DRAFT

Environmental Assessment

& USDOT Section 4(f) Evaluation

TWA Flight Center Hotel Project
John F. Kennedy International Airport
Queens, New York

Prepared For:
U.S. Department of Transportation Federal Aviation Administration

Sponsored By:
The Port Authority of NY & NJ

Prepared by:
AKRF, Inc.

April 2016

This environmental assessment becomes a Federal document when evaluated, signed, and dated by the Responsible FAA Official.

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Responsible FAA Official Date

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Acronyms and Abbreviations

AC	Advisory Circular
ACCRI	Aviation Climate Change Research Initiative
ACFM	actual cubic feet per minute
ACHP	Advisory Council on Historic Preservation
ALP	JFK Airport Layout Plan
AMS	American Meteorological Society
AOA	Air Operations Area
APE	Area of Potential Effects
ATCT	Airport Traffic Control Tower
BMP	Best Management Practices
BPIP	Building Profile Input Program
BPIPRM	Building Profile Input Program for the PRIME model
CAA	Clean Air Act
CAF	Coastal Assessment Form
CBIS	Checked Baggage Inspection System
CEQ	Council on Environmental Quality
CEQR	City Environmental Quality Review
CFR	Code of Federal Regulations

CO	Carbon Monoxide
CO2	Carbon Dioxide
$CO2_e$	Carbon Dioxide Equivalence
CSO	combined sewer overflows
CTA	JFK Central Terminal Area
CZM	Coastal Zone Management
DCP	Department of City Planning
DOE	Department of Energy
DOB	New York City Department of Buildings
DOS	New York State Department of State
DOT	Department of Transportation
EA	Environmental Assessment
EMP	Environmental Management Plan
EO	Executive Order
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FF&E	Fit out Furniture, Fixtures, and Equipment
FFRMS	Federal Flood Risk Management Standard
FIRMS	Flood Insurance Rate Maps
FONSI	Findings of No Significant Impact
GHG	greenhouse gases
gpd	gallons per day
HABS/HAER	Historical Architectural Building Survey/Historic American Engineering Record
HRSG	heat recovery steam generators
HVAC	heating, ventilating, and air conditioning
ICAO	International Civil Aviation Organization
ILS	Instrument Landing System
IRROPs	Irregular Operations
ITE	Institute of Transportation Engineers
JFK	John F. Kennedy International Airport
JFKE	John F. Kennedy Expressway
KIAC	Kennedy International Airport Cogeneration
KW	kilowatts
LEED	Leadership in Energy & Environmental Design
$\mu g/m^3$	micrograms per cubic meter
MEP	Mechanical, Electrical, and Plumbing
MMBTU	one million British Thermal Unit
MOA	Memorandum of Agreement
MW	megawatts
MTA	Metropolitan Transit Authority
MTBE	methyl tertiary butyl ether

NA	not applicable
NAA	non-attainment areas
NAAQS	National Ambient Air Quality Standards
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act of 1969, as amended
NHPA	National Historic Preservation Act of 1966
NO_x	nitrogen oxides
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NRHP	National Register of Historic Places
NYCT	New York City Transit
NYSDEC	New York State Department of Environmental Conservation
NYSNHP	New York State Natural Heritage Program
PANYNJ	Port Authority of New York and New Jersey
PAPI	Precision Approach Path Indicators
PM_{10}	inhalable particulate matter less than 10 microns in diameter
PP+40	EPA Priority Pollutants plus 40
ppm	parts per million
PVMRM	Plume Volume Molar Ratio Method
RAC	Redevelopment Advisory Committee
RevPAR	revenue per available room
RFP	Request for Proposals
ROD	Record of Decision
RSA	Runway Safety Area
RVSR	Restricted Vehicle Service Road
SCFWH	Significant Coastal Fish and Wildlife Habitat
sf	square feet
SHPO	New York State Historic Preservation Officer
SIP	State Implementation Plan
SO2	sulfur dioxide
SO_x	sulfur oxides
SPCC	Spill Prevention, Control, and Countermeasure
SPDES	State Pollution Discharge Elimination System
STR	Standard Industry Sources
SWPPP	Stormwater Pollution Prevention Permit
TAA	Tenant Alteration Application
TBA	tertiary butyl alcohol
TERPS	Terminal Instrument Procedures
TPHC	total petroleum hydrocarbons
TSA	Transportation Security Administration
TWA	Trans World Airlines
ULSD	ultra-low-sulfur diesel
USC	United States Code
USDOT	United States Department of Transportation

USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VOC	volatile organic compound
VWE	Van Wyck Expressway
WPCP	water pollution control plant
WRCRA	Waterfront Revitalization and Coastal Resources Act
WRP	Waterfront Revitalization Plan

Chapter 1: Introduction and Background

1-1 DOCUMENT PURPOSE AND ORGANIZATION

This Environmental Assessment (EA) was prepared pursuant to the National Environmental Policy Act of 1969 (NEPA), as amended, and analyzes the potential environmental effects of the Proposed Project involving development of the Trans World Airlines (TWA) Flight Center Hotel as an adaptive reuse of the historic TWA Flight Center at John F. Kennedy International Airport (JFK). The EA is prepared in accordance with Title 40 of the Code of Federal Regulations (CFR) Parts 1500-1508[1], which are the Council on Environmental Quality's (CEQ) regulations for implementing the procedural provisions of NEPA.

Flight Center Hotel, LLC (Developer) is the selected developer working with the Port Authority of New York and New Jersey (Port Authority) as project sponsor for the Proposed Project. **Figure 1-1** provides a general location of the airport within New York City and **Figure 1-2** provides a location map of the TWA Flight Center within the JFK Central Terminal Area (CTA). The change to the Airport Layout Plan (ALP) for JFK is a federal action subject to NEPA and approval from the Federal Aviation Administration (FAA).

The EA is organized pursuant to FAA guidelines: FAA Order 10501.F *Environmental Impacts: Policies and Procedures, the 1050.1F Desk Reference, and FAA Order 5050.4B NEPA Implementing Instructions for Airport Actions.*[2,3] This document presents an overview and description of the Proposed Project, its purpose and need, a description of alternatives considered, and an assessment of the potential environmental impacts of the proposed TWA Flight Center Hotel.

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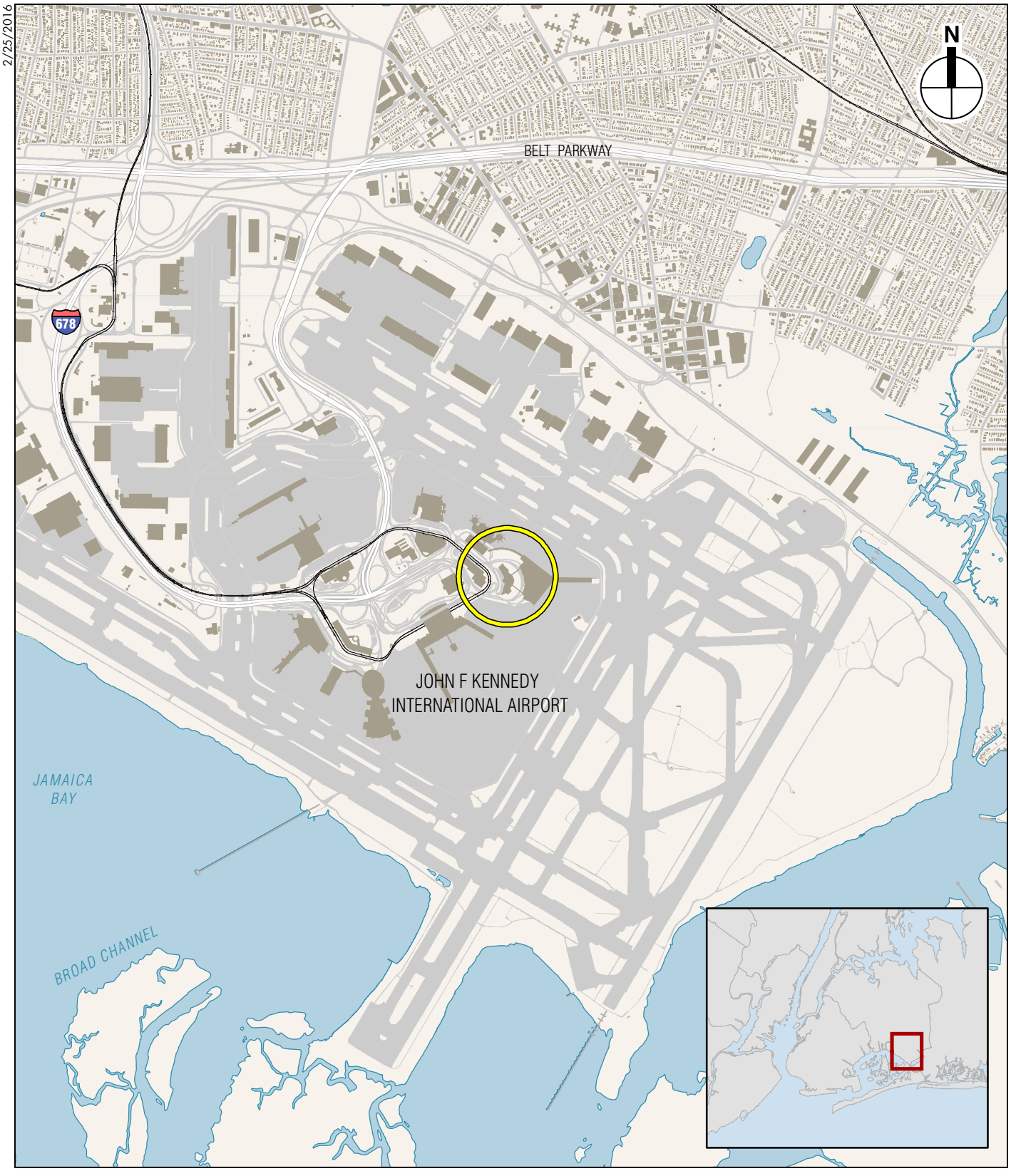
[1] P.L. 91-190, 42 U.S.C. 4321, et. seq., National Environmental Policy Act, 1969, Section 102(2)(c).

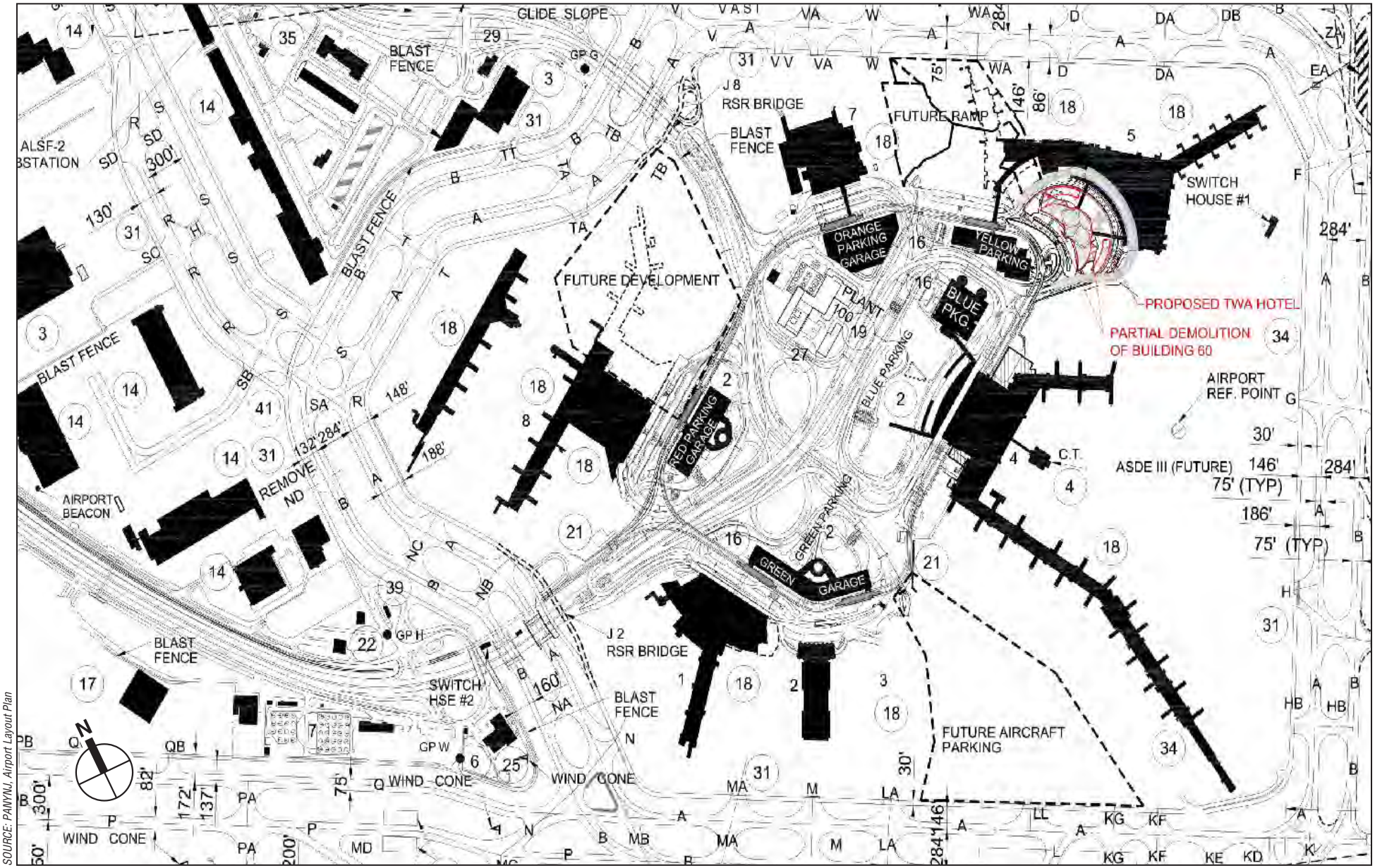
[2] FAA. "Final Order 1050.1F: Environmental Impact: Policies and Procedures";Office of Environment and Energy. Effective Date July 16, 2015. http://www.faa.gov/documentlibrary/media/order/faa_order_1050_1f.pdf

[3] FAA. "Order 5050.4B: NEPA Implementing Instructions for Airport Actions"; APP-400, Office of Airport Planning & Programming, Planning and Environmental Division. Effective Date April 28, 2006. http://www.faa.gov/airports/resources/publications/orders/environmental_5050_4/media/5050-4b_complete.pdf



TWA Flight Center Hotel

Project Location
Figure 1-1



SOURCE: PANYNJ, Airport Layout Plan

Proposed Site Plan
Figure 1-2

1-2 DESCRIPTION OF PROPOSED PROJECT

1-2-1 BACKGROUND

The centerpiece of the Proposed Project is the rehabilitation, restoration, and re-purposing of the historic TWA Flight Center. The TWA Flight Center was designed by Eero Saarinen and opened in 1962. Additions were completed in the 1960s and 1970s, along with further alterations undertaken in later years including the construction of Terminal 5/6 (jetBlue Terminal) to the north. The TWA Flight Center is a vaulted reinforced concrete structure designed with a sunken waiting area with a glazed façade that originally faced the runway, and with balcony levels where bar, restaurant and first-class waiting areas were located. The TWA Flight Center, with its sweeping and aerodynamic architectural forms, is recognized as a significant example of Post-War Modern architecture in the United States.

The TWA Flight Center was constructed during the development of JFK's "Terminal City" in the early 1960s, in which individual airlines each developed their own terminal infrastructure at the airport. The independently operated Terminal City concept continues to this day, with JFK's six terminals each controlled by airlines or private consortiums. At the time that the TWA Flight Center opened, American Airlines, United Airlines, and Pan American World Airways had each opened their own facilities, and Northwest and National Airlines would each subsequently open additional facilities. The TWA Flight Center and the I.M Pei designed National Airlines Sundrome would become JFK Terminals 5 and 6.

The TWA Flight Center was originally designed with one raised and enclosed walkway or “tube”—the East Tube—which connected to a flight wing (Flight Wing 2), which contained boarding gates where passengers boarded and deplaned. In 1967, a second and larger flight wing was added (Flight Wing 1) and was connected to the Main Terminal Building by another raised tube, the West Tube, which was longer and different in design to the East Tube. Between 1967 and 1970, additions were constructed to the runway, or airside, of the building on either side of the waiting area glazed façade, to house additional baggage handling, ticketing and office functions. These additions, or wings, were also constructed of concrete, altered the original footprint of the 1962 building, and have not gained enough significance to warrant retention.

TWA occupied Terminal 5 until American Airlines acquired its assets in 2001 and subsequently vacated the building in 2002 when TWA’s lease expired. JetBlue Airways commenced operations in 2000 out of JFK Terminal 6 (the Sundrome), and subsequently acquired the lease to Terminal 5 at the expiration of TWA's lease. Terminals 5 and 6 did not have adequate facilities to handle the growth of jetBlue's operations, and were ill-equipped to handle post-2001 security requirements.

In 2004, jetBlue and the Port Authority initiated comprehensive redevelopment of Terminals 5 and 6, which ultimately resulted in the construction of existing JFK Terminal 5 and the demolition of JFK Terminal 6. In 2004, an *EA and Section 4(f) Evaluation for the Terminal 5/6 Redevelopment Project: JFK International Airport* (referred to herein as the 2004 EA) was prepared. To address the impact on historic resources during the redevelopment of the terminals, the FAA, the Advisory Council on Historic Preservation

(ACHP), the New York State Historic Preservation Office (SHPO), and the Port Authority entered into a Memorandum of Agreement (MOA) for the Rehabilitation, Restoration, and Adaptive Reuse of the TWA Flight Center (referred to herein as the 2004 MOA). Alterations to the TWA Flight Center included the removal of both flight wings and the reconstruction of the West Tube. The East and West Tubes now connect to the jetBlue Terminal, with the West Tube having been reconstructed as part of the Terminal 5/6 Redevelopment Project.

Stipulation 7 of the 2004 MOA required that the "TWA Terminal" (the name used for the TWA Flight Center in the Section 106 documentation, referred to as the TWA Flight Center throughout this document), including the Main Terminal Building, Flight Wings, and East and West Tubes be nominated to the National Register prior to the demolition of the Flight Wings. As a result of this stipulation, the TWA Flight Center was formally listed on the National Register in October 2005. Since the 2004 EA, the Port Authority has performed approximately $19 million in extensive restoration work on the TWA Flight Center, plus annual maintenance while searching for an appropriate adaptive reuse developer for the building. The 2004 MOA stipulated that an adaptive reuse developer should be retained to develop the TWA Flight Center in accordance with the Secretary of Interior Standards for the Treatment of Historic Properties. This EA addresses the adaptive reuse of the TWA Flight Center into a hotel facility.

1-2-2 REQUEST FOR PROPOSALS

The proposed long-term lease for financing, planning and design, rehabilitation / restoration / construction, management, operation and marketing of the TWA Flight Center Hotel is based on a Request for Proposals (RFP) selection process undertaken by the Port Authority. To date, there have been a total of three RFP's for the Adaptive Re-Use and Historic Preservation of the former TWA Flight Center (see attached in **Appendix A**). The initial tender in 2006 for an unspecified type of development opportunity garnered only a single respondent, who indicated that for a price, any program developed by the Port Authority would be considered. The proposal was determined to be "non-responsive" and was ended. Subsequent discussions internally at the Port Authority and with the Redevelopment Advisory Committee (RAC)[4] led to the Port Authority taking on limited restoration of the TWA Flight Center and a decision on what next steps should be taken towards adaptive reuse. Ultimately, consensus was reached that the most sustainable business adaptive re-use and development would likely be a hotel. JFK airport has a need for a full service hotel within the CTA (see Chapter 2 for a full discussion).

In 2011, the Port Authority issued a request for quotation (RFQ) to solicit interest in a subsequent RFP for a hotel. From that process, two potential developer teams entered in to preliminary discussions with the Port Authority, leading up to the more than a year of negotiations with the highest rated proposer. Changes in that developer's corporate business model late in 2013 resulted in the Port Authority and developer terminating

[4] The RAC membership of 12 agencies and parties includes the "signatories" to the 2004 MOA and its Draft First Amendment, who are bound to the agreement, and other consulting parties from the Section 106 process that have expressed an interest in participating in the RAC.

negotiations. An outreach to the second highest rated proposer confirmed that they would not resume discussions regarding the Flight Center hotel development. The third RFP was tendered in 2014, returned only two serious respondents and resulted in the negotiation with and selection of the MCR-JetBlue Team (neither of the development team had previously proposed to the earlier RFP's). The RFPs are summarized below.

Request for Proposals #11002

A request for proposals was issued by the Port Authority on December 8, 2006 for the development and implementation of adaptive reuse of the TWA Flight Center and associated site at JFK International Airport. The Port Authority received a single proposal from a developer who did not meet the criteria of the RFP.

Request for Proposals # 24842

Prior to the release of a second RFP for the TWA Flight Center, the Port Authority engaged a consulting firm Real Estate Solutions Group (RESG) to perform a highest and best use analysis for the building. Following a recommendation from RESG, discussions with the RAC for the project and a $19M capital investment by the Port Authority to repair and enhance public areas of the building, it was determined that a hotel was the best option.

A request for proposal was issued on May 16, 2011 for the development, leasing, management and operation of a hotel, incorporating the TWA Flight Center at John F. Kennedy International Airport. A number of proposals were received from hotel development/management firms. Andre Balazs of The Standard Hotels was selected to engage in more detailed negotiations. After nearly two years, negotiations were cancelled. The Port Authority then approached the second highest ranked Proposer but was unable to agree on lease terms.

Request for Proposal # 38826

A third request for proposals for the development, leasing, management and operation of a hotel incorporating the TWA Flight Center at JFK International Airport was issued on August 8, 2014. Three proposals were received from hotel development and management firms. The team of MCR and jetBlue was selected by the Port Authority, and lease negotiations were finalized with MCR and jetBlue. The Port Authority Board of Commissioners unanimously approved the project during the September 2015 Board Meeting.

1-2-3 MEMORANDUM OF AGREEMENT

The RFP process fulfilled the obligations of the Port Authority as established in the 2004 EA environmental review process and pursuant to the 2004 MOA. The 2004 MOA established the guidelines for the rehabilitation, restoration, adaptive reuse, operation, and maintenance of the Flight Center as part of the master plan for redevelopment of Terminal 5/6. In addition, a Draft First Amendment to the 2004 MOA with the same signatories was prepared in 2015, and is specific to the proposed TWA Flight Center Hotel (see **Appendix B**).

The Developer has prepared a Proposed Project development plan consistent with the 2004 MOA for adaptive reuse that incorporates restoration and rehabilitation in

accordance with the *Standards for the Treatment of Historic Properties—Rehabilitation* with the period of restoration defined as 1967. The Secretary of the Interior is responsible for establishing these standards to help protect cultural resources listed in or eligible for listing in the National Register of Historic Places (NRHP).[5]

The 2004 MOA also established a process to review and approve a reuse project through creation of the RAC. The RAC membership of 12 agencies and parties includes "signatories" to the 2004 MOA and its Draft First Amendment, who are bound to the agreement, and other "consulting parties" from the Section 106 process that have expressed an interest in participating in the RAC and concurred with the agreement. The RAC continues to provide the agency coordination and guidance in the review of this Proposed Project in accordance with Section 106 of the National Historic Preservation Act. The MOA also stipulates the continued involvement of the RAC to provide input regarding the design and adaptive reuse of the TWA Flight Center. The proposed TWA Flight Center Hotel, LLC project has been presented to the RAC at four meetings—May 11, 2015, June 17, 2015, December 1, 2015, and February 26, 2016. The responsibilities of the RAC will conclude upon fulfillment of the 2004 MOA and its Draft First Amendment. The RAC will continue to meet until all stipulations under the MOA have been concluded. Meeting minutes and correspondence related to the RAC's review of the Proposed Project are included in **Appendix C**.

1-2-4 PROJECT SITE

JFK is located in the southeastern section of Queens County, New York City, on Jamaica Bay (**Figure 1-1**). It is 15 miles by highway from midtown Manhattan. The Airport consists of 4,930 acres, including 880 acres in CTA. The Port Authority has operated JFK under the terms of a lease with the City of New York since June 1, 1947. JFK serves the largest domestic market in the United States, as well as a premier international gateway, with non-stop service to more foreign cities than any other airport in the United States. The Airport handles more than 50 million domestic and international passengers annually and accommodates more than 420,000 flights per year. There are six airline passenger terminals at JFK, with each terminal serving one or more airlines. **Figure 1-2** includes the existing terminal layout at JFK.

Over the last 20 years, a significant emphasis has been placed on modernizing and redeveloping the passenger terminals to respond to the current needs of airlines and passengers. Terminal 1 was completed in 1998, Terminal 2 was completed in 1994, Terminal 4 was constructed in 2002, Terminal 5 was redeveloped in 2009, Terminal 7 was constructed in 2003, and in 2007 the second phase of the new Terminal 8 (which combined Terminal 8 and 9) was completed. Terminal 6 was demolished in 2012. Terminal 4 is completing an expansion to accommodate additional gate capacity for Delta Airlines, while Terminal 3 has been demolished and the area is used for more efficient operations at Terminals 2 and 4.

[5] National Park Service and U.S. Department of the Interior. National Register of Historic Places, authorized by the National Historic Preservation Act of 1966. Accessed on www.nps.gov/nr/ on February 8, 2016.

The project site is an approximately 6.0 acre parcel located in the eastern portion of the CTA (see **Figure 1-2**). The site includes the historic TWA Flight Center and adjacent paved land areas of former tarmac and roadways. It is located between the jetBlue Terminal 5 to the east, the Terminal 5 AirTrain Station and Yellow Garage to the west, the International Terminal 4 to the south and the British Airways Terminal 7 to the north. The site is bounded by airport service roads including those serving the jetBlue Terminal 5 and the TWA Flight Center.

1-2-5 PROPOSED DEVELOPMENT PLAN

1-2-5-1 DEMOLITION OF NON-HISTORIC ADDITIONS

The initial step in the development of the site is the demolition of the non-historic portions of the TWA Flight Center building (see **Figure 1-3**). Two additions were added around 1970 and altered the original footprint of the 1962 building. The demolition of these additions would allow the area needed for new construction.

1-2-5-2 NEW HOTEL GUEST ROOM BUILDINGS

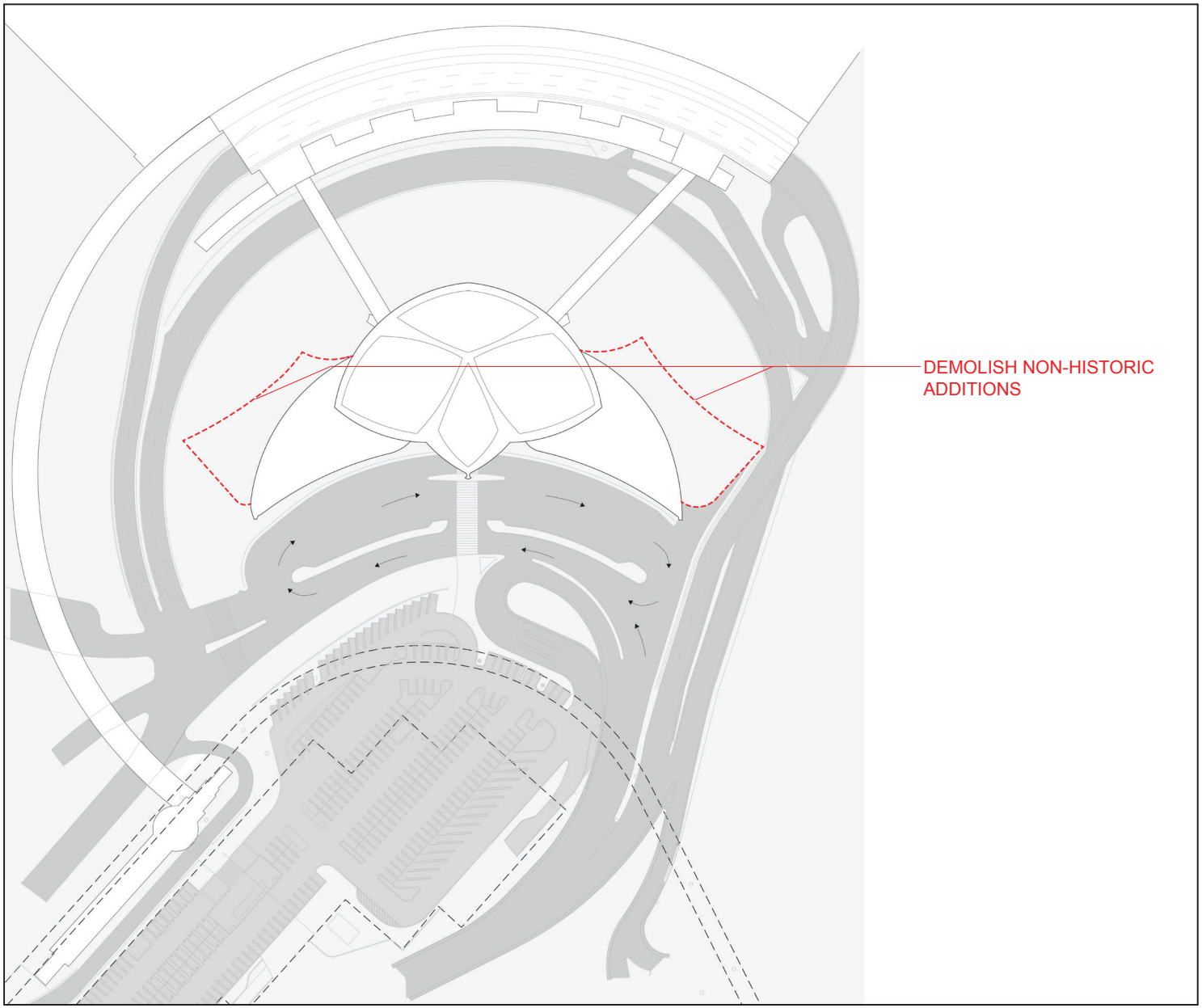
The Proposed Project includes the construction of two new guest room buildings on either side of the TWA Flight Center (see **Figure 1-4**). A total of approximately 505 guest rooms would be split between the two guest room buildings, including approximately 20 suites.

The floor area of all new above-grade construction will total about 222,000 square feet, while the combined footprint of the newly constructed guest room buildings will total 31,400 square feet. The total Proposed Project including the restored TWA Flight Center building and the new conference facilities would total about 440,000 square feet (including about 140,000 square feet of space retained in the existing terminal building and 50,000 square feet of newly constructed below grade conference space, and 30,000 square feet of newly constructed below grade service space). There would also be an underground cogeneration facility of about 7,500 square feet. Each hotel room building would be about 110,000 square feet and would be about one quarter of the overall volume of space.

The height of the new buildings will be up to 84 feet (including parapet wall but exclusive of mechanical areas such as elevator shafts) which is contextually within the building heights of surrounding buildings (such as the jetBlue Terminal 5 Skyway) and slightly taller than the TWA Flight Center itself. **Figures 1-5a to 1-5d** show surrounding building heights of the TWA Flight Center (66.25 feet), as well the AirTrain Station and Yellow Garage (76 feet), Terminal 5 ticketing roof (73 feet), Terminal 5 AirTrain Skywalk (77 to 88 feet), and other buildings in the vicinity of the TWA Flight Center. The curtain walls of the new guest room buildings will be clad with glass on the north and south sides. Additionally, a 5,000-square-feet roof-top observation deck with a cocktail lounge and a shallow splash-pool would be located on the south guest room building with views of the nearby runways.

