) establish a framework for the development of a mixed-use residential, community facility and commercial building for Site 5. As set forth in the WTC MGPP, for purposes of mixed-use development on the Southern Site, the Design Guidelines supersede those portions of the World Trade Center Commercial Design Guidelines (as may be amended from time to time, the “WTC CDGs”) which relate to Site 5, except that the Design Guidelines do not supersede Section 7 (Retail Guidelines) and Section 9 (Signage and Graphics Guidelines) of the WTC CDGs, attached hereto, which are part of the Design Guidelines for Site 5 and will apply to any mixed-use building on Site 5 (in addition to the provisions of the Design Guidelines herein), but will be administered by The Port Authority of New York and New Jersey.

Further, the Design Guidelines do not supersede the Commercial Sustainable Design Guidelines annexed as Appendix D to the 2004 Record of Decision (“ROD”), as amended by the ROD addendum dated February 16, 2007 (the “Sustainable Design Guidelines”).

The New York State Urban Development Corporation, doing business as Empire State Development (“ESD”), will administer the Design Guidelines. The Port Authority of New York and New Jersey will administer the sections of the WTC CDGs referenced above.

c. Applicable Law and Zoning Overrides

In accordance with the New York State Urban Development Corporation Act, the WTC MGPP overrides certain provisions of the New York City Zoning Resolution (the “Zoning Resolution”) with respect to the Development Site, as set forth below.

Development on Site 5 will be subject to and conform with the applicable provisions of the Zoning Resolution, the New York City Building Code, the New

York City Energy Conservation Code and any other applicable laws, except as provisions of the Zoning Resolution are overridden by the WTC MGPP as follows:

- (i) Override the definition of “zoning lot” to allow for creation of a zoning lot comprising the “project site” as set forth in the Design Guidelines;
- (ii) Override the maximum floor area ratio (“FAR”) of 15.0 to allow a maximum FAR of 15.0 for the mixed-use building on Site 5 without regard to any additional floor area attributable to improvements on other portions of the project site;
- (iii) Override the maximum residential FAR of 10.0 to allow an overall residential base FAR on the project site of 12.0 without provision of recreational space or utilization of floor area increase regulations;
- (iv) Override height and setback controls, including the regulations pertaining to street walls and maximum base heights, setbacks, and the maximum horizontal dimension for tall buildings;
- (v) Override (a) the Special Lower Manhattan District curb cut regulations to allow curb cuts on Greenwich Street without authorization from the City Planning Commission or Commissioner of Buildings, and (b) the underlying zoning regulations related to the location of curb cuts for loading berths and the minimum length of loading berths;
- (vi) Override the Mandatory District Plan Elements of the Special Lower Manhattan District regulations, including regulations related to: (a) pedestrian circulation space, (b) the amount of lobby frontage permitted on Greenwich Street, (c) access and glazing of retail space, and (d) special urban design regulations;
- (vii) Override residential building signage regulations; and
- (viii) Override any other provision of the Zoning Resolution not listed above to construct the mixed-use building in compliance with the mixed-use design guidelines.

In those instances where the WTC MGPP overrides the Zoning Resolution, the Design Guidelines shall control in lieu of the Zoning Resolution and ESD’s review of development plans for the Development Site with respect to compliance with the WTC MGPP and the Design Guidelines will replace zoning compliance review by the New York City Department of Buildings (the “DOB”). In those instances where the Zoning Resolution is not overridden, compliance with the Zoning Resolution and any other applicable laws will continue to be reviewed by the DOB.

d. Goals and Objectives of the Design Guidelines

The Design Guidelines define the design direction of the new development at Site 5 in order to facilitate an appropriate mix of uses, activation of the streetscape, and a building form that will enhance the entirety of the World Trade Center Memorial and Redevelopment Plan, and will provide a state of the art mixed-use project that is responsive to market demands and fulfills urban design objectives.

Proposed uses, tower massing, and ground floor programming are described herein to create a dynamic mix of programs and world class design.

e. General Provisions

The Design Guidelines contain text as well as site plans and diagrams (the “Design Control Diagrams”). The Design Control Diagrams are hereby incorporated and made part of these Design Guidelines and are equally binding as if fully described in the text.

All measurements of height shall be measured from the “*Design Flood Elevation*” as defined by the New York City Building Code. Pursuant to New York City Local Law 43 of 2021, the anticipated Design Flood Elevation is two feet above the base flood elevation, which would correlate to 311.48 feet NYNJPA datum.

Certain terms and concepts used in these Design Guidelines are also contained in the Zoning Resolution. Unless otherwise stated, such terms shall have the meanings as set forth in the Zoning Resolution.

The word “shall” is always mandatory and not discretionary. The word “may” is permissive.

f. Sustainability

The new development shall be designed and constructed to meet LEED Gold standards for building performance, or an equivalent standard that may exist at the time detailed design work begins for a development. In addition, the new development shall comply with NYC Local Law 97 of 2019 and with the Sustainable Design Guidelines that are applicable to a mixed-use building.

g. Definitions

All Electric Building. An All Electric Building is a building utilizing all electrical heating and cooling.

Development Site. The Development Site, identified in Figure 1, is the location of the proposed building at Block 54, p/o Lot 1.¹ The lot area of the Development Site is 33,008 square feet.

Fitness and Social Center. Fitness and Social Center shall mean a commercial or non-commercial establishment, which is equipped and arranged to provide instruction, services, or activities which improve or affect a person's well-being by physical exercise, massage or therapeutic or relaxation services.

Gross Square Feet or gsf. Gross Square Feet shall mean the area of floor space measured within the outer surface of building walls except for areas open to the sky above. The permitted gsf for the mixed-use building is different than the square footage for the mixed-use building set forth in the WTC MGPP due to differences in measurement, not differences in the building. The applicable square footage limitation on the building provided in the WTC MGPP, which is not modified by the Design Guidelines, is based on the zoning floor area.

Landscape Buffer. A Landscape Buffer is a planting bed defined by a raised curb.

Laws. References to laws means laws, rules, orders, ordinances, regulations, statutes, requirements, permits, consents, certificates, approvals, codes and executive orders.

Loading Area. A Loading Area is an area used for the movement of commercial goods, tenant moving, refuse collection and removal, located off Washington Street.

Pedestrian Zone. The Pedestrian Zone shall be provided to increase the capacity of the sidewalks as well as to provide for access to entrances and uses at the ground floor and shall include those areas of increased sidewalk width within the Development Site that provide increased pedestrian circulation space.

Podium Façade. The Podium Façade is any portion of the building façade located below the maximum base height and directly below a Tower Setback. Portions of the building façade that are not located directly below Tower Setbacks are not considered Podium Façade and are not subject to Podium Façade requirements.

Project Site. The Project Site is the zoning lot for the project, identified in Figure 1, and includes the property located at Block 54, p/o Lots 1, 30, and 40, Block 56, p/o Lots 15, 20, and 21, and p/o Washington Street and p/o Liberty Street

¹ Tax lot numbers to be updated upon reapportionment.

previously acquired from the City of New York.² The lot area of the Project Site is 92,759 square feet.

Required Setback Area. A Required Setback Area is an area above the maximum base height where application of the maximum tower coverage results in a setback from the base.

Through-Site Connection. The Through-Site Connection is a space connecting Washington Street and Greenwich Street at the north of the Development Site that contains a pedestrian path with a minimum width of five feet and a vehicular access lane.

Tower Façade. The Tower Façade is any portion of the building façade located above the Tower Setbacks, and also includes any portion of the building façade that is below the maximum base height and not located directly below a Tower Setback.

Tower Setback(s). A setback or setbacks provided at or below the maximum base height in compliance with the maximum tower coverage requirement of Section 3(b)(ii).

² Tax lot numbers to be updated upon reapportionment.

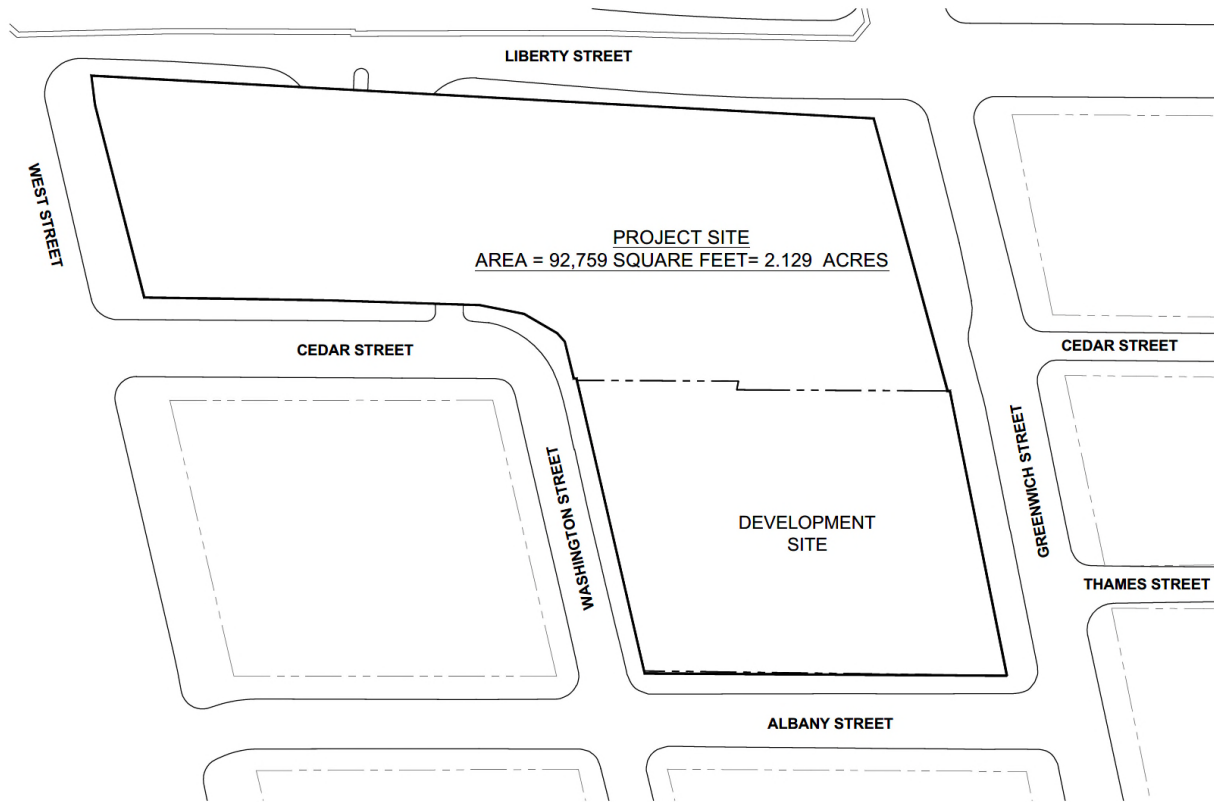


Figure 1 - Project Site

2. Project Program

a. Uses

Permitted uses at the Development Site shall include:

- Residential
- Office
- Fitness and Social Center
- Community Facility without sleeping accommodations
- Retail
- Accessory Uses

b. Density

Table 1
Potential Programs Analyzed**

	A Maximum Residential (1,270 Units)	B Reduced Residential (1,193 Units)
Residential	1,386,898 gsf*	1,126,563 gsf*
Commercial	180,000 gsf	374,361 gsf
Fitness and Social Center	36,000 gsf	80,645 gsf
Community Facility	13,000 gsf	21,329 gsf
Retail	12,000 gsf	25,000 gsf
Total	1,627,898 gsf**	1,627,898 gsf**
<p>Note: * An additional 50,000 gsf of residential mechanical space is permitted for an all-electric building under either program. ** Each use in the mixed-use building may be provided up to the maximum gsf set forth in either column A or column B, subject to ESD's confirmation of consistency with the WTC MGPP and the related environmental and other reviews undertaken by ESD and LMDC, and further provided that the building does not include more than 1,386,898 residential gsf or less than 1,050,000 residential gsf, or more than 1,627,898 gsf in the aggregate.</p>		

3. Building Bulk, Massing, and Exterior Design

a. Ground Plane

Pedestrian Zones shall be provided at ground level adjacent to the public sidewalks along Greenwich and Albany Streets where shown on Figure 2. The surface of the Pedestrian Zones shall be consistent and seamless with the adjacent sidewalk material, with no obstructions.

The building may project above a Pedestrian Zone to the Development Site property line at an average height of at least 20 feet.

Vehicular circulation shall be provided by a Through-Site Connection along the north of the Development Site connecting Washington Street to Greenwich Street in the location shown on Figure 2.

The Through-Site Connection is required to be open to the public and to have an average height of at least 20 feet. The vehicular drive may be differentiated from pedestrian areas by means of distinct paving or curbs, bollards, or a combination.

A Landscaped Buffer of at least 300 square feet shall be provided within the "*Landscape Buffer Zone*" shown in Figure 2.

Curb cuts are permitted within the "*Loading Curb Cut*" and "*Drive Lane Curb Cut*" zones shown in Figure 2. The maximum width for each Drive Lane Curb Cut is 12 feet per curb cut. The maximum width for each Loading Curb Cut is 30 feet per curb cut.

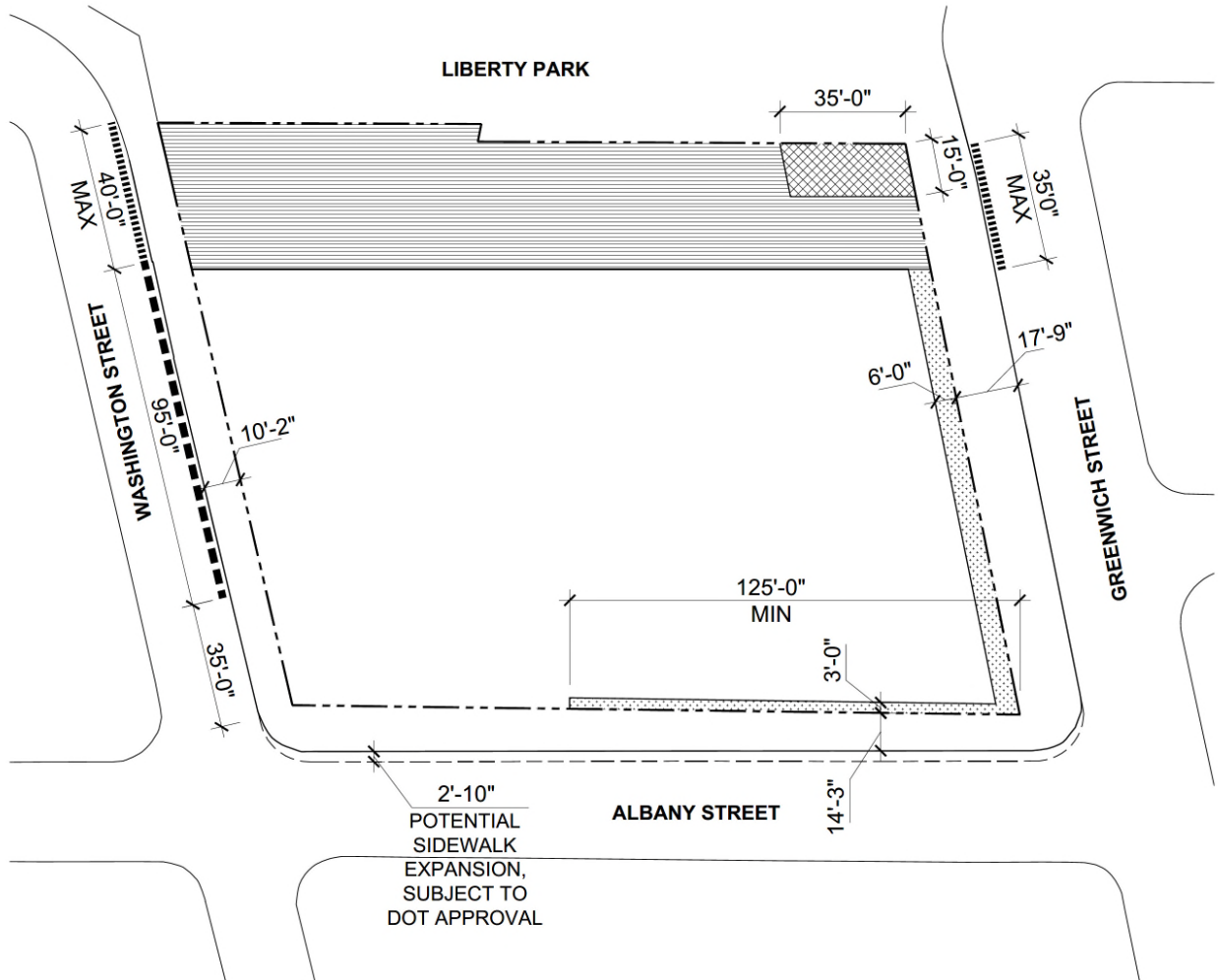


FIGURE 2

- | | | | |
|-------|---------------------|--------|------------------------------|
| ----- | PROPERTY LINE | | PEDESTRIAN ZONE |
| ----- | LOADING CURB CUT | ===== | THROUGH SITE CONNECTION ZONE |
| | DRIVE LANE CURB CUT | XXXXXX | LANDSCAPE BUFFER ZONE |

Figure 2- Ground Plane Diagram

b. Building Envelope

i. Maximum Base Height

A maximum base height of 190 feet is permitted.

ii. Maximum Tower Coverage (Tower Setback)

Beginning at or below maximum base height, the tower shall set back so that the gsf of each floor above the maximum base height shall not exceed 75 percent of the area of the Development Site. See Figure 3.

iii. Permitted Obstructions Above Maximum Base Height

The following obstructions may be permitted in the Required Setback Area:

- awnings
- balconies and railings
- decks
- solar energy systems
- vegetated roofs
- window washing equipment
- wind energy systems
- wind mitigation elements such as, but not limited to, a six foot high glass partition at the parapet
- outdoor kitchens and barbeques
- exercise equipment
- privacy partitions and trellises
- pergolas

iv. Maximum Building Height

A maximum building height of 900 feet is permitted, except that the maximum building height of an All Electric Building shall be 940 feet. Rooftop water tanks, cooling towers, and mechanical equipment shall be screened on all sides. Elevator or stair bulkheads, flagpoles, roof water tanks, cooling towers or other mechanical equipment shall not be permitted above the maximum building height. The maximum building height may only be exceeded by spires, masts, aerials, and buildings maintenance systems. Exposed masts and aerials shall not exceed 10 percent of the roof area nor shall their height exceed the heights of the masts or aerials on 4 World Trade Center.