1-2-5-3 TWA FLIGHT CENTER RESTORATION

Since the EA for the Terminal 5/6 Redevelopment Project was completed in 2004, the Port Authority has performed restoration work on the TWA Flight Center. The Proposed Project would complete the restoration of additional areas requiring extensive work. The



SOURCE: Lubrano Ciavarra Architects, December 2015

Existing Conditions
Figure 1-3

SOURCE: Lubrano Ciavarra Architects, February 2016

Rendering of Proposed Action

Figure 1-4

SOURCE: Lubrano Ciavarra Architects, June 2015

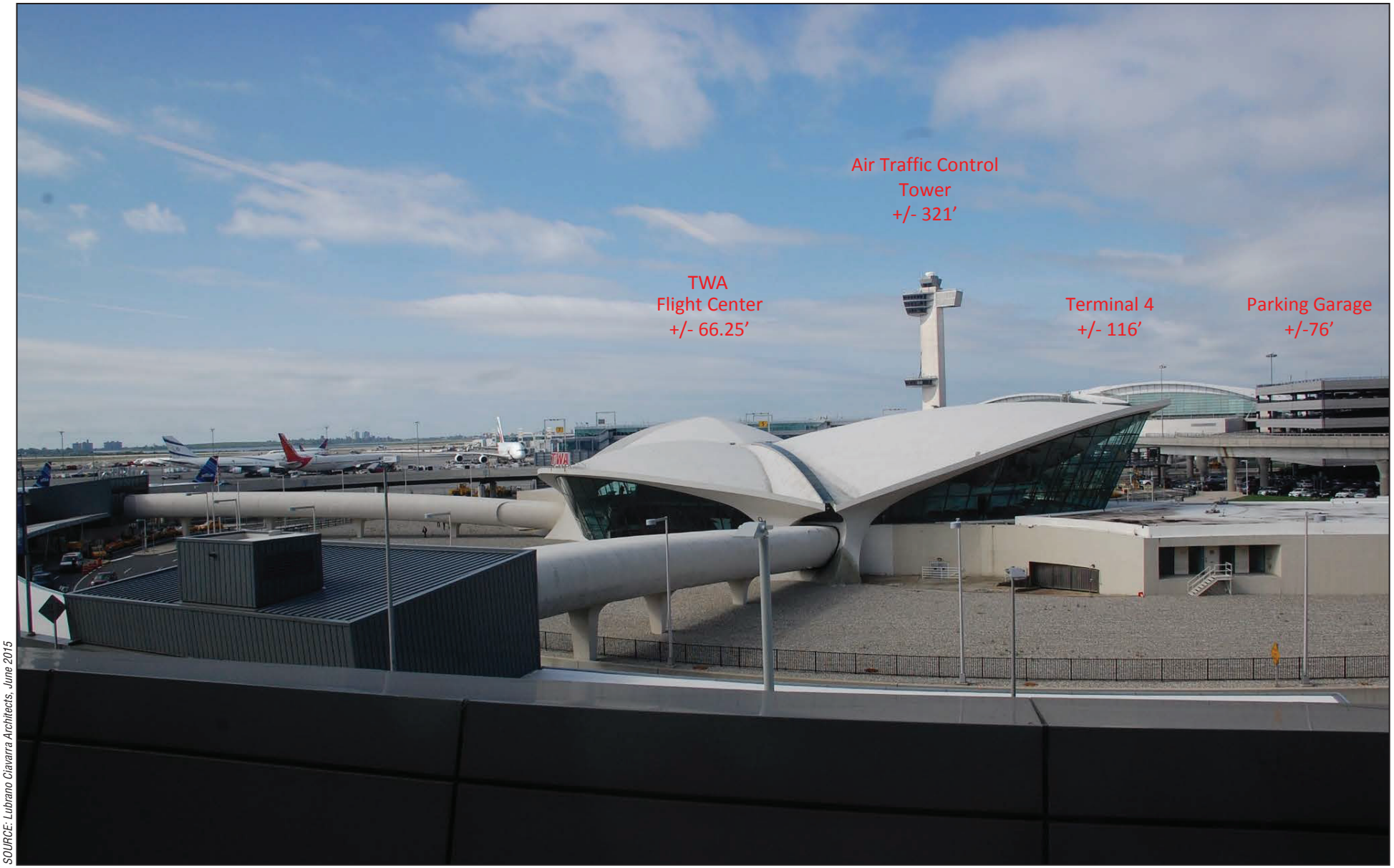
Contextual Building Heights
Figure 1-5a

SOURCE: Lubrano Ciavarra Architects, June 2015

Contextual Building Heights
Figure 1-5b

SOURCE: Lubrano Ciavarra Architects, June 2015

Contextual Building Heights
Figure 1-5c



SOURCE: Lubrano Ciavarra Architects, June 2015

Contextual Building Heights
Figure 1-5d

original historic main TWA Flight Center Terminal building would be repurposed as the Lobby area and amenities for the hotel. Iconic public spaces would be restored to recapture their original grandeur, designs, and concepts. The East and West connector tubes provide pedestrian walkways from the Lobby level of the TWA Flight Center to the jetBlue Terminal 5, as well as the north and south guest room buildings, respectively (see **Figure 1-6**). New passageways would be cantilevered from the guest room buildings to connect to the East and West Tubes. While the East Tube has been restored, the West tube was reconstructed as part of the Terminal 5/6 Redevelopment Project.

Lower Lobby Level

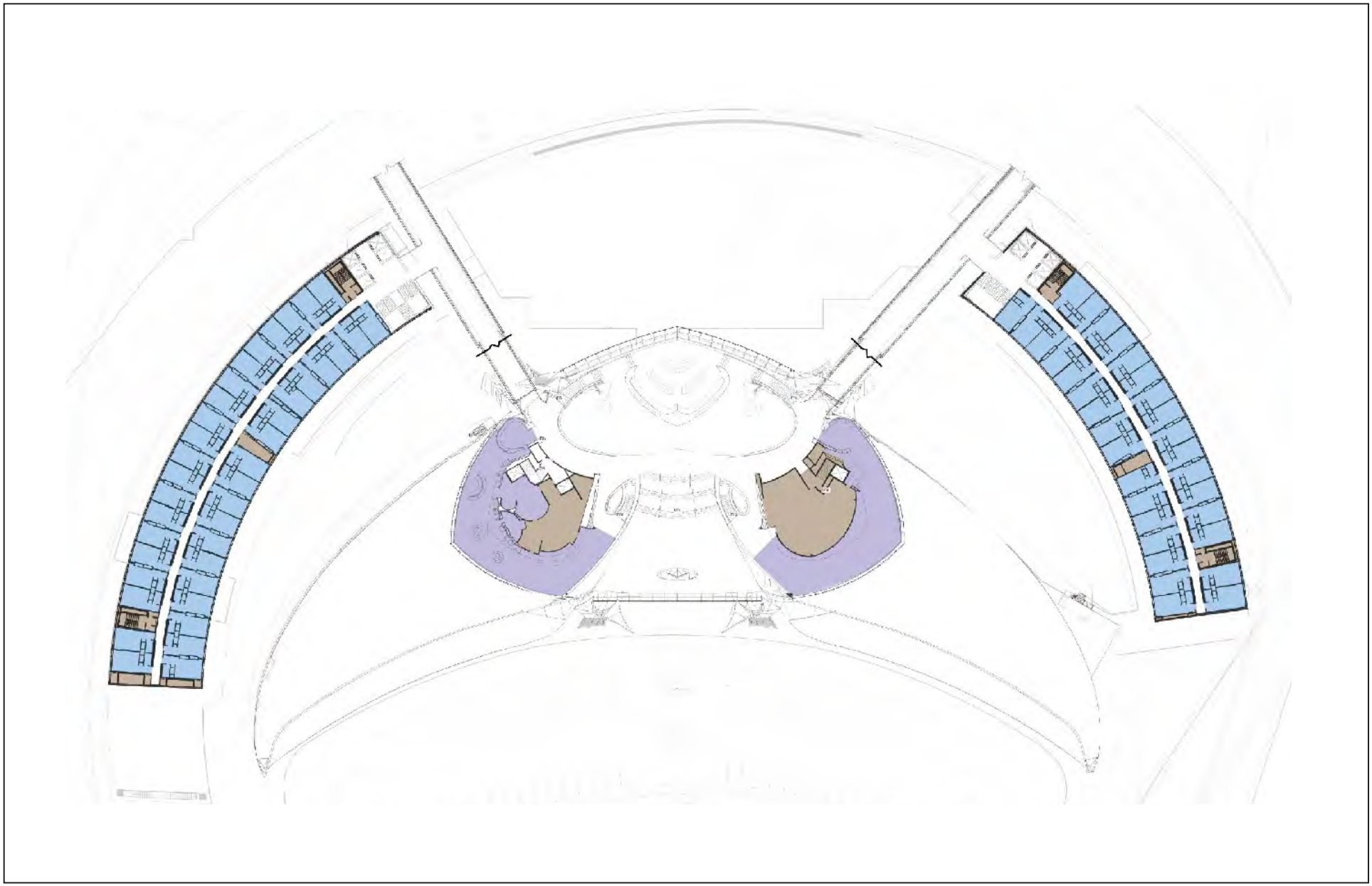
The interior of the TWA Flight Center is divided into three levels. The TWA Flight Center Hotel Lower Lobby is located at street level. Both ticketing areas at the Lower Lobby would be physically restored and repurposed. The South ticketing area would serve as a combination of Retail space and food hall. The North ticketing area would feature a new row of counters based on original design from 1962 to accommodate hotel and event check-in, including hotel baggage check-in which would be offered to all hotel visitors at street level to minimize the impact of wheeled luggage on the restored entrance staircases. No baggage check-in for flights would be accommodated. New ramps would be constructed to connect the Lower Lobby to the Lobby Level, following the historic path of circulation. Below grade walkways for staff would connect the Below Grade Level of the TWA Flight Center to the Below Grade Level of the guest room buildings..

Lobby Level

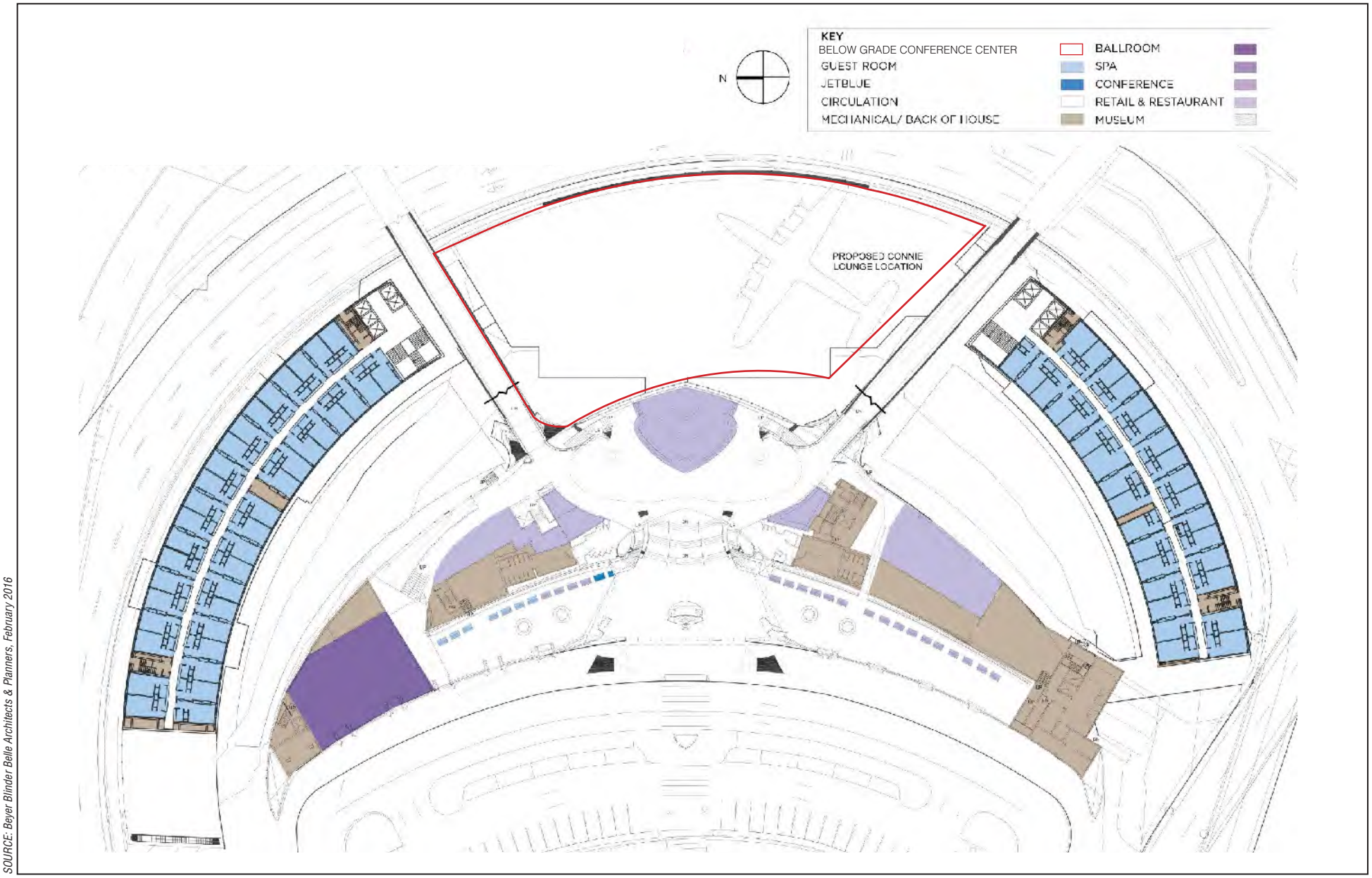
The main focus of the Lobby Level is the TWA Flight Center's iconic sunken lounge, as well as entrances to the East and West Tubes. This level would also include a Concierge, Duty-Free Shop, Ballroom, and Retail space (see **Figure 1-7**). Exhibit areas for historic interpretive displays would be developed throughout the hotel Lobby in partnership with the New-York Historical Society and the New York City Landmarks Preservation Commission. The historic interpretive displays would feature the history of the TWA Flight Center, Eero Saarinen, JFK Airport, TWA, and aviation in New York City.

Accommodations for airline travelers would be provided by the hotel. The Lobby would include a minimum of two electronic ticketing kiosks for use by jetBlue airline passengers (as set forth in the 2004 MOA), as well as check-in counters for select customers. The Solari Board with flight information would be rebuilt from its original 1958 plans and remain as a unique, historic feature of the Lobby. The mechanical board would retain its distinct, audible clicking as flight information is updated.

One of the cocktail lounges, "The Connie Bar", would be located inside a re-purposed Lockheed "Super G" Constellation Airplane (the "Connie"). The airplane would be located between the two connector tubes and accessed via walkways from the guest room buildings.



Proposed Project Mezzanine Level and
Connection to Guest Room Buildings
Figure 1-6



SOURCE: Beyer Blinder Belle Architects & Planners, February 2016

Proposed Project Lobby Floor Plan

Figure 1-7

Mezzanine Level

The Mezzanine Level would include three restaurant and lounge areas original to the TWA Flight Center: The First Class Lounge, Lisbon Lounge, and Paris Café. Efforts would be made to replace the existing undersized elevator systems while preserving historic integrity.

Below Grade Levels

The hotel would offer a total of 50,000 square feet of conference space, located mainly on the newly expanded Below Grade Levels with flexible meeting rooms of varying capacities. The Below Grade Levels would also include the kitchens, mechanical rooms, laundry, fitness center, and additional space for the historic interpretive displays.

Below Grade Disturbance and Excavation

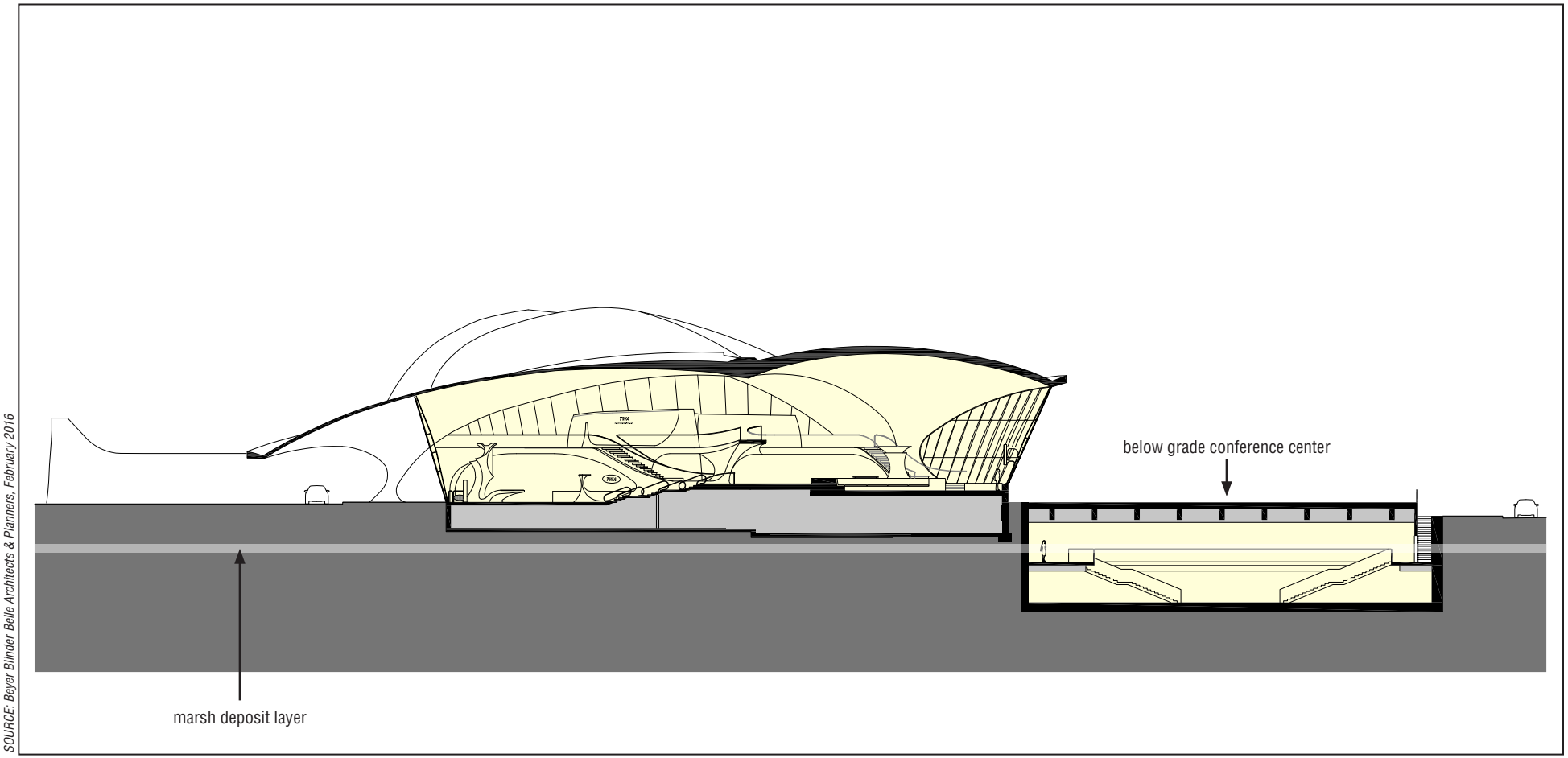
The Below Grade Levels of the TWA Flight Center as well as the lowest levels of the connecting walkways and the new hotel room buildings are located below the Lower Lobby existing street grade (at NAVD88 elevation 13 feet 10 inches). For the existing TWA Flight Center, this includes areas that are already up to about 9 feet 8 inches below the Lower Lobby and includes machine rooms and other spaces. The existing below grade areas account for about 66,000 square feet of the total below grade floor area of 146,000 square feet with new hotel construction.

The area of deepest excavation would be for the conference center (an area of approximately 50,000 square feet), as shown on **Figure 1-8**. The lowest possible excavation for the conference facilities would be approximately 27.2 feet below grade (at elevation -13 feet 5 inches). The lowest ground level for the guest room buildings would be about 5 feet below grade (at elevation 8 feet 10 inches).

As is discussed in Chapters 4 and 5, the levels of excavation are important based on the existing subsurface conditions on the project site and on the larger airport property where an approximately one to three foot layer of marsh deposits (organic silt, clay and peat) creates a natural barrier between the surface soils and developed areas and groundwater (see **Figure 1-8**). Deeper excavations would be conducted in a manner to limit the amount of seepage into the excavation by driving a sheet pile wall or cells to isolate the excavation from the surrounding aquifer. No pile driving would take place during nighttime hours. A Construction Noise and Vibration Mitigation Plan would be developed to protect the TWA Flight Center from potential vibrational impacts during construction and would also be reviewed by FAA Air Traffic Control Tower staff.

Summary

The total area of the proposed full service hotel, including existing areas to remain, and all Ground Floor areas will be 440,000 square feet and the underground cogeneration facility would be an additional 7,500 square feet. The height of the existing TWA Flight Center was taken into consideration in the design and siting of the Proposed Project. As such, the proposed hotel guest rooms and amenities would be partially submerged to create a habitable basement level. This approach also offers a direct relationship between the guest accommodations and the hotel back of house.



SOURCE: Beyer Blinder Belle Architects & Planners, February 2016

Proposed Project Cross-Section
Below Grade Conference Center
Figure 1-8

1-2-5-4 CIRCULATION AND PARKING

The existing roadway network would be redesigned to accommodate hotel functions, including guest drop-off and valet parking to accommodate approximately 44 spaces (see **Figure 1-9**). Hotel guests and conference/banquet attendees would also be welcomed to self-park in the Yellow Garage, located just across from the main entrance. A walkway would be constructed to connect the TWA Flight Center Hotel Lobby to the nearby Terminal 5 AirTrain station (see **Figure 1-9**).

It is anticipated that nearly all hotel and air passenger movements between the hotel and the surrounding terminals would be by the pedestrian tubes connecting to jetBlue Terminal 5 or by AirTrain. Hotel guests arriving or departing off the airport would be expected to be primarily linked to existing trips to and from the airport using the same modes of transportation that presently provide access to and from JFK (i.e, AirTrain, taxis, busses and vans, limos and car services, and private automobiles (See Chapters 4 and 5, below). No additional ground transportation would be provided by the hotel.

1-2-5-5 ELECTRICAL POWER INFRASTRUCTURE

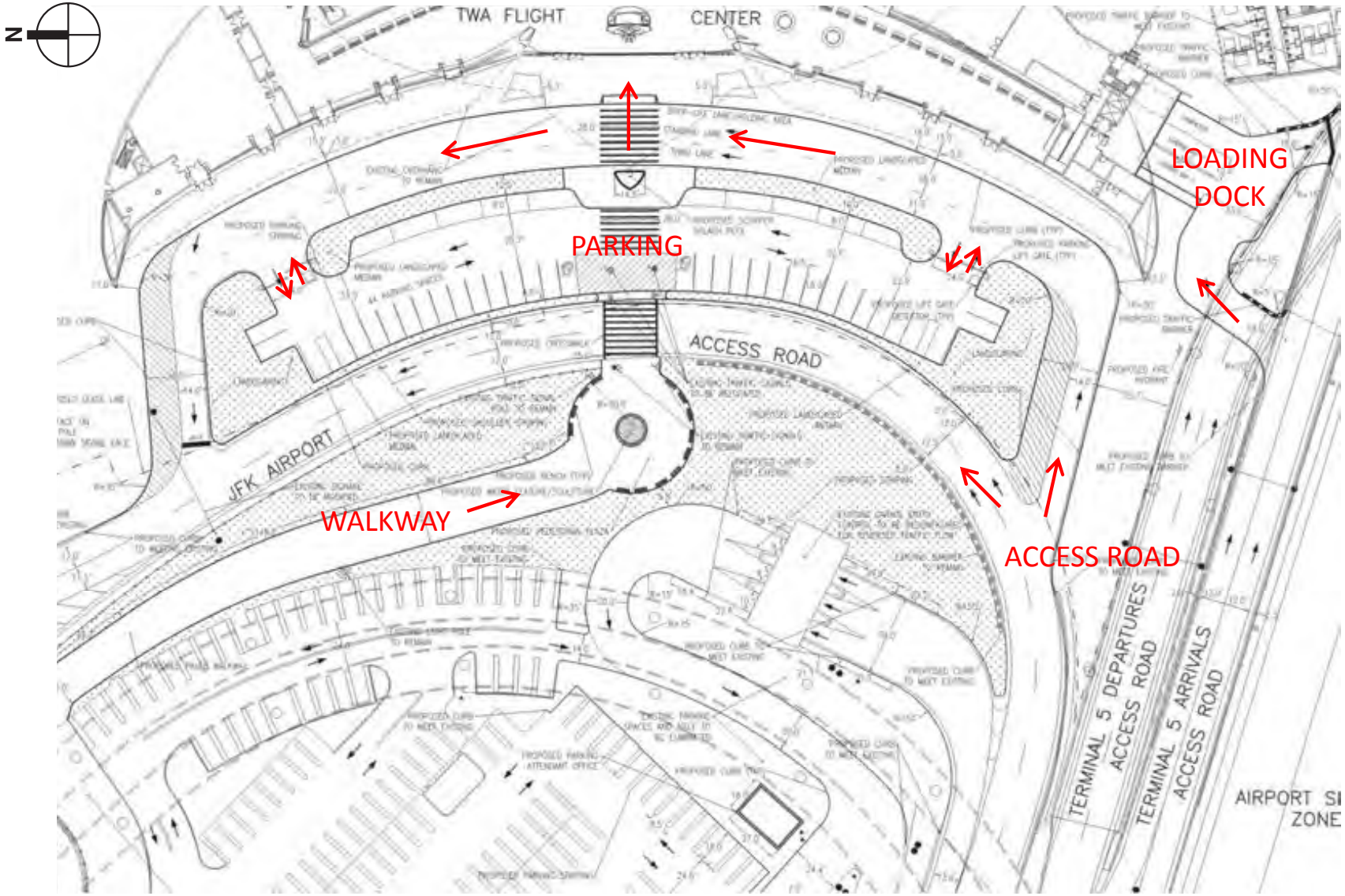
The Flight Center Hotel, including the Lobby and two guest room buildings, would be powered entirely by a new cogeneration facility. This facility would likely be located in a below grade vault on the site. Based on the calculated electrical load of 500 kilowatts (kW), a 1 megawatt (MW) facility would be required, consisting of twelve 100 kW Tecogen Inverde Ultra 100 units (including two redundant standby units). Additional information on the cogeneration facility is provided in Section 5-5. While the site is currently connected to the airport's on-site power plant, Kennedy International Airport Cogeneration (KIAC), there is not intent to use KIAC power at the proposed hotel.

1-2-5-6 CONSTRUCTION PHASING

Overall, construction of the Proposed Project is anticipated to begin in June 2016 and is expected to be complete and operational by 2018. Construction activities at the TWA Flight Center would begin with asbestos abatement, demolition (non-historic portions of the existing structure), and utility work, followed by the Lobby and amenities build out activities. Construction of the guest room buildings would begin with relocation of site utilities, excavation of soils, any required remediation, and construction of the foundations. When the below-grade construction is completed, construction of the superstructure of the new buildings would begin. Next, the exterior of the buildings would be constructed. Finally, interior fit-out activities would include the construction of nonstructural building elements, such as interior partitions and interior finishes.

1-3 FEDERAL ACTION

The Federal action required to implement the Proposed Project is a change to the ALP and its required approval by the FAA. This federal action triggers NEPA. The FAA would additionally approve its Form 7460, Notice of Proposed Construction or Alternation, for the Proposed Project and continue to review any airspace implications of the TWA Flight Center Hotel. These approvals must be obtained before the Port Authority and Flight Center Hotel, LLC can proceed with the development.



SOURCE: Philip Habib & Associates, February 2016

Proposed Project Site Access and Parking

Figure 1-9

Chapter 2: Purpose and Need

2-1 STATEMENT OF PURPOSE AND NEED

The purpose and need of the Proposed Project is to fulfill several important goals that will benefit all airport users (passengers, tenant airlines and their employees, Port Authority, and other customers), as well as the general public. These include:

- Restoration, rehabilitation, and adaptive reuse of the historic TWA Flight Center;
- Addition of a high-quality and full service hotel, conference center, and related facilities within the CTA and with AirTrain and inter-terminal connections;
- Enhance customer convenience and on-airport experiences; and,
- Economic benefits in terms of new private investment, public revenues to the Port Authority and other jurisdictions, and new employment opportunities and economic activity generated at the airport.

2-1-1 NEED FOR TWA FLIGHT CENTER REUSE

As documented in the 2004 EA, the historic TWA Flight Center was found inadequate to be operated as an active airline terminal. The final approved development plan for Terminal 5, which now surrounds the TWA Flight Center, was based on a commitment to incorporate an adaptive reuse strategy pursuant to the MOA entered into by the FAA, Port Authority, SHPO, ACHP, jetBlue, and other consulting parties to the Section 106 review undertaken as part of the Terminal 5 approval process.

As detailed in Chapter 5, *Environmental Consequences*, the MOA resulted in a process to ensure ongoing maintenance, initial restoration and rehabilitation work, and to solicit, review, and approve adaptive reuse proposals. To date, the Port Authority has invested about $19 million on extensive restoration work including replacing soundproofing materials on the ceiling of the main hall, restoration of the Lower and Upper Lobby areas, replacement of skylights, restoration of the East Flight Tube and removal and restoration of exterior areas.

Discussions internally at the Port Authority and with the RAC led to a decision on what next steps should be taken towards adaptive reuse. Ultimately consensus was reached that the most sustainable business adaptive re-use and development would likely be a hotel.

The proposed TWA Flight Center Hotel is a direct response by the developer to RFP #38826 issued by Port Authority. Development plans have been reviewed by the RAC. The proposal will provide an adaptive reuse that will provide for rehabilitation and restoration pursuant to the guidelines established in the MOA and consistent with

Secretary of the Interior's *Standards for the Treatment of Historic Properties - Rehabilitation*.

2-1-2 NEED FOR FULL SERVICE HOTEL

JFK is one of the most important airports in global aviation serving as a domestic and international gateway to the New York City region. Like other major airports, JFK is a major center of economic activity with about 37,000 employees and serves over 50 million passengers per year. As a full service hotel with conference facilities, the proposed TWA Flight Center Hotel will provide a major new asset to all airport users and further enhance the market competitiveness of the airport.

As airports continue to evolve with more diverse economic activities, airport hotels are increasingly seen as important market segments with meeting and conference elements and growing room night demand. Top ranked international and North American airport hotels overwhelmingly have direct terminal access and have broad user amenities and conference facilities. The consistently top ranked North American Hotel is the Vancouver Airport Fairmount Hotel which, like the proposed TWA Flight Center Hotel, provides both of these critical elements.[6] In addition, the proposed TWA Flight Center Hotel has the unique attribute of using the internationally recognized and iconic TWA Flight Center serving as the centerpiece of the proposed hotel.

As analyzed by the Port Authority and summarized in the 2014 developer RFP**,** the proposed TWA Flight Center Hotel would be introduced within a robust lodging market with consistently strong economic performance in occupancy, room rates, and revenue per available room (RevPAR).[7] The local market for airport hotels at JFK, with about 10 full service or larger hotels of 100 rooms or more have shown continuous growth in RevPAR between 2009 and 2013. The proposed TWA Flight Center Hotel would expand the market choices available to the overnight lodging marketplace.

As part of their response to the RFP, the Developer analyzed hotel economic data obtained from standard industry sources (STR Research) from three on-airport hotels—Marriott Newark Airport, Marriott Philadelphia Airport, Marriott Tampa Airport—as well as six of the adjacent JFK Airport hotels to evaluate the performance of the proposed TWA Flight Center Hotel.

2-1-3 ENHANCED CUSTOMER CONVENIENCE AND EXPERIENCE

As set forth in the developer's RFP and business model, the proposed TWA Flight Center Hotel would primarily serve existing and future demand presently at JFK. Among the 30 large hub airports in the United States, JFK has the fourth fastest projected annual compound growth rate at 2.43% between 2013 and 2040. FAA data indicates that JFK had 27.737 million enplanements (the sum of originating and connecting

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[6] Skytrax, World's Best Airport Hotels 2015 (http://www.worldairportawards.com/Awards/worlds_best_airport_hotels.html)

[7] Port Authority of NY&NJ. "Request for Proposals for the Development, Leasing, Management and Operation of a Hotel Incorporating the TWA Flight Center at John F. Kennedy International Airport (RFP#38826). August 8, 2014.

passengers but not arriving passengers) in 2013 and has a projected 47.337 million enplanements by 2040. [8]

The Developer estimates that its market segmentation would be based on: 17 percent of the hotel room demand generated by airlines in lodging for crew layovers or crew and passengers for irregular operations (IRROPs); 31 percent by the demand for airport-based meetings, conferences, and other events; and 52 percent would be by arriving or departing passenger demand for hotel room nights[9].

Room utilization and traveler bookings are based on capturing existing and future demand from airport operations and offer substantial market value through its direct connection to the CTA via the AirTrain. This also has a secondary benefit to the region by limiting vehicular traffic (vans, buses, taxis, and private cars) to and from airport to accommodate this demand. Airport-based conferences and meetings would include new opportunities based on a lack of existing facilities and a more efficient way to capture existing meeting and conference demand that already exists based on short-term travel demand to and from the New York region.

2-1-4 ADDITIONAL ECONOMIC BENEFITS

As estimated by the Developer, the proposed TWA Flight Center Hotel would provide an expansion of economic activity at JFK, from construction activities and through permanent operation of the new hotel. However, the Proposed Project would not increase the number of flights at JFK or alter any airside operations.

The development will invest some $265 million in equity and debt during the construction period. This expenditure will result in additional spending in the local economy and will generate new taxes and other revenues at a local, state and federal level.

Once opened, the Proposed Project is anticipated to generate approximately 500 to 600 permanent full and part time jobs. Operation of the hotel will generate revenue to the Port Authority in terms of base rent and percentage rent and a profit share. Taxes will accrue based on payroll and income taxes on employee wages as well as on sales taxes for goods and services as well as specific hotel occupancy taxes.

2-2 IMPLEMENTATION PHASING

Construction of the Proposed Project is planned to occur over a 30 to 31 month schedule. The proposed preliminary construction schedule is described below for the existing TWA Flight Center and proposed new guest room buildings**.**

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[8] FAA Terminal Area Forecast Summary Fiscal Years 2014-2040 (https://www.faa.gov/data_research/aviation/). In terms of total passengers, the Port Authority statistics indicate 50.424 million passengers in 2013 and 53.254 million passengers in 2014.

[9] Based on market analysis of other airport hotels and interviews with American Airlines and jetBlue (MCR Responses to Port Authority RFP Questions, November 2014). jetBlue and MCR Development. “Flight Center Hotel LLC, RFP Question Responses.” November 6, 2014.

TWA Flight Center

- Month 1: Site preparation
- Month 2 to Month 8: Demolition of non-historic portions of TWA Flight Center, including asbestos and lead abatement
- Month 6 to Month 18: Mechanical, electrical, and plumbing (MEP) select removal
- Month 8 to Month 24: Upgrade MEP infrastructure
- Month 12 to Month 27: Build out kitchen and function rooms
- Month 15 to Month 29: Build out restaurant and café
- Month 18 to Month 30: Main lobby and reception build-out
- Month 26 to Month 30: Fit out furniture, fixtures, and equipment (FF&E)
- Month 24 to Month 31: Port Authority Inspections
- Month 31: Project Completion

Guest Room Buildings

- Month 1 to Month 8: Site preparation and logistics, site utility relocation, piles and foundation.
- Month 5 to Month 13: Complete structure of new buildings
- Month 11 to Month 20: Complete exterior envelope
- Month 8 to Month 23: Install MEP infrastructure
- Month 13 to Month 26: Build out hotel rooms
- Month 23 to Month 27: Fit out interior FF&E
- Month 22 to Month 31 Port Authority Inspections
- Month 31: Project Completion

2-2-2 ENVIRONMENTAL / REGULATORY AUTHORIZATIONS

Federal

- FAA approval of a change to the ALP is a required federal action for the Proposed Project.
- FAA will render an environmental determination pursuant to its NEPA obligations.

State

- Coastal Zone Management Consistency Determination to demonstrate that the Proposed Project is in compliance with New York's Coastal Zone Management

Plan and New York City's Waterfront Revitalization Plan. The Proposed Project received the Coastal Zone Consistency Determination on November 12, 2015. The determination is available in Appendix F.

- A Stormwater Pollution Prevention Plan (SWPPP) would be prepared in accordance with the JFK Best Management Practices (BMP's) Plan and the Tenant Alteration Application (TAA). Following SWPPP approval by the Port Authority, a Notice of Intent (NOI) would be submitted to the New York State Department of Environmental Conservation (NYSDEC).
- A Long Island Well Permit would be required for dewatering authorization.
- Authorization for dewatering would be required under JFK's existing State Pollution Discharge Elimination System (SPDES) Permit

Port Authority of New York and New Jersey

- TAA would be submitted to the Port Authority and approved prior to the start of construction.

Any permits or approvals noted in the previous sections must be obtained and copies provided to the Port Authority prior to commencement of work.

Chapter 3: Alternatives

CEQ regulations implementing NEPA requires that the following tasks be performed when preparing an EA:

- Evaluate all reasonable alternatives, including alternatives not within the jurisdiction of the Federal agency, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated; and
- Devote substantial treatment to each alternative considered in detail, including the No-Build/No-Action Alternative and the Proposed Project, so that reviewers may evaluate their comparative merits.[10]

This section describes the Proposed Project and alternatives to the Proposed Project, including the No-Build/No-Action Alternative, and evaluates the ability of each to meet the Purpose and Need described in Chapter 2, *Purpose and Need*.

Federal and state guidelines concerning the environmental review process require that all prudent, feasible, reasonable, and practicable alternatives that might accomplish the objectives of a project be identified and evaluated. As noted in FAA Order 5050.4B, an alternatives assessment is based on the Purpose and Need Statement, and Federal agencies may consider the applicant's purposes and needs and common sense realities of a given situation in the development of alternatives.[11]

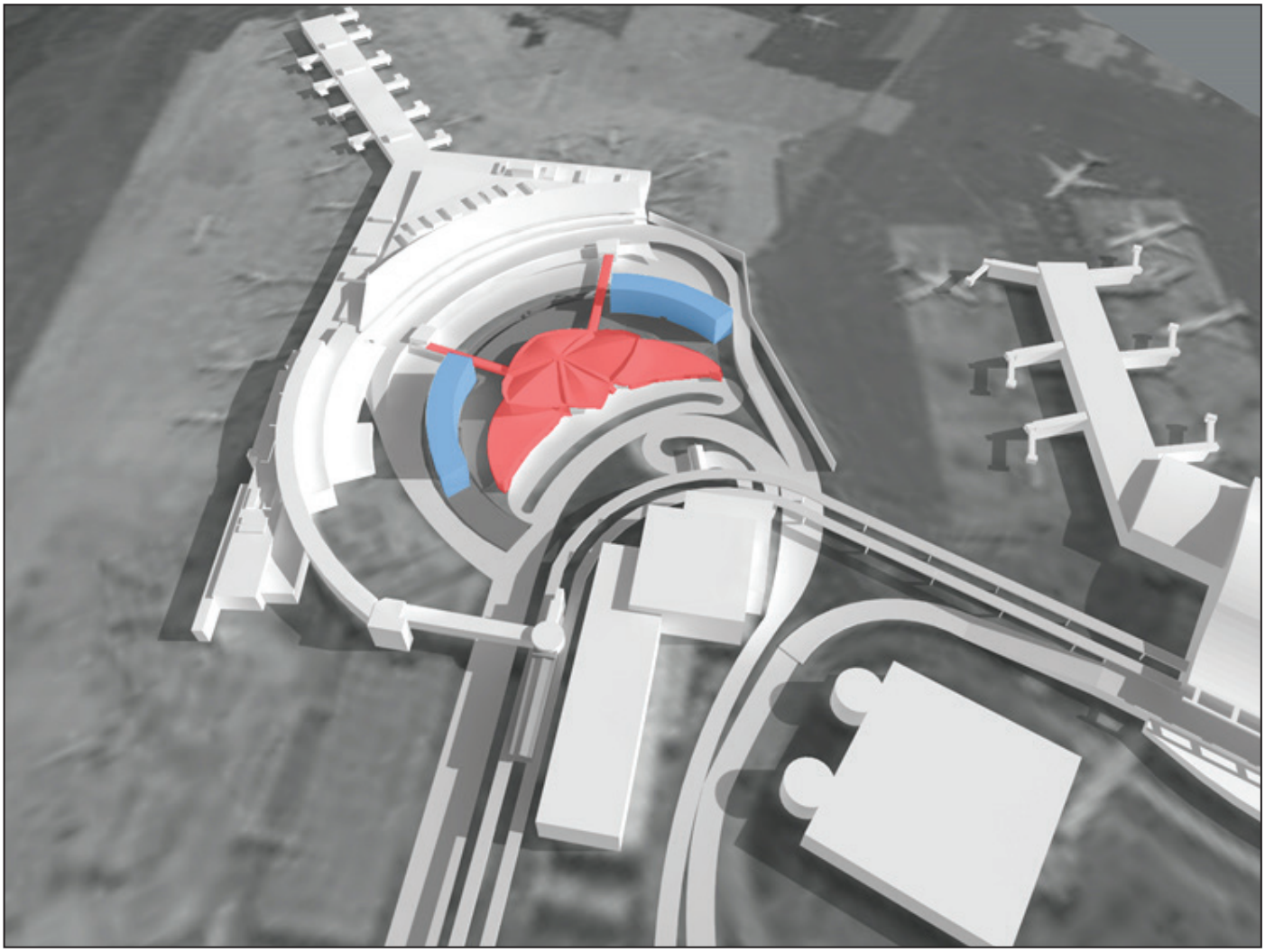
This EA was prepared to identify and evaluate all potential adverse impacts on the natural and human environments that are expected to result from implementation of the Proposed Project and the No-Build/No-Action Alternative. Other alternatives were considered during the planning phases of the Proposed Project, but were eliminated from further detailed environmental review as stated in Section 3-3.

3-1 PROPOSED PROJECT ALTERNATIVE

The Proposed Project Alternative is the TWA Flight Center Hotel, and this chapter describes the overall project and how the Proposed Project addresses the stated purpose and needs described in Chapter 2 “Purpose and Need.” The site plan for the proposed hotel is shown in **Figure 3-1** and more detailed information on project elements can be found in Chapter 1 “Project Description.”

[10] Guidance Regarding NEPA Regulations, CEQ, 48 *Federal Register* 34263 (July 28, 1983).

[11] Ibid.



SOURCE: Lubrano Ciavarra Architects, December 2015

Proposed Project Alternative
Figure 3-1

3-1-1 ADAPTIVE RE-USE OF THE TWA FLIGHT CENTER

The centerpiece of the Proposed Project is the rehabilitation, restoration, and re-purposing of the historic TWA Flight Center. The iconic TWA Flight Center was designed by Eero Saarinen and opened in 1962. While the adjacent jetBlue Terminal T5 construction was completed in 2009, the TWA Flight Center has not been in use as a functioning terminal building since 2001. The 2004 MOA prepared as part of the 2004 EA specifically identified the need and process for seeking adaptive re-use alternatives for the TWA Flight Center and the Proposed Project is a direct outcome of that process. The Proposed Project has the following elements specific to the development and re-use of the former terminal building.

3-1-1-1 DEMOLITION OF NON-HISTORIC ADDITIONS

Site development plan includes the demolition of the non-historic portions of the building that were added around 1970 and altered the original footprint of the 1962 building.

3-1-1-2 BUILDING RESTORATION

The main TWA Flight Center building would become the lobby and public amenities for the proposed hotel. Iconic public spaces would be restored to recapture their original design and concepts. Key features of the restoration include:

- The East and West connector tubes would provide pedestrian walkways to and from the jetBlue Terminal 5, as well as the guest room buildings and conference center. New passageways would be cantilevered from the guest room buildings to connect to the historic East and West tubes. As part of the 2004 Terminal 5/6 Redevelopment Project, the East tube was restored and the West tube was reconstructed as per the 2004 MOA.
- The Lower Lobby level is located at street level and includes the former ticket counters. The South ticketing area would serve as a combination of retail space and a food hall. The North ticketing area would accommodate hotel and event check-in. A minimum of two airline ticketing kiosks would be provided in the Lower Lobby for check-ins with carry-on baggage only. Connections to the proposed new hotel room buildings (see below) would be from walkways at the Upper Lobby level.
- The Lobby level includes the TWA Flight Center's iconic sunken lounge and would be the location for many of the hotel's proposed amenities, including a f concierge, ballroom, and other uses. In addition the Lobby level would include the historic interpretive display established in partnership with the New-York Historical Society.
- The Mezzanine level includes three restaurant and lounge areas original to the TWA Flight Center.
- The Below Grade Levels would include 50,000 square feet of conference space with flexible meeting rooms of varying capacity. This area would also include kitchens, mechanical rooms, laundry, fitness center, and additional space for the historic interpretive display.

- The existing airport circulation road would continue to provide curbside access to the TWA Flight Center, the layout of the terminal access way would be redesigned to accommodate hotel functions including valet parking.

3-1-1-3 CONNIE BAR

One of the hotel's lounges would be located within a re-purposed Lockheed "Super G" Constellation airplane that would be placed on the former tarmac area between the two connector tubes and would be accessed via walkway from the hotel.

3-1-1-4 HOTEL GUEST ROOM BUILDINGS

The Proposed Project includes the construction of two new guest room buildings that would be built on either side of the original TWA Flight Center with each building having a footprint of approximately 1,600 square feet and would be six stories (plus a habitable basement level). A 5,000 square foot roof-top observation deck would be located on the south guest room building.

3-1-2 PROPOSED PROJECT SUMMARY

The total area of the proposed new guest room buildings and hotel amenities, plus the existing TWA Flight Center to be re-purposed would be 440,000 square feet. The entire project would be powered by a new cogeneration facility that would be located in a below grade vault (an additional 7,500 square feet) between the TWA Flight Center and the west hotel room building and would be vented through to the roof of the west hotel room building. The Proposed Project is anticipated to take about two years to complete beginning in 2016 with completion by 2018.

The Proposed Project has been established directly in response to identified needs set forth Chapter 2, *Purpose and Need*, and in comparison with the No Action Alternative or other Alternatives considered, the Proposed Project specifically allows for:

- The adaptive reuse of the historic TWA Flight Center building;
- Development of an on-airport hotel facility at JFK with direct connection to the AirTrain;
- Enhanced Customer Convenience and Experiences; and
- New economic activity and employment opportunities at the airport.

3-2 NO BUILD / NO ACTION ALTERNATIVE

In the No Build, or No Action, Alternative the proposed TWA Flight Center Hotel would not be built, and the historic TWA Flight Center would not have an adaptive reuse program and would not undergo the complete rehabilitation and restoration as set forth in the 2004 MOA (e.g. remaining asbestos abatement, replacement of all windows, upgrade and replace antiquated heating, ventilation, and air conditioning, etc.). With the No Action Alternative, there would be no use of the building and basic services would not be provided (e.g. hotel services and other related amenities, restaurants, etc.). There would be no public access to the building. There would be no new on-airport hotel and no enhancement for customer experience at the airport, and the TWA Flight Center would not result in new employment and economic activity at the airport.

In terms of the adaptive re-use of the TWA Flight Center, and as set forth in Stipulation 20 of the 2004 MOA, if the Port Authority has not reached agreement with an adaptive reuse developer, the signatories to the MOA shall reconsider the terms of the agreement. As the Port Authority has indicated, no other funding resources are available and absent a private development partner, there is no anticipated ability to continue with the restoration and rehabilitation of the TWA Flight Center. The complete restoration project is estimated to require a total of $87 million, of which only a portion (approximately $19 million) has been funded by the Port Authority.

The absence of a high quality on-airport hotel is an increasingly notable omission compared with other international gateway airports. At JFK all adjacent hotels are off airport grounds and are not connected by transit or walkways to terminals. The Newark International Airport has an on-airport Marriott although it is not directly connected to any one terminal or a stop on its AirTrain. Market trends, nationally and locally as researched by the Developer and by the Port Authority, indicate that there is substantial value to on-airport hotel operations (increased occupancy, higher rates) and terminal connected hotels add to the economic value of the airport itself.[12]

The Developer estimates that its market segmentation would likely be based on: 17 percent of the hotel room demand generated by airlines in lodging for crews or other functions; 31 percent by the demand for airport-based meetings, conferences, and other events; and, 52 percent would be by arriving or departing passenger demand for hotel room nights. Airline room utilization and traveler bookings are based on capturing existing and future demand from airport operations and offer substantial market value through its direction connection to the CTA via the AirTrain. This also has a secondary benefit to the region by limiting vehicular traffic (vans, buses, taxis, and private cars) to and from airport to accommodate this demand. Airport-based conferences and meetings would include new opportunities based on a lack of existing facilities and a more efficient way to capture existing meeting and conference demand that already exists based on short-term travel demand to and from the New York region.

The No Action Alternative would not add additional on-airport employment opportunities or expand market opportunities as available from the on-airport hotel and conference facilities and would therefore not contribute to JFK's prominence as an important regional economic center of activity.

In summary, the alternative does not meet any of the identified needs established in Chapter 2, *Purpose and Need*.

[12] Based on market analysis of other airport hotels and interviews with American Airlines and jetBlue (MCR Responses to Port Authority RFP Questions, November 2014). jetBlue and MCR Development. "Flight Center Hotel LLC, RFP Question Responses." November 6, 2014.

3-3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER CONSIDERATION

3-3-1 HOTEL AT ANOTHER LOCATION ON THE JFK AIRPORT

Other hotel sites within JFK were considered but eliminated as viable alternatives to the Proposed Project.

3-3-1-1 WITHIN CENTRAL TERMINAL AREA

The first choice would be to find an alternative hotel site that would be as conveniently located within the CTA as with the Proposed Project. As shown in **Figure 3-2**, the TWA Flight Center site is the only viable location in the CTA that could accommodate new hotel facilities without requiring extensive relocation or incursion into or above parking garages, circulation roadways, or terminal structures. Therefore, based on the configuration of the CTA, no other locations would be available to build a hotel and connect directly to a terminal or the AirTrain system. Another location within the CTA would not meet the stated purpose and need of creating an adaptive reuse for the historic TWA Flight Center.

3-3-1-2 FORMER RAMADA PLAZA HOTEL

The former Ramada Plaza Hotel (JFK Building 144) hotel is located in the far northern section of the airport adjacent to the Belt Parkway and the Van Wyck Expressway. The hotel was originally opened in1958 as a Travelodge and was closed in 2009 after many years of interim uses and deteriorating conditions. It is not connected to the AirTrain and does have any proposed redevelopment interest as a hotel facility. Redeveloping the Ramada Plaza site would allow for an on-airport hotel facility but it would for all practical purposes operate in the same manner as the existing airport adjacent hotels since it would not be directly connected to the terminal or to transit. This alternative would also not meet the goal of creating an adaptive reuse for the historic TWA Flight Center. At a later date, a solicitation will be issued for a Developer to restore the former Ramada Hotel. However, as mentioned above, the Port Authority envisions it as a full or limited service hotel outside of the CTA, and would not meet the purpose and need of this project.

3-3-1-3 SUMMARY

Alternative locations on the airport grounds would not be practical in terms of providing a reasonable development site within the CTA and would not meet the purpose and need of the Proposed Project as an adaptive reuse of the historic TWA Flight Center resulting in the rehabilitation and restoration of the facility.

3-3-2 HOTEL AT ANOTHER LOCATION OFF THE JFK AIRPORT

There are numerous airport-oriented hotels located just off the airport property, primarily along the service roads of the Belt Parkway and the Nassau Expressway/Rockaway Boulevard. New hotels as allowed by local zoning and land use controls and in response to market demand are already a component of the lodging market.

This alternative would not meet the purposed and need of providing for an adaptive reuse of the TWA Flight Center or of providing an on-airport full service hotel.

2014 Aerial of Central Terminal Area

Figure 3-2

3-3-3 SMALLER HOTEL AT THE TWA FLIGHT CENTER

Smaller hotel proposals were considered in earlier proposals considered and not carried forward by the Port Authority in response to earlier developer RFPs. In review and negotiation of the these smaller hotel proposals, in each case it was determined that the hotel proposal was not financially viable and could not support the development of the hotel or the rehabilitation, restoration, and maintenance of the TWA Flight Center pursuant to the MOA and the 2004 Terminal 5 EA.

In responding the Port Authority's 2014 RFP for adaptive reuse of the TWA Flight Center, the Developer presented a detailed financial model based on the comprehensive restoration of the TWA Flight Center and the development of the hotel itself including the TWA Flight Center, the new hotel room buildings, and related improvements to entire site. In a letter dated July 16, 2015, the ACHP questioned the siting, scale, and proposed programs for the Proposed Project. As noted in Port Authority's response to ACHP comments in **Appendix C**, the Proposed Project is reliant upon a balance between the hotel guest rooms and associated programs that support them. Alternative design schemes were considered and rejected due to site constraints and efforts to give visual clarity to the Flight Center. It is an important feature of the proposed design to distinguish between the historic structure and new spaces.

The size of the Proposed Project is in good part based on the restoration of the Flight Center which adds a considerable premium to the overall cost of development. As presented by the Developer to the RAC, this additional cost is estimated at approximately $87 million, of which an initial $19 million was funded by the Port Authority and the remaining $68 million will be funded by the Developer and integrated into the overall projection of costs that need to be offset by future revenues.

As with any hotel operations, guest rooms drive revenue and the proposed approximately 505 guest rooms are critical to the financial viability of the overall Proposed Project and, as modeled by the designated Developer, represent about 70 percent of total revenues. Analysis by the designated Developer highlights the sensitivity of building a smaller hotel in that there is a high level of fixed costs that remain regardless of the number of hotel rooms. In terms of construction, this results in a higher construction cost per room. On an operating basis, a smaller hotel does not offer the benefit of substantial cost savings relative to the loss of revenue. For example, the size difference would likely reduce the employment number by only 20 employees with an approximately 100 room reduction. This could reduce labor costs by an estimated $1.0 million while it would also result in a drop in revenue by approximately $10 million; thus revenue losses are almost 10 times the cost reduction. This is illustrated in **Table 3-1,** which provides a comparison of approximately 400 and 505 room hotels.

Table 3-1
Comparison of 400 Room Hotel to Proposed 505 Rooms

	Reduced Approximately 400 Rooms	Proposed Approximately 505 Rooms	Change
Total Approximate Construction Costs	$260,944,000	$277,671,357	-$16,656,000
Approximate Cost of Construction Per Room	$652,360	$549,844	$102,516 per room
Estimated Number of Employees	480	500	-20
Estimated Payroll ($50,000 per employee)	$24,000,000	$25,000,000	-$1,000,000
Estimated Hotel Room Revenue ($1 million per room per year)	$40,000,000	$50,000,000	-$10,000,000
Sources: MCR/Flight Center LLC			

The implications of a reduced hotel room count would be insufficient revenue to ensure a viable financial basis. This could affect terms of lease and revenue payments to the Port Authority or affect other aspects of the overall business plan including the upfront and ongoing costs for the restoration and rehabilitation of the TWA Flight Center.

Therefore, based on the evaluation of proposals and financial analyses, it has been confirmed that a smaller hotel would not be financially viable and does not meet the purpose and need for the Proposed Project.

3-3-4 OTHER USES CONSIDERED FOR THE TWA FLIGHT CENTER

Other uses considered for the TWA Flight Center consisted of an Airline Terminal, Conference Center, and a Museum. Consideration of reopening the TWA Flight Center as an airline terminal was eliminated as a possibility in the 2004 EA. Consideration of repurposing the TWA Flight Center as a Conference Center or a Museum were not practical nor feasible since neither one would generate enough revenue to rehabilitate, restore and support the on-going maintenance of this historic facility. The TWA Flight Center has open public spaces that were meant to accommodate large numbers of people leaving or returning from their flights. A museum would not have created the same practical amenities for the travelling public befitting a facility in JFK's Central Terminal Area. A hotel and conference facility will provide amenities for the travelling public and the region as a whole, while providing the revenue necessary to rehabilitate, restore, and support the ongoing maintenance of the facility.

Chapter 4: Affected Environment

FAA Order 5050.4B states that the affected environment should succinctly describe only those environmental resources the Proposed Project and its reasonable alternatives, are likely to affect. The amount of information on a potentially affected resource should be based on the extent of the expected impact and be commensurate with the impact's importance.

The following describes the area around the proposed TWA Flight Center Hotel and identifies the resources that may potentially be impacted, which include land use, historic resources, and air quality. In accordance with FAA Orders 1050.1F and 5050.4B, the other resource categories are not discussed in this chapter due to lack of presence of the resource in the Proposed Project area or no change in the number of operations, flight paths, or runway use. In addition, the Proposed Project would occur entirely on Airport property and have no impact to the surrounding communities. Chapter 5, *Environmental Consequences*, includes a discussion about all of the resource categories, whether there are impacts to the category or not.

4-1 ENVIRONMENTAL SETTING

As shown in Figures 1-1 and 1-2 in Chapter 1, *Introduction and Background*, JFK is located in southern Queens area of New York City. The airport includes approximately 4,960 acres and includes the following principal facilities: two pairs of parallel runways; a CTA with six passenger terminals, five of which contain Federal Inspection Services facilities for processing international passengers; 123 aircraft contact gates; and AirTrain, a light-rail transit system linking terminals with each other and with each other and with public transit lines. The Proposed Project occupies approximately a 6.0-acre site in the eastern portion of the CTA and basically in the center of the larger airport. The project site is currently occupied by the historic TWA Flight Center and surrounding paved surface areas and is located an area to the west of the jetBlue Terminal 5, to the east of the Yellow parking garage, to the north of Terminal 4 (International) and to the south of Terminal 7 (British Airways).

4-1-1 LAND USE

The Proposed Project is wholly contained within the CTA and is largely surrounded by other structures and buildings. There is no contextual relationship of the project site with areas outside this immediate area on or off the airport. Within a quarter mile of the project site current land uses include airline terminals (Terminals 4, 5, and 7), airside activities adjacent to the terminals, and landside support areas including parking and service roadways. As established by the Zoning Code of New York City, the entire airport is mapped with as an M1-1 Manufacturing Zoning District. M1 districts typically include light industrial uses, where offices, hotels and most retail uses are also permitted.

JFK is predominantly surrounded by residential areas, national, and local parks, and small areas of commercial and light manufacturing land uses. The residential land uses range from low density single-family dwellings to medium density townhouses and small buildings. There are no large apartment buildings, greater than 14 stories, in the vicinity of JFK. The Gateway National Recreation Area, which contains the Jamaica Bay Wildlife Refuge, borders the southern side of the Airport and is part of the National Park System. The commercial and light manufacturing land uses range from shopping centers and automotive sales to bridge construction component manufacturing and auto repair. These uses are generally located adjacent to low density residential areas

4-2 RESOURCES POTENTIALLY AFFECTED

4-2-1 HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

4-2-1-1 AREA OF POTENTIAL EFFECT

A required step in the Section 106 process is determining the Area of Potential Effect (APE), which is defined as "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if such properties exist" (36 CFR § 800.16[d]). The APE is influenced by the scale and nature of an undertaking.

In general, adverse effects on historic properties may include both direct physical effects—demolition, alteration, or damage from construction—and indirect effects, such as the introduction of visual, audible, or atmospheric elements that may alter the characteristics of the historic property that qualify it for inclusion in the National Register in a manner that would diminish the integrity of the property's significant historic features.

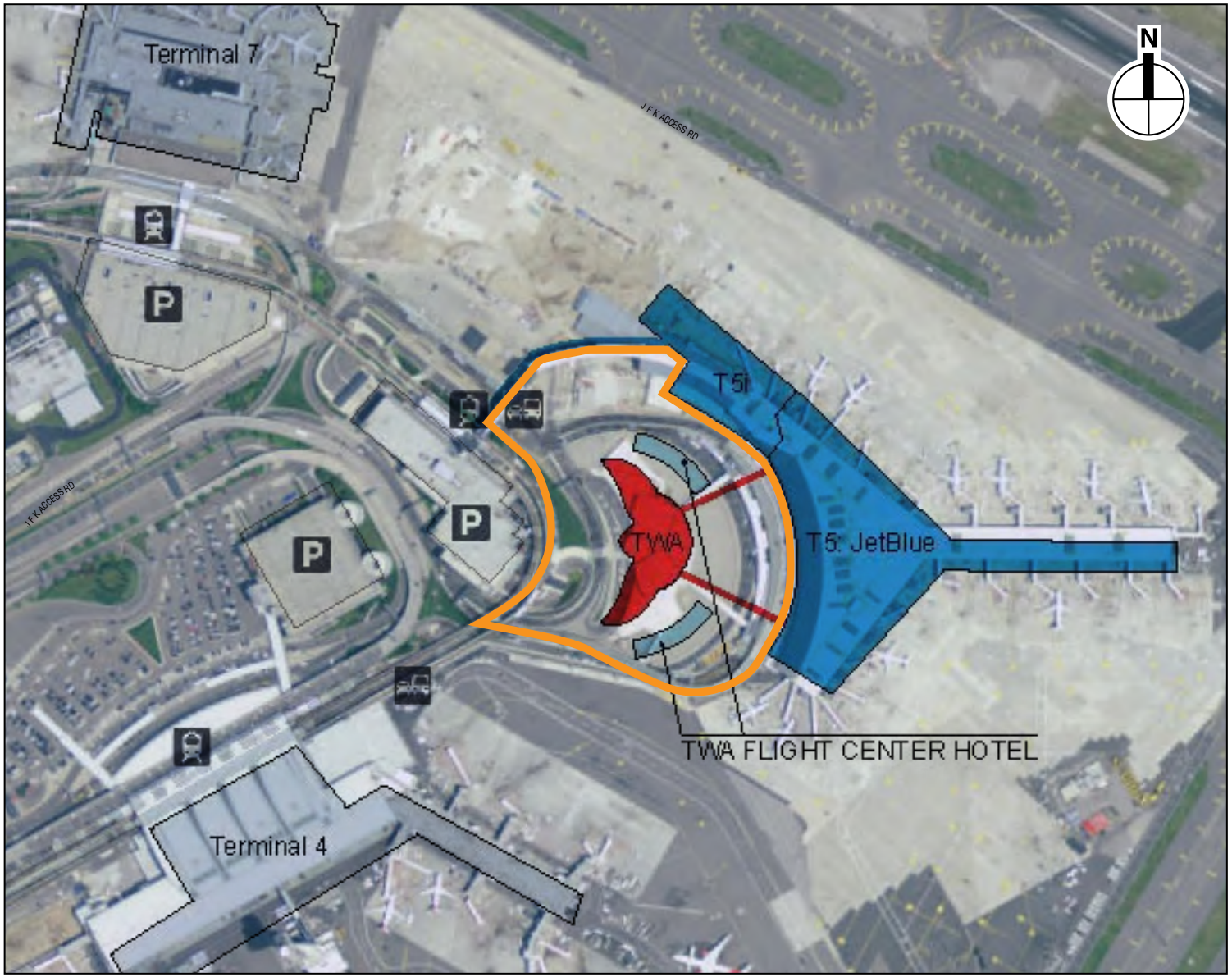
The APE includes the area where the proposed project could cause potential direct effects and the area in which the proposed project could cause indirect effects. The area where potential direct effects could occur is the project site, including the historic TWA Flight Center and adjacent paved land areas of former tarmac and roadways. The APE for indirect effects is limited to the areas immediately adjacent to the project site, since the Terminal 5 building to the east, Terminal 5 AirTrain Skywalk to the north, elevated airport service roadway to the south, and Yellow Parking Garage to the west, serve as physical and visual buffers to areas beyond them where potential effects to historic properties would not be expected to occur (see **Figure 4-1**).

4-2-1-2 TWA FLIGHT CENTER

The APE contains the TWA Flight Center, a vaulted reinforced concrete structure designed with a sunken waiting area with a glazed façade that originally faced the runway, and with balcony levels where bar, restaurant and first-class waiting areas were located. The TWA Flight Center, with its sweeping and aerodynamic architectural forms, is recognized as a significant example of Post-War Modern architecture in the United States.

Stipulation 7 of the 2004 MOA required that the TWA Flight Center, including the Main Terminal Building, Flight Wings, and East and West Tubes be nominated to the

2.25.16



Area of Potential Effect for Indirect Effects

TRAIN

PARKING

GROUND TRANSPORTATION

TWA Flight Center Hotel

Area of Potential Effect

Figure 4-1

National Register prior to the demolition of the Flight Wings. As a result of this stipulation, the TWA Flight Center was formally listed on the National Register in October 2005 (see **Appendix B**). As defined in the National Register nomination, the boundary consists of a polygon that encompassed all the existing components of the terminal complex, including the Main Terminal Building, East and West Tubes, both Flight Wings, and certain land beyond the boundary of these structures. The period of significance established in the National Register nomination spans between 1962 and 1970, which corresponds to the initial construction of the TWA Flight Center through completion of the baggage wings.[13]

The building was originally designed with one raised and enclosed walkway or "tube"- the East Tube – which connected to a flight wing (Flight Wing 2), which contained boarding gates where passengers boarded and deplaned. In 1967, a second and larger flight wing was added (Flight Wing 1) and was connected to the Main Terminal Building by another raised tube, the West Tube, which was longer and different in design to the East Tube. Between 1967 and 1970, additions were constructed to the runway, or airside, of the building on either side of the waiting area glazed façade, to house additional baggage handling, ticketing and office functions. These additions, or wings, were also constructed of concrete, altered the original footprint of the 1962 building, and are not included in the listing on the National Register.

Construction of Terminal 5/6 resulted in further alterations to the TWA Flight Center. These include the removal of both light wings and the reconstruction of the West Tube in conformance with the 2004 MOA. The East and West Tubes now connect to the jetBlue Terminal, with the West Tube having been reconstructed as part of the Terminal 5/6 Redevelopment Project. The TWA Flight Center site is defined by the airport access roads that surround it, including those built as part of the Terminal 5/6 Redevelopment Project. The areas of the Proposed Project site that are not occupied by the existing building's footprint include a loading dock area at the east end of the building, and stone gravel throughout the remainder of the site.

Since the EA for the Terminal 5/6 Redevelopment Project was completed in 2004, the Port Authority has performed approximately $19 million in extensive restoration work on the TWA Flight Center, plus annual maintenance. In summary, the work consisted of replacing soundproofing material on the ceiling of the main hall, restoration of the tiles in Lower and Upper Lobby areas of the main hall, replacement of skylights, restoration of the East connector tube, and restoration of portions of the exterior.

The TWA Flight Center is vacant; American Airlines acquired TWA's assets in 2001 and subsequently vacated the building in 2002 when TWA's lease expired.

[13] The National Register of Historic Places National Registration Form for the TWA Terminal states that Flight Wing 1 was constructed in 1967, with an underground passenger access tunnel connecting the TWA Main Terminal Building to Flight Wing 1 added at the basement level in 1970 (National Register of Historic Places Registration Form, Trans World Airlines Flight Center, John F. Kennedy International Airport, Jamaica, NY, June 22, 2005).

4-2-2 SURFACE TRANSPORTATION

4-2-2-1 TRAFFIC AND PARKING

Two divided highways provide access to JFK: the Van Wyck Expressway (VWE) and the John F. Kennedy Expressway (JFKE). The VWE (Interstate 678) is a six-lane highway extending in a north-south direction. The VWE serves as the primary access route for travelers destined to the Airport with connections to the east-west expressway network extending to Manhattan on the west and into Long Island in the east and leads to the Whitestone Bridge. The JFKE is a four to six-lane divided highway extending in a north-south direction located approximately 0.5 miles east of the VWE. The JFKE serves as a secondary access to the Airport with connections to the Nassau Expressway and the Belt Parkway.

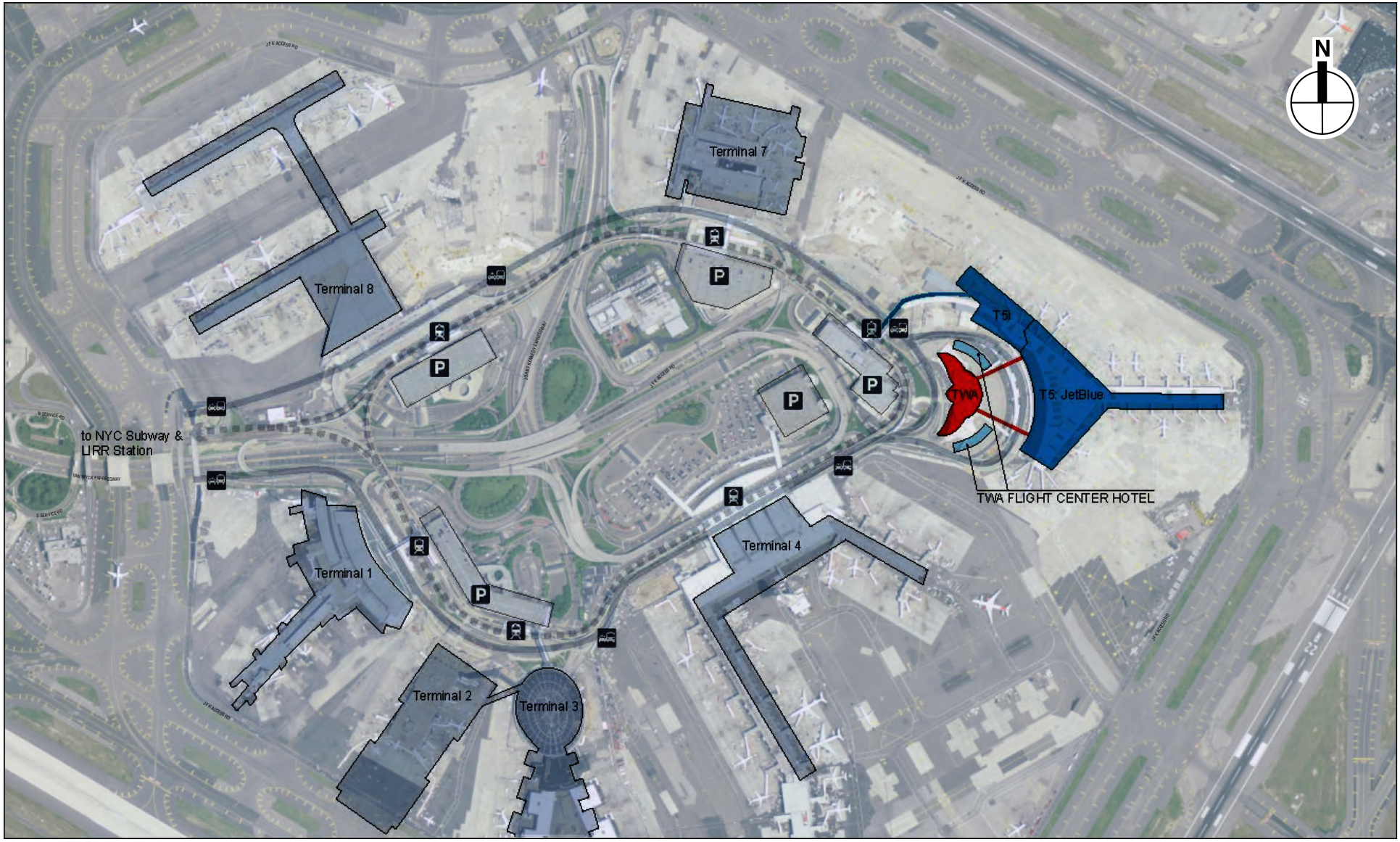
The existing roadways allow vehicles to circulate through the CTA, access each terminal's arrivals, departures and parking areas, and connect to the highway system. Paid parking facilities are provided within the center of the CTA in a number of structures and parking lots. The existing configuration of the JFK road network is shown in **Figure 4-2**.