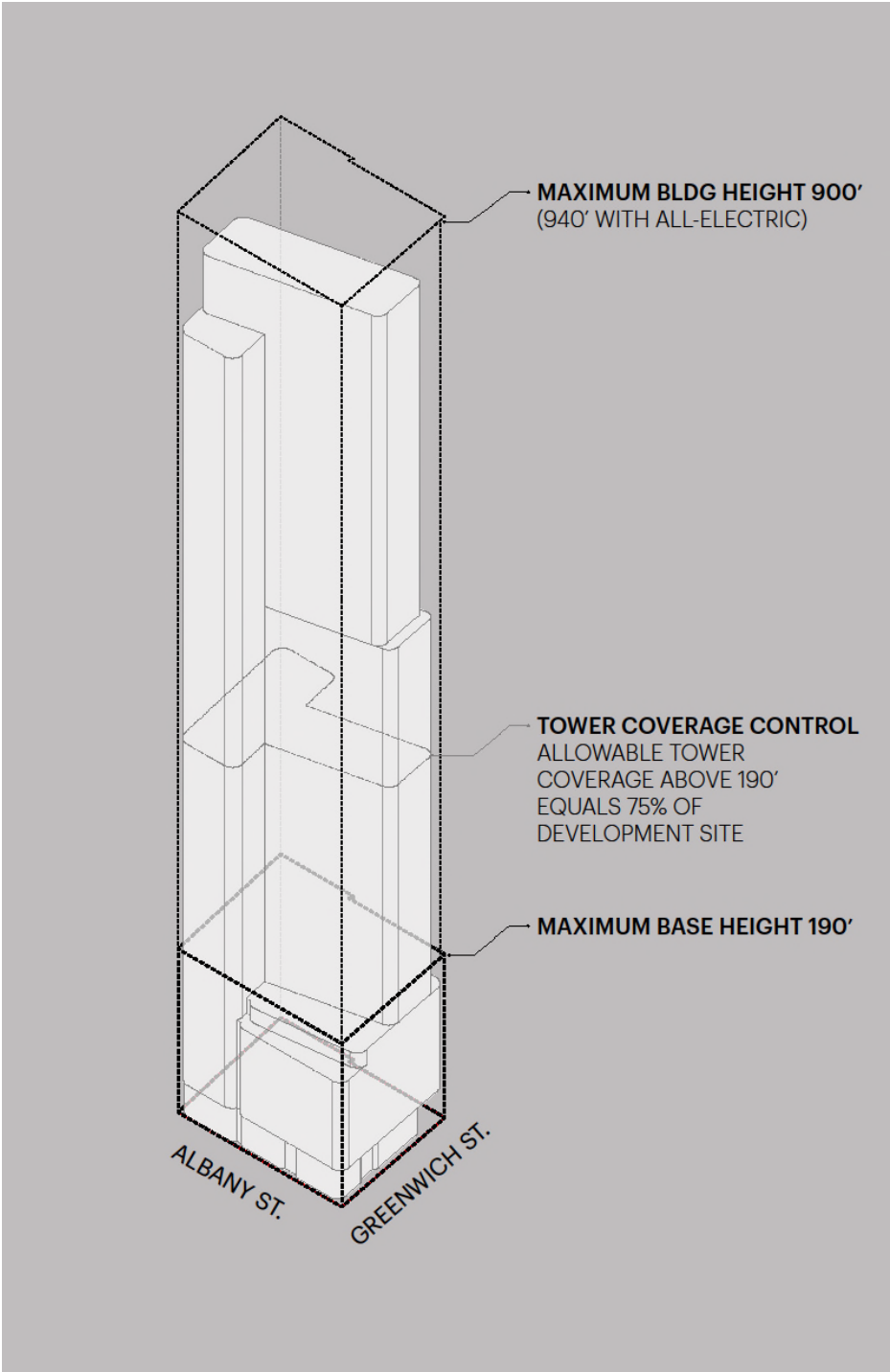


Figure 3 - Base Height and Tower Coverage

c. Exterior Building Design

i. Podium Façade

The Podium Façade shall have a three part composition comprised of a base, a middle and a top:

- Base - The lower (street) portion of the Podium Façade shall range in height from one to two stories above the ground with a minimum height of 20 feet. The façade of the base shall primarily be glass storefront. At the ground floor, the storefront shall meet the transparency requirements described in Section 4.
- Middle - The middle portion of the Podium Façade shall be located between the base portion and top portion and shall be characterized by a primary grid of masonry, or similar materials (e.g., brick, stone, precast concrete, GFRC, UHPC, terracotta, fiber cement, FRC, ceramic or porcelain). The area within the grid shall be comprised of vision glazing, spandrel glazing and masonry, or similar materials. Louvers, as required by building mechanical services, may be used in lieu of glazing. The combined vision glazing, spandrel glazing and louver area shall not exceed 75 percent of the total surface area of the middle portion of the Podium Façade.
- Top - The top portion of the Podium Façade shall include the top 1 or 2 full stories below the Tower Setbacks and shall be characterized by a primary grid of masonry, or similar materials (e.g., brick, stone, precast concrete, GFRC, UHPC, terracotta, fiber cement, FRC, ceramic or porcelain), similar to the middle portion of the Podium Façade. The area within the grid shall be comprised of vision glazing, spandrel glazing and masonry, or similar materials. Louvers, as required by building mechanical services, may be used in lieu of glazing. The combined vision glazing, spandrel glazing and louver area shall not exceed 75 percent of the total surface area of the top portion of the Podium Façade. The area within the primary grid shall be differentiated from the area with the primary grid of the middle of the Podium Façade by such techniques as changes of material or color, plane shifts, articulations or recesses.

The Podium Façade shall have rounded (radiused) corners. The requirements of this Section shall not apply to any portion of the Tower Façade, including portions of the Tower Façade located below the maximum base height.

ii. Tower

The Tower Façade shall have a glassy character and may include architectural elements that break down the scale of the building. The Tower Façade shall have rounded (radiused) corners. The Tower Façade requirements of this Section shall

apply to all portions of the Tower Façade, including portions of the Tower Façade located below the maximum base height.

iii. Connection to Liberty Park and Community Facility

Pedestrian Connection

A pedestrian connection shall be provided from the upper level of Liberty Park located to the north of the Development Site to the second floor lobby.

The portion of the pedestrian connection that is located on Liberty Park will be approved and permitted by the Port Authority.

The portion of the connection on the Development Site shall be located to provide a connection through the “*Bridge Connection Zone*” identified on Figure 4, and shall have a clear path with a minimum width of 10 feet and a minimum clear height of 10 feet from the surface of the pathway. The design character of the on-site connection shall be compatible with Liberty Park.

Community Facility

The “*Required Community Facility*” is anticipated to be located on the 3rd floor and will contain at least 10,000 SF. The Developer shall build out the Required Community Facility and deliver the space in a condition that allows for timely commencement of the operation of the facility.

Vertical Circulation to the Community Facility

Vertical circulation to the Required Community Facility will consist of:

-ADA elevator access: A three-stop elevator will provide access from the ground floor and second floor lobbies to the Required Community Facility floor. (If the Required Community Facility is located on the 2nd floor, then a two-stop elevator will be provided.)

-Communicating stair: If the Required Community Facility is located immediately above the second-floor lobby, then (i) an at least six-foot wide, visually open communicating stair will be provided from the second-floor lobby to the Required Community Facility; and (ii) the communicating stair and elevator access will be located adjacent to each other so as to provide coordinated vertical access to the Required Community Facility.

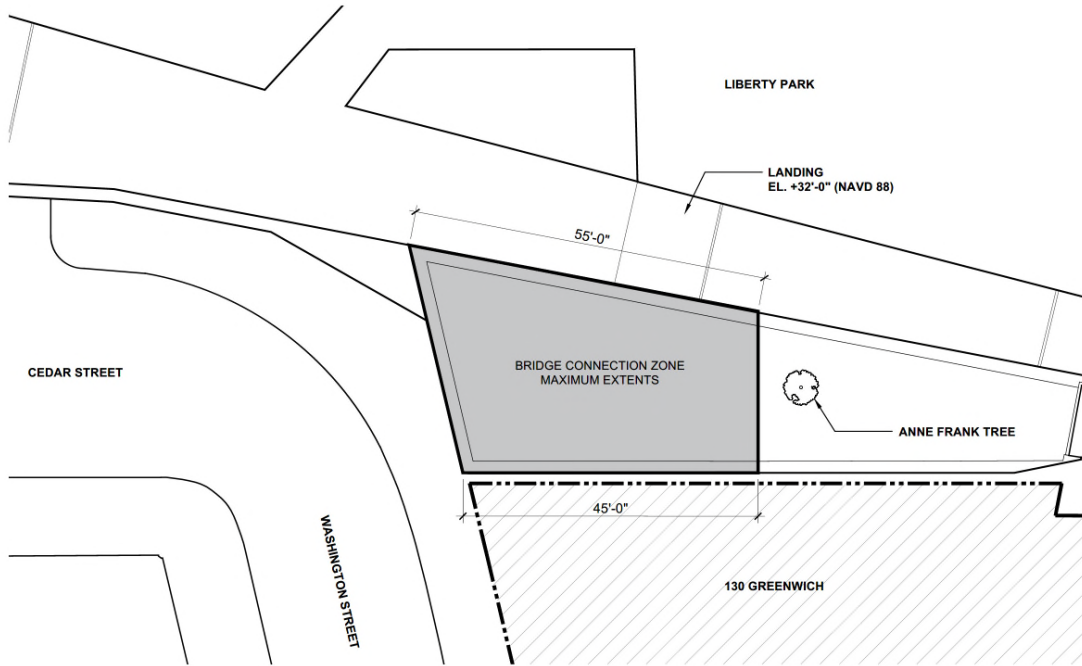


Figure 4 - Connection to Liberty Park

4. Ground Floor Frontage

a. Lobby Entry Zone

The lobby frontage on Greenwich Street shall be located within the “*Lobby Entry Zone*” shown on Figure 5 and shall not exceed 75 feet in length.

b. Retail Frontage

Retail frontage is required in the location indicated on Figure 5. In the “*Retail Frontage*” area, transparent materials shall occupy at least 50 percent of the surface area of the ground floor level street wall between a height of two feet and 12 feet, or the height of the ground floor ceiling, whichever is higher, as measured from the adjoining sidewalk. Transparent materials provided to satisfy such 50 percent requirement shall not begin higher than two feet, six inches above the level of the adjoining sidewalk or the Design Flood Elevation, whichever is higher.

Emergency exits and service entrances should be located to minimize disruption of retail frontages.

c. Non-Residential Frontage

Non-residential frontage shall be located as shown on Figure 5. Only community facility or retail frontage is permitted at this location.

In the “*Non-Residential Frontage*” area, transparent materials shall occupy at least 50 percent of the surface area of the ground floor level street wall between a height of two feet and 12 feet, or the height of the ground floor ceiling, whichever is higher, as measured from the adjoining sidewalk.