Automatic traffic recorder (ATR) counts of the vehicles entering the JFK Yellow Quadrant (capacity of 1507 parking spaces), which serves Terminal 5 and the proposed TWA Flight Center Hotel, were conducted between August 21st and September 8, 2009 by the Port Authority. These counts show that the average peak volumes into the Yellow Quadrant were 1,430, 850, 913, and 1,198 during the weekday AM, midday, and PM, and Saturday peak hours, respectively. In order to approximate current existing traffic levels in the Yellow Quadrant, the 2009 Port Authority Yellow Quadrant vehicle counts were proportioned to reflect the growth in overall JFK air travel between 2009 and 2014. According to data from the Port Authority[14], the number of total revenue airplane passengers at JFK was 4,734,696 during the month of August, 2009, when the Yellow Quadrant counts were undertaken. Total revenue airplane passengers during August, 2014 (the latest year for which data are available) were 5,477,187. This amounts to an increase of revenue passengers of approximately 16 percent. In order to approximate existing Yellow Quadrant vehicular traffic, this same proportional increase in volume was applied to the above 2009Yellow Quadrant counts, and the derived 2014 existing traffic volumes entering the roadways in the Yellow Quadrant, which would serve the Proposed Hotel, would be approximately 1,659, 986, 1,059, and 1,390 during the weekday AM, midday, and PM, and Saturday peak hours, respectively.

4-2-2-2 TRANSIT

JFK is served by several modes of public transportation, including bus, rail, and subway. One of the primary modes of transit to and from the Airport is the AirTrain JFK Light Rail System, which was opened in 2003. The AirTrain has stops at each of the terminals at JFK and provides connections to the rapid transit network at Jamaica

[14] The Port Authority of NY & NJ August 2014 Traffic Report http://www.panynj.gov/airports/pdf-traffic/AUG2014_JFK.pdf



TWA Flight Center Hotel

JFK Transportation Network

Figure 4-2

Station and the New York City Transit (NYCT) Howard Beach Station. Travelers destined to JFK can also use numerous other combinations of subway or rail combined with bus access as well as various private taxi services, express shuttles, and buses, which also provide transportation to and from JFK.

According to Port Authority data, the number of passengers using the AirTrain to access JFK from in the year from December 2013 to December 2014 was 6,371,783. Assuming an even number of riders for each day of the week, this would translate to approximately 17,457 AirTrain riders per day.

4-2-3 AIR QUALITY

4-2-3-1 NATIONAL AMBIENT AIR QUALITY STANDARDS

As required by the Clean Air Act (CAA), primary and secondary National Ambient Air Quality Standards (NAAQS) have been established for six major air pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone, respirable particulate matter (both particles with an aerodynamic diameter of less than or equal to 2.5 micrometers [$PM_{2.5}$], and particles with an aerodynamic diameter of less than or equal to 10 micrometers [PM_{10}]), sulfur dioxide (SO_2), and lead. The primary standards represent levels that are required to protect the public health, allowing an adequate margin of safety. The secondary standards are intended to protect the nation's welfare, and account for air pollutant effects on soil, water, visibility, materials, vegetation, and other aspects of the environment. The primary standards are generally either the same as the secondary standards or more restrictive. The NAAQS are presented in **Table 4-1**. The NAAQS for CO, annual NO_2, and 3-hour SO_2 have also been adopted as the ambient air quality standards for New York State but are defined on a running 12-month basis rather than for calendar years only. New York State also has standards for total suspended particulate matter, settleable particles, non-methane hydrocarbons, 24-hour and annual SO_2, and ozone which correspond to federal standards that have since been revoked or replaced and for the noncriteria pollutants beryllium, fluoride, and hydrogen sulfide.

The CAA, as amended in 1990, defines non-attainment areas (NAA) as geographic regions that have been designated as not meeting one or more of the NAAQS. When an area is designated as non-attainment by the United States Environmental Protection Agency (EPA), the state is required to develop and implement a State Implementation Plan (SIP), which delineates how a state plans to achieve air quality that meets the NAAQS under the deadlines established by the CAA, followed by a plan for maintaining attainment status once the area is in attainment.

The conformity requirements of the CAA and regulations promulgated thereunder limit the ability of federal agencies to assist, fund, permit, and approve projects that do not conform to the applicable SIP. When subject to this regulation, the federal agency is responsible for demonstrating conformity for its Proposed Project. Conformity determinations for federal actions other than those related to transportation plans, programs, and projects which are developed, funded, or approved under title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1601 et seq.) must be made according to the requirements of 40 CFR Part 93 (federal general conformity regulations).

Table 4-1
National Ambient Air Quality Standards (NAAQS)

Pollutant	Primary		Secondary	
	ppm	$\mu g/m^3$	ppm	$\mu g/m^3$
Carbon Monoxide (CO)				
8-Hour Average [1]	9	10,000	None	
1-Hour Average [1]	35	40,000		
Lead				
Rolling 3-Month Average [2]	NA	0.15	NA	0.15
Nitrogen Dioxide (NO_2)				
1-Hour Average [3]	0.100	188	None	
Annual Average	0.053	100	0.053	100
Ozone (O_3)				
8-Hour Average [4,5]	0.070	140	0.070	140
Respirable Particulate Matter (PM_{10})				
24-Hour Average [1]	NA	150	NA	150
Fine Respirable Particulate Matter ($PM_{2.5}$)				
Annual Mean [6]	NA	12	NA	15
24-Hour Average [7]	NA	35	NA	35
Sulfur Dioxide (SO_2) [8]				
1-Hour Average [9]	0.075	196	NA	NA
Maximum 3-Hour Average [1]	NA	NA	0.50	1,300

Notes:
ppm – parts per million (unit of measure for gases only)
$\mu g/m^3$ – micrograms per cubic meter (unit of measure for gases and particles, including lead)
NA – not applicable
All annual periods refer to calendar year.
Standards are defined in ppm. Approximately equivalent concentrations in $\mu g/m^3$ are presented.
(1) Not to be exceeded more than once a year.
(2) EPA has lowered the NAAQS down from 1.5 $\mu g/m^3$, effective January 12, 2009.
(3) 3-year average of the annual 98th percentile daily maximum 1-hr average concentration. Effective April 12, 2010.
(4) 3-year average of the annual fourth highest daily maximum 8-hr average concentration.
(5) EPA has lowered the NAAQS down from 0.075 ppm, effective December 2015.
(6) 3-year average of annual mean. EPA has lowered the primary standard from 15 $\mu g/m^3$, effective March 2013.
(7) Not to be exceeded by the annual 98th percentile when averaged over 3 years.
(8) EPA revoked the 24-hour and annual primary standards, replacing them with a 1-hour average standard. Effective August 23, 2010.
(9) 3-year average of the annual 99th percentile daily maximum 1-hr average concentration.
Source: 40 CFR Part 50: National Primary and Secondary Ambient Air Quality Standards.

JFK Airport is located in Queens County, New York which has been designated as in attainment for CO, $PM_{2.5}$, PM_{10} and Lead and is currently in attainment of the annual-average NO_2 standard. New York City was previously designated as non-attainment for $PM_{2.5}$ and CO, so the area is covered under maintenance plans to ensure that future background levels remain below standards. EPA has designated New York–Northern New Jersey–Long Island, NY-NJ-CT NAA as a marginal NAA for the 2008 ozone

NAAQS. EPA has designated the entire state of New York as "unclassifiable/attainment" of the 1-hour NO_2 standard effective February 29, 2012; since additional monitoring is required for the 1-hour standard, areas will be reclassified once three years of monitoring data are available (likely 2017). The EPA has established a 1-hour SO_2 standard, and based on the available monitoring data, all New York State counties currently meet the 1-hour standard; draft attainment designations were published by the EPA in February 2013, indicating that the EPA is deferring action to designate areas in New York State and expects to proceed with designations once additional data are gathered.

4-2-4 WATER RESOURCES

JFK is bordered on three sides by surface water, including Jamaica Bay, Bergen Basin, Head of Bay, and the Thurston Basin. Jamaica Bay, bordering JFK to the south, receives input from Bergen Basin and Thurston Basin, which border JFK on the west and east, respectively. The waters of Jamaica Bay and Head of Bay are considered suitable for primary and secondary contact recreation and are classified SB by NYSDEC. Waters within the adjacent tributaries are considered suitable for secondary contact recreation (classified I by NYSDEC). Shell fishing for market purposes is not permitted in these areas. A large part of Jamaica Bay and its adjoining waterways and shoreline are now a component of the Gateway National Recreation Area, which includes a National Wildlife Refuge. Tidal wetlands, shallow and deep-water habitats adjacent to the Airport are habitat for a diverse plant and avian population.

4-2-4-1 WATER QUALITY AND WASTEWATER

Water Quality

JFK is located along the periphery of the Brooklyn/Queens aquifer system, which is part of the larger Long Island aquifer complex. The area is primarily underlain by sandy fill materials dredged from Jamaica Bay during Airport construction. Beneath the fill material are layers of organic material from marsh deposits (organic silt, clay and peat) and glacial outwash deposits (sands, gravels with quantities of silts and clays). The marsh deposits are thought to act as a semi-confining unit that inhibits downward migration of shallow groundwater. The marsh deposit layer known to underlay the site is generally encountered at depths of 11 to 13 feet. Previous reports indicate groundwater in the Proposed Project area is approximately seven feet below grade.

The overall direction of groundwater flow at the site is to the south/southwest toward Jamaica Bay and away from water supply wells in central Queens that rely on the Long Island aquifer. Groundwater quality has been affected by past development at JFK and surrounding communities. Recharge of groundwater at JFK is primarily accomplished through migration from Brooklyn and Nassau Counties and from precipitation. The increase in impervious surfaces from past development and the installation of a separate storm sewer system has resulted in significant reductions in groundwater recharge. The Proposed Project area is primarily impervious; therefore, stormwater discharge from the area does not directly contribute to groundwater recharge. Groundwater is not used as potable water source in New York City.

Stormwater Runoff

JFK is serviced by an independent storm sewer system that collects stormwater runoff from the Airport and discharges to Jamaica Bay at 26 separate permitted outfall locations (NYSDEC Permit #2-6308-00019/00016). Runoff from parking areas, rooftops, runways, tarmacs and landscaped areas is collected and transported in a closed system and discharged to the Bay.

In New York State, storm water discharges are regulated by NYSDEC under the SPDES program. The Port Authority has been issued a discharge permit for the entire Airport that includes monthly monitoring requirements for specified water quality constituents. The constituents and their discharge limitations have been chosen in consultation with the NYSDEC to specifically address issues relating to Airport operations, including aircraft fueling and deicing. All discharges occurring via the stormwater conveyance system are in accordance with the requirements set forth in the Port Authority permit.

Sanitary Wastewater

Four water pollution control plants (WPCPs) discharge treated wastewater effluent into Jamaica Bay and its tributaries: Jamaica WPCP (including JFK wastewater), Rockaway WPCP, Coney Island WPCP, and 26th Ward WPCP. During significant rainfall events, sanitary and stormwater collected in combined sewers overflow to Jamaica Bay in combined sewer overflows (CSOs). There are over 25 potential CSO locations around Jamaica Bay. All sanitary wastewater generated at JFK, including the Proposed Project area, is conveyed to the Jamaica WPCP by the Airport sanitary sewer system.

The effects of these discharges on water quality vary across the Bay and its tributaries. The City of New York annually monitors New York Harbor, including Jamaica Bay. Coliform levels, dissolved oxygen, algae growth and floating materials, suspended solids, and heavy metals are a few of the quality indicators used. The City of New York has implemented various pollution control programs and is continually upgrading sewer systems and treatment facilities to support water quality enhancement.

4-2-5 COASTAL RESOURCES

The federal Coastal Zone Management (CZM) Act of 1972 was established to support and protect the distinctive character of the waterfront, and to assist coastal states in establishing policies for managing their coastal zone areas. In 1982, New York State adopted a state Coastal Management Program, designed to balance economic development and preservation in the coastal zone by promoting waterfront revitalization and water dependent uses while protecting fish and wildlife, open space and scenic areas, public access to the shoreline and farmland, and minimizing adverse changes to ecological systems and erosion and flood hazards. The State program is consistent with the federal CZM Act and contains 44 coastal policies. It also provides for local implementation when a municipality adopts a local waterfront revitalization program that is consistent with the federal CZM Act.

In accordance with the State program, New York City adopted a local waterfront revitalization program, the New York City Waterfront Revitalization Program (WRP), in 1982. The WRP, as amended, incorporates the State's 44 coastal policies, and

contains an additional 10 policies. The program is administered by the New York City Department of City Planning (DCP). It establishes the City's policies for development and use of the waterfront and provides a framework for evaluating activities proposed in the Coastal Zone. The site is located within the coastal zone designated by New York City. Therefore, the Proposed Project is subject to New York City's Coastal Zone management policies, contained within the WRP.

The coastal zone management program consistency review process is described in federal regulation at 15 CFR 930: Federal Consistency with Approved Coastal Management Programs, as amended, as well as in the WRP. Consistency review is required for any project that:

- Is in, or is expected to affect the resources or land or water uses of, the New York coastal zone, and
- Requires a state-listed federal license or permit, is federally or state funded, or is a direct activity of a federal agency.

The area affected by the Proposed Project is within the coastal zone. The nearby Jamaica Bay is a Significant Coastal Fish and Wildlife Habitat (SCFWH) and abuts JFK Airport. However, the project site is not in or adjacent to SCFWH. A copy of the letter seeking NYSDOS concurrence and the NYSDOS concurrence letter is attached as Appendix F.

On January 30, 2015, the President of the United States issued Executive Order (EO) 13690 that amends EO 11988, and established the Federal Flood Risk Management Standard ("FFRMS") and a process for public input prior to implementation of the FFRMS. However, *Guidelines for Implementing Executive Order 11988, Floodplain Management, and Executive Order 13690, Establishing a Federal Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input*, ("Guidelines") were issued on October 8, 2015. In the Guidelines, federal agencies were directed not to apply the new requirements until after the agencies adopt new or revised regulations governing the proper implementation of EO 13690 and the FFRMS. The Guidelines state that agencies will continue to comply with the requirements of the 1977 version of EO 11988 until they update their regulations and procedures to incorporate the amendments from EO 13690. These regulations and procedures will describe an agency's schedule for applying any new requirements as well as how it will apply the new requirements. The new requirements of EO 11988 will not be applied retroactively. The DOT has not issued implementing orders to date.

4-2-6 NATURAL RESOURCES AND ENERGY SUPPLY

The energy for JFK, including the existing TWA Flight Center, is supplied by the KIAC Facility. The facility is located at Building Number 49 in the middle of the CTA. The KIAC Facility consists of two General Electric combustion turbines equipped with supplementary fired duct burners and heat recovery steam generators (HRSGs), powered by natural gas with a backup of No. 2 fuel oil source. The KIAC Facility provides electrical power and heating and cooling services to the Airport facilities.

The existing TWA Flight Center is not currently in use; therefore, a minimal amount of natural resources and energy supply are utilized.

4-2-7 HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION

4-2-7-1 TERMINAL 5 REMEDIAL INVESTIGATIONS

Various subsurface investigations in the vicinity of the project site have identified soil and groundwater impacted by jet fuel, gasoline, diesel, and other petrochemical products. Between 1999 and 2005, five separate investigations were performed during which numerous monitoring wells were installed and soil and groundwater samples were collected.

In May 2002, the Port Authority began product recovery from three identified product plumes near Terminal 5. Vacuum truck extraction was used in conjunction with the 80 extraction wells installed in the product plume areas. The vacuum truck extraction activities continued intermittently until October 2005 when construction activities related to the terminal redevelopment were initiated. A total volume of 16,200 gallons of product and approximately 800,000 gallons of groundwater were recovered during the vacuum extraction activities. During the construction of the new jetBlue Terminal 5, the old fuel hydrant system was removed in November 2006. At the time of construction, approximately 160,500 cubic yards of soil was removed from the Site. Approximately 28.59 million gallons of fluids were processed by the dewatering system during construction.[15]

Additional sampling was conducted following the completion of the Terminal 5 expansion. Between February and April 2011 the Port Authority completed soil and groundwater investigation activities. The results of the investigation indicated there were three areas where the groundwater is impacted by jet fuel related petroleum hydrocarbons at levels above the CTA Criteria, which were established in concert with NYSDEC. A Remedial Action Workplan was developed to propose remedial technologies to address the residual jet fuel groundwater impacts. Enhanced biodegradation via sulfate injection was chosen as a remedial alternative to reduce petroleum constituent concentrations.[16]

4-2-7-2 TWA FLIGHT CENTER INVESTIGATION

The TWA Flight Center was constructed in 1962 when building materials now known to be hazardous were commonly used. Hazardous materials present in the TWA Flight Center building include asbestos and lead-based paint.

LiRo Engineers Inc. (LiRo) prepared the *Terminal 5 Interim Initial Post Construction Baseline Report,* dated November 2009 which included results from sampling conducted immediately to the east and north of the Building 60 Site. LiRo's Terminal 5 investigation reported petroleum contamination in well T5-PMW-121 located in the current Terminal 5 roadway.

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[15] Port Authority of NY&NJ, Engineering/Architecture Design Division. "John F. Kennedy International Airport Terminal 5. NYSDEC Spill No.: 9010043, Remedial Action Workplan." June 2011.

[16] Ibid.

LiRo prepared a *Site Specific Sampling Plan*, dated June 2015 for the project site, based on their review of the *Building 60 Environmental Subsurface Baseline Investigation Report*, dated March 2010. A total of six soil borings were drilled at TWA Flight Center (aka Building 60) and all of the borings were completed as permanent monitoring wells. The newly installed wells at Building 60 plus five wells located on the Terminal 5 leasehold were gauged in order to determine the direction of groundwater flow at the site. Soil and groundwater samples were analyzed for parameters on the EPA Priority Pollutants plus 40 (PP+40) List including total xylenes, methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA), total petroleum hydrocarbons (TPHC), ethylene glycol and propylene glycol. Field observations and laboratory analysis indicated minimal contamination at the site.

In August 2015, LiRo completed 12 additional borings to identify soil characteristics on the eastern portion of the project site at the location of the proposed conference center and guest room buildings. The marsh deposit layer was encountered at all boring locations at depths ranging from 11.7 to 13 feet below grade with a thickness ranging from 1.6 to 3.5 feet. Groundwater at two existing monitoring wells was measured ranging from 7.3 to 7.9 feet below grade.

Chapter 5: Environmental Consequences

5-1 INTRODUCTION

As discussed previously, the FAA issued a Finding of No Significant Impact (FONSI) / Record of Decision (ROD) for the EA and Section 4(f) Evaluation for the Terminal 5/6 Redevelopment Project. Therefore, this chapter specifically focuses on the proposed new hotel and adaptive reuse of the TWA Flight Center in order to assess the potential for environmental impacts not previously identified in the 2004 EA. This chapter presents the assessment of environmental impacts addressed in considering reasonably foreseeable environmental consequences of the Proposed Project.

5-1-1 ENVIRONMENTAL CATEGORIES

As required by FAA Orders 5050.4B and 1050.1F, the environmental categories listed below are addressed in this EA. Consistent with the findings from the 2004 EA, those technical areas with the highest potential for environmental impacts—historic, Section 4(f), Surface Transportation, and Air Quality—are the first areas to be evaluated in this chapter.

- Air quality
- Biological resources (including fish, wildlife, and plants)
- Climate
- Coastal resources
- Department of Transportation Act, Section 4(f)
- Farmlands
- Hazardous materials, solid waste, and pollution prevention
- Historical, architectural, archeological, and cultural resources
- Land use
- Natural resources and energy supply
- Noise and compatible land use
- Socioeconomics, environmental justice, and children's environmental health and safety risks
- Visual effects (including light emissions)
- Water resources (including wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers

5-1-1-1 SECONDARY (INDUCED) IMPACTS

No adverse secondary (induced) impacts would occur from the Proposed Project. The Proposed Project would induce temporary positive secondary impacts as a result of the construction, by increasing employment opportunities and expenditures on local services.

Construction Impacts

The Proposed Project is not anticipated to cause any significant adverse construction-related impacts. This is due to the temporary nature of construction and mitigation procedures set forth in FAA Advisory Circular (AC) 150/5370 10E, Standards for Specifying Construction of Airports, as well as Port Authority's JFK BMPs. However, the cumulative impact of related construction projects, in addition to the Proposed Project, might have potential temporary impacts related to air quality, surface traffic congestion, and noise. The assessment of potential construction related impacts to each of the applicable categories listed above in Section 5-1-1 has been included in this chapter.

Cumulative Impacts

Even when impacts are determined to be individually insignificant, the impacts can be collectively significant when taking place over a period of time. Therefore, the cumulative effects of environmental impacts were considered only for those categories determined to have impacts due to the Proposed Project. The construction schedule of the Proposed Project would overlap with the construction of other projects at JFK, including demolition of Hangars 3, 4, and 5, the redevelopment of Building 144, rehabilitation of Runway 4R/22L, , North Cargo Area redevelopment, Bulk Fuel Farm Modification, Taxiway Q/QZ and RVSR rehabilitation and possibly Phase III of Terminal 3 and 4 expansion. The assessment of potential cumulative impacts to each of the applicable categories listed above in Section 5-1-1 has been included in this chapter.

5-2 HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

The Proposed Project requires ALP approval, among other potential federal actions, and it is subject to NEPA and other laws, including Section 106 of the National Historic Preservation Act of 1966 (NHPA) as implemented by federal regulations appearing in 36 CFR Part 800. Section 106 of the NHPA mandates that federal agencies consider the effect of their actions on any properties listed in or determined eligible for listing on the NRHP (“historic properties”) and afford the ACHP a reasonable opportunity to comment on such undertakings.

The FAA, in cooperation with SHPO, Port Authority, and ACHP, determined that the proposed federal undertaking would have an adverse effect on the historic TWA Flight Center. The adverse effect was determined to include the removal of the structure’s aviation function and potential for it to become a secondary structure. Section 106 requires consultation with the SHPO, federally recognized Indian tribes that might attach religious and cultural significance to historic properties affected by the Proposed Project, and additional Consulting Parties with a demonstrated interest in the Proposed Project based on a legal or economic relation to affected properties, or an interest in the

Proposed Project's effects on historic properties. In addition, the ACHP has participated in consultation for the resolution of adverse effects.

Revised Section 106 regulations became effective in January 2001, with amendments effective in August 2004.

In 2004, an EA and Section 4(f) Evaluation for the Terminal 5/6 Redevelopment Project: JFK International Airport (referred to herein as the 2004 EA) was prepared. To address the impact on historic resources during the redevelopment of the terminals, the FAA, the ACHP, the SHPO, and the Port Authority entered into a MOA for the Rehabilitation, Restoration, and Adaptive Reuse of the TWA Flight Center. Consultation pursuant to Section 106 for the TWA Flight Center Hotel is proceeding pursuant to the 2004.

As part of the planning and environmental review conducted for the Terminal 5/6 Redevelopment Project, consultation was undertaken pursuant to Section 106 to assess the project's potential effects on historic properties. At the time of this consultation, the TWA Flight Center, including the Main Terminal Building, Flight Wing 2, and East and West Tubes, had been determined eligible for listing on the State/National Register of Historic Places. The TWA Flight Center, consisting of the Main Terminal Building, East and West Tubes, and Flight Wing 2, had also been designated a New York City Landmark (including portions of the interior of the Main Terminal Building, the East and West Tubes, and Flight Wing 2) in 1994.

Consultation pursuant to Section 106 identified that the Terminal 5/6 Redevelopment Project would result in an Adverse Effect on the TWA Flight Center, due to the planned removal of the original Flight Wing 2 and anticipated modifications to the West Tube. This Adverse Effect and measures that were developed to mitigate the Adverse Effect were memorialized in the 2004 MOA. The MOA set forth a number of measures that would be undertaken to avoid, minimize and mitigate the Adverse Effect of Terminal 5/6 Redevelopment Project, including how consultation would proceed regarding the future treatment and reuse of the TWA Flight Center.

The TWA Flight Center Hotel is a direct outcome of, and serves to implement certain stipulations of the 2004 MOA with respect to the restoration, rehabilitation, and adaptive reuse of the TWA Flight Center. Consultation for the TWA Flight Center Hotel is consistent with and within the Section 106 framework established by the MOA. The MOA and RFP issued by the Port Authority to solicit adaptive reuse proposals for hotel use require the selected developer to comply with the stipulations of the MOA. These stipulations and the status of compliance are described below in Section 5-2-2.[17]

5-2-1 DRAFT FIRST AMENDMENT TO THE 2004 MOA

Based on the Section 106 consultation with the RAC regarding the design of the proposed TWA Flight Center Hotel and the adaptive reuse of the TWA Flight Center, a Draft First Amendment to the 2004 MOA has been prepared. As described above, the

[17] Stipulations 1 through 18 contain commitments related to design, rehabilitation, restoration and maintenance and are described below. Stipulations 19 through 21 relate to the administration of the MOA and therefore are not evaluated for their compliance status.

Proposed Project would result in the removal of the additions completed in 1970 to the TWA Main Terminal Building. This proposed modification has been reviewed by the RAC. As these additions have not attained significance on their own or as part of the overall understanding of the TWA Flight Center, their removal would be consistent with the Secretary of the Interior's Standards for Rehabilitation. Removal of these additions would return the TWA Flight Center to its 1967 configuration, the year in which the West Tube was completed, and allow for a greater separation between the TWA Main Terminal Building and the proposed hotel.

The proposed hotel has been designed with two separate guest room buildings to be constructed north and south of the TWA Main Terminal Building. The proposed crescent-shaped footprints of the hotel buildings follow a similar curvature as the façade of the original TWA Main Terminal Building (prior to the 1970s) additions. Pedestrian access to the proposed guest room buildings would be via new passageways connected to the East and West tubes, thereby not interfering with the sculptural quality of the TWA Main Terminal Building. The passageways would be cantilevered from the new guest room buildings to minimize changes to the East and West tubes. The proposed glass and metal primary facades have been designed to complement and not compete with the masonry TWA Flight Center.

5-2-2 MOA COMPLIANCE

The 2004 MOA established the initial framework that led to the developer request for proposals ultimately leading to the Port Authority's selection of the Developer and the proposed TWA Flight Center Hotel development plan. This section summarizes compliance with the stipulations of the agreement, as well as stipulations detailed in the Draft First Amendment. The stipulations are shortened and summarized in the EA and the entire 2004 MOA and its Draft First Amendment are found in **Appendix B**.

5-2-2-1 MOA PLANNING STIPULATIONS

1. *Issuance of RFP and execution of an agreement with an adaptive reuse developer for the adaptive reuse and restoration of the TWA Terminal (TWA Flight Center).*

Compliance Status: The Port Authority has issued three RFPs and the Proposed Project is specifically in response to RFP #38826. SHPO, RAC and the Port Authority concurrence on conceptual plans is a pre-requisite for the lease agreement for adaptive reuse. SHPO approvals are required on more specific plans for construction as details are developed in accordance with the Secretary of the Interior's *Standards for Treatment of Historic Properties - Rehabilitation*.

Amendment 1A. The adaptive reuse developer will adhere to the terms and conditions of the amended 2004 MOA, as contained in the long-term lease for the site.

Compliance Status: Flight Center Hotel LLC and the Port Authority have entered a long-term lease, which provides for the adaptive reuse of the site in accordance with the stipulations in the 2004 MOA and its Draft First Amendment.

2. Installation of two electronic ticketing kiosks in the TWA Terminal (TWA Flight Center).

Compliance Status: Two kiosks including power and communication lines have been installed on the main Lower Lobby level of the TWA Main Terminal Building east of the main roadway entrance. The Port Authority will keep SHPO and the RAC advised regarding their activation.

3. Formation of an RAC, consisting of Section 106 consulting parties that choose to participate, along with the SHPO and the Port Authority, to provide input regarding the Terminal 5/6 Redevelopment Project and reuse/restoration of the TWA Terminal (TWA Flight Center).

Compliance Status: The RAC has been formed and has been providing input regarding the proposed TWA Flight Center Hotel design and adaptive reuse of the TWA Flight Center. The RAC will continue to meet until all stipulations under the MOA have been concluded.

4/5. Provision of design guidance regarding design of the new Terminal in relation to the historic TWA Terminal (TWA Flight Center), including the requirement that designs be forwarded to SHPO and the Port Authority as well as to the RAC for review and comment.

Compliance Status: Terminal 5 (Jet Blue) has been constructed and design consultation with the RAC is ongoing with respect to the adaptive reuse of the TWA Flight Center. A portion of the restoration of historic areas of the terminal has been substantially completed, including Upper and Lower Lobby areas, façade, frontage and the interim outdoor plaza. The complete restoration project is estimated to require a total of $84 million, of which only a portion (approximately $19 million) has been completed by the Port Authority. Restoration of the remaining historic areas would be performed by the Developer.

Amendment 5A. Provision of preliminary and pre-final design guidance regarding the TWA Flight Center Hotel and adaptive reuse of the historic TWA Terminal (TWA Flight Center) and the Connecting Flight Tubes, including the requirement that designs be forwarded to all consulting parties, as well as to the RAC, for review and comment via a web-based FTP site.

Compliance Status: Design plans for the restoration, rehabilitation, and adaptive reuse of the TWA Flight Center by Flight Center Hotel, LLC, were developed in coordination with SHPO, the Port Authority, and the RAC.

Amendment 5B. The design plans for the TWA Flight Center Hotel will include two new structures, a historical interpretive display, the restored Solari Flight information Display, updated roadways, pedestrian access, and landscaping.

Compliance Status: The Developer is committed to providing the abovementioned integral components for the TWA Flight Center Hotel.

Amendment 5C. If final design plans for the TWA Flight Center Hotel "differ substantially" from those approved by the Port Authority and SHPO, then the

consulting parties and RAC shall reconvene to review and comment on the design changes.

Compliance Status: The following design changes would be avoided to the fullest extent possible: any changes impacting the footprint or height of the proposed new construction; any proposed changes to the historic exterior façade (i.e. concrete shell, window walls, skylights, or tubes); or any interior changes to the character-defining features. The consulting parties and RAC would have the opportunity to review any necessary design changes.

6. *Installation of an interpretive exhibit illustrating the history and significance of the TWA Terminal (TWA Flight Center).*

Compliance Status: The Developer, Flight Center Hotel, LLC is committed to providing an educational exhibit. This exhibit is planned at the Below Grade Level of the TWA Main Terminal Building, and consists of the two areas at the base of the circulation cores (escalators, stairs, elevator) that will provide access from the Lobby level to the proposed conference center at Below Grade Level.

7. *Preparation by a qualified professional of a National Register of Historic Places nomination for the TWA Main Terminal Building, Connector Tubes, and Flights wings prior to the demolition of the flight wings.*

Compliance Status: The nomination was prepared, and the TWA Flight Center was listed on the National Register of Historic Places in 2005.

8. *Recordation of the TWA Main Terminal Building to Level 1 Historical Architectural Building Survey/Historic American Engineering Record (HABS/HAER) standards.*

Compliance Status: The HABS/HAER documentation was recorded with the National Parks Service, New York State Archives, the Port Authority, and the SHPO. The work was conducted by a consultant chosen by the Port Authority who meets the professional qualifications established by the United States Department of the Interior as set forth in 36 CFR 61).

9. *Acknowledgement that the columns that support the East Tube may need to be altered to allow the proposed roadway to be built between the TWA Terminal (TWA Flight Center) and new Terminal 5 to pass beneath the tube.*

Compliance Status: Design and construction of the roadway was completed without the need to modify the East Tube's support columns.

10. *Provision that the Flight Wings may not be removed until the plan for the new Terminal 5 has been established and a lease agreement is in place between the Port Authority and the Terminal 5 tenant.*

Compliance Status: A lease agreement between the Port Authority and jetBlue was executed on November 22, 2005, and the Flight Wings have since been removed as part of the construction of the new Terminal.

5-2-2-2 MOA INTERIM MAINTENANCE STIPULATION

11. The MOA provides for the maintenance of the TWA Terminal (TWA Flight Center) by the Port Authority until such time as these responsibilities are transferred to the adaptive reuse developer.

Compliance Status: This maintenance has been ongoing, including inspections and repairs, as needed.

5-2-2-3 MOA RESTORATION AND REHABILITATION STIPULATIONS

12/13. Restoration and rehabilitation of the TWA Main Terminal Building and the East Tube shall be in accordance with the Secretary of the Interior's Standards, with the full visible exterior of the East Tube retained and modifications to the West Tube to be undertaken in consultation with the RAC.