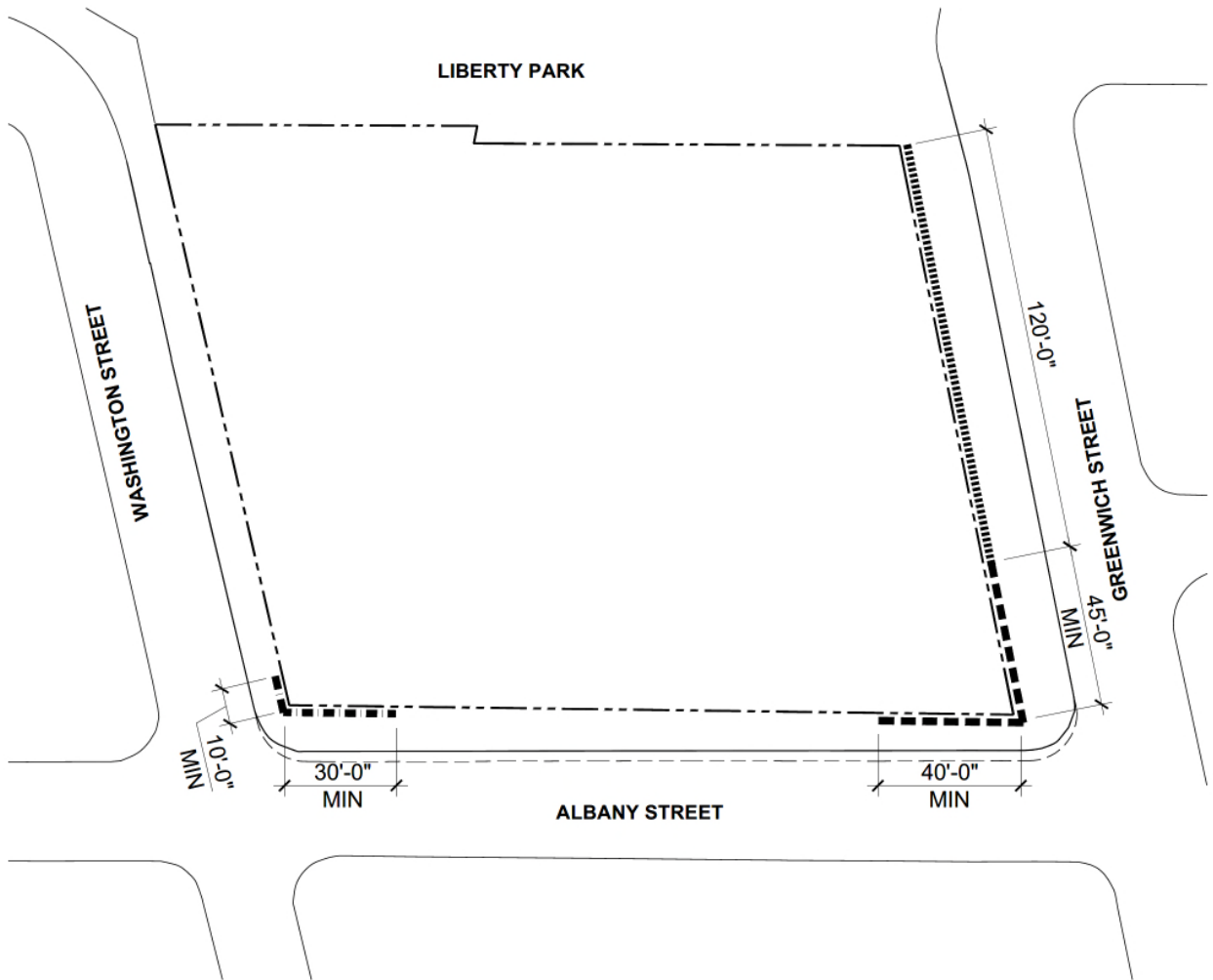


FIGURE 5

- LOBBY ENTRY ZONE
- RETAIL FRONTAGE
- . - . - . NON-RESIDENTIAL FRONTAGE

Figure 5 - Ground Floor Uses

5. Parking and Loading

a. Accessory Parking

Accessory parking is not permitted.

b. Off-Street Loading

Curb cuts providing access to off-street Loading Areas shall be located within the Loading Curb Cut zone shown on Figure 2. A minimum of two loading berths, each a minimum of 12 feet wide, 33 feet long, and 14 feet high, shall be provided.

Area will be provided within the building for off-street refuse storage and pickup.

A dedicated entry will be provided for off-street bicycle, pedestrian, or messenger deliveries.

6. Signage

a. Permitted Signs

All signs must be accessory to uses located within the building. Advertising signs are not permitted. Signage may not be located at a height more than 40 feet above curb level. Other than signage on canopies, awnings or marquees, no sign shall extend more than 12 inches beyond the street line.

b. Surface Area and Illumination

On each frontage, the area of all signs combined, inclusive of building identification signage, shall not exceed five times the length of the street frontage upon which such signs are located, but in no event more than 500 square feet on each frontage. Non-illuminated or illuminated non-flashing signs will be permitted.

c. North Facing Signage

Signage facing Liberty Park shall be limited to building identification or wayfinding signage and shall not be internally illuminated.

Where the northern Podium Façade facing the Through Site Connection is at least 20 feet from the northern boundary of the Development Site, the following commercial accessory signage shall be permitted to face the park on the northern Podium Façade:

- one 20 square foot internally illuminated, non-flashing cabinet sign, hung behind the façade, or

- two 10 square foot internally illuminated, non-flashing cabinet signs, hung behind the façade.

The top of such commercial accessory signs shall be no higher than 12 feet above the sidewalk.

Attachments: Sections 7 & 9 of World Trade Center Commercial Design Guidelines

Retail spaces are critical to the World Trade Center’s success as a lively, urban environment. At the same time, their character and locations must be balanced with sensitivity to the Memorial as well as the identity of other institutions and commercial considerations. This section establishes guidelines for retail spaces on the site, with particular attention paid to the relationship among retail, public concourses and streetscapes.

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- Introduction** **7.1**
- Types and Character of Retail** **7.2**
- Storefront Guidelines** **7.3**
 - Above Grade Storefronts 7.3.1
- Storefront Entries and Identity Zone** **7.4**
- Exterior Accessory Structures** **7.5**
- Food Service Establishments** **7.6**

7.1 Introduction

Retail spaces at the World Trade Center site are critical to creating a lively urban experience. Street level retail will create an identity for the site at-grade and will provide for an engaging pedestrian experience, similar to Fifth or Madison Avenues. At-grade street entrances to shops are encouraged.

The retail spaces will also activate the system of underground concourses that connect through the site and will offer convenience to transit customers. The success and public image of the World Trade Center will depend on the quality and vitality of its retail spaces and its ability to enliven the streetscape.

Retail spaces must be carefully integrated into the overall World Trade Center development. They must assert their own character, while respecting the stature of adjacent uses. They must add energy to the site, and complement the contemplative and respectful nature of the Memorial. They must be allowed to develop their own image, and still fit within the larger identity of the site as a whole. Retail hours of operation should be maximized to enhance the quality of life for Lower Manhattan residents, workers and visitors.

Shopping in New York is defined by the energy and diversity of its retail. At-grade retail within the development is to embrace and reflect this spirit. However, care must be taken to maintain a high degree of consistency and quality in the expression of the retail in order to reflect the world-class nature of this development.

Storefronts, signs and brands need to be presented in a manner that respects tenant standards and has a coherent identity as part of the overall World Trade Center. Retail and office areas also serve as part of the transportation network as well as the base for office structures. The synergy that results from this mix of uses, and the prominence of public transit on the site, create the ultimate value to the retailer.

Servicing shall not be permitted from the curb, except in cases of a tenant that is isolated from service.

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Types and Character of Retail **7.2**

While the guidelines presented here do not set out permitted or prohibited uses, it is important to communicate the desired character of retail space on the site, so the nature of these establishments has a consistency and quality that strengthens the overall concept. The presence of retail will serve as the connective tissue between the various addresses of the development. It is important that the expression and character of the retail be of high quality.

First, development on this site must be of world-class quality. The international attention focused on this site, the number of visitors who will come to the site from around the world, and the prominence of the site in New York, all require that a high standard of excellence be achieved. Each tenant should move beyond the customary standards of their particular operation and strive for a design that reaches a greater level of refinement.

Second, it is important to consider the role of retail use on the World Trade Center site as it relates to the rest of Lower Manhattan. Other than the South Street Seaport at the opposite end of Fulton Street, no large concentration of retailers exists in Lower Manhattan. Retail at the World Trade Center will establish a high level of service, choice and convenience. Retail on this site should complement retail throughout Lower Manhattan and local retailers should be encouraged.

Third, the office lobby entrances, grouped along the Greenwich Street corridor, form a transitional element between the Memorial experience to the west of Greenwich and the retail commercial environment to the east along the Church Street corridor. To respect the Memorial, retail frontage and retail signage should be directed to the Church Street Corridor and cross street areas. Retail Signage should not be directed toward the Memorial.

As retail on the World Trade Center site is distributed among at-, below-, and above-grade locations, the emphasis in designing such spaces should be on maintaining a strong connection to the street. Ensuring access to light and views should be a key priority in the configuration of above-grade retail. Multi-level retail spaces are encouraged, providing a connection from the street to both above and below-grade retail spaces.

Finally, the diversity of people who will frequent the retail areas will suggest the range of commercial uses for the site. Nearby residents, commuters, workers, and tourists will all be retail customers. Each of the groups has different needs and interests and the mix of retail should take this diversity into account. Each of them is likely to travel along somewhat different paths. Each group's needs can be accommodated in appropriate locations on the site and will be determined by the Port Authority and their lessee in accordance with an appropriate merchandising plan approved by the Port Authority.

7.3 Storefront Guidelines

The storefront articulates the transition between public areas and the commercial realm of the retailer. At the World Trade Center the storefront has a dual purpose: to allow the retailer to establish its image and also to create a consistency of design that connects each store to the larger context. This larger context suggests a common vocabulary of architectural expression for the storefront wall, specific to the base building that surrounds it.

See section 9, Signage Guidelines, for retail signage requirements.

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One of the most significant and visible parts of the World Trade Center site will be the street-level frontage of the various commercial buildings. The frontage will create a significant part of the experience for the pedestrians using any of the streets within or surrounding the WTC site.

In order to create an active, lively and vibrant public realm, ground floor plans, on Church Street, Fulton Street, Vesey Street, Liberty Street, Dey and Cortlandt, will be designed to "maximize" retail street frontage. The design must be consistent with first class building aesthetics and will include entrances for Class A Office tenants where circulation and security must be considered.

The final determination of the retail street frontage should include the following goals:

- Provide for the maximum amount of vitality and life along the street
- Provide sufficient amount of first class street-level retail to support that street life

Storefronts for above-grade areas should be integrated with the design of the individual buildings in which they are located. Therefore, there can be some variation from building to building, as long as several design principles are observed:

Storefront glazing should be clear glass, with at least two-thirds of the frontage transparent. Designers of structures should carefully consider the location of emergency exits and messenger entries so that openings do not conflict with retail frontage.

Mullion spacing materials, and proportions will be the result of decisions about the architecture of the structure above. There should be consistency between proportions, materials and details. Thus, the use of a uniform module is encouraged, but not required. All-glass or butt-glazed systems are preferred for storefronts. Introduction of opaque areas, such as stone or metal panels, is allowed, in patterns that relate to the building architecture.

Retail storefronts should be designed to be compatible with the unique architectural design features of the individual buildings within the World Trade Center site.

The following chart indicates the minimum retail frontages for Church and Fulton Streets. These percentages are based on the frontages of Towers 2, 3 and 4 only. The intent of these percentages is to maximize retail.

Minimum Retail Frontages along:

Church St (Between Vesey & Liberty St)	70%
Fulton St (Between Greenwich & Church St)	14%

7.4 Storefront Entries and Identity Zone

Entrances into the storefronts can be accommodated in several ways. First, standard openings, accommodating a pair of glass doors (and optional sidelight), should be used by tenants with frontages 30 ft. or less. Doors that swing into concourses or sidewalks shall be recessed. Tenants whose frontage is wider than 30 ft. may use horizontally sliding sections of glass and metal door panels. The appearance of the entry when the retail space is closed must be given as much consideration as when the space is open. Security grills, if required, must be inside the glazing line and should be fully behind the storefront display zone. Fully opaque grills are prohibited. Door hardware shall be of high quality and shall be consistent with commercial building standards.

The first few feet behind the storefront is the critical zone for establishing the identity of the retailer. In this space, displays that establish a refined merchandising image are encouraged. The interior architecture of this zone can be tailored to meet the identity of the store. The use of color, varied materials, and creatively displayed merchandise are generally left to the discretion of the tenant. This area can be left open to allow views deep into the store, or can serve as a screen limiting views. Merchandise-intense outlets such as drug stores, bookstores, newsstands, card shops, gift shops, food markets and the like should screen store interiors through well-designed displays facing the storefront. All materials used in the identity zone should be of the highest quality.

7.5 Exterior Accessory Structures

In permitted areas, retail uses may extend beyond the limits of the storefront wall. This can occur in kiosks and temporary structures. Kiosks are semi-permanent retail structures where inventory and equipment can be secured over night. Temporary structures may include easily demountable tents or exhibit structures. They should be designed with a consistent look.

Kiosks and temporary structures may be permitted in areas where they can serve to enliven the location and that do not conflict with circulation routes or other programmed uses on the site. Temporary structures may be erected in Liberty Park, the WTC Hub Plaza, the Wedge of Light Plaza or other open spaces subject to approval. Special events in the Wedge of Light Plaza north of Fulton are limited to 12 days per year and if it is more than this would need the consent of the Tower 2 office net lessee and WTC Retail owner. All special events should be in keeping with the retail and office building entry environment.

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Temporary structures are permitted on Cortlandt and Dey only during “Special Events”, which shall be limited to no more than twelve (12) times per year. Such “Special Events” shall consist of arts, cultural or similar events held on weekends only and open to the general public, but may also include weekday or weekend commemorations or other events of public significance with respect to the World Trade Center site. A “Special Event” may continue for no more than a twenty-four (24) hour period, which will include pre- set-up and post-cleanup activity. The Port Authority or Net Lessee will inform City Planning at least two (2) weeks prior to such an event and shall provide City Planning with a list and description of all such events held during each calendar year by January 31st of the succeeding calendar year.

Food Service Establishments **7.6**

Restaurants, cafes, food courts and other food service establishments represent unique challenges and benefits. These uses can activate and enliven spaces, but also can impact their surroundings if noise, odor and trash is not carefully managed. Therefore their locations and design need to be considered carefully. The location and design of outdoor dining areas should be temporary in nature with no permanent outdoor features and should not interfere with pedestrian flows and public access to walkways and public open spaces. Outdoor shades should be uniform in shape and color with consistent graphics.

Street level food service establishments must conform to the requirements of other retail spaces. Outdoor dining areas are encouraged.

Food service establishments are especially encouraged on second and third-floor levels. Seating areas should be located at the perimeter, adding visible life to the street. Service areas should be held back from the building perimeter.

All food service exhaust shall be coordinated with the commercial building mechanical system requirements.

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Signage Guidelines

Introduction	9.1
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9.1 Introduction

Environmental graphics and signage for the World Trade Center site require a visionary approach. From the use of names and nomenclature to the selection of typefaces and colors, each and every design decision must be carefully considered and thoughtfully reached in the context of the site as a whole.

The Signage Guidelines offer a framework for this decision making. They are intended to result in a harmonious and inspiring experience from the point of view of the user, whether it be the business commuter of today or the international tourist of tomorrow. Primarily as a user benefit, the signage is intended to provide information that simplifies, clarifies and enhances the user's visit to the World Trade Center site.

Through sound analysis, good planning and appropriate levels of consistency, the signage design at the World Trade Center site can create unified sense of place and leverage economies of scale in production and fabrication. A uniform signage program will give the World Trade Center site a unique identity and, in doing so, will knit together the many different program elements found on the site.

The end result should be a smart, attractive program that contributes to the WTC user and visitor experience and sets the standard for signage in the twenty-first century.

To achieve design integrity, these signage guidelines suggest the development of a "kit-of-parts" that contains a range of flexible, functional and complementary communication tools, and reasonable standards for their size, materials, placement, and other specifications.

The scale and complexity of the site's public spaces call for signage systems that include both dynamic and static components; accommodate both public information and promotional messages; and provide guest service and branding functions on an appropriate level. As such, signage will be an important link between the architectural environment and human behavior, helping people orient themselves, get where they want to go, and learn what they need to know, when they need to know it.

Fixed identification signs, directional signs, and safety and security messages will need to be visible, distinctive and durable, yet work in tandem with temporary information such as service and schedule notices. These graphics

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must also be distinguishable from PATH, MTA and commercial tenants' branding and serve their function within a potentially cluttered visual environment. The use of symbols, electronic displays and other media may be considered to complement the fixed, text-based communications, and to help overcome language and other physical and perceptual barriers.

OVERALL SIGNAGE GOALS

There are several key goals that should inform the development of the WTC signage.

- Create spaces and places linked by a common signage thread that assimilate into a series of memorable experiences.
- Clearly identify the WTC as a single location/place and establish a common set of standards for the benefit of all stakeholders and tenants.
- Create a modern, elegant and sophisticated atmosphere that clearly conveys the individual identities of the stakeholders and tenants by employing simple, strong and legible design elements.
- Display and contribute to the perception of the WTC as a vibrant yet respectful place to visit.
- Present clear, concise information where and when users need it by using consistent messaging, logical naming, meaningful symbols, icons and logos.
- Design signs that are architecturally enhancing and compatible with their environment.
- Use cutting-edge, state of the art technology.
- Design a system that links adjacent destinations.
- Do not create distracting images, such as flashing signs or moving images.

9.2 Goals and Recommendations

9.2.1 Overview

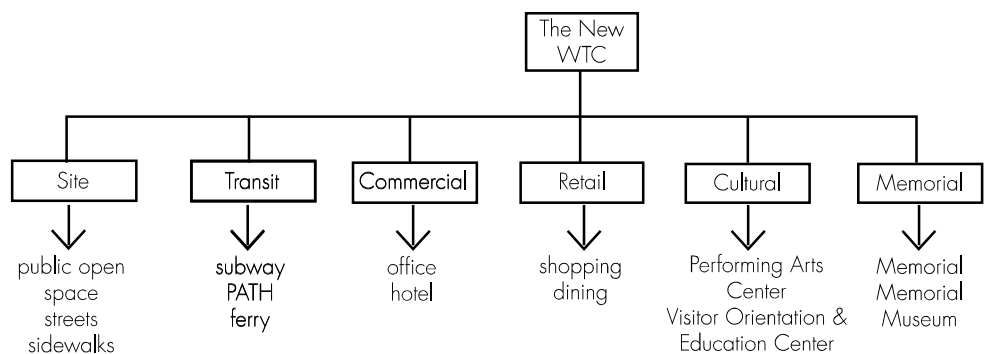
USERS

The new WTC site will be characterized by its many different amenities and populated by a wide variety of users. The people coming through this site will be there for any number of reasons, and possibly engage in more than one activity, for example:

- Memorial Visitor – shop – eat – visit memorial
- Transit Rider – transit – shop – eat
- Office Worker – transit – eat – shop – work
- Resident – recreation – transit – shop
- Cultural Visitor – culture – eat – shop
- Hotel Guest – eat – visit memorial – shop – transit – work
- Tourist – shop – eat

WAYFINDING EXPERIENCE

Signs play a major part in securing a user-friendly and cohesive experience for each of these user groups. The new WTC site will be physically integrated into the fabric of Lower Manhattan, therefore, identification signs need to help mark the transition between WTC and non-WTC buildings and public areas. As users enter the site, signs need to inform them about the different functions of the site and direct them from one to the other. Signs should consistently present and make a distinction between the different functions of the complex (transit, commercial, retail, memorial and cultural) and establish “paths” for the different users.



Following are further recommendations and guidelines per sign type. With the help of these recommendations, a meaningful and useful wayfinding and information signage system will be developed at the new World Trade Center.

COMPONENTS

Wayfinding and information systems provide the threads that carry people from all backgrounds, languages, and with varying destinations through a particular space. The system's success is based on its ability to communicate with the broadest audience and offer them a seamless wayfinding experience.

These are the functional elements that make up such a system:

Placemaking

Identification

Orientation

Direction

Information

Interpretation

Retail

Listed below are terms that will be used throughout this chapter:

SIGN: Any writing (including letter, word, or numeral), pictorial representation (including illustrations or decoration), emblem (including device, symbol or trademark), flag (including banner or pennant) or any other figure of similar character that is permanently affixed and used to advertise or identify a business via name or logo, the face of which shall not project more than 8" from the mounted surface.

SECONDARY SIGNAGE: Signage located at pedestrian level at or below eye site. They may occur in the lower 1/2 of the store façade. They should be 2-dimensional, applied directly to the glass or flush with the glass. It shall not be illuminated.

These signs shall be the store name and/or logo only.

ILLUMINATED SIGN: A sign lighted by or exposed to artificial lighting either by lights on or in the sign or directed toward the sign.

HALO EFFECT: Backlit sign that incorporates internal illumination to create a glow effect against the back wall surface.

FLASHING SIGN: Any directly or indirectly illuminated, whether stationary, revolving or rotating, that exhibits changing artificial light or color effects by any means whatsoever.

DYNAMIC SIGN or ELECTRONIC SIGN: A general term used for signs that can be changed manually or electronically by an electronic device. Some of these require manual programming.

LED (Light Emitting Diode): Series of light panels that incorporate a 4-color system to create an image. They are programmed via computer systems with manual input. This results in a pixilated image.

LCD (Liquid Crystal Display) TELEVISION MONITOR: Receives

signals via computer or cable. Image is clear and continuous.
PLASMA DISPLAYS: Similar to LCD technology, can be projected on a flat screen.
FIBER OPTICS: A strand of light transmitting fibers used to illuminate from the back, side or front of signs.