Compliance Status: A number of the exterior and interior spaces have been restored and rehabilitated by the Port Authority, including the Lower Lobby and upper main Lobby spaces, the interior of the East Tube, the existing façade including most of the landside entrances and front window wall and skylights. The balcony areas will be restored by the Flight Center Hotel, LLC as per the Secretary of the Interiors Standards – Restoration, and in consultation with SHPO and the RAC. The full visible exterior length of the East Tube has been retained, and the West Tube has been modified and has a similar appearance to the East Tube. Both Tubes connect the TWA Main Terminal Building with Terminal 5 (jetBlue).

14. Investigation of the potential reuse of the Flight Wing 1 and 2 gate lounge "trumpets" or other significant architectural elements as part of the new Terminal design.

Compliance Status: Based on consultation with SHPO and the RAC, the "trumpets" were not incorporated into the design of the new Terminal.

15. Restoration of the TWA Main Terminal Building and Flight Tubes will include the removal of non-historic additions and restoration of certain original interior features of the TWA Main Terminal Building.

Compliance Status: This work is ongoing. Additions as specified in the MOA including entrance vestibules, security booths, the south baggage facility and the pedestrian canopy have been removed. The interior Lobby spaces have been restored with non-historic signage and furniture removed. The east and west balcony levels will be restored and rehabilitated by TWA Flight Center Hotel, for use as lounge, restaurant, café, and retail space in coordination with SHPO and the RAC. In addition, though not specified in the MOA, the Proposed Project would also remove the non-contributing 1970s additions placed on the airside of the Main Terminal Building to house office, ticketing, and baggage functions, consistent with the 1967 period of restoration and as described in greater detail below.

Amendment 15A. Should previously unidentified archaeological properties be discovered during rehabilitation of the TWA Terminal (TWA Flight Center), work activities should cease and the Port Authority would notify the FAA and SHPO in accordance with 36 CFR Section 800.13(b).

Compliance Status: The Developer and its contractors are committed to the protocols following the unanticipated discovery of archaeological resources. The FAA and SHPO would be notified within 24 hours to provide documentation.

Amendment 15B. Should unanticipated adverse effects occur during rehabilitation of the TWA Terminal (TWA Flight Center), the Port Authority would notify the FAA and SHPO in accordance with 36 CFR Section 800.13(b).

Compliance Status: The Developer and its contractors are committed to the protocols following the unanticipated adverse effects during construction. The FAA and SHPO would be notified within 24 hours to provide documentation.

Amendment 15C. The FAA and the Port Authority shall provide a status report 12 months following the execution of the First Amendment to the 2004 MOA. Annual reports shall also be provided by January 30th of each year until the MOA expires or is terminated. Following review of the annual reports, the consulting parties and the RAC may request a meeting, as needed.

Compliance Status: A status report and subsequent annual reports will be submitted, including a summary detailing work undertaken; any proposed scheduling changes; problems and resolutions; and any resolutions to disputes and objections.

16. Approval of the SHPO will be sought once the restoration and rehabilitation work at the TWA Main Terminal Building and the East Tube has been completed as set forth by Stipulation 12 of the MOA. In addition, the SHPO will notify the RAC once they have been notified of completion by the Port Authority, to give the RAC the opportunity to comment and also tour the restored and rehabilitated spaces.

Compliance Status: As discussed above, a portion of the restoration and rehabilitation work has been completed by the Port Authority, with additional restoration and rehabilitation to be undertaken by TWA Flight Center Hotel, LLC. Consultation with SHPO and the RAC is ongoing regarding the adaptive reuse design for the TWA Main Terminal Building and the design of the TWA Flight Center Hotel.

5-2-2-4 MOA ONGOING MAINTENANCE AND PRESERVATION STIPULATIONS

17/18. The MOA require that the Port Authority prepare maintenance and preservation guidelines for the TWA Main Terminal Building and East Tube upon completion of the rehabilitation and restoration work, for submission to SHPO for review and approval, and that the Port Authority perform an inspection of the TWA Main Terminal Building and East Tube every five years and that the report documenting the inspections and approved by SHPO be provided to the signatories of the MOA by the Port Authority.

Compliance Status: The adaptive reuse developer will prepare maintenance and preservation guidelines for the repair of historic materials and fixtures and for façade maintenance and cleaning, with the requirement of inspections included in the agreement between the Port Authority and the Developer.

Amendment 17A. The developer shall prepare maintenance and preservation guidelines for treatment of the TWA Main Terminal Building and East Tube. The

guidelines shall be submitted to the Port Authority, SHPO, and the RAC, following completion of the rehabilitation and restoration work.

Compliance Status: The Developer will submit maintenance and preservation guidelines for review and approval.

5-2-3 HISTORICAL, ARCHITECTURAL, ARCHEOLOGICAL, AND CULTURAL RESOURCES CONSTRUCTION IMPACTS

A detailed assessment of potential impacts on historic, architectural, archaeological, and cultural resources is described above in Section 5-2-1. The section below summarizes the potential for the Proposed Project to result in adverse construction-period impacts on these resources.

The TWA Flight Center was formally listed on the National Register in October 2005. As defined in the National Register nomination, the boundary consists of a polygon that encompassed all the existing components of the terminal complex, including the Main Terminal Building, East and West Tubes, both Flight Wings, and certain land beyond the boundary of these structures. Consultation has been proceeding with SHPO and the RAC regarding the design of the proposed TWA Flight Center Hotel and the adaptive reuse of the TWA Flight Center Terminal. Consultation regarding the proposed adaptive reuse project would follow the stipulations set forth in the MOA and its Draft First Amendment, ensuring both the appropriate consultation with SHPO and the RAC for the Proposed Project and treatment of the historic TWA Flight Center Terminal. Construction means and methods to avoid inadvertent damage (i.e., vibration) to the historic resources would be implemented during construction.

5-2-4 HISTORICAL, ARCHITECTURAL, ARCHEOLOGICAL, AND CULTURAL RESOURCES CUMULATIVE IMPACTS

The Proposed Project of adaptive reuse of the TWA Flight Center Terminal and the removal of non-historic portions will impact this historic resource under Section 106 of the National Historic Preservation Act (See Section 5-2-2, above). The Proposed Project represents the implementation of the adaptive reuse pursuant to the 2004 MOA entered into as part of the 2004 EA and would not generate additional impacts on historic resources. It would not have an impact on any prehistoric, archeological, or paleontological resources because the Proposed Project would be limited to only previously disturbed portions of the airport. Any cumulative adverse impacts to historic, resources would be mitigated through the 2004 MOA and its Draft First Amendment.

5-3 DEPARTMENT OF TRANSPORTATION ACT, SECTION 4(F) EVALUATION

This section describes the effects of the Proposed Project on land protected by Section 4(f) of the Department of Transportation (DOT) Act of 1966. The Act established a federal policy that special effort should be made to minimize adverse effects resulting from the use of public park and recreation lands, wildlife and waterfowl refuges, and significant historic sites (49 United States Code [USC] 303). As the site is listed on the National Register of Historic Places, it is protected under this Statute and is subject to Section 4(f) evaluation to assess the potential for adverse effects.

The Secretary of Transportation may approve a transportation project requiring the use of a Section 4(f) land only if:

- There is no prudent and feasible alternative to using the Section 4(f) land.
- The Proposed Project includes all possible planning to minimize harm to the Section 4(f) land resulting from its use.

As set forth in 23 CFR § 774.5, the Section 4(f) evaluation shall be provided for coordination and comment to the U.S. Department of the Interior (DOI) and to officials with jurisdiction over the Section 4(f) resource that would be used by the Project, to determine whether the project is consistent with Section 4(f) of the United States Department of Transportation Act of 1966.

As detailed in Section 5-2, an MOA was executed among the Port Authority, SHPO, the FAA, and ACHP in 2004, as a means to implement ways to avoid, minimize, and mitigate the adverse effects to historic resources. A revised MOA was developed in 2015, based on the continuation of Section 106 consultation with SHPO and the RAC regarding the design of the proposed TWA Flight Center Hotel and the adaptive reuse of the TWA Flight Center.

In the absence of a prudent and feasible alternative that avoids all use of Section 4(f) land, it was demonstrated that reuse of the TWA Flight Center incorporates all possible planning to minimize harm to the resource. The MOA and its Draft First Amendment stipulate the mitigation measures for the adverse effects under the Section 106 process, and for the continued involvement of the RAC (see **Appendix B**). The stipulations were developed with comment and input from the signatories (the FAA, SHPO, the Port Authority, and the ACHP) and consulting parties. The stipulations of the MOA and its Draft First Amendment proposed adaptive reuse of the TWA Fight Center Terminal, including the preparation of a HABS/HAER document, maintenance and preservation guidelines, public education efforts, and preparation of a rehabilitation and reuse plan. The development of jetBlue's Terminal 5 eliminated the potential reuse of the TWA Flight Center as an operable airport terminal. Therefore, the potential alternatives considered are limited to alternative hotel size and siting or other adaptive reuse alternatives as examined in Chapter 3: Alternatives. A complete Section 4(f) Evaluation is attached as **Appendix E**.

5-3-1 DEPARTMENT OF TRANSPORTATION ACT, SECTION 4(F) CONSTRUCTION IMPACTS

A detailed assessment of potential impacts on the Section 4(f) resource during construction is described above in Section 5-2-2.

5-3-2 DEPARTMENT OF TRANSPORTATION ACT, SECTION 4(F) CUMULATIVE IMPACTS

No Department of Transportation, Section 4(f) resources are located within the area of the other concurrent projects, and no impacts to other Section 4(f) resources would result from the Proposed Project. Therefore, there would be no cumulative adverse impacts to Section 4(f) resources.

5-4 SURFACE TRANSPORTATION

Surface Transportation is typically assessed in Section 5-8, *Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks,* but since the new hotel may have a specific effect on traffic, it is examined in its own section.

5-4-1 TRAVEL DEMAND ESTIMATES FOR THE PROPOSED PROJECT

Because the proposed approximately 505-room hotel and its ancillary uses would be developed within JFK, the volume of person and vehicle trips generated as a result of its development and its associated travel characteristics are expected to differ from a typical New York City hotel.

Trip and modal characteristics of the hotel were estimated by reviewing and applying typical industry standards such available from the Institute of Transportation Engineers (ITE), integration of trip rates consistent with hotel projects in New York City as available from the 2014 City Environmental Quality Review (*CEQR*) *Technical Manual*, modal split information of airport arrivals and departures as available from other recent projects at JFK (including the Delta Terminal 4 EA), hotel industry trends, as well as precedent FAA EAs prepared for other terminal-connected hotels.[18]

In general, terminal-connected hotels largely represent a capture and re-alignment of trips already bound to and from the airport itself with few if any changes to traffic patterns outside the airport's circulation road. Therefore, it was assumed that a majority, 90 percent, of the incremental trips associated with the Proposed Hotel would occur solely within JFK grounds, and would not result in new trip-making on off-site roadways in the regional network.

The 2014 *CEQR Technical Manual* identifies procedures for evaluating a proposed project's potential transportation-related impacts. Because these procedures have been developed to evaluate local New York City projects, the CEQR guidelines are typically more stringent than those applied under other jurisdictions, such as State and Federal. Although CEQR guidelines are not required by this Proposed Project, which is subject to environmental review under NEPA, the CEQR methodology and procedures for transportation analysis were applied as a conservative benchmark to guide this impact evaluation. The CEQR methodology begins with the preparation of a trip generation analysis to determine the volume of person and vehicle trips associated with a proposed project. The results are then compared with the *CEQR Technical Manual*-specified thresholds (Level 1 screening analysis) to determine whether additional screening and/or quantified analyses are warranted. If the Proposed Project would result in 50 or more peak hour vehicle trips, further analysis assignment of these trips would typically be undertaken to determine if specific locations would warrant further detailed analysis of potential impacts.

[18] *Baltimore/Washington International Thurgood Marshall Airport Hotel Environmental Review* (2013), *Environmental Assessment for the Proposed South Terminal Redevelopment Program at the Denver International Airport* (2010)

Using the travel demand factors from the *CEQR Technical Manual* (see **Table 5-1**), accounting for the capture of internal JFK trip-making, and applying modal splits derived from the *John F. Kennedy International Airport Delta Redevelopment Traffic Impact Study Report* (2010), the proposed approximately 505-room hotel and its ancillary uses, including the 50,000 square feet (sf) conference center, would generate approximately 34, 48, 36, and 29 off-airport incremental vehicle trips on the regional (non-JFK) roadway network during the weekday AM, weekday midday, weekday PM, and Saturday peak hours, respectively (see **Table 5-2**). Using the CEQR threshold of 50 vehicle trips necessary for a quantified traffic analysis, incremental trips generated by the Proposed Hotel on roadways external to JFK would not exceed the threshold, and the Proposed Project would therefore not be expected to result in the potential for any significant traffic impacts.

Table 5-1
Travel Demand Assumptions

Use	Hotel			
	Weekday		Saturday	
Daily Person Trip Generation Rate	(1) 9.4 Trips / Room		(1) 9.4	
		(3)		
	AM	MD	PM	SAT
Link Credit	90%	90%	90%	90%
Final Trip Rate	0.94	0.94	0.94	0.94
Person Trip	(1)	(1)	(1)	(1)
Temporal	AM	MD	PM	Sat
Distribution	8.0%	14.0%	13.0%	9.0%
Directional Distribution	(2)	(2)	(2)	(2)
In	41%	68%	59%	56%
Out	59%	32%	41%	44%
Total	100%	100%	100%	100%
Modal Split	(3)	(3)	(3)	(3)
Auto	31.0%	31.0%	31.0%	31.0%
Taxi	24.0%	24.0%	24.0%	24.0%
Black Car	17.0%	17.0%	17.0%	17.0%
Shuttle Bus	8.0%	8.0%	8.0%	8.0%
Transit (Subway, City Bus, AirTrain)	20.0%	20.0%	20.0%	20.0%
Total	100%	100%	100%	100%
Vehicle Occupancy	(3)			
Auto	1.53			
Taxi	1.42			
Black Car	1.79			
Shuttle Bus	4.22			
Daily Delivery Trip Generation Rate	(2) 0.10 Delivery Trips / Room			
Delivery Trip	(2)	(2)	(2)	(2)
Temporal	AM	MD	PM	Sat
Distribution	12.0%	8.7%	0.0%	0.0%
Directional Distribution	(2)	(2)	(2)	(2)
In	50%	50%	50%	50%
Out	50%	50%	50%	50%
Total	100%	100%	100%	100%

Sources:
(1) 2014 *CEQR Technical Manual*
(2) *Jamaica Plan FEIS* (2007).
(3) *John F. Kennedy International Airport Delta Redevelopment Traffic Impact Study* (2010)

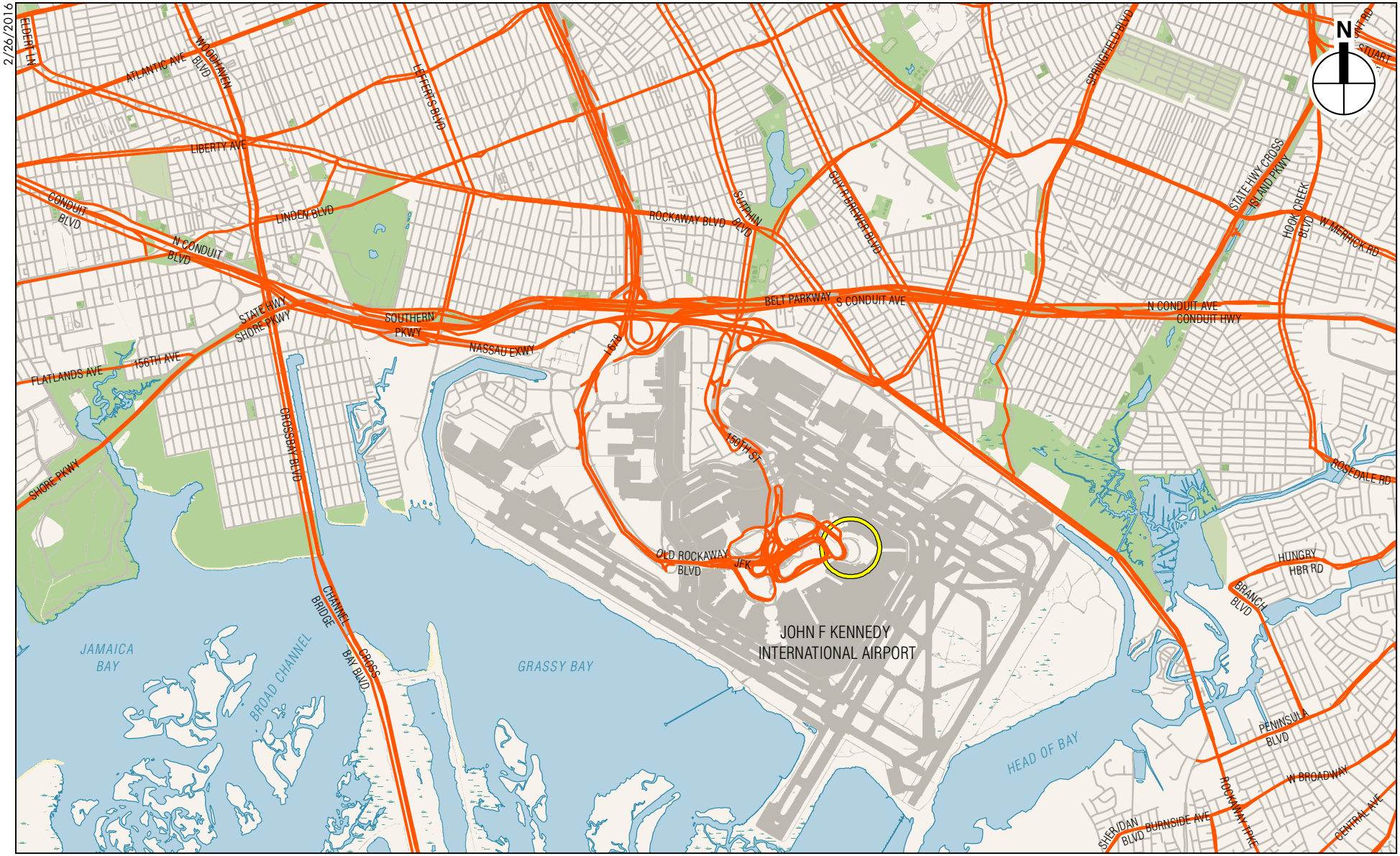
Table 5-2
Trip Generation Summary: Incremental Trips External to JFK

Person Trips								Vehicle Trips						
Peak Hour	In/Out	Black Shuttle Auto	Taxi	Car	Bus	Transit	Total	In/Out	Black Shuttle Auto	Taxi	Car	Bus	Delivery	Total
AM	In	5	4	3	1	3	16	In	3	5	4	1	3	16
	Out	7	5	4	2	4	22	Out	5	5	4	1	3	18
	Total	12	9	7	3	7	38	Total	8	10	8	2	6	34
MD	In	14	11	8	4	9	46	In	9	8	6	1	2	26
	Out	7	5	4	2	4	22	Out	5	8	6	1	2	22
	Total	21	16	12	6	13	68	Total	14	16	12	2	4	48
PM	In	11	9	6	3	7	36	In	7	6	5	1	0	19
	Out	8	6	4	2	5	25	Out	5	6	5	1	0	17
	Total	19	15	10	5	12	61	Total	12	12	10	2	0	36
Saturday	In	7	6	4	2	5	24	In	5	5	4	1	0	15
	Out	6	5	3	2	4	20	Out	4	5	4	1	0	14
	Total	13	11	7	4	9	44	Total	9	10	8	2	0	29

Furthermore, the 10 percent external incremental trips quantified above, mostly associated with the conference center, would arrive at the Proposed Hotel via the multiple access points to JFK and the numerous roadways serving the airport, including the Belt Parkway from the east and west, and the VWE from the north (see **Figure 5-1**). Considering the multiple access roadways to the airport, no intersection outside JFK would be expected to experience a significant increase in vehicles as a result of the Proposed Project during any peak hour. Therefore, the Proposed Project is not expected to result in the potential for any significant adverse traffic impacts outside the airport grounds.

In terms of the internal JFK transportation network, a majority of the internal trips associated with the Proposed Project would be made on the AirTrain light rail system, which stops at each JFK terminal, and has connections to the regional transit system outside the airport.

To understand the characteristics of events (i.e., weddings) at the proposed hotel that would be unique and not necessarily represented in the daily trip demand generated by airport passengers and business conferences, the Developer estimates that a typical event that could be handled at the hotel would be about 200 persons, with weekend event attendance expected to be higher than that of weekdays. Unlike typical travel to the airport, most attendees would arrive at the conference center via auto and taxi. However, even with this expectation, such events would yield a nominal number of vehicle trips to the external and internal road network. The incremental trips to and from the conference center are encapsulated in the overall Proposed Hotel trips for each peak hour, as detailed above. Because the incremental vehicle trips are relatively low as compared to the existing volumes in the Yellow Quadrant, the roadways and intersections serving the Proposed Hotel would not be expected to experience a significant increase in vehicles as a result of the Proposed Project. In addition, as noted above, the external auto trips would utilize the multiple access roadways to the airport, and no intersection outside JFK would be expected to experience a significant increase



TWA Flight Center Hotel

Roadway Access to the Project Site

Figure 5-1

in vehicles as a result of the Proposed Project's ancillary conference center during any peak hour. As described above in the Existing Conditions section, the JFK AirTrain carries approximately 17,457 passengers per day. The relatively insignificant increment to AirTrain ridership from the conference center would not affect AirTrain service. Therefore, the Proposed Project is not expected to result in the potential for any significant adverse transportation impacts to the various modes of transportation serving JFK's internal travel circulation network.

The former frontage roads of the TWA Flight Center would be repurposed to receive traffic bound or originating from the hotel and would incorporate a valet parking element. Because the existing building had served as an airport terminal with active pick-up/drop-off activities along its frontage, there is already substantial space available for what can be expected to be a lower-traffic use associated with the proposed Flight Center Hotel.

5-4-1-1 PARKING

With only 10 percent of the trip-making to the Proposed Project arriving from the roadway network outside of JFK, the incremental vehicle volumes generated by the Proposed Project would be adequately accommodated by the internal JFK road network designed to accommodate airport pick-up and drop-offs. With a capacity of 1,507 spaces, the Yellow Garage, which would serve the parking demand from the Proposed Project, would likewise adequately accommodate the small incremental vehicle demand generated by the Proposed Project. Additionally, approximately 44 spaces of valet parking would be located between the main entrance and the JFK Airport Access Road.

5-4-2 SURFACE TRANSPORTATION CONSTRUCTION IMPACTS

Construction of the Proposed Project would generate vehicle trips from workers traveling to and from the site, as well as from the movement of materials and equipment, and removal of construction waste. Given typical construction hours, the majority of worker trips would occur during off-peak travel times (in the early hours between 6:00 AM and 7:00 AM and the mid-afternoon between 3:00 PM and 4:00 PM). For construction trucks, deliveries would occur throughout the day when the construction site is active. Truck movements would generally occur between the hours of 6:00 AM and 3:00 PM, depending on the stage of construction. Traffic generated during construction would be temporary and of short duration. In addition, nearby roadways (i.e., Belt Parkway, Van Wyck Expressway) are already heavily trafficked and the construction-generated traffic would therefore not result in substantial increases along these roadways. For these reasons, it is concluded that the Proposed Project would not result in adverse impacts due to vehicles generated by construction activities.

5-4-3 SURFACE TRANSPORTATION CUMULATIVE IMPACTS

Due to the coordination of off-peak scheduled material transfer and specific route management measures, no significant impacts related to construction surface traffic are anticipated due to the Proposed Project. Related projects at JFK are subject to similar coordination measures, therefore no significant cumulative impacts are expected to occur due to the Proposed Project with respect to construction related surface traffic.

5-5 AIR QUALITY

The CAA, as amended in 1990, defines non-attainment areas (NAA) as geographic regions that have been designated as not meeting one or more of the NAAQS. When an area is designated as non-attainment by EPA, the state is required to develop and implement a State Implementation Plan (SIP), which delineates how a state plans to achieve air quality that meets the NAAQS under the deadlines established by the CAA, followed by a plan for maintaining attainment status once the area is in attainment.

JFK Airport is located in Queens County, New York, which has been designated as in attainment for CO, PM2.5, PM10 and Lead and is currently in attainment of the annual-average NO2 standard. New York City was previously designated as non-attainment for PM2.5 and CO, so the area is covered under maintenance plans to ensure that future background levels remain below standards.[19] EPA has designated New York–Northern New Jersey–Long Island, NY-NJ-CT NAA as a marginal NAA for the 2008 ozone NAAQS. EPA has designated the entire state of New York as "unclassifiable/attainment" of the 1-hour NO2 standard effective February 29, 2012; since additional monitoring is required for the 1-hour standard, areas will be reclassified once three years of monitoring data are available. The EPA has established a 1-hour SO2 standard, and based on the available monitoring data, all New York State counties currently meet the 1-hour standard; draft attainment designations were published by the EPA in February 2013, indicating that the EPA is deferring action to designate areas in New York State and expects to proceed with designations once additional data are gathered.

The existing background ambient air quality in the area of the Proposed Project is based on the air quality monitoring data collected by the NYSDEC in Region 2 at air quality monitoring stations nearest to the study area. The summary of the concentrations of all criteria pollutants in the vicinity of the Project Site are presented in **Table 5-3**. All data statistical forms and averaging periods are consistent with the definitions of the NAAQS. These existing concentrations are based on recent published measurements, averaged according to the NAAQS. As shown in the table, there were no monitored violations of the NAAQS for the pollutants at these sites.

[19] *The Green Brook Nonattainment Areas for Criteria Pollutants* (as of October 1, 2015) presents designations available online at https://www3.epa.gov/airquality/greenbook/.

Table 5-3
Representative Monitored Ambient Air Quality Data

Pollutant	Location	Units	Averaging Period	Concentration	NAAQS
CO	Queens College 2, Queens	ppm	8-hour	1.1	9
	Queens College 2, Queens		1-hour	1.9	35
SO_2	Queens College 2, Queens	$\mu g/m^3$	3-hour	42.1	1,300
			1-hour	37.4	196
PM_{10}	Queens College 2, Queens	$\mu g/m^3$	24-hour	26	150
$PM_{2.5}$	Queens College 2, Queens	$\mu g/m^3$	Annual	8.2	12
			24-hour	21.7	35
NO_2	Queens College 2, Queens	$\mu g/m^3$	Annual	32	100
			1-hour	109	189
Lead	IS 52, Bronx	$\mu g/m^3$	3-month	0.004	0.15
Ozone	Queens College 2, Queens	ppm	8-hour	0.072	0.075

Notes:

-Based on the NAAQS definitions, the CO and 3-hour SO2 concentrations for short-term averages are the second-highest from the year. NYSDEC does not currently report the 3-hour SO2 concentrations; the referenced value is based on 2012 data, which is the most recent available data.

-SO2 1-hour and NO2 1-hour concentrations are the average of the 99th percentile and 98th percentile, respectively, of the highest daily 1-hour maximum from 2012 to 2014.

-PM2.5 annual concentrations are the average of 2012–2014, and the 24-hour concentration is the average of the annual 98th percentiles in 2012- 2014.

-8-Hour average ozone concentrations are the average of the 4th highest-daily values from 2012 to 2014.

Source: NYSDEC, New York State Ambient Air Quality Data (2014).

5-5-1 GENERAL CONFORMITY REVIEW

Under the general conformity regulations, a determination for federal actions is required for each criteria pollutant or precursor in non-attainment or maintenance areas where the action's direct and indirect emissions have the potential to emit one or more of the six criteria pollutants at rates equal to or exceeding the prescribed *de minimis* rates for that pollutant.[20] In the case of the Proposed Project, the prescribed annual rates are 50 tons of volatile organic compounds (VOCs) and 100 tons of NO_x (ozone precursors, ozone non-attainment area in transport region), 100 tons of CO (CO maintenance area), and 100 tons of $PM_{2.5}$, SO_2, or NO_x ($PM_{2.5}$ and precursors in $PM_{2.5}$ maintenance areas).

[20] EPA. General Conformity Rule, 40 CFR Parts 93 and 153. *Federal Register* of Tuesday, November 30, 1993.

The general conformity requirements do not apply to federal actions that[21]:

- Do not exceed the prescribed emissions threshold levels;
- Occur in an attainment area;
- Are related to transportation plans, programs, and projects developed, funded, or approved under Title 23 U.S.C.. or the Federal Transit Act (49 U.S.C. 1601); or
- Qualify for exemptions or where the emissions are not reasonably foreseeable as defined in § 93.153.

The regulation assumes that a proposed federal action whose criteria pollutant emissions have already been included in the local SIP's attainment or maintenance demonstrations conforms to the SIP. According to the General Conformity rule, if the total direct and indirect emissions from the Proposed Project are below the applicable *de minimis* thresholds, provided above, then a conformity determination is not required.[22]

The emissions from stationary sources are subject to air conformity review. Therefore, a qualitative assessment was conducted to evaluate whether the Proposed Project would have the potential to result in adverse effects on air quality.

5-5-2 OPERATIONS PHASE (INDIRECT EMISSIONS)

The Proposed Project would include a natural-gas fired cogeneration facility. Therefore, a stationary source analysis was conducted to evaluate the potential for an impact on air quality from the proposed emission source.

5-5-2-1 OPERATIONAL EMISSIONS

The proposed cogeneration facility would have a total capacity of 1 MW consisting of twelve identical 100 KW natural gas-fired Tecogen Inverde Ultra 100 units. Two of the twelve units would be redundant (stand-by) units.

NO_x and CO emission rates were calculated based on vendor-guaranteed emission factors while $PM_{10}/PM_{2.5}$ and SO_2 emission rates were calculated from EPA emission factors.[23] Emission rates assumed maximum equipment capacity for the short-term averaging period and were prorated based on average load demand for the annual averaging periods. Stack exhaust parameters for the proposed plant were based on the information provided by the project design team.

The cogeneration facility would be located in a below-grade vault on the north edge of the site, adjacent to the hotel building, and the cogeneration units would be vented through a common exhaust stack ducted to the roof of the proposed hotel building.

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[21] EPA General Conformity Rule, 40 CFR 93.153 and FAA 1050.1F Desk Reference (Section 1.3.5).

[22] FAA 1050.1F Desk Reference, Section 1.3.5 General Conformity.

[23] EPA *Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume I: Stationary Point and Area Sources (August 2000)*

Table 5-4 presents the stack parameters and emission rates used in the analysis.

Table 5-4
Stack Parameters and Emission Rates from the Cogeneration System

Parameter	Value
Stack Height (ft)	79.3
Stack Diameter (ft)	1.67
Exhaust flow Rate (acfm)(1)	5.250
Exhaust Temperature (°F)	500
Emission Rates(2)	
NO_x (1-hour) (Lb/hr)	0.007
NO_x (Annual) (Lb/hr)	0.004
SO_2 (1-hour & 3-hour) (Lb/hr)	0.001
CO (1-hour & 8-hour) (Lb/hr)	0.020
PM_{10} (24-hour) (Lb/hr)	0.025
$PM_{2.5}$ (24-hour) (Lb/hr)	0.025
$PM_{2.5}$ (Annual) (Lb/hr)	0.012

Notes:
(1) ACFM = actual cubic feet per minute.
(2) Emission rates presented are per unit
Source: Arup and Tecogen Advanced Modular CHP systems (June 1, 2015)

Maximum annual emissions of regulated pollutants, as presented in Section 5-5-3-3, would be well below major source thresholds as defined in NYSDEC regulations at 6 NYCRR Part 201. Therefore, a federal Title V operating permit would not be required. In addition, based on their capacity the proposed units would be considered exempt from NYSDEC minor source air permitting regulations. Therefore, the proposed cogeneration facility would be exempt from federal and New York State air permitting.

5-5-2-2 DISPERSION MODELING

Potential impacts from the Proposed Project‘s cogeneration facility were evaluated using the EPA / American Meteorological Society (AMS) AERMOD dispersion model.[24] AERMOD is a state-of-the-art dispersion model, applicable to rural and urban areas, flat and complex terrain, surface and elevated releases, and multiple sources (including point, area, and volume sources). AERMOD is a steady-state plume model that incorporates current concepts about flow and dispersion in complex terrain and includes updated treatments of the boundary layer theory, understanding of turbulence and dispersion, and handling of terrain interactions.

The AERMOD model calculates pollutant concentrations from one or more points (e.g., exhaust stacks) based on hourly meteorological data, and has the capability of calculating pollutant concentrations at locations when the plume from the exhaust stack is affected by the aerodynamic wakes and eddies (downwash) produced by nearby structures. The analyses of potential impacts from exhaust stacks were made assuming stack tip

[24] Since the Proposed Project’s emissions are due to stationary point sources and do not affect aviation-related sources of emissions, the EPA AERMOD model is appropriate to evaluate potential air quality impacts due to the Proposed Project.

downwash, urban dispersion and surface roughness length (with and without building downwash), and elimination of calms.

The AERMOD Model also incorporates the algorithms from the PRIME model, which is designed to predict impacts in the "cavity region" (i.e., the area around a structure which, under certain conditions, may affect an exhaust plume, causing a portion of the plume to become entrained in a recirculation region). The Building Profile Input Program (BPIP) program for the PRIME model (BPIPRM) was used to determine the projected building dimensions modeling with the building downwash algorithm enabled. The modeling of downwash from sources accounts for all obstructions within a radius equal to five obstruction heights of the stack.

The analysis was performed both with and without downwash in order to assess the worst case at elevated receptors close to the height of the sources, which would occur without downwash, as well as the worst case at lower elevations and ground level, which would occur with downwash.

Methodology Utilized for Estimating NO_2 Concentrations

Annual NO_2 concentrations from heating, ventilating, and air conditioning (HVAC) sources were estimated using a NO_2 to NO_x ratio of 0.75, as described in EPA's *Guideline on Air Quality Models* at 40 CFR part 51 Appendix W, Section 5.2.4.[25]

EPA has developed guidance for assessing 1-hour average NO_2 concentrations for compliance with the NAAQS.[26] Background concentrations are currently monitored at several sites within New York City, which are used for reporting concentrations on a "community" scale. Because this data is compiled on a 1-hour average format, it can be used for comparison with the new 1-hour standards. Therefore, background 1-hour NO_2 concentrations currently measured at the community-scale monitors can be considered representative of background concentrations for purposes of assessing the impact of the Proposed Project's HVAC systems.

EPA's preferred regulatory stationary source model, AERMOD, is capable of producing detailed output data that can be analyzed at the hourly level required for the form of the 1-hour standards. EPA has also developed guidance to estimate the transformation ratio of NO_2 to NO_x, applicable to HVAC sources, as discussed further below. Therefore, an analysis was prepared.

1-Hour average NO_2 concentration increments from the Proposed Project's cogeneration facility were estimated using AERMOD model's Plume Volume Molar Ratio Method (PVMRM) module to analyze chemical transformation within the model. The PVMRM module incorporates hourly background ozone concentrations to estimate

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[25] EPA Revision to the Guideline on Air Quality Models: Adoption of a Preferred General Purpose (Flat and Complex Terrain) Dispersion Model and Other Revisions; Final Rule http://www.epa.gov/scram001/guidance/guide/appw_05.pdf

[26] EPA Memorandum, "Additional Clarification Regarding Application of Appendix W, Modeling Guidance for the 1-Hour NO_2 National Ambient Air Quality Standard," March 1, 2011. https://www.epa.gov/sites/production/files/2015-07/documents/appwno2_2.pdf

NO_x transformation within the source plume. Ozone concentrations were taken from the NYSDEC Queens College monitoring station that is the nearest ozone monitoring station and had complete five years of hourly data available. An initial NO_2 to NO_x ratio of 20 percent at the source exhaust stack was assumed, which is considered representative for the reciprocating engines used in the cogeneration facility. The results represent the five-year average of the annual 98th percentile of the maximum daily 1-hour average, added to the background.

Meteorological Data

The meteorological data set consisted of five consecutive years of meteorological data: surface data collected at JFK Airport (2010–2014), and concurrent upper air data collected at Brookhaven, New York. The meteorological data provide hour-by-hour wind speeds and directions, stability states, and temperature inversion elevation over the five-year period. These data were processed using the EPA AERMET program to develop data in a format which can be readily processed by the AERMOD model. The land uses around the site where meteorological surface data were available were classified using categories defined in digital United States Geological Survey (USGS) maps to determine surface parameters used by the AERMET program.

Receptor Placement

Discrete receptors were analyzed and included locations on the two proposed hotel buildings and the planned pedestrian sidewalk. The analysis assumed that windows on the proposed hotels would be operable; therefore, receptors were placed at regular intervals on the facades of the proposed buildings.

5-5-2-3 ANALYSIS RESULTS AND ENVIRONMENTAL CONSEQUENCES

An analysis was performed using the AERMOD model to evaluate the NO_2, SO_2, CO, PM_{10} and $PM_{2.5}$ concentrations with the operation of the proposed natural-gas fired cogeneration facility. The maximum predicted concentrations were added to the maximum ambient background concentrations and compared to the NAAQS. **Table 5-5** presents the maximum predicted concentrations from the modeled scenario for the Proposed Project's cogeneration facility. As shown in the table, the maximum concentrations, when added to the ambient background levels, would be below the NAAQS, and therefore no significant adverse air quality impacts are predicted from the Proposed Project's emission source.

In addition, an emissions inventory for the potential operational emissions from the Proposed Project's cogeneration facility was prepared. The Proposed Project would result in emissions which are well below the *de minimis as* presented in **Table 5-6,** and the Proposed Project would not result in adverse effects on air quality.

Table 5-5
Maximum Modeled Pollutant Concentrations from the Proposed Project (µg/m^3)

Pollutant	Average Period	Maximum Modeled Impact	Background	Total Concentration	NAAQS (µg/m^3)
NO_2	1-hour	1.6	108.9	110.5	188
	Annual	0.12	40.7	40.8	100
SO_2	1-hour	0.19	37.5	37.7	196
	3-hour	0.18	77.7	77.9	1,300
CO	1-hour	5.8	3,894	3,899.8	40,000
	8-hour	3.9	1,947	1,950.9	10,000
PM_{10}	24-hour	3.4	32	35.4	150
$PM_{2.5}$	24-hour	3.4	21.7	25.1	35
	Annual	0.57	8.2	8.8	12

Source: New York State Air Quality Report Ambient Air Monitoring System, NYSDEC, 2010-2014.

Table 5-6
Annual Emissions Inventory – Operations Phase

Emissions Sources	Annual Operations Emissions (tons per year)				
	VOC	NO_x	CO	$PM_{2.5}$	SO_x
2018 Proposed Project	0.22	0.15	0.44	0.54	0.02
De minimis level	50	100	100	100	100

5-5-3 CONSTRUCTION PHASE (DIRECT EMISSIONS)

Construction activities would be carried out in accordance with all applicable regulatory requirements. As required by the EPA regulations, ultra-low-sulfur diesel (ULSD) fuel would be used for all construction-related vehicles and non-road construction equipment. Since all diesel engines would use ULSD, sulfur dioxide (SO_2) emissions would be negligible. All necessary measures would be implemented to ensure adherence to the New York City Air Pollution Control Code regulating construction-related dust emissions. In addition, the provisions specified in FAA AC 150/5370-10G, Standards for Specifying Construction of Airports, regulating construction-related dust emissions would be followed during the construction of the Proposed Project.

Emissions from on-site construction equipment and on-road construction-related vehicles, as well as dust generating construction activities, have the potential to affect air quality. Construction of the Proposed Project would require the use of concrete trucks and delivery trucks as well as non-road equipment such as excavators, backhoes, loaders, and cranes. The estimated construction equipment emissions by equipment type are presented in **Table 5-7**. However the use of such equipment would be temporary and short-term and would not be needed once the construction task is complete. Further, the approach and procedures for the construction of the Proposed Project would be typical of the methods utilized in other building construction/renovation projects throughout New York City. Nevertheless, as the construction emissions are expected to be below the applicable *de minimis* levels, as presented in **Table 5-8**, the Proposed Project would not result in adverse effects on air quality.

Table 5-7
Emissions Inventory by Equipment Type – Construction Phase

Construction Equipment Type	Construction Year Emissions (tons per year)														
	2016					2017					2018[1]				
	VOC	NO_x	CO	$PM_{2.5}$	SO_2	VOC	NO_x	CO	$PM_{2.5}$	SO_2	VOC	NO_x	CO	$PM_{2.5}$	SO_2
Excavator	0.13	1.19	0.38	0.07	0.003	0.05	0.41	0.13	0.02	0.001	0.00	0.00	0.00	0.00	0.00
Forklift	0.01	0.07	0.04	0.01	0.0001	0.03	0.34	0.18	0.03	0.0004	0.01	0.13	0.07	0.01	0.0002
Compressor	0.08	1.12	0.25	0.05	0.002	0.08	1.07	0.24	0.04	0.002	0.00	0.00	0.00	0.00	0.00
Generator	0.05	0.44	0.24	0.04	0.0005	0.03	0.28	0.15	0.02	0.0003	0.00	0.00	0.00	0.00	0.00
Concrete Pump	0.14	2.23	0.95	0.13	0.003	0.08	1.19	0.51	0.07	0.002	0.00	0.00	0.00	0.00	0.00
Rubber Tire Loader	0.08	1.16	0.70	0.08	0.002	0.06	0.98	0.59	0.06	0.001	0.00	0.00	0.00	0.00	0.00
Crane	0.16	2.24	0.73	0.10	0.004	0.10	1.14	0.25	0.05	0.002	0.03	0.32	0.07	0.01	0.001
Paving Equipment	0.11	0.05	5.82	0.002	0.004	0.06	0.02	3.10	0.001	0.002	0.00	0.00	0.00	0.00	0.00
Trucks	0.37	6.02	1.65	0.37	0.007	0.37	6.02	1.65	0.37	0.007	0.18	3.01	0.82	0.18	0.003

Note: (1) The last year of proposed construction includes only a few months of activity.
Sources: EPA NONROAD2008a model; MOVES14

Table 5-8
Annual Emissions Inventory – Construction Phase

Emissions Sources	Construction Year Emissions (tons per year)				
	VOC	NO_x	CO	$PM_{2.5}$	SO_x
2016	1.1	14.5	10.8	0.8	0.03
2017	0.9	11.5	6.8	0.7	0.02
2018[1]	0.23	3.5	1.0	0.2	0.004
De minimis level	50	100	100	100	100

Notes:
(1) The last year of proposed construction includes only a few months of activity.
Sources: EPA NONROAD2008a model; MOVES14

5-5-4 AIR QUALITY CUMULATIVE IMPACTS

The Proposed Project would cause a temporary change in the net emissions due to the operation of construction equipment. In addition, the Proposed Project's cogeneration facility would result in a small overall increment of new emissions after the Proposed Project is complete (See Section 5-5, *Air Quality*). However, the emissions are *de minimis* under the Clean Air Act (as amended in 1990) General Conformity Rule. According to the General Conformity rule, if the total direct and indirect emissions from the Proposed Projects are below the applicable *de minimis* thresholds, provided above in Section 5-5-1, then a conformity determination is not required.[27] Further, the *de minimis* emissions are assumed to comply with the New York SIP and are not expected to cause an exceedance of any of the NAAQS, delay the attainment of any NAAQS, or worsen an existing violation any NAAQS. Hence, per FAA 1050.1F Desk Reference, a general conformity determination is not required.

No cumulative adverse air quality impacts are anticipated from the Proposed Project in combination with the other projects whose construction overlaps with the Proposed Project,

[27] EPA. General Conformity Rule, 40 CFR Parts 93 and 153. *Federal Register* of Tuesday, November 30, 1993.

which include the demolition of Hangars 3, 4, and 5, the redevelopment of Building 144, rehabilitation of Runway 4R/22L, possibly the demolition of Hangar 17 and Building 213, North Cargo Area redevelopment, Bulk Fuel Farm Modification, and possibly Phase III of Terminal 3 and 4 expansion. As previously discussed, the incorporation of procedures into the Proposed Project's construction specifications would reduce the fugitive emissions of dust (particulate matter) and prevent particulate matter from becoming airborne. Such measures are anticipated to reduce any potential construction impacts to air quality in the immediate project area. All related projects at JFK are subject to similar construction mitigation measures and are isolated from any neighboring community by the surrounding roadways; therefore no significant cumulative impacts are expected to occur due to the Proposed Project with regard to construction related activities.

5-6 CLIMATE

There is general consensus in the scientific community that the global climate is changing as a result of increased concentrations of greenhouse gases (GHGs) in the atmosphere. GHGs are those gaseous constituents of the atmosphere, from both natural and anthropogenic emission sources (i.e., resulting from the influence of human beings), that absorb infrared radiation (heat) emitted from the earth's surface, the atmosphere, and clouds. This property causes the general warming of the earth's atmosphere, or the "greenhouse effect," which in turn affects sea level and global and local climate, resulting in changes in many environmental and human systems.

On December 18, 2014, the CEQ issued revised Draft Guidance under NEPA describing how and when Federal agencies should address the subject of GHG emissions and climate change in documents prepared pursuant to NEPA. The Draft Guidance recommends that agencies consider 25,000 metric tons of carbon dioxide (CO_2) equivalent emissions on an annual basis as a reference point below which a quantitative analysis of greenhouse gas is not recommended. Based on the building size and potential mobile source emissions, the Proposed Project would not require quantitative analysis, as it would not exceed the annual threshold.

Aviation has been calculated to contribute approximately three percent of global CO_2 emissions; this contribution may grow to five percent by 2050. Actions are underway within the United States and by other nations to reduce aviation's contribution through such measures as new aircraft technologies to reduce emissions and improve fuel efficiency, renewable alternative fuels with lower carbon footprints, more efficient air traffic management, market-based measures and environmental regulations including an aircraft CO_2 standard. The United States has ambitious goals to achieve carbon-neutral growth for aviation by 2020 compared to a 2005 baseline, and to gain absolute reductions in GHG emissions by 2050. At present there are no calculations of the extent to which measures individually or cumulatively may affect aviation's CO_2 emissions.

The EPA issued an Advance Notice of Proposed Rulemaking on June 1, 2015, to provide an overview of and seek input on a variety of issues related to setting an international CO_2 standard for aircraft at the International Civil Aviation Organization (ICAO). The FAA, with support from the United States Global Change Research Program and its participating federal agencies (e. g., National Aeronautics and Space Administration [NASA], National Oceanic and Atmospheric Administration [NOAA],

EPA, and Department of Energy [DOE]), has developed the Aviation Climate Change Research Initiative (ACCRI) in an effort to advance scientific understanding of regional and global climate impacts of aircraft emissions, with quantified uncertainties for current and projected aviation scenarios under changing atmospheric conditions. JFK has a long history of proactively initiating projects that reduce GHG emissions from aircraft, buildings, and vehicles, including the implementation of a ground management program for aircraft, comprehensive energy efficiency retrofit programs in its buildings, use of biodiesel, and the construction of AirTrain JFK, providing passengers with additional mass transit options to and from the airport, among many other actions.

5-6-1 CLIMATE OPERATIONS IMPACTS

Annual CO_2 and CO_{2e} emissions from the operation of the proposed cogeneration facility were estimated. Overall greenhouse gas impacts are expressed in terms of CO2 equivalence, or CO2e, which adds the greenhouse gas effects of methane, nitrous oxide, and other pollutants that contribute to global warming, expressed in CO2 equivalence relative to their global warming potential. **Table 5-9** below presents annual operational GHG emissions from the Proposed Project. The predicted annual GHG emissions are well below the draft CEQ Guidance recommended 25,000 metric ton threshold limit.

Table 5-9
Annual GHG Emissions Inventory – Operations Phase

Emissions Sources	Annual Operations GHG Emissions (metric tons per year)	
	CO_2	CO_{2e} (CO_2 equivalence)
2018 Proposed Action	2,935	2,938
Source: 40 CFR Part 98 Subpart C- General Stationary Fuel Combustion Sources.		

5-6-2 CLIMATE CONSTRUCTION IMPACTS

The estimated GHG emissions from construction equipment are presented below in **Table 5-10**. Annual GHG emissions from the construction phase are presented in **Table 5-11**. The Proposed Project would not be expected to contribute any significant adverse impacts to climate during construction.

Table 5-10
GHG Emissions Inventory by Equipment Type – Construction Phase

Construction Equipment Type	Annual Operations GHG Emissions (metric tons per year)					
	2016		2017		2018[(1)]	
	CO_2	CO_{2e}	CO_2	CO_{2e}	CO_2	CO_{2e}
Excavator	425.2	426.6	145.8	146.3	0.0	0.0
Forklift	8.4	8.5	40.5	40.6	15.2	15.2
Compressor	194.2	194.8	192.7	193.4	0.0	0.0
Generator	46.2	46.4	29.2	29.3	0.0	0.0
Concrete Pump	323.9	325.0	172.8	173.4	0.0	0.0
Rubber Tire Loader	179.6	180.2	151.8	152.3	0.0	0.0
Crane	434.8	436.3	280.3	281.2	78.8	79.1
Paving Equipment	19.7	19.8	10.5	10.5	0.0	0.0
Trucks	970.3	970.9	970.3	970.9	485.2	485.5
Note: (1) The last year of proposed construction includes only a few months of activity. Sources: 40 CFR Part 98 Subpart C for construction equipment emission factors; MOVES2014 for trucks.						

Table 5-11
Annual GHG Emissions Inventory – Construction Phase

Emissions Sources	Annual Operations GHG Emissions (metric tons per year)	
	CO_2	CO_{2e}
2016	2,602	2,609
2017	1,994	1,998
2017[(1)]	579	580

Note: (1) The last year of proposed construction includes only a few months of activity.
Sources: 40 CFR Part 98 Subpart C for construction equipment emission factors; MOVES2014 for trucks.

5-6-3 CLIMATE CUMULATIVE IMPACTS

As discussed above in Section 5-6, the Proposed Project would not be expected to contribute any significant adverse cumulative impacts on the global climate, when added to other past, present, and reasonably foreseeable future actions.

5-7 NOISE AND COMPATIBLE LAND USE

5-7-1 NOISE

Similar to the conclusion of the 2004 EA for the larger site which included the redevelopment of jetBlue's Terminal 5, the addition of the hotel and associated activity related to the operation of the hotel does not meet regulatory significance thresholds as a potential noise impact. The operation of the hotel will not generate additional flight traffic nor significantly alter traffic flows to and from JFK. The hotel itself will not generate noise that would affect the surrounding community. Additionally, the hotel facility would be built to ensure adequate indoor noise levels, so that outside noise would not disturb guests of the hotel. A double façade was designed for the hotel buildings to control noise to 35 dBA, the maximum desired internal noise level.

5-7-1-1 NOISE CONSTRUCTION IMPACTS

Impacts on community noise levels during construction would include noise from the operation of construction equipment and noise from construction and delivery vehicles traveling to and from the site. Noise levels at a given location are dependent on the type and quantity of construction equipment being operated, the acoustical utilization factor of the equipment (i.e., the percentage of time a piece of equipment is operating), the distance from the construction site, and any shielding effects (from structures such as buildings, walls, or barriers). Noise levels caused by construction activities would vary widely, depending on the stage of construction and the location of the construction activities relative to noise-sensitive receptor locations.

Construction of the Proposed Project would follow the New York City Noise Control Code (also known as Chapter 24 of the Administrative Code of the City of New York, or Local Law 113) and EPA's noise emission standards. These local and federal requirements mandate that specific construction equipment and motor vehicles meet specified noise emission standards; that construction activities be limited to weekdays between the hours of 7:00 AM and 6:00 PM; and that construction materials be handled and transported in such a manner as not to create unnecessary noise. As part of the New York City Noise Control Code, a site-specific noise mitigation plan would be

developed and implemented that would include source controls (i.e., reducing noise levels at the source or during most sensitive time periods), and path controls (e.g., erection of a minimum 8-foot high construction fence around the perimeter of the site; placement of equipment to minimize noise and/or placement of barriers between equipment and sensitive receptors). Construction of the Proposed Project would be required to follow the requirements of the New York City Noise Control Code for construction noise control measures.

Construction noise includes noise generated by on-site construction equipment and activity and noise generated by construction-related traffic, including delivery trucks and worker vehicles, traveling to and from the development site. During these peak construction activities, as is typical with building construction in New York City, there would be some noise disruption to the nearby areas, but such effects would be temporary. In addition, the project site is not located near any sensitive receptors, with the closest residential area more than 4,000 feet way from the project site.

Therefore, based on the information presented above and considering construction of the Proposed Project would follow the requirements of the New York City Noise Control Code for construction noise control measures, no adverse noise impacts would be expected due to construction of the Proposed Project.

5-7-1-2 NOISE CUMULATIVE IMPACTS

The Proposed Project will not impact airport noise. The projects that would overlap with the Proposed Project projects occur completely on Airport property. The Runway 4R/22L rehabilitation will not alter runway length or thresholds, and therefore is not expected to create noise impacts. No other past projects or future projects planned within the five-year time period that would combine with the noise impacts of the Proposed Project that would result in significant cumulative impacts.

The only potential impacts of the Proposed Project due to construction noise are to operators of construction equipment and nearby construction workers; construction noise is not expected to impact nearby communities. Potential construction noise impacts are a localized and temporary occurrence. Other projects at the airport may have similar localized and temporary impacts, and may add to ambient noise levels. Because the project area is isolated from neighboring communities by the surrounding roadways, no significant cumulative impacts are expected to occur due to the Proposed Project with respect to construction noise.

5-7-2 COMPATIBLE LAND USE

The Proposed Project is located entirely within the limits of the JFK Airport property and would not affect residential or other land uses located near the Airport. Hotels are an allowable use in the airport's M1-1 Manufacturing zoning classification, as established by the Zoning Code of New York City. Land use impacts associated with the Proposed Project are not expected to occur.

5-7-2-1 COMPATIBLE LAND USE CONSTRUCTION IMPACTS

The Proposed Project would not be expected to contribute any significant adverse impacts on compatible land use during construction.

5-7-2-2 COMPATIBLE LAND USE CUMULATIVE IMPACTS

The projects that would overlap with the Proposed Projects occur completely on Airport property and are compatible with existing zoning, surrounding area land use plans, and the land uses on the Airport. Therefore, no cumulative adverse impacts on compatible land use would occur.

5-8 SOCIOECONOMIC IMPACTS, ENVIRONMENTAL JUSTICE, AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS

The types of socioeconomic impacts that may result from airport development projects include the following:

- Relocation of residences;
- Relocation of community businesses;
- Disruption of planned development;
- Disruption of local traffic patterns that affect the surrounding communities;
- Divide the physical arrangement of a community
- Substantial loss in the community tax base;
- Environmental justice issues; and
- Children's Environmental Health and Safety Risks.[28]

The Proposed Project would not be expected to contribute to any significant adverse socioeconomic impacts, as listed above. The Proposed Project would not cause any significant impacts to the surface transportation at the Airport, considering the multiple access points and the numerous roadways serving the airport.

5-8-1 SOCIOECONOMIC IMPACTS, ENVIRONMENTAL JUSTICE, AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS CONSTRUCTION IMPACTS

The Proposed Project would not be expected to contribute to any significant adverse socioeconomic impacts during construction.

5-8-2 SOCIOECONOMIC IMPACTS, ENVIRONMENTAL JUSTICE, AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS CUMULATIVE IMPACTS

The Proposed Project would not be expected to contribute to any significant adverse cumulative socioeconomic impacts when considered in conjunction with the other projects at JFK. This is because the other projects occur on Airport property. The Proposed Project and other projects in the planning or construction stages do not appear to include any activities that would result in impacts to surface transportation. Therefore, no cumulative adverse impacts are expected.

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[28] FAA. "Final Order 1050.1F: Environmental Impact: Policies and Procedures";Office of Environment and Energy. Effective Date July 16, 2015. http://www.faa.gov/documentlibrary/media/order/faa_order_1050_1f.pdf

5-9 BIOLOGICAL RESOURCES

The Endangered Species Act of 1973 (ESA), as amended, provides for the protection of certain plants and animals as well as the habitats in which they are found. In compliance with the ESA, agencies overseeing Federally-funded projects are required to obtain from the U.S. Fish and Wildlife Service (USFWS) information concerning any species listed, or proposed to be listed, which may be present in the area of the Proposed Project.

Information obtained from the USFWS and the New York State Natural Heritage Program (NYSNHP) indicated the potential for proposed, candidate, threatened, and endangered species in the project area (see **Appendix D**). However, habitat for these species is not located within the project site. Therefore, no impacts to fish, wildlife, and plants are expected as a result of the Proposed Project.

In addition the Proposed Project would not create a wildlife hazard as defined in FAA AC 150/5200-33 nor affect any existing wildlife hazard area. Minimal low-lying vegetation would be located by the splash-pool on the roof of the south guest room building. Any plantings at the project site would comply with the Port Authority's *Aviation Landscape and Sustainable Design Guidelines* to deter wildlife from the airport. The splash-pool, glass panels and other aspects of the design would not be expected to attract or increase the abundance of birds in the area relative to the existing condition. Overall, the Developer will consult with the American Bird Conservancy to optimize a safe building design.

5-9-1 BIOLOGICAL RESOURCES CONSTRUCTION IMPACTS

The Proposed Project is not expected to result in adverse effects to biological resources during construction.

5-9-2 BIOLOGICAL RESOURCES CUMULATIVE IMPACTS

The Proposed Project is not expected to result in adverse cumulative effects to biological resources.

5-10 WATER RESOURCES

5-10-1 WETLANDS

There are no identified wetlands or regulated water features in the proposed project area. Based on a review of wetland maps, the nearest wetlands are found along the Airport's perimeter along Jamaica Bay. Therefore, the Proposed Project would have no impact to wetlands or other regulated water features.

5-10-2 FLOODPLAINS

A section of the Proposed Project would encroach in the special flood hazard area subject to inundation by the 500-year floodplain as designated by Federal Emergency Management Agency (FEMA) in the Preliminary Flood Insurance Rate Maps (FIRMS)

released January 30, 2015[29] (See **Figure 5-2**). However, the Proposed Project is not considered a "critical action," as defined in the Water Resources Council Floodplain Management Guidelines. The Proposed Project was designed in compliance with the Port Authority Climate Resilience Design Guidelines, Appendix G of the New York City Building Code[30], and Executive Order 13690, which amends Executive Order 11988 – *Floodplain Management* guidelines[31]. Therefore, there would be no floodplain impacts associated with the Proposed Project. The table below sets forth the flood protection levels (building elevation levels) designated in the Code and the flood protection elevation levels that will be applied by the PANYNJ Design Guidelines. The PANYNJ Design Guidelines are more rigorous because they also adjust the building levels for the predicted Sea Level Rise ("Sea Level Rise Adjustment"), thus requiring that, taking into account the life of the asset, buildings within the floodplain that will be subject to that Sea Level Rise, be constructed at an elevation higher than the Code requirement.

Table 5-12
Port Authority of NY & NJ Climate Resilience Design Guidelines-Flood Protection Levels

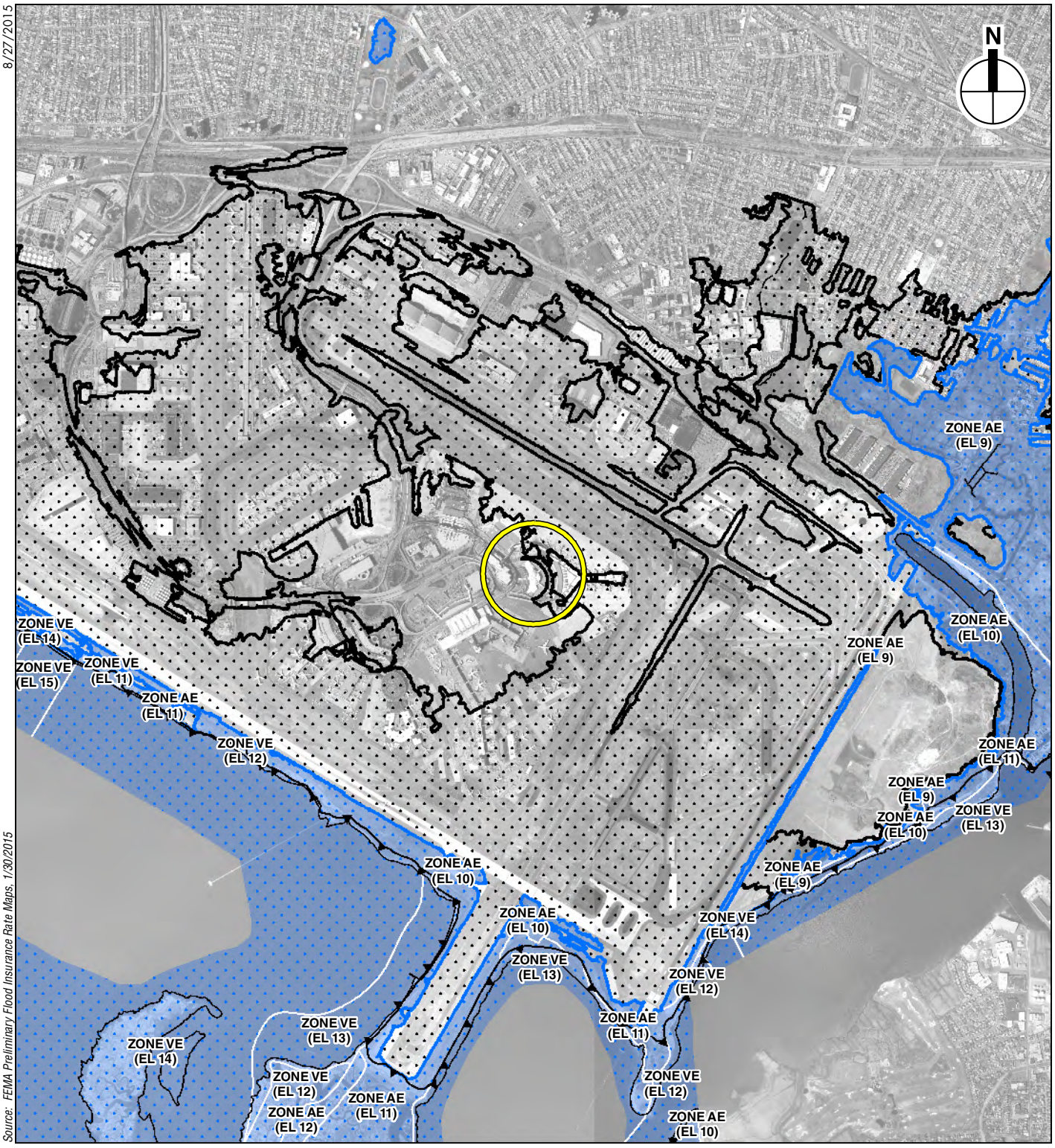
Flood Protection Levels						
	Non Critical Assets			Critical Assets		
Asset Design Life	Code Requirement	Sea Level Rise Adjustment	Final Flood Protection Elevation	Code Requirement	Sea Level Rise Adjustment	Final Flood Protection Elevation
Up to 2020	12"	6"	FEMA 1% Elevation + 18"	24"	6"	FEMA 1% Elevation + 30"
2021-2050	12"	16"	FEMA1% Elevation + 28"	24"	16"	FEMA1% Elevation + 40"
2051-2080	12"	28"	FEMA1% Elevation + 40"	24"	28"	FEMA1% Elevation + 52"
2080+	12"	36"	FEMA1% Elevation + 48"	24"	36"	FEMA1% Elevation +60"

Source: Port Authority of NY & NJ, 2015 https://www.panynj.gov/business-opportunities/pdf/discipline-guidelines/climate-resilience.pdf

[29] FEMA Region 2 Preliminary Flood Maps and Data. http://www.region2coastal.com/view-flood-maps-data/view-preliminary-flood-map-data/

[30] New York City Building Code, Appendix G: Flood Resistant Construction. Accessed February 2016 http://www.nyc.gov/html/gbee/downloads/pdf/buildingcode_appdx_g.pdf

[31] The White House, Office of the Press Secretary, Executive Order-Establishing a Federal Flood Risk Management Standard and Process for Soliciting and Considering Stakeholder Input. January 30, 2015. https://www.whitehouse.gov/the-press-office/2015/01/30/executive-order-establishing-federal-flood-risk-management-standard-and-



8/27/2015

Source: FEMA Preliminary Flood Insurance Rate Maps, 1/30/2015

Project Site

Special Flood Hazard Areas (100-Year Flood)

Other Flood Areas (500-Year Flood)

1% Annual Chance Floodplain Boundary

0.2% Annual Chance Floodplain Boundary

Limit of Moderate Wave Action

Boundary dividing Special Flood Hazard Area Zones and areas of different Base Flood Elevations, flood depths, and flood velocities

0 2,000 FEET

TWA Flight Center Hotel

FEMA Preliminary Flood Hazard Areas

Figure 5-2

5-10-3 WATER QUALITY AND WASTEWATER

The Proposed Project will not alter drainage structures on the airport or increase impervious surfaces. The Proposed Project would require the relocation of existing wastewater pipes; however, the relocation would not result in any environmental impacts nor affect project design. All construction activities would occur within the airport complex and away from water bodies. The Proposed Project is not expected to increase the quantity of stormwater runoff.

The sanitary wastewater generated by the Proposed Project would add a marginal increment over current wastewater generated by the Airport. The total anticipated water demand and sanitary wastewater generation is approximately 60,606 gallons per day (gpd), assuming 120 gpd per room based on guidance established for projects in New York City as part of the *CEQR Technical Manual*. Water demand estimates for the project are inclusive of HVAC and restaurant facilities. The proposed cogeneration facility does not generate wastewater, as it is not a steam-based system.

As the project site is located in Service Area Number 12, wastewater from the project site would be treated at the Jamaica WPCP). Capacity and flow information for the Jamaica WPCP was obtained directly from monthly flow reports as available through DEP.[32] The plant has a permitted operating capacity of 100 million gallons per day (mgd) and currently treats about 78 mgd. The proposed project has a projected demand of 60,606 gallons per day and therefore represents a negligible increase of 0.008 percent over existing flow to the plant. The Proposed Project does not represent a change of use or zoning that would potentially affect drainage plans for the area. While there is no increase in impervious coverage associated with the project, it is noted that stormwater runoff is handled separately through existing JFK SPDES permit and would have no effect on operation of the Jamaica WPCP. Due to the size of this development project, significant adverse impacts to the City's infrastructure and water quality are not expected.

5-10-4 WILD AND SCENIC RIVERS

The Proposed Project does not occur near any wild and scenic rivers, and would not result in adverse impacts to wild and scenic rivers.

5-10-5 WATER RESOURCES CONSTRUCTION IMPACTS

5-10-5-1 WETLANDS

There are no identified wetlands or regulated water features in the Proposed Project project areas. No adverse impacts on wetlands are expected during construction.

[32] DEP. Unpublished Correspondence from John G. Petito, P.E., DEP Acting Deputy Commissioner to Robert Elburn, P.E., Regional Water Engineer, NYSDEC. Letter containing "Monthly reports for December 2015: Operating Efficiency Citywide Bubble and Nitrogen" and dated Thursday January 28, 2016.

5-10-5-2 FLOODPLAINS

A section of the Proposed Project would encroach in the special flood hazard area subject to inundation by the 500-year floodplain as designated by FEMA in the Preliminary FIRMs released January 30, 2015. However, the Proposed Project is not considered a "critical action," as defined in the Water Resources Council Floodplain Management Guidelines[33]. Therefore, there would be no floodplain impacts associated with the Proposed Project during construction.

5-10-5-3 WATER QUALITY AND WASTEWATER

The Proposed Project will not alter drainage structures on the airport or increase impervious surfaces. The Proposed Project is not expected to increase the quantity of stormwater runoff. All construction activities would be conducted following BMP's and applicable local, state, and Federal regulations. A plan for soil erosion and sediment control would be required of all contractors. Dewatering activities would be required to remove groundwater and surface water from excavations during the construction work. A dewatering plan would include requirements for treating and testing dewatering effluent to ensure that any discharge complies with Port Authority and NYSDEC requirements. Such procedures are routinely implemented for all airport projects; therefore no significant water quality impacts would be expected during construction.