9.2.2 Placemaking

The act of placemaking requires clearly defining the WTC's role within Lower Manhattan. Environmental graphics play a crucial role in building the character and sense of place. The foundation of this character is established by the architecture, and complemented by landscape/streetscape design, interior design, and lighting.

The WTC site will serve as a major access point to transportation systems and destinations in Lower Manhattan. Its function as a major transportation, cultural and commercial destination for the City of New York is equivalent to that of Penn Station or Grand Central Station, therefore branding this site must take into consideration all the various user functions and constituencies.

Placemaking Goals

- Design a family of wayfinding and environmental signs to unify the WTC Site under one identity and style, define its boundaries, and tie together the separate buildings and spaces.
- Create an identity that embraces the Memorial, commercial, cultural and transportation functions of the site.
- Create sub-identities that are compatible with the overall framework for WTC site signage but allow leaseholders to develop a clear identity.
- Create a strong graphic identity (logo) for the WTC that can be used in a variety of media (print, signs, video, etc.)
- Equip the graphic identity system with simple and bold colors palette, 3D forms, typefaces, lighting and materials that reinforce the character of the architecture.
- Use environmental graphics to welcome visitors to the Site and allow them to experience a sense of security and confidence in their navigation of the space.

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Identification signs are visual markers that indicate the name and function of a place or space. They appear at the beginning and end of routes, including entrances and exits to destinations within larger destinations and clearly mark the transition from one kind of space or function to another. The development of a distinctive design vernacular for identification signs can contribute to a cohesive identity to a place. Legibility, visibility and consistency of identification signs and their components need to be maintained throughout the system.

Identification Goals

- Design a family of wayfinding and environmental signs and directories to unify the site under one identity and style, define its boundaries, and tie together the separate buildings and spaces.
- Establish consistent locations for identification signs throughout the site and ensure that the architecture has allowances for these elements.
- Develop a comprehensive and changeable map graphic that can be easily updated.
- Create a cohesive and consistent naming system for the parts of the site: buildings, building entrances, transit facilities, retail sectors, and public areas (open spaces, Memorial), that helps unify the place and respects the needs of tenants of particular buildings.
- Select a main identification material or colors for WTC signage that provides the right balance of contrast and harmony in the architectural setting.
- Select materials and forms that reiterate the significance of the site.
- Create identity elements strong and bold enough to stand out among the crowded and fast-paced environment, yet express the respectful and solemn character of the site.
- Use standard English, and international symbols wherever possible to address the cultural diversity of WTC visitors.

Applications of identification signs are usually in the form of illuminated or non-illuminated dimensional letters, logos or sign plaques that are mounted to wall surfaces. At the WTC site, these should be located at:

- Building entrances and lobbies
- Entrances to the PATH and MTA systems
- Retail entrances
- Public facility entrances

9.2.4

Direction

Directional signs are the main thread of any wayfinding system as they provide immediate information for users to navigate public places. This type of sign routes pedestrian traffic between main entrances, key decision points, destinations and exit points by using type, symbols and arrows. Directional signs should harmonize with the architecture yet be distinguishable enough to be recognized by the user. The information should be simple and visually categorized for easy navigation throughout the facilities. Connections to the office buildings should be clearly linked and visible to visitors and tenants alike.

A comprehensive wayfinding directional system needs to be created to guide users around the WTC site and to nearby destinations. Exterior directional signs need to direct users to destinations within and adjacent to the site (i.e., WFC, Battery Park, A/C/E subway station, Wall Street, etc.). These signs could be freestanding structures, outside the PATH Terminal, located on sidewalks, plazas and parks when necessary, where they clearly direct visitors to the various destinations, but should be integrated into the architecture/building so as not to distract pedestrian pathways or views.

The use of symbols and terminology on directionals must be consistent in tone and graphic style, with simple English messages being the primary language. This will ensure a universal understanding of sign messages among the cultural and linguistic diversity of WTC visitors.

Investigations should be made into designing and integrating the wayfinding, retail, office, transportation and cultural signage into an electronic broadcast signal downloadable to pdas, phones and other electronic devices using new technologies (WiFi/R.F. and GPS).

Direction- continued

Direction Goals

- Use clear and easy-to-remember messages, symbols and forms for directional signs.
- Use standard English, and recognizable symbols wherever possible to address the linguistic and cultural diversity of WTC visitors.
- Locate directional signs at key decision points in visible locations, minimizing the blocking of views.
- Select a typeface, colors, layouts, materials and forms that lend themselves to simple and clear signs.
- Categorize directional sign messages by function: Cultural, Memorial, Transit, Commercial Office and Retail.
- Direct visitors from the periphery of the site to adjacent Lower Manhattan destinations (Statue of Liberty, World Financial Center, Battery Park City, Financial District, South Street Seaport, etc) using the Alliance for Downtown New York (ADNY) standards.

9.2.5

Orientation

Orientation signs help situate users within their surroundings by showing an abstracted overview of their environment. Spatial orientation is typically achieved through a comprehensive site map at intensive decision-making points where overall orientation is needed and feasible. Orientation signs should be supported by the system of directional and identification signs that assists visitors in making decisions about vertical and horizontal circulation into other levels. If located in outdoor areas, orientation maps should offer an understanding of the entire site within its vicinity. If located inside, they should offer an understanding of both horizontal and vertical circulation marking important access and exit points.

Orientation signs should show the exact location of the user, "You Are Here," within his/her surroundings. Each level should display plans (axometric or flat) of all other levels along with directory listings. These listings can be in alphabetical order or any other method of categorization that facilitates and expedites wayfinding. Due to the changing nature of this information, changeable technology and electronic maps should be considered.

Orientation signs are typically freestanding units to allow visibility to a large number of users simultaneously. If space does not allow, they can be wall-mounted. These signs need to be located in appropriate locations where they do not obstruct the circulation of the visitors, especially in areas of high pedestrian traffic or views to important destinations.

These units should be made out of strong and durable materials that can withstand the everyday use of visitors. Although natural and artificial light will be present in some parts of the below-grade concourses, interior or indirect illumination of these signs is recommended to attract visitors.

Orientation - continued

Orientation Goals

- Make the user/visitor experience clear.
- Create a comprehensive directory system with maps and keys that has both fixed and changeable elements.
- Have both indoor and outdoor versions of the directories at appropriate scales for the setting and context.
- Create an orientation map for the whole site showing all levels and access points (consider both flat graphic and axonometric views) and keys to important tenants and services.
- Display all maps in the same orientation (North-South).
- Research the best available technologies for fixed and changeable displays.
- Orient visitors from the periphery of the site to adjacent Lower Manhattan destinations (Statue of Liberty, World Financial Center, Battery Park City, Financial District, South Street Seaport, etc.) using ADNY standards.

9.2.6

Information

Information signs display constantly changing information such as time, temperature, stocks and headline news. In a transportation environment, these signs convey the most important information to the commuter: ticket fare, route maps, and schedules. Because information is never static, dynamic electronic display cases (such as LED or LCD) are often employed.

It is important to determine essential information from non-essential information within each space. A time display is important in a waiting area. Sometimes information displays can become important site-specific or civic landmarks. The clock in the center of Grand Central Station is such a civic landmark.

Adequate provisions for information intensive facilities must be in place prior to construction as the accuracy and quality of these displays will effect the use and perception of the Site as a whole. State-of-the-art technology will provide users with important to-the-second information.

The size, color and quality of the image should be clear, with sufficient resolution for the desired viewing distance. For crucial transit-related information such as emergencies, delays and changes in schedule, the unit should be able to display special message signals and provide clear instructions to the public. Given the evolution of technology, it is worth exploring interactivity between users and information displays through web applications and wireless technologies.

Information- continued

INFORMATION GOALS

- Identify areas where digital, electronic or mechanically animated signs are appropriate and develop a comprehensive technology signage program (transit, schedule, on-site events, local/national/global news, other relevant data: stocks, weather, etc.).
- Do not create distracting images, such as flashing signs or moving images. Flashing words or overlapping moving photo images and text are not permitted.
- Encourage the remote interactivity between visitors and personal information technology (web, kiosks, PDA's etc...).
- Explore technologies and display systems that will enable the accessing of information in a variety of languages.
- For exterior areas, the design of any information stanchions or boards should be considered and coordinated with the information, location and sign cases designed by ADNY.
- Informational signage shall not be used for private or promotional goals.

9.2.7

Interpretation

Interpretive signs form the educational and cultural component of a sign system. They offer, among other things, relevant historical, cultural, architectural or scientific information for the viewer to gain a deeper understanding of his or her surroundings. They can also serve as inspirational objects that allow people to interact and feel part of the space.

Interpretive signs can take the form of installations (interior or exterior), public art (sculptural) or more traditional exhibit signs with text and image. Locations for interpretive signs should be identified and assessed in relationship to wayfinding components. Therefore scale, location, materials and safety should be carefully considered.

There will be opportunities to place interpretive signs at different locations in the new WTC complex. At ground level, various architectural features such as Wedge of Light Plaza, Sept. 11th Place and the Memorial itself will offer interpretive opportunities to the general public.

Interpretation Goals

- Educate the general public about the past, present and future of the WTC Site.
- Create an environment of solemnity for September 11th victims and their families.
- Ensure that the Memorial is the most prominent interpretive element on the site and that other gestures don't compete with it.
- Collaborate with artists to create interpretive public art.
- Explore media and technology for interpretive and public art pieces throughout the WTC site.

Advertising Goals

- No commercial outdoor, exterior advertising such as sign boards visible from any public street or open space is permitted.
- Special event signage/advertising can be permitted (e.g. three sheets, cultural event signage, etc.).

9.2.9

Retail

Retail space will be a significant component of the WTC Site. The new development will feature significant retail areas both at and above street level (exterior) and at below grade concourses. Both areas will require specific signage guidelines to support the intended character of the various interior and exterior spaces, and shall be compatible with the unique architectural design features of the individual buildings. The design criteria shall be subject to the approval of the office building architect and the Net Lessees.

Retail Goals

- Encourage the use of simple and clear graphic treatments for retail signage.
- Find the right balance of harmony and diversity within the various retail signage areas.
- Respect the constraints and opportunities of different kinds of environments on site in creating signage standards: interior site streets vs. exterior site streets, ground floor lobbies vs. underground concourses.
- Acknowledge the need for retailers to express their brand identities and make their identity visible from more than one point of view.
- Create detailed guidelines for location, scale, material and construction of retail signage that will fit comfortably within the architectural settings and acknowledge retail presences.

Three types of signs will be needed:

- Identification signs for individual stores.
- Interior orientation directories to describe the locations of the stores and retail areas.
- Directional signs guiding people to major areas of the retail complex.

A basic style for the overall retail complex within the WTC site will need to be created with guidelines for signage, pageantry and event information. If this retail center will be managed and named as a single retail destination, a compelling graphic identity will be required to market it as such.

Preliminary interior retail guidelines have been established in chapter seven of this report. More specific exterior retail guidelines will be found in section 9.4 of this chapter. Once the architectural design is finalized, it will be possible to develop more specific (architecturally related) retail guidelines.

9.3 Sign Types and Locations

9.3.1 Sign Type Diagram

LOCATIONS PER CATEGORY

Site	Transit	Commercial	Retail	Memorial	Cultural
Wedge of Light	PATH terminal	Towers	Above-grade	Memorial	Perf. Arts Center
HUB Plaza	MTA stations	Hotel	Street level	Mem. Museum	Visitor Orientation &
Liberty Park		Lobbies	Below-grade		Education Center
Sept. 11 Place		Ob. Deck			St. Nicholas Church
Washington Place					
Sidewalks					
Streets					
Parking					
Delivery/Service					

SIGN TYPES PER CATEGORY

Site	Transit	Commercial	Retail	Memorial	Cultural
Exterior:	Exterior:	Exterior:	Exterior:	Exterior:	Exterior:
Site ID's	Bldg Entrance ID's	Tower ID's	Retail Area ID	Memorial ID	Building ID's
Area ID's	Street Access ID's	Hotel ID's	Store ID's	Orientation	Entrance ID's
Site Maps	(PATH/MTA)	Lobby ID'S	Ped. Dir.	Ped. Dir.	Directionals
Site Info	Ped. Directional	Orientation	Regulatory	Orientation	Pedestrian Directional
Interpretive				ADA	Regulatory
Vehicular Directional					
Pedestrian Directional					
Interpretive					
Pageantry					
Site Regulatory					
Site Informational					
Parking Entrance ID's					
Parking Regulatory					
Parking Directional					
Public Art					
Interior:	Interior:	Interior:	Interior:		
Delivery ID's	Platform ID's	Lobby ID's	Store ID's		
Site Regulatory	Orientation	Elevator ID's	Orientation		
Parking Regulatory	Regulatory	Directories	Directional		
Parking Directional	Information	Fire Code	Regulatory		
ADA	Advertising	Advertising			
Site Maps	Concourse ID's	Information			
Site Info	Zone ID's	Stair ID's			
	Elevator ID's				

SIGN TYPES PER FUNCTION**Placemaking Sign Types****Exterior**

Site Monument
 Building Monument
 Transit Marker
 Public Art Installation

Interior

Wayfinding/Information Marker
 Public Art Installations

Directional Sign Types**Exterior**

Directional

- Freestanding
- Building Mounted

Interior

Directional

- Overhead
- Freestanding
- Wall Mounted

Orientation Sign Types**Exterior/Interior**

Directory

- map
- listings

Identification Sign Types**Exterior**

WTC Identification
 Building Identification
 Building Entrance Identification
 Underground Parking Identification
 Service Entrance Identification
 Parks and Open Space Identification
 Transit Access Marker

Interior

Lobby/Commercial Tenant Identification
 Elevator Bank Identification
 Exit Identification

Information Sign Types**Exterior / Interior**

- time
- weather
- traffic
- community events
- memorial events
- stocks
- news

Advertising Sign Types**Interior Only**

Freestanding displays
 Wall-mounted displays

Interpretation Sign Types**Exterior / Interior**

Interpretive text/graphic panels
 Installations
 Murals
 Public Art

Retail Sign Types**Exterior /Interior**

Retail Store Identification
 Area or Zone Identification
 Directional
 Directory

This section will provide more specific guidelines for the following components of the signage system.

- Site Signage Guidelines
- Illumination Guidelines
- Exterior Site Signage Guidelines
- Ground Level Exterior Retail Guidelines
- Above Ground Level Exterior Retail Guidelines
- Anchor Tenants Exterior Retail Guidelines
- Commercial Signage Guidelines

Interior retail signage guidelines will be provided by the PANYNJ. Memorial and cultural signage guidelines will be established once the programs and/or design for these areas are more fixed.

9.4.2 Site Signage Guidelines

1. Comprehensive WTC signage design standards shall be developed for the site and will address directional and wayfinding signage. A strategy for consistency among signs will be developed.
2. The WTC signage design standards shall define a design vocabulary for directional, wayfinding and public open space signage identifying the primary materials, signage location zones, typefaces and standards for consistent fabrication and installation.
3. Signage materials will be compatible with the architectural palette of the building.
4. The graphic design for signage should be simple and clear. Names, and their supporting logotypes are to be the primary identifiers for stakeholders and their tenants.
5. Sign materials should be fade and vandalism resistant to ensure durability, and should be appropriate to the dignity and significance of the WTC setting.
6. All identification signs within the WTC site shall follow these design guideline standards with the following exceptions below. However, the agencies below, while exceptions to the rule, will be encouraged to follow the design standards to reinforce design vocabulary for all sign types:
 - i. Transit signage will conform to the appropriate agency standards, i.e. PATH or MTA.
 - ii. Memorial and cultural signs may have separate and unique identities.
 - iii. Street name signs within the WTC site shall follow the ADNY standards for street name signs.
 - iv. All traffic signage shall conform to DOT traffic signage standards.
7. All exterior signage shall be accessory to uses on site, however consideration should be given to certain signage for off-site destinations in Lower Manhattan including the ADNY signage standards.
8. No commercial outdoor, exterior advertising such as sign boards visible from any public street or open space is permitted. Public event/special event signage/advertising is permitted (e.g. three sheets, cultural events, etc). International and/or site specific symbols should be used wherever possible to encourage communications with international visitors.
9. Freestanding signs shall be limited to transportation, cultural (within the cultural parcels), memorial, public event, special event and wayfinding uses and be of an appropriate height to ensure visibility but yet not overwhelm the WTC setting. The placement of such signs shall not impede pedestrian flow. and should be limited to cultural and open space parcels excluding the north side of the wedge of light.

10. The number of regulatory signs should be minimized by integrating the messages into other sign type components and so as not to encourage the proliferation of signage on site.
11. Orientation (i.e. site maps and directories) and event information signs shall be placed in appropriate locations, key places on buildings and/or specially designed cases. Movable freestanding units of this sign type are prohibited.
12. There will be no signage above the highest level of publicly accessible retail.
13. Transit signage on the buildings will be located in the Architecturally Designated Sign Zone defined below.

Exterior Site Signage Illumination Guidelines 9.4.3

It is the intent of the design guidelines to develop standards for signage lighting that create a distinctive appearance across the WTC site, reinforcing the project as a whole but still allowing for creative diversity to be expressed. These guidelines cover exterior site, retail and commercial signage.

1. A sign's primary lighting shall be consistent.
2. Internal illumination of letters with translucent through returns is permitted.
3. Exposed neon is not permitted.
4. Signage with translucent, lighted faces or backgrounds visible from any WTC public open spaces are not permitted; however, translucent, lighted returns, halo lighting and indirect illumination by a remote source are permitted. Additional standards for the various uses that address lighting will be created in the future.
5. Flat screen digital or other dynamic signs are not permitted.
6. No flashing signs are permitted. No internal illuminated boxes or box letters with translucent front faces are permitted.
7. Projected images on sidewalks or other public spaces are not permitted.

9.4.4 Ground Level Exterior Retail Guidelines

These guidelines apply to ground level retail identification signs.

1. One Primary Store Identification Sign is permitted per storefront entry. This Primary Sign will be located in the Architecturally Designated Sign Zone (as defined below). In cases of more than one level above-grade occupied by a single tenant, additional primary signs shall be permitted, following the guidelines for those façade locations (see "above ground level exterior retail guidelines" below).
2. The Architecturally Designated Sign Zone shall be as defined by the office building architect and the retail developer in collaboration with the Port Authority and New York Department of City Planning to be compatible with the unique architectural design features of the individual commercial office buildings within the World Trade Center district.
3. Each store may have one Primary Sign per level, per side of the building on which it fronts but will not face the Memorial directly.
4. No sign shall be larger than 65 SF. The maximum size of a sign for a major anchor (with a program over 40,000 SF) will be subject to review by the Design Guidelines Committee.
5. Two Secondary Signs are permitted per storefront entry no larger than 4 SF each.
6. No attached canopies or awnings shall be used for signage purposes.
7. No permanent freestanding store identification signs or other freestanding sign types are permitted in front of the retail façade.
8. Paper and temporary signs may not be affixed to the storefronts.
9. Any signage, additional to the Primary and Secondary signage, installed more than 3' behind the glass shall not be counted as part of the signage allotment.
10. Retail signage should not be permitted to face the Memorial directly or into the commercial office building lobbies that are located on Greenwich Street and therefore visible from the Memorial.

Above Ground Level Exterior Retail Guidelines 9.4.5

These guidelines apply to above ground level retail identification signs.

1. One Primary Store Identification Sign is permitted per level, per exterior facing storefront. This Primary Sign will be located in the Architecturally Designated Sign Zone (as defined below).
2. No sign shall be larger than 65 SF. The maximum size of a sign for a major anchor (with a program over 40,000 SF) will be subject to review by the Design Guidelines Committee.
3. The Architecturally Designated Sign Zone shall be as defined by the office building architect and the retail developer in collaboration with the Port Authority and New York Department of City Planning to be compatible with the unique architectural design features of the individual commercial office buildings within the World Trade Center district.
4. Interior Primary Signage above ground level is defined as any signage installed inside the façade, within 3' of the glass, in the Architecturally Designated Sign Zone.
5. Secondary external signage is not permitted above grade level.
6. Paper and temporary signs may not be affixed to the storefronts.
7. Any signage, additional to the Primary and Secondary signage, installed more than 3' behind the glass shall not be counted as part of the signage allotment.

Commercial Office Signage Guidelines 9.4.6

The following guidelines give parameters for the identification of the major towers, the entry points and the key commercial tenants of the WTC complex.

1. Each of the five towers of the WTC should be identified by name and/or address with a building mounted sign. Tower lobby entrance signs should provide building major tenant ID in the Architecturally Designated Sign Zone.
2. Each office tower shall be permitted one primary sign per lobby entry.
3. Two Secondary signs per entry no larger than 4 square feet each are permitted for major office tenants occupying more than 20% of the total rentable square footage of the building and must be located in the Architecturally Designated Sign Zone.
4. Exterior entrance ID signs shall be static signs, with no dynamic digital or LED/LCD or other video components.
5. The maximum size of a sign is 100 SF.