5-10-5-4 WILD AND SCENIC RIVERS

The Proposed Project does not occur near any wild and scenic rivers, and would not result in adverse construction impacts to wild and scenic rivers.

5-10-6 WATER RESOURCES CUMULATIVE IMPACTS

5-10-6-1 WETLANDS

There are no identified wetlands or regulated water features in the Proposed Project area. Based on the list of recent, ongoing, and future projects, no cumulative adverse impacts on wetlands are expected.

5-10-6-2 FLOODPLAINS

As the Proposed Project is not considered a "critical action," as defined in the Water Resources Council Floodplain Management Guidelines, no cumulative floodplain impacts associated with the Proposed Project are expected.

5-10-6-3 WATER QUALITY AND WASTEWATER

The Proposed Project is not expected to result in adverse effects to water quality and wastewater in combination with concurrent projects at the Airport.

[33]U.S. Water Resources Council Floodplain Management Guidelines for Implementing E.O. 11988. February 1978. http://portal.hud.gov/hudportal/documents/huddoc?id=DOC_14216.pdf

5-10-6-4 WILD AND SCENIC RIVERS

The Proposed Project does not occur near any wild and scenic rivers, and would not result in adverse cumulative impacts to wild and scenic rivers.

5-11 COASTAL RESOURCES

5-11-1 COASTAL BARRIERS

JFK Airport and the project site do not fall within the Coastal Barrier Resources System. Therefore, there would be no coastal barrier impacts associated with the Proposed Project.

5-11-2 COASTAL ZONE MANAGEMENT PROGRAM

The area affected by the Proposed Project is within the coastal zone, but would not adversely impact coastal zone resources and is consistent with the Waterfront Revitalization and Coastal Resources Act (WRCRA), as well as New York City's Waterfront Revitalization Program (WRP). The applicable 44 New York State Department of State (DOS) coastal zone policies were analyzed.

The completed Federal, State, and City Coastal Assessment Forms (CAFs) and consistency determination are available in **Appendix F**. Upon review of the New York City WRP CAF, WRP policies 1.1, 5.1, 6, 7.2, 7.3, and 10 apply to the Proposed Project. The CAFs and attachments in Appendix F review these policies and assess the consistency of the Proposed Project with them.

5-11-3 COASTAL RESOURCES CONSTRUCTION IMPACTS

5-11-3-1 COASTAL BARRIERS

There would be no coastal barrier impacts associated with the Proposed Project. As a result, there would be no construction impacts to Coastal Barriers.

5-11-3-2 COASTAL ZONE MANAGEMENT PROGRAM

Because the Proposed Project would not affect the coastal zone, adverse impacts are not expected to the coastal zone during construction.

5-11-4 COASTAL RESOURCES CUMULATIVE IMPACTS

5-11-4-1 COASTAL BARRIERS

There would be no coastal barrier impacts associated with the Proposed Project. As a result, no cumulative impacts to Coastal Barriers are expected.

5-11-4-2 COASTAL ZONE MANAGEMENT PROGRAM

The area affected by the Proposed Project is within the coastal zone, but would not adversely impact coastal zone resources and is consistent with the WRCRA and New York City on the Waterfront Revitalization Program. Because the Proposed Project would not affect the coastal zone, there are not expected to be cumulative adverse impacts to the coastal zone.

5-12 FARMLAND

The Proposed Project does not occur near farmland, and would not result in adverse impacts to farmland.

5-12-1 FARMLAND CONSTRUCTION IMPACTS

The Proposed Project does not occur near farmland, and would not result in adverse impacts to farmland during construction.

5-12-2 FARMLAND CUMULATIVE IMPACTS

The Proposed Project does not occur near farmland, and would not result in adverse cumulative impacts to farmland.

5-13 NATURAL RESOURCES AND ENERGY SUPPLY

The Proposed Project would increase the use of natural resources and energy consumption. The cogeneration facility would utilize approximately 55,000 MMBTU's[34] of natural gas per year. With the proposed construction of a stand-alone cogeneration facility, the Proposed Project would result in fewer impacts than the No-Build/No-Action in the use of energy.

5-13-1 NATURAL RESOURCES AND ENERGY SUPPLY CONSTRUCTION IMPACTS

The Proposed Project is not expected to result in adverse effects on natural resources and energy supply during construction.

5-13-2 NATURAL RESOURCES AND ENERGY SUPPLY CUMULATIVE IMPACTS

The combination of the concurrent projects will not result in the need for additional energy facilities. Based on the list of recent, ongoing, and future projects and the provisions for energy production facilities within the scope of the Proposed Project, no cumulative adverse impacts on natural resources or energy supply are expected.

5-14 VISUAL EFFECTS

Based on the integrated design of the new guest room buildings to be contextually compatible with the historic TWA Flight Center and their placement within the development area of the existing Terminal 5, no significant visual impacts would result with the Proposed Project. Given the project's location within the extensively lit area of the CTA, there is no additional visual impact from light emissions.

5-14-1 VISUAL EFFECTS CONSTRUCTION IMPACTS

The Proposed Project is not expected to result in adverse visual effects during construction.

[34] 1 MMBTU is equal to 1 million British Thermal Units (BTU's).

5-14-2 VISUAL EFFECTS CUMULATIVE IMPACTS

The Proposed Project is not expected to result in adverse visual effects in combination with concurrent projects at the Airport.

5-15 HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION

As discussed below, asbestos and lead-based paint would be removed as part of the construction phase of the Proposed Project. In addition, solid waste would be generated during the construction and operation phase of the Proposed Project. Materials that cannot be recycled would be disposed of in accordance with all Federal, state, and local regulations. Sufficient disposal capacity exists in the greater metropolitan area to handle the waste load. Therefore, the Proposed Project would not result in impacts with respect to hazardous materials, pollution prevention, and solid waste.

5-15-1 HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION CONSTRUCTION IMPACTS

The construction documents would include language and details on dust and sedimentation control, as well as preventive measures for construction activities associated with hazardous materials, including the following:

- Asbestos would be removed from the TWA Flight Center building, prior to any demolition or renovation work. Removal protocols, established by the Port Authority, the City and state (NYSDEC and New York State Department of Labor) regulators would be followed, thereby mitigating the potential hazards. These procedures would also address issues of noise and dust control, and thereby protect the public and workers from exposure to hazardous materials. The asbestos waste generated during the abatement procedures would be disposed of according to state (NYSDEC) regulatory requirements.
- Materials coated with lead-based paint would be removed during demolition, for disposal or recycling, as appropriate. Construction protocols would ensure that dust is minimized and contained. Workers would be provided with protection from lead in dust. Local and state permitting and notification could apply for the removal, transportation, disposal and recycling of lead containing materials.
- Construction protocols would be put in place to identify and manage the environmental issues that arise due to the discovery of soil and/or groundwater contamination on the construction site. In addition, design of storm drainage and building foundations would include provisions to limit the migration of suspended solids or other pollutants along these pathways.

An Environmental Management Plan (EMP) will be prepared for the Proposed Project and will include measures to be implemented to prevent and remediate petroleum contamination that may be discovered during site construction. In addition, the Port Authority currently has a Spill Prevention, Control, and Countermeasure (SPCC) Plan for JFK that contains appropriate spill prevention and clean up measures in the event that a spill occurs

5-15-2 HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION CUMULATIVE IMPACTS

The Proposed Project would not increase the quantity of hazardous materials present in the environment or exacerbate existing contamination. Based on the list of recent, ongoing, and future projects, there does not appear to be other projects that, when combined with the Proposed Project, would result in significant adverse cumulative impacts from hazardous materials. Therefore the Proposed Project would not contribute to any cumulative impacts from future actions with respect to hazardous materials.

Solid waste would be generated from the Proposed Project in the form of building and construction debris and soil from the demolition of certain parts of existing structures and excavation activities. Materials and debris would be recycled to the greatest extent feasible. Materials that cannot be recycled would be disposed of in accordance with all Federal, state, and local regulations. There is sufficient disposal capacity (out-of-state landfills, recycling centers, and incinerators) in the greater metropolitan area to handle the waste load. None of the other projects would result in significant amounts of solid waste. Therefore, the Proposed Project would not contribute to any cumulative impacts from future actions with respect to solid waste.

5-16 CONSTRUCTION IMPACTS ANALYSIS

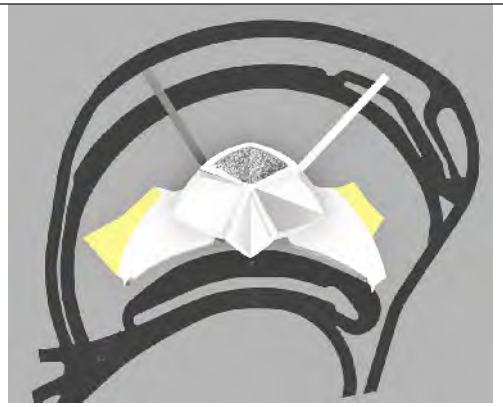
Construction impacts, though temporary, can have a disruptive and noticeable effect on the adjacent community. Construction activities could affect transportation, noise, and air quality conditions. The Proposed Project was designed to be certified by the Leadership in Energy & Environmental Design (LEED) program, and it utilizes sustainable design in compliance with the Port Authority's *Sustainable Design Guidelines*.

The Proposed Project would include the construction of two new six-story hotel buildings (plus a habitable basement level) on either side of the TWA Flight Center and the repurposing of the TWA Flight Center as the Lobby area and amenities for the hotel. Overall, construction of the Proposed Project is anticipated to begin in June 2016 and is expected to be complete and operational by 2018. This section summarizes the construction program for the Proposed Project and assesses the potential for adverse impacts during construction.

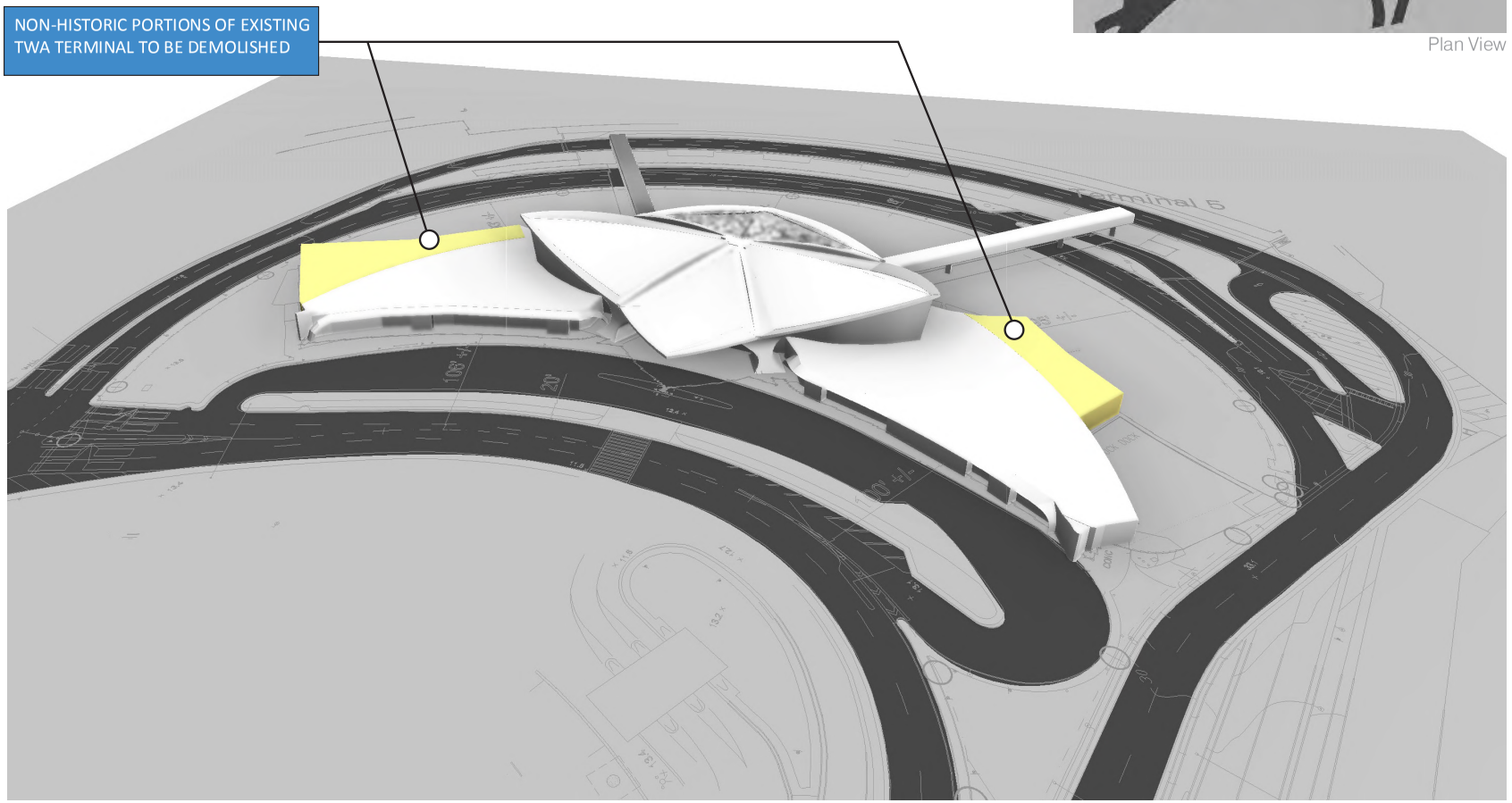
5-16-1 CONSTRUCTION OF GUEST ROOM BUILDINGS

Construction activities for the guest room buildings are anticipated to begin in June 2016 and would last approximately 27 months. The sequence of construction phasing is illustrated in **Figures 5-3a through 5-3g**. Construction of the guest room buildings would begin with relocation of site utility, excavation of soils, any required remediation, and construction of the foundations. When the below-grade construction is completed, construction of the superstructure (the building's beams, columns, floor decks, and core) of the new buildings would begin. Next, the exterior of the buildings would be constructed; the curtain walls of the new guest room buildings would be clad with glass. Finally, interior fit-out activities would commence and would include the construction of nonstructural building elements such as interior partitions and interior finishes (i.e., flooring, painting, etc.) and hotel rooms build out.

Phase 1
Existing Conditions



Plan View

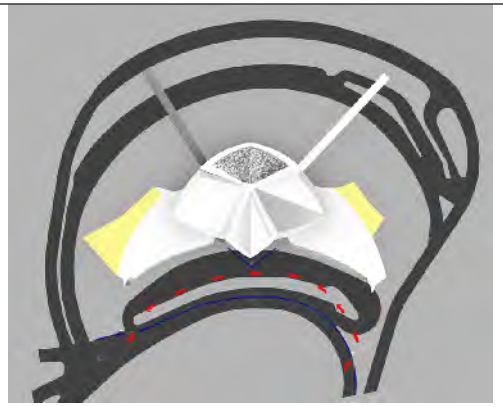


Perspective View

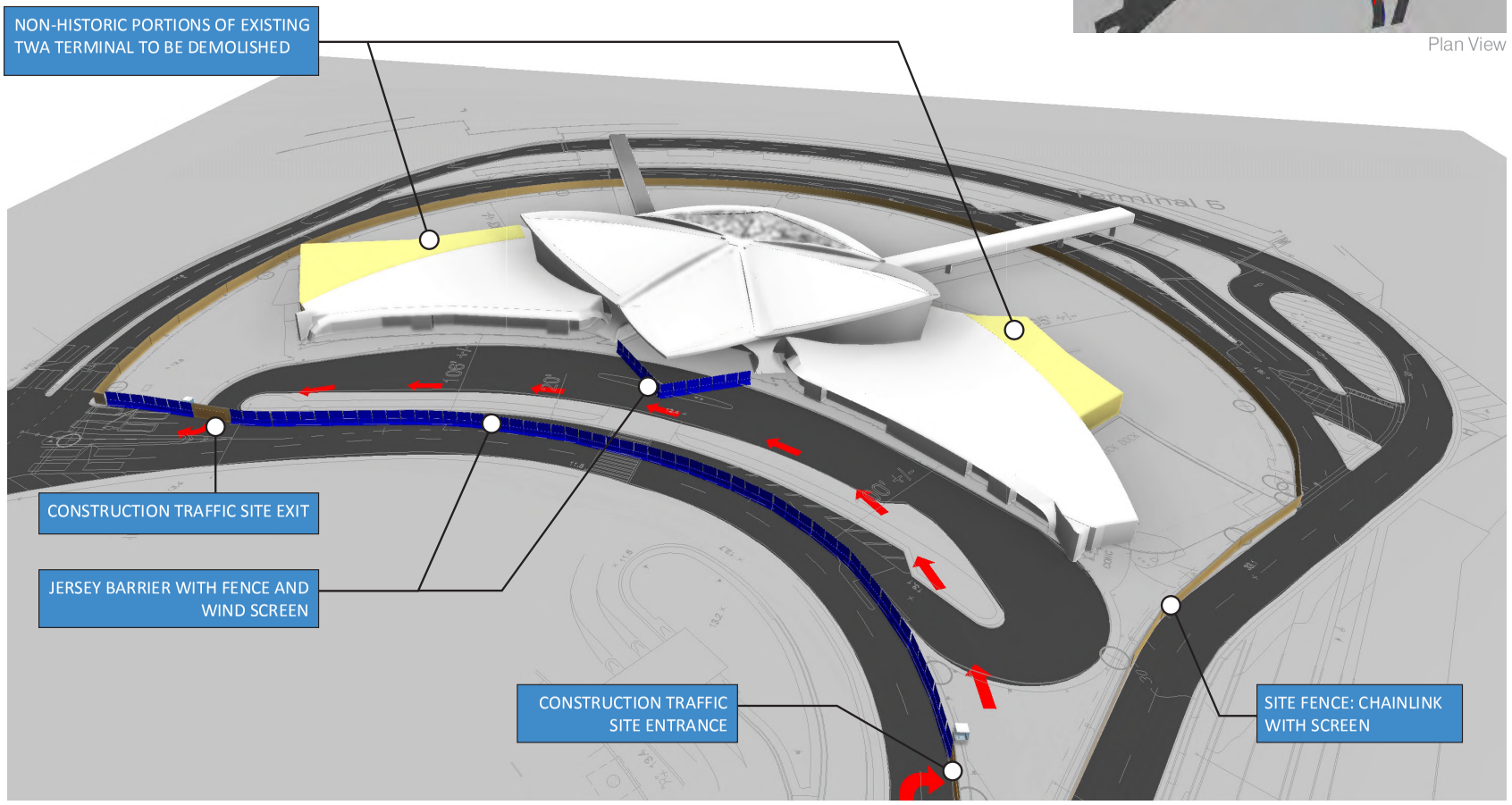
Source: Turner

Construction Phasing Sequence
Figure 5-3a

Phase 2
Demolition



Plan View

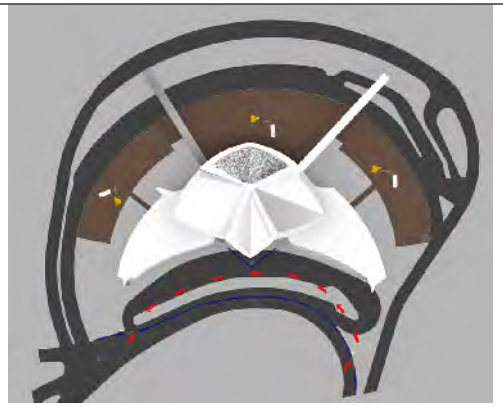


Perspective View

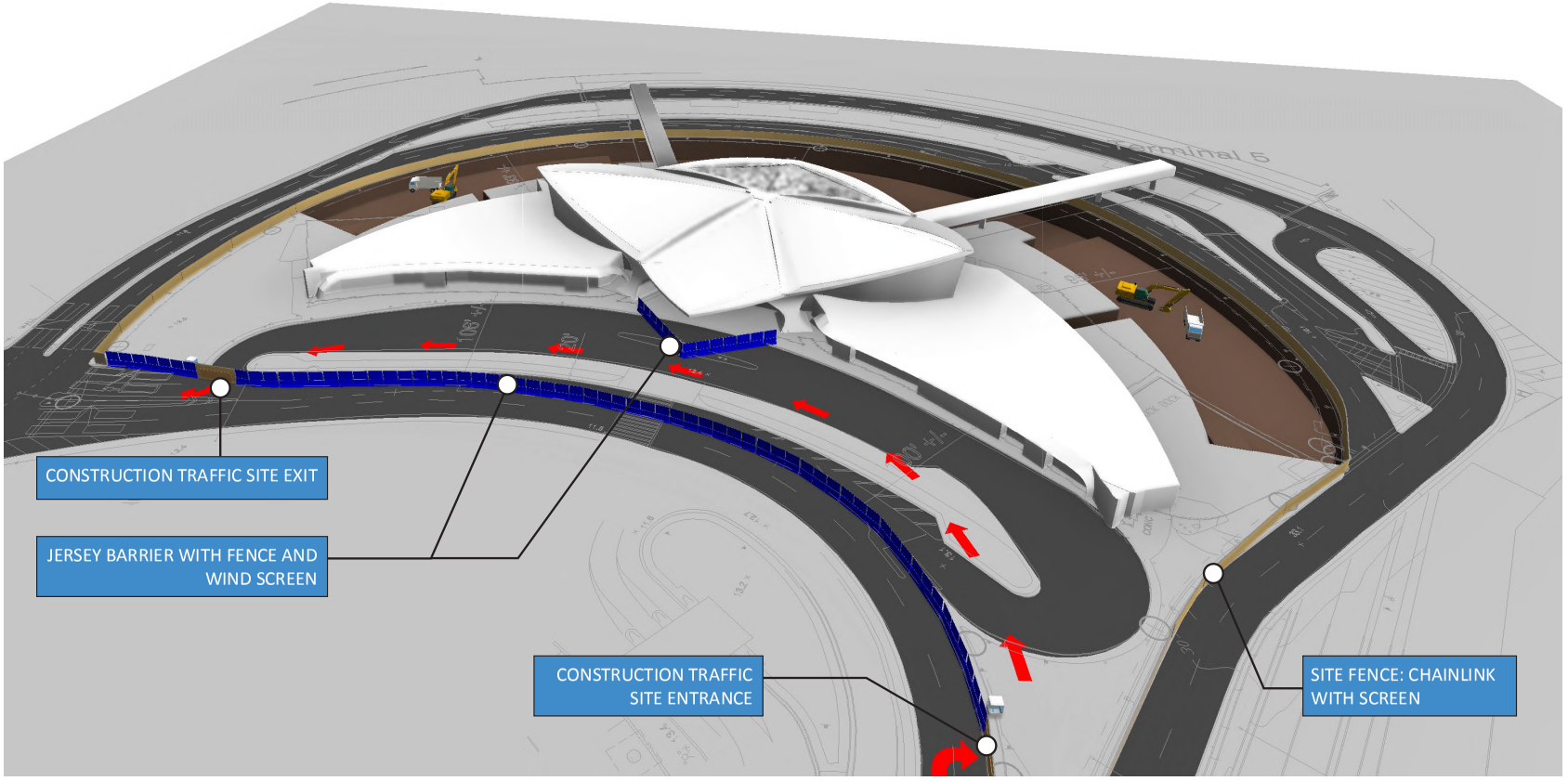
Source: Turner

Construction Phasing Sequence
Figure 5-3b

Phase 3
Excavation



Plan View

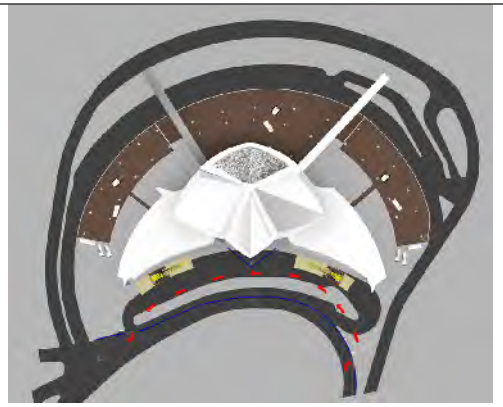


Perspective View

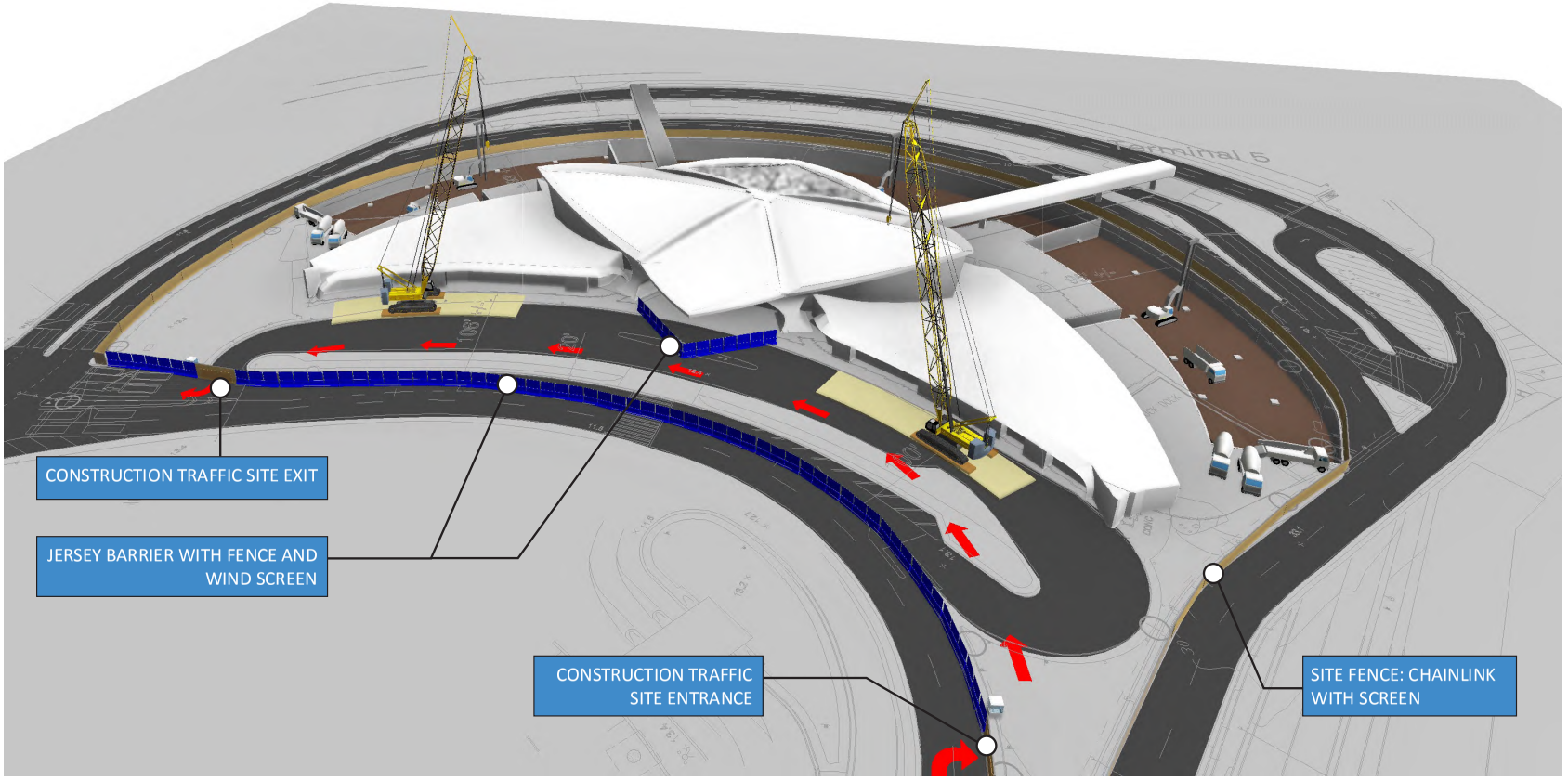
Source: Turner

Construction Phasing Sequence
Figure 5-3c

Phase 4
Foundation



Plan View

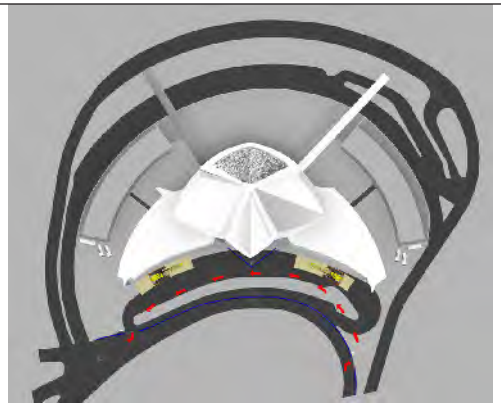


Perspective View

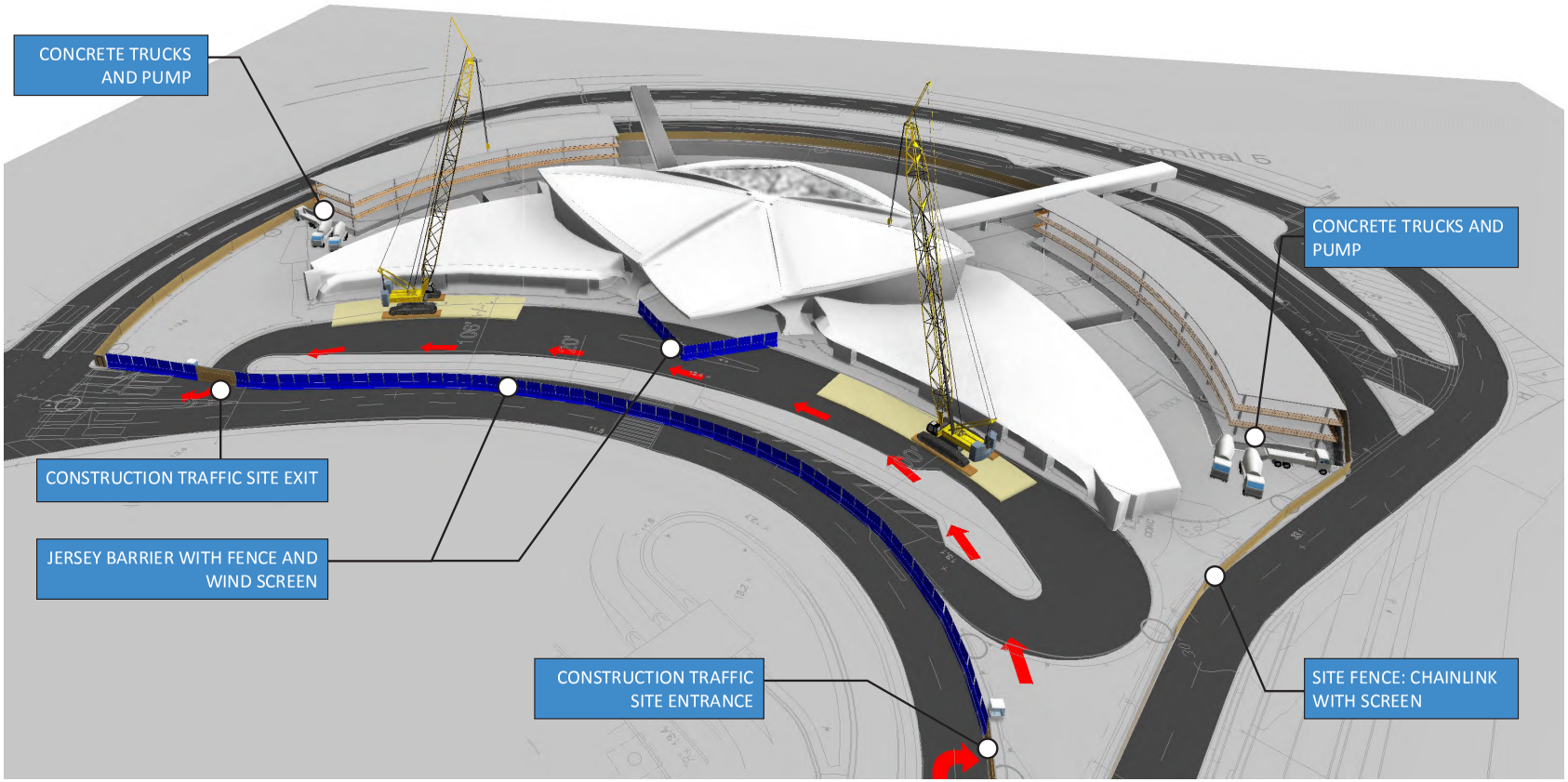
Source: Turner

Construction Phasing Sequence
Figure 5-3d

Phase 5
Superstructure



Plan View

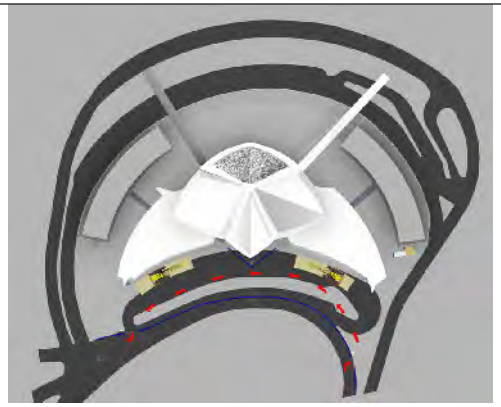


Perspective View

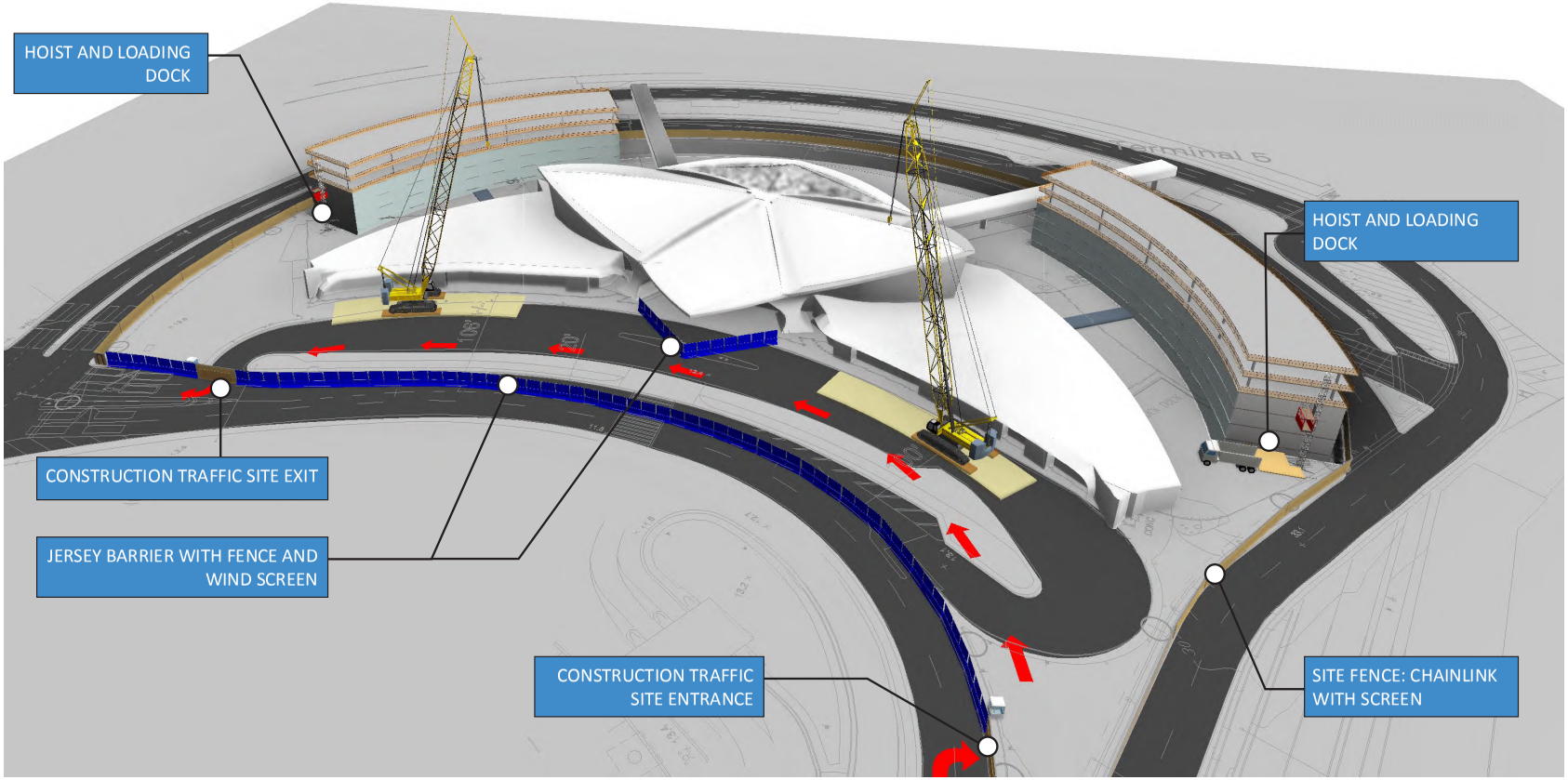
Source: Turner

Construction Phasing Sequence
Figure 5-3e

Phase 6
Curtainwall



Plan View



Perspective View

Source: Turner

Construction Phasing Sequence
Figure 5-3f

5-16-2 REDEVELOPMENT OF TWA FLIGHT CENTER

The repurposing of the existing TWA Flight Center is anticipated to begin in July 2016 and would last approximately 29 months. Construction activities at the TWA Flight Center would begin with abatement, demolition (non-historic portions of the existing structure), and utility work, followed by Lobby/amenities build out activities. The TWA Flight Center would also include new pedestrian walkways below grade to connect the TWA Flight Center to the new guest room buildings and a new walkway to connect the TWA Flight Center to the nearby Terminal 5 AirTrain station.