9.5 Design Considerations

9.5.1 Overview

Designing a signage system for a mixed-use development such as the new WTC site requires an awareness and understanding of multiple and interdependent design elements, all of which play an important role in meeting the needs of the system and its users. The following section outlines these elements.

These are the primary design considerations:

Placement and Architectural Context

Visual Character

Languages

Symbols

Naming

Lighting

Existing Identities

Technology and Media

Sustainability

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A signage system that is well integrated with the architectural environment provides visitors with a seamless and effortless wayfinding experience. To achieve this, the sign system should have its own identity yet be visually integrated within the architectural environment; be simple and strong enough to complement the variety of architectural styles that will coexist at this site; be bold enough to stand out in an information intensive environment, saturated with images and media, with varying material surfaces; and have a clear and consistent relationship with the architectural forms within the space.

Each building will be designed in phases and by different architects with varying functions and components within each structure. Therefore, signage will play a key role in visually unifying the site. Though signs naturally weave their way through architectural forms, they need to hold a place for themselves and have a distinguished presence.

Public Art and Sculpture

Public art and sculpture can be important wayfinding tools and markers, helping the user to orient oneself as well as create a memorable sense of place. Important provisions and considerations should be given for the placement of and for works that can assist in the wayfinding experience.

Color is a powerful tool for wayfinding and orientation graphics at transportation facilities. It has three primary functions: to create identity, to code information, and to create a sense of place.

It is necessary to select 2-3 colors of appropriate contrast and value as a basic starting palette before applying color to the different sign components. This palette should then be finalized once the designer is familiar with the exact selection of architectural materials, lighting elements and other formal components of the space. The WTC site has ample space to display signs, overhead or freestanding, with large and legible messages and bold colors. The degree to which this is implemented, depends on more in-depth color studies.

The current architectural guidelines recommend the use of metal and glass in many parts of the commercial development. The sign designer should consider fabrication materials for overheads, kiosks, display cases, etc. that complement and enhance the color scheme and structural quality of these architectural materials.

Visual Character: Color

Color for Identity

A consistent color palette creates a WTC complex identity and gives a unified character to the entire site, including its exterior paths and open areas, commercial towers, interior underground concourses, and transit areas.

Color Coding

Color coding is used to categorize information and give it a hierarchy. If used with clarity and consistency, color can be an identification tool that helps group destinations, or areas and orient users to them. At the WTC site color should be used to help distinguish the functions of the different destinations: memorial, transit, cultural, office, retail and public open space.

Color for Placemaking

Color can also be used to give a sense of place in an environment. This use of color encourages visitors to enjoy their journey from point to point, and also functions as a landmarking device. At the WTC site this use of color can happen on architectural features, public art (monuments, sculptures and installations), interpretive signage and exhibits.

Typography is a basic design tool to help define the character of a graphic system and to create a sense of place and identity for any given space. It is also a critical component in determining the legibility of an information system. A distinctive typeface shall be developed.

An appropriate typeface should be created or selected based on the following criteria:

- Legibility and clarity
- Style
- Variety of weight and styles available
- How well the typefaces complement and coexist with existing identities and environments

Type size and stroke weight play key roles in the delivery of wayfinding information. To succeed at it, the designer should first identify optimum viewing distances for each sign type. Then, by combining various type sizes and weights, the designer should establish a hierarchy of information based on the needs of the users and the space.

All signs should follow the minimum Americans with Disabilities Act (ADA) requirements for cap heights and raised lettering. For example, a 3" minimum cap-height is required on overhead signs while 5/8" minimum cap-height is required on public wall-mounted signs.

9.5.5 Visual Character: Scale

Wayfinding elements should relate to their environment, being bold or modest when appropriate, without becoming a physical obstruction or distraction. Scale controls the legibility and visibility of sign messages while also determining the impact of signs as objects.

At the new WTC site, there will be opportunities for both large and small scale signs within the system. Choosing the right scale will depend on spatial, operational and aesthetic factors. For exterior identification, freestanding signs are possible in plazas or near building entrances with actual building entrance identification signs directly on the entrance portal. In open areas, freestanding signs should be located within a clearance radius of 3' to 5' to allow for up close reading of small text. The placement of such signs shall not impede pedestrian flow

The strength and durability of signs should be evident to the users, inspiring trust in them as objects and as reliable sources of information. The materials and applications chosen should be innovative, to reflect the significance and visionary spirit of the site, but within the limitation of cost, maintenance and sustainability. Signs should be made of durable materials that are well fabricated, assembled and installed.

In addition, the selection of materials should support the design choices of the system in the following categories:

- Color palette and color stability
- Visual impact
- Character
- Visibility and clarity
- Sustainability

New signage materials and applications (such as titanium, resins, LED, LCD and fiber optics) are constantly being developed for construction. The choice of materials for signage should reflect the contemporary and progressive spirit of the WTC development.

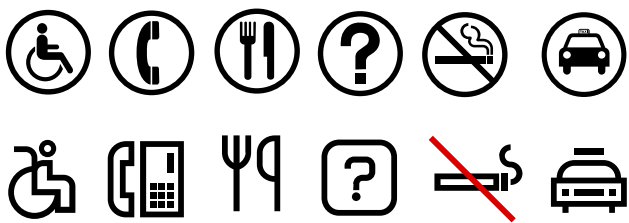
9.5.7**Languages**

As the international language of business and science and the standard language used at transit facilities in New York City and around the USA, English should be the primary language used on signs at the WTC site. In terms of scale and legibility, it would be counterproductive to include multi-lingual messages on all wayfinding signage when the use of symbols can relay the information effectively. Other languages could be featured on interpretive and information signs, but should be decided on a customized basis.

Americans With Disabilities Act (ADA)

ADA requires Braille and raised lettering on wall mounted interior signs which is achieved through various fabrication technologies. In addition, other communication methods such as sound, color codes and visual displays address the special needs of visitors with different disabilities.

Symbols are the universal language that convey information quickly and efficiently. At an international destination like the WTC site, symbols can be the best method for international visual communication. A symbol family should be made to complement typographic styles, weights, colors and forms and to ensure consistency and clarity. Guidelines should be created for the application of symbols on each of the sign family's types.



9.5.9 Naming

Well considered naming can make the difference between a user-friendly and welcoming place, or a confusing maze with indistinguishable destinations. The opportunity exists to get the naming and nomenclature right, from the beginning, and for all of the pieces to fit together into the larger whole.

Naming Components

Some names have been well considered: September 11th Place, Wedge of Light Plaza, Liberty Park. Other place names designating levels, entrances, retail and commercial towers should be considered within the place as a whole and contribute to its cultural and historic significance as well as its context within the city, and may change.

These names will ultimately appear on signage and ideally should support a developed wayfinding logic of locating destinations within the site, both horizontally and vertically in space. Careful thought should be given to the naming process rather than simply adopting a working name from the design and planning documents.

Both artificial and natural light will play a powerful role in wayfinding and landmarking at the WTC site. By specifically illuminating architectural elements or consequently not illuminating them, lighting can literally tell the public where to look. In addition to giving us the ability to see, lighting can also play a theatrical role and create a mood. Although it may seem subtle, lighting is a dynamic medium for finding, understanding and creating meaningful spaces.

Lighting as Wayfinding

Lighting can become an instinctual landmarking and wayfinding tool because of the human tendency to gravitate towards light. When traveling vertically from underground, visitors can follow daylight to street level exits. Ample light can create a sense of security and therefore, pull people away from traveling through darker, non-public areas.

Consistent sign visibility is important throughout the WTC site. The amount of ambient natural or artificial light in a particular location will determine if signs need exclusive illumination. This can be achieved through internal illumination where the light source is housed within the sign, or a nearby focal light source incorporated into the architecture. Fluorescent, incandescent, fiber optic, LED, and shielded neon are all potential options for lighting signage. Their application depends on many other design and material decisions. In addition to its visual impact, maintenance, longevity, durability, cost and energy consumption must be considered when exploring various lighting options

9.5.11 Existing Identities

Logos and brands are abundant in and around the WTC site. It is their primary function to identify existing services and vendors, allowing quick recognition as transportation, business, retail and cultural amenities.

The examples below illustrate and compare the wide variety of existing services and organizations and their respective logotypes at the WTC site, and around Lower Manhattan. Because they contain multiple colors and complex shapes, these logos should be used minimally on overhead directional signage where legibility is of utmost importance. They can be used on orientation directories and identification signs where appropriate. Specific logo and branding guidelines should be established with the signage design.

Port Authority



MTA



Battery Park City

New York Waterways



Other Area Logos



Signage should take advantage of the ever evolving technology and information delivery systems. Today, with new technologies, signs can be informative and constantly updated for delivering a variety of messages and information as needed by users. The particular media (or content) for these kinds of signs includes advertising, news and transit information.

Dynamic signs can be changed manually or electronically by a timed device, or a triggered reaction to an event such as the arrival of a train. With new display technologies (such as LCD and plasma) becoming more integral to sign systems, bulky CRT tubes or projected images are no longer relied upon. Thinner, more colorful and flexible materials are being developed to change the shape and information contained in signage. It is not unusual for new technologies to have less than a 10 year life span before they become outdated or even obsolete. Therefore, constant update and exploration of new technologies is a must.

There are various standardized systems that deliver up to the minute travel, transportation and weather information from various sources.

Types of Technologies in Signage

- Wireless devices, WiFi (wireless fidelity) networks, GPS, PDA and other infrared devices
- Integrated information systems, that synchronize and share data amongst networks such as transportation, weather and travel information
- New technologies for changeable graphics, LCD, plasma displays
- New and rediscovered or repurposed materials: metals, resins, LED, fiber optics, flexible displays

9.5.13

A Sustainable Signage Program (Maintenance, Changeability, Etc.)

The sign system at the WTC site will need to be flexible for future expansion since the implementation of the sign system may happen over the course of several years. Durable materials and fabrication of the sign system will ensure easy long-term maintenance and reduce the possibility of damage and vandalism in exposed locations. When designing the sign system, the following issues should be considered:

- A modular or kit-of-parts design which is efficient in production and flexible for future expansion and updating
- Locations in places that minimize maintenance and replacement
- Vandal and tamper resistant
- Affordable materials and repairs