5-16-3 CONSTRUCTION GUIDELINES

Construction of the Proposed Project would be carried out in accordance with New York City laws and regulations, which allow construction activities between 7:00AM and 6:00PM on weekdays. Construction work would typically begin at 7:00AM and end at 3:30PM to 4:00PM. If night or weekend work is required, appropriate work permits from the New York City Department of Buildings (DOB) would be obtained. A Construction Noise and Vibration Mitigation Plan will be developed for review by FAA Air Traffic Control Tower (ATCT) staff. The ATCT has been identified as an extremely sensitive site due to the electronic equipment it houses.

Access to the construction site would be controlled. The work areas would be fenced off, and limited access points for workers and trucks would be provided. Construction equipment and materials would be staged within the project site. The Proposed Project would follow the construction guidelines specified in FAA AC 150/5370-10G, *Standards for Specifying Construction of Airport*, including the provisions pertaining to dust, water quality, and temporary erosion and sedimentation control measures, to minimize the effects of construction.

5-17 CUMULATIVE IMPACTS ANALYSIS

The CEQ NEPA regulations (40 CFR 1508.7) define a cumulative impact as "...the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency, Federal or non-Federal, or person undertakes such other actions. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time." This cumulative impact analysis was conducted to comply with the intent of FAA Order 1050.1F, DOT Order 5610.1C, and the January 1997 CEQ guidance.

The construction schedule of the Proposed Project would overlap with the construction of other projects at JFK, including the demolition of Hangars 3, 4, and 5, the redevelopment of Building 144, rehabilitation of Runway 4R/22L, possibly the demolition of Hangar 17 and Building 213, North Cargo Area redevelopment, Bulk Fuel Farm Modification, and possibly Phase III of Terminal 3 and 4 expansion. With the exception of temporary construction related impacts, the cumulative adverse environmental impact of the Proposed Project is expected to be minimal. Extensive preventive procedures would be put into place to avoid and minimize any potential adverse impacts during construction. As described in the following sections, the Proposed Project is consistent with the overall planning mission of the Port Authority

and would not result in unmitigated adverse cumulative impacts. The cumulative impacts resulting from implementation of the Proposed Project have been assessed for projects on Airport. The cumulative impacts analysis presented in this EA included a review of available environmental documents for other projects at JFK.

5-17-1 JFK REDEVELOPMENT PROGRAM

As is true for any large and complex airport facility, JFK serves a constantly changing industry and relies on adopting modern technology in a constantly evolving environment to serve its users efficiently and effectively. Therefore, this Airport along with many others throughout the country requires regular maintenance and modernization. The Port Authority has in the past and will continue to undertake an array of improvements at JFK, both airside and landside, to maintain and improve the efficient movement of aircraft and travelers. The projects listed below represent the Port Authority's most recent steps to maintain and to improve the Airport's functionality and also to enhance customer service. The various improvement projects have been analyzed within four operational and physical development groups: airside, Runway Safety Area (RSA) improvements, landside-CTA, and landside-perimeter. Projects denoted as "landside-CTA" are within the CTA and provide landside support for aviation activity at JFK. These projects include passenger-processing functions, such as terminal development, as well as access roadway development. Projects denoted as "landside-perimeter" are located to the north and perimeter of JFK. The following is a summary of the ongoing or recently completed projects and projects anticipated in the foreseeable future.

5-17-1-1 AIRSIDE

These projects comprise improvements to the airfield, including modifications to the runways and supporting taxiways and taxilanes at JFK.

- Runway 4R Instrument Landing System (ILS) Pier Structure Rehabilitation - Work included repairing the damaged structural members of the existing ILS pier and fixing any suspect members exhibiting minor damage that could worsen in the future. A Categorical Exclusion was approved for this project in April 2005 and was completed in December 2007.
- Turf Stabilization in Runway Safety Area – Work included the installation of aviation grade artificial turf to mitigate localized erosion problems from jet blast and weather effects. Other benefits of this action were abatement of turf management, decrease in maintenance, wildlife control, and visual enhancement. A Categorical Exclusion was approved for this project in July 2006 and was completed in June 2007.
- Taxiway 'E' Rehabilitation – Work included milling and repaving Taxiway 'E' full length and widening of taxiway fillets to accommodate Group V aircraft per FAA standards in AC 150/5300-13, Airport Design. A Categorical Exclusion was approved for this project in March 2007 and was completed in November 2008.
- Taxiway 'Z' Rehabilitation – Work included milling and repaving Taxiway 'Z' between Runway 31L and Taxiway 'J'. A Categorical Exclusion was approved for this project in June 2007 and was completed in November 2007.

- Taxiway 'S', 'SB', 'SC' and 'SD' Rehabilitation – Work included full depth rehabilitation of the taxiways for the taxiways providing access to the cargo area in the northwest side of the airport. A Categorical Exclusion was approved for this project in February 2008 and was completed in April 2009.
- Partial Rehabilitation of Runway 4L/22R & Partial Rehabilitation of Taxiway 'K' – This project entailed the partial rehabilitation of Runway 4L/22R from the southern end of Runway 4L extending approximately 1,350 feet north and the partial rehabilitation of Taxiway 'K' from Runway 4L extending approximately 500 feet west. Work included routine milling and repaving of the asphalt concrete pavement, the replacement of associated lighting systems and adjustments to the electrical manholes and other electrical devices. No new pavement was constructed. A Categorical Exclusion was approved for this project in March 2008 and was completed in September 2008.
- Taxiway 'FB' extension – Work included extending Taxiway 'FB' to the west of Taxiway 'E', parallel to Taxiway 'C', to a point across from Taxiway 'V'. Components of this project required the demolition of several buildings on the north side of the airfield. A Categorical Exclusion was approved for this project in March 2008 and was completed in December 2008.
- Taxiway 'YA' and 'FB' extensions and construction of Taxiway 'KB' – Work included extending Taxiway 'YA' west across Runway 4R/22L until it met Taxiway 'B' and extending Taxiway 'FB' from Taxiway 'ZA' to Taxiway 'E'. Taxiway 'KB' would be constructed between Taxiway 'K' and Runway 4L/22R. A Categorical Exclusion was approved for this project in March 2008. Work was completed in the third quarter of 2010.
- Delay Reduction Program – New Taxiways, Improvements to Existing Taxiways and Runway 13R Threshold Relocation – This project upgraded JFK's airside infrastructure, and widened and replaced approximately three miles of Runway 13R/31L. A central component of the program was widening Runway 13R/31L from 150 to 200 feet to make way for new delay-reduction taxiways. This project received a FONSI/Record of Decision (ROD) in August 2008 and began construction in March 2010. Major elements of the project were completed in November 2010; however, a few punch list items remained outstanding and the project was completely finished at the end of 2013.
- Taxiway 'Y' Rehabilitation – Work entailed the routine milling and overlaying of the asphalt concrete pavement, the replacement of associated lighting systems, and adjustments to the electrical manholes and other electrical devices. A Categorical Exclusion was approved for this project in November 2008. Work was completed in March 2010.
- Construction Airside Pavement SWAP (Hangar 12 Demolition) – Work entailed the hangar demolition and ramp expansion at the Hangar 12 site. A Categorical Exclusion was approved for this project in January 2009. Work was completed in the fourth quarter of 2011.

- Wildlife Hazard Assessment – JFK underwent a new Wildlife Hazard Assessment Study for one year beginning in 2010. The findings of this study were used to create an updated Wildlife Hazard Management Plan. The Plan was approved by the FAA and incorporated into the Airport Certification Manual. A Categorical Exclusion was approved for this project in August 2009.
- Runway 13R PAPI Installation – Work entailed the installation of Precision Approach Path Indicators (PAPI) for Runway 13R. This project received a Categorical Exclusion in October 2009 and work was completed in June 2010.
- Taxiway 'F' Rehabilitation – Work entailed the full-width milling and overlaying with asphalt concrete pavement of approximately 2,700 feet of Taxiway 'F', between Runway 4L/22R and Runway 4R/22L, shoulder and erosion pavement, grading, seeding, pavement marking and adjusting taxiway lighting and utility castings to meet the new finished surface. This project received a Categorical Exclusion in May 2010. Work was completed in December 2010.
- Taxiway 'P' Rehabilitation – This project entailed the full-width milling and overlaying with asphalt concrete pavement of approximately 5,500 feet of Taxiway 'P', between Taxiway 'PC' and 'B', shoulder and erosion pavement, taxiway fillet improvements, grading, drainage adjustments, soil erosion/sediment control, pavement markings, and adjusting taxiway lighting and utility castings to meet the new finished surface. Electrical work included new electrical infrastructure and installation of LED lights. This project received a Categorical Exclusion in October 2011 and work was completed in October 2012.
- New Taxiways 'HA', 'KF', and 'KG' – The proposed project entailed the construction three new taxiways and decommissioning of two existing taxiways. The new taxiways include Taxiway 'HA', 'KF', and 'KG', each connecting Taxiways 'A' and 'B' at different locations. Taxiways 'KD', and 'KK' were decommissioned. The new proposed taxiways enhance efficiency and safety of airport operations associated with Terminal 3 and 4 envelope. This project received a Categorical Exclusion in September 2010 and work was completed in December 2012.
- Taxiway 'P' Widening - The proposed project entailed widening Taxiway 'P' from 75 feet to 82 feet. This project brought Taxiway 'P' into full compliance for Group VI aircraft and removed the "conditionally approved" Modification to Standards by the FAA. Work on this project began in November of 2011 and ended in October 2012.
- Airport System Capacity Planning Study – The Port Authority has recently undertaken a study that is aimed at reviewing the existing Port Authority airport system characteristics and constraints; identifying and evaluating potential alternatives to meet the Port Authority's goals and objectives in consideration of existing constraints and current facility characteristics; and assessing alternatives in terms of practicality, as well as operational and economic feasibility. Because this study is still in progress recommendations are not

known at this time. Any recommendations from this study would require a separate NEPA assessment before implementation would occur.

- Runway Safety Area Improvements to Runway 13L/31R – This project would involve declaring distances to comply with FAA's Runway Safety Area regulations. Declared distances at airports are a mechanism by which specific lengths of runway pavement are identified for use in aircraft operations[35]. In this case, the entire length of the pavement on the runway surface cannot be used due to Runway Safety Area regulations governing overrun distances. Declared distances were finalized with FAA and implemented in 2015. This project received a Categorical Exclusion in July 2014.
- Taxiway 'B' Rehabilitation – This project entails the milling and overlaying with asphalt concrete pavement of approximately 7,000 feet of Taxiway 'B', between Taxiway 'N' and 'U', shoulder and erosion pavement, shoulder widening, improvements to storm water drainage, and installation of taxiway centerline lights, clearance bar lights, guidance signs, and pavement markings. This project received a Categorical Exclusion in April 2013. Work began in the second quarter of 2013 and was completed in the first quarter of 2015.
- Runway 4L-22R Rehabilitation - This project was initiated to comply with FAA design standards for RSA on Runway 4L-22R. The work includes displacing the Runway 4L arrival threshold 460 feet to the north to provide 600 feet of required undershoot RSA to comply with FAA design standards, constructing 728 feet of new runway pavement on the north side of Runway 4L/22R to maintain adequate departure length on Runway 22R while providing the required 1,000 feet of overrun RSA to comply with FAA design standards. Additional improvements include the runway using concrete, replacing the existing asphalt and widening the runway from 150 to 200 feet. The project received a FONSI/ROD for an EA in March 2014, and work was substantially completed in September 2015.
- Runway 4R-22L Rehabilitation - This project includes the mill and overlay of the full 8,400 foot length of Runway 4R-22L to maintain a good state of repair. The work will also include the relocation or adjustment of Taxiways FA, FB, F, H, and J, including the potential addition of high speed runway exits. The Port Authority expects to initiate the NEPA process for this project in the second quarter of 2016, with construction expected to start in the second quarter of 2017.
- Taxiway Q, QZ, and Restricted Vehicle Service Road Rehabilitation - This project would restore Taxiway Q, Taxiway QG, and a section of the Restricted Vehicle Service Road to a state-of-good repair, and extend their useful life, as required under the Federal Aviation Regulations (FAR) Part 139 – Certification and Operations of Land Airports. These sections of pavement were last paved in

[35] FAA Advisory Circular AC 150/5300-13A, Airport Design, Section 322. http://www.faa.gov/documentLibrary/media/Advisory_Circular/150-5300-13A-chg1-interactive.pdf

1992 and 1998, and need rehabilitation to maintain a state of good repair. Modifications to aircraft turning radii on five intersecting taxiways will be made. The Port Authority expects to initiate the NEPA process for this project in the second quarter of 2016, with construction expected to start in the second quarter of 2017.

5-17-1-2 LANDSIDE CENTRAL TERMINAL AREA (CTA)

These projects are within the CTA that provides landside support for aviation activity at JFK. Landside projects include passenger processing functions such as terminal development as well as curbside and access roadway development.

- Remainder of Terminal 5/6 Redevelopment Project – As noted in Chapter 1, *Introduction and Background*, the current Proposed Project is the outcome of the MOA addressing the adverse effects to the historic TWA Flight Center based on the implementation of the Terminal 5/6 Redevelopment Project. The Port Authority completed an EA for this project in October 2004 and received a FONSI/ROD from the FAA in February 2005. Work was completed on the Terminal 5 portion of the project in 2009 with additional improvements (including a Federal Inspection Services [FIS] facility that was completed in November 2014). No additional modifications to Terminal 5 are planned.
- Terminals 3 and 4 Redevelopment Project – Delta Air Lines is currently redeveloping the Terminal 3 and 4 envelope. The Phase I of the project included expansion of Concourse B at Terminal 4, the demolition of Terminal 3, redeveloping the Terminal 3 area to accommodate aircraft parking, developing additional passenger processing facilities at Terminal 4, and reconfiguring taxilanes and connections to existing taxiways between Terminals 2, 3, and 4. The Port Authority completed an EA for Phase I of the project in June 2010 and subsequently received a FONSI determination from the FAA in July 2010. Work was completed in May 2013. Phase II includes an extension of Concourse B of Terminal 4 and loading bridges on Terminal 2. A Categorical Exclusion was received on Phase II in April 2013 and work began in May 2013 and was completed in December 2014. Future Phase III includes expansion of Concourse A in Terminal 4, with the anticipated construction of 16 additional gates. Phase III is still in the planning and design stage and will be subject to a future NEPA analysis and review.
- Bollard Protection Terminal Frontages - The proposed project entailed the installation of a frontage bollard system at Terminals 1, 2, 3, 4, 5, 7, and 8. This project enhances security of passengers by reducing the threat of a vehicle attempting to penetrate the terminal building frontages. A Categorical Exclusion was received on the project in October 2009. Work began in the second quarter of 2010 was completed in approximately one year.
- Rehabilitation of CTA Roadways – This project entailed the rehabilitation of the CTA Roadways. Work associated with the rehabilitation included milling and overlaying the existing asphalt concrete roadway; localized full-depth pavement replacement; localized grading; replacement of several utility castings; striping

of the roadways; minor signage work, repairs to damaged curbs and sidewalks; and localized resetting/replacement of paved salt splash areas. A Categorical Exclusion was received on the project in January 2010. Work began in June 2010 and ended in February 2012.

- Cargo Area C & D Communication Vaults – The proposed project entailed the installation of Communication Vaults in cargo area C & D and associated cabling. All communications and electrical access to the vaults is underground. Both vault sites and the expanded electrical substation site utilized permeable surfaces where possible, and completely re graded and re-planted. Concrete curbing was placed adjacent to each communication vault. The concrete curbing retained the gravel mulch areas adjacent to Communications Vaults C and D, where maintenance and security vehicles may park when they are servicing the vaults so that they would not have to park in an active lane of traffic. The gravel mulch provides a permeable surface that does not erode or cause runoff and erosion. A Categorical Exclusion was received on the project in December 2010. This project commenced in March 2011 and ended in December 2011.
- Airport Plaza - Multi Fuel Station/Carwash/Food Court - The proposed project entails the renovation of an existing 17,500-square foot building (Building 125) on Airport property into a public multi fuel carwash facility with a convenience store, restaurant, and food court on a 3.4-acre plot. In addition, a cargo truck parking area will be installed on an adjacent 2.4 acre plot. The proposed facility includes a small repair bay for cars and SUVs right next to the car wash bays with capability of fixing minor problems such as flat tires, oil change, battery recharge, etc. A Categorical Exclusion was received on the project in October 2010. Work began in April 2012 and ended the first quarter of 2014.
- National Car Rental Site Modification – The proposed project entails a modification to an existing rental car facility (Building 308) for National Rent-A-Car at JFK International Airport. The purpose of planned modification is to improve traffic flow and customer service at the rental facility site. The key improvements planned for this project are to construct new canopies over parking spaces and pedestrian walkways. Existing Building 308, approximately 6,400 square feet, is also proposed to be modified under this project. A portion of existing building, measuring approximately 2,700 square feet will be demolished for additional parking space. Two small additions will be made to Building 304 totaling 900 square feet for vehicle servicing. A Categorical Exclusion was received on the project in December 2011. Work began in June of 2012 and was completed at the end of the second quarter of 2014.
- Terminal One Checked Baggage Inspection System (CBIS) Project – The proposed project involves the construction of an exterior canopy structures on the east and south end of the existing Terminal One building. In order to make room for a required Transportation Security Administration (TSA) CBIS in the terminal's (Terminal One) east bag room, the existing in-bound, recheck, interline and oversize baggage function within the east bag room will need to be relocated to the east and south end of the terminal in a newly constructed exterior canopy structures. The Larger Canopy (East) will cover an area of

approximately 9,100 sf, a majority of it will be open with the exception of a screen wall on the east side. The South Canopy (West) will cover an area of approximately 1,032 sf, out of which approximately 300 sf is fully enclosed. The canopies will be constructed on existing impervious areas. A Categorical Exclusion was received on the project in June 2011. Work began in November 2011 and was completed in December 2013.

- Building 94 Demolition – The proposed project entailed the demolition of Building 94. This project was necessary to accommodate the Aircraft Ramp (Apron) Expansion. Building 94, consisting of an 1,100-square foot area with utilities and guard post, was demolished in accordance with all Federal and state regulations. A Categorical Exclusion was received on the project in November 2010. This project commenced in April 2011 and ended in the third quarter of 2011.
- Hangar 7 Demolition - The proposed project entailed the demolition of Hangar 7. Hangar 7 was located north of Runway 13L/13R and Taxiway C in the northern section of the airport. The hangar was demolished since it was in a state of disrepair and the cleared site will be used for future development which is unknown at this time. A Categorical Exclusion was received on the project in July 2011. This project commenced in November 2011 and was completed in July 2013.
- Hangars 3, 4, and 5 Demolition – A Categorical Exclusion was completed for the demolition of Hangars 3, 4, and 5 at JFK in August 2003. Work began in October 2014, and the project is expected to be complete in the first quarter of 2016.
- Restricted Vehicle Service Road (RVSR) J2 & J8 Bridges Relocation- This project entailed the relocation and demolition of J2 & J8 Bridges that serve the RVSR at the airport. The RSVR at JFK allows vehicular traffic to serve airside operations and includes the J2 and J8 Bridges, which span the Van Wyck and JFK Expressways, respectively. The Bridges carry a two lane roadway used by airside vehicles to travel between terminals, hangars, and service buildings. The new bridges provide necessary load capacity to accommodate modern equipment, such as fuel trucks. The new Bridges also eliminate existing height restrictions that prohibited the passage of larger vehicles, including some emergency vehicles, beneath the Bridges. Moreover, each Bridge's new location is sufficiently far from Taxiway A to allow operations of Group VI aircraft without any restrictions. The project received a Categorical Exclusion in July 2012 and work was completed in May 2014.
- Building 144 Redevelopment - Building 144 is the old Ramada Hotel that is not currently in use. It is anticipated the footprint of the building could be expanded or decreased (demolishing part of building); however the height would not increase. Work on this project would not start until 2018; it is still in the planning phase.
- North Cargo Area Redevelopment - This project would entail demolish existing buildings 260/261 and construct a 300,000 square foot cargo facility, with a

possible 150,000 square foot addition. The Port Authority expects to initiate the NEPA process in late 2016, with demolition starting in early 2017, depending upon lease negotiations. It is currently anticipated that construction would be substantially complete by first quarter 2019.

- Bulk Fuel Farm Modification - This project would increase the bulk fuel farm's storage capacity by adding two, 80,000 barrel fuel tanks to the 62-tank fuel farm. The capacity is needed to satisfy the daily jet fuel requirements at JFK, which have increased commensurate with the increase in daily operations. The Port Authority will initiate the NEPA process in mid-2016, with construction anticipated to start in late 2016 and completion anticipated in second quarter 2017.

5-17-1-3 LANDSIDE PERIMETER

The landside perimeter projects are located to the north and along the critical Air Operations Area (AOA) perimeter of JFK.

- 150th Avenue Rehabilitation – This project entailed the rehabilitation of 150th Avenue between Cargo Plaza Road and North Boundary Road. Work associated with the rehabilitation included milling and overlaying the roadway with asphalt concrete; removal of approximately 20 percent of the roadway and replacing with full-depth asphalt concrete; repairing of curbs and sidewalks and adjusting of castings; and striping the roadway to its current configuration at the completion of paving. The project received a Categorical Exclusion in February 2008. Work began in August of 2008 and was completed in 2009.
- Perimeter Strengthening – This project entailed the installation of perimeter vehicle crash protection barriers. It provided a hardened perimeter, for the critical AOA perimeter, which will minimize potential intrusion of vehicles. The project replaced the fence structure in place. The project received a Categorical Exclusion in June 2008 and work was completed in 2009.

5-17-1-4 OFF-AIRPORT

The following projects are located off-airport property to north of Runway 4L/22R.

- Springfield Gardens Bluebelt Project - The project aims to address frequent flooding in Springfield Gardens and improve water quality in the lake in Springfield Park. The project includes storm sewer installation and street reconstruction, three large constructed wetlands, 2,000 square feet of porous concrete in the Springfield Boulevard median, undergirded with structural soil to encourage the growth of new trees planted in the median. Construction on the new Springfield Gardens Bluebelt began in October 2012 and is ongoing.[36]

[36] NYC DEP. "City Begins Dredging of Springfield Lake and Continues Construction of storm Sewers and Bluebelt Wetlands in Southeast Queens". July 2013. http://www.nyc.gov/html/dep/html/press_releases/13-082pr.shtml

- Logan Bus Company – The Logan Bus Company is currently seeking permits with the City of New York and the State of New York to construct a school bus parking and maintenance facility on their property along the northern perimeter of the Airport.
- Existing Obstruction Maintenance - There are approximately 312 existing Terminal Instrument Procedures (TERPS) tree obstructions in Idlewild Park that require removal to comply with FAA Order 8260.3B. The Port Authority is currently seeking a permit to remove these trees and install solar power obstruction lights. Without the solar powered obstruction lights more than 312 trees would need to be removed. In addition, there are trees in Idlewild Park that currently do not comply with Title 14 Code of CFR Part 77. The Part 77 tree obstructions do not require removal but do typically require the installation of lights/light poles to identify the obstructions to pilots. In order to comply with Part 77 requirements the Port Authority installed seven light poles in Idlewild Park to identify the tree obstructions. This project was completed in early 2015.

5-17-2 SUMMARY OF CUMULATIVE IMPACTS

As no potentially significant impacts would result from the Proposed Project, it is unlikely that the incremental impact of the Proposed Project would cause or contribute to a significant impact on the environment when added to past, on-going, or reasonably foreseeable future projects or actions involving JFK. The Proposed Project is not expected to cause or contribute to a significant impact on the environment when considered with other past, present or future actions regardless of what agency or person undertakes such other actions.

Chapter 6: Mitigation

6-1 ADVERSE EFFECTS TO HISTORIC RESOURCES

An MOA was executed among the Port Authority, SHPO, the FAA, and ACHP in 2004 to establish measures to avoid and minimize adverse effects resulting from the Terminal 5/6 Redevelopment Project on the TWA Flight Center. Since execution of the MOA, plans have been developed to adaptively reuse the TWA Flight Center as part of the TWA Flight Center Hotel, which would involve the construction of two guest room buildings. A Draft First Amendment to the 2004 MOA with the same signatories has been prepared specific to the proposed TWA Flight Center Hotel. The Developer would be required to comply with the stipulations of the MOA and its Draft First Amendment. These stipulations and the status of compliance are detailed in Section 5-2, *Historic, Architectural, Archaeological, and Cultural Resources*. Construction means and methods to avoid inadvertent damage (i.e., vibration) to the historic resources would be implemented during construction.

6-2 CONSTRUCTION MITIGATION MEASURES

6-2-1 NOISE CONTROL MEASURES

Construction of the Proposed Project would follow the New York City Noise Control Code (also known as Chapter 24 of the Administrative Code of the City of New York, or Local Law 113) and EPA's noise emission standards. These local and federal requirements are detailed in Section 5-7-1, *Noise Construction Impacts*. Based on the information presented above and that construction of the Proposed Project would follow the requirements of the New York City Noise Control Code for construction noise control measures, no adverse noise impacts would be expected due to construction of the Proposed Project.

6-2-2 AIR QUALITY CONTROL MEASURES

Construction activities would be carried out in accordance with all applicable regulatory requirements. As required by the EPA regulations, ultra-low-sulfur diesel (ULSD) fuel would be used for all construction-related vehicles and non-road construction equipment. Since all diesel engines would use ULSD, sulfur dioxide (SO2) emissions would be negligible. All necessary measures would be implemented to ensure adherence to the New York City Air Pollution Control Code regulating construction-related dust emissions. In addition, the provisions specified in FAA AC 150/5370-10G, Standards for Specifying Construction of Airports, regulating construction-related dust emissions would be followed during the construction of the Proposed Project.

Emissions from on-site construction equipment and on-road construction-related vehicles, as well as dust generating construction activities, have the potential to affect air quality. Construction of the Proposed Project would require the use of concrete

trucks and delivery trucks as well as non-road equipment such as excavators, backhoes, loaders, and cranes. However the use of such equipment would be temporary and short-term and would not be needed once the construction task is complete. Further, the approach and procedures for the construction of the Proposed Project would be typical of the methods utilized in other building construction/renovation projects throughout New York City.

As shown in Section 5-5, *Air Quality*, the annual estimated construction emissions are below the applicable thresholds and the Proposed Project would not result in adverse effects on air quality.

Chapter 7: Public Outreach and Agency Coordination

7-1 NEPA

To satisfy requirements for public involvement, a Notice of Public Availability was published in the *New York Newsday, Daily News (Queens edition), Queens Chronicle, Queens Courier, Queens Times Ledger, Queens Ledger, Long Island Herald, and South East Queens Press* newspapers. The Draft EA is available at the Port Authority's Administration Building at JFK and Port Authority's central staff office in Manhattan (4 World Trade Center). A copy of the document is also available for review on the website, http://www.panynj.gov/about/studies-reports.html. A 30 day comment period extends from April 7, 2016 to May 7, 2016. The Department of Interior Section 4(f) consistency review extends from April 7, 2016 to May 22, 2016.

To ensure that interested parties are informed, another advertisement will be placed in the local newspapers announcing the FAA's decision. Copies of the Final EA and the FAA's decision will be available at the Port Authority's Administration Building at JFK, and Port Authority's central staff office in Manhattan.

7-2 SECTION 106 COORDINATION WITH AGENCIES AND CONSULTING PARTIES

The Port Authority and FAA have coordinated with public agencies, and engaged with consulting parties regarding the Proposed Project and issues addressed in this EA. A consultation under Section 106 of the NHPA has occurred as part of the environmental planning for the Proposed Project because the Proposed Project involves a resource listed in the National Register of Historic Places. Both NEPA and NHPA and their associated regulations, require public and agency involvement before FAA can render a decision on the Proposed Project. A public notice and comment period will be part of the NEPA process. The intent of public and agency involvement is to ensure that the public and resource agencies can review the adaptive reuse of the historic resource and provide input on the Proposed Project. In addition, the RAC continues to provide the agency coordination and guidance in the review of this Proposed Project in accordance with Section 106 of the National Historic Preservation Act. The proposed TWA Flight Center Hotel, LLC project has been presented to the RAC at four meetings—May 11, 2015, June 17, 2015, December 1, 2015, and February 26, 2016. A detailed discussion on the Section 106 process is included in Section 5-2, *Historical, Architectural, Archaeological, and Cultural Resources*.

7-3 NEW YORK CITY UNIFORM LAND USE REVIEW PROCEDURE

The public has had several opportunities to learn about and share comments on the proposed TWA Flight Center Hotel through public meetings and hearing associated with the New York City Uniform Land Use Review Procedure (ULURP), a process which establishes several opportunities for public review and comment. The ULURP process is in support of the proposed project sponsor's seeking a long term lease commitment directly with New York City which would only be required if the City's lease with the Port Authority is not renewed.

Specifically, the project has been presented at regularly scheduled public meetings including to the three local Community Boards (10, 12, and 13) that are located adjacent to the airport, the Queens Borough President's office, and the New York City Planning Commission. In each instance, the project sponsor provided an overview presentation of the project in terms of the proposed development program, the specific need for the lease commitment by the City, the restoration of the historic TWA Flight Center, and a visual depiction of the project in relationship to the surrounding buildings of this portion of the Central Terminal Area. Board members and the general public were allowed to ask questions and comment on the proposed project.

As part of their role and input to the ULURP process, each of the Community Boards and the Borough President's office have recommended approval of the proposed project (see Appendix G). The New York City Planning Commission approved the ULURP application on March 9, 2016. The ULURP process concludes with a final hearing by the New York City Council. In chronological order, the location and dates of meetings held to date on the proposed TWA Flight Center Hotel are listed below:

Queens Community Board 13 Land Use Committee
Monday, December 14, 2015 at 7:00 pm
Community Board 13 Office
219-41 Jamaica Avenue
Queens Village, NY 11428

Queens Community Board 13 Full Board Meeting
Monday, December 21, 2015 at 7:30
Bellerose Assembly of God
240-15 Hillside Avenue,
Bellerose, NY 11426

Queens Community Board 12 Land Use Committee
Tuesday, January 5, 2016 at 7:00pm
Community Board 12 Office
90-28 161st Street
Jamaica, NY 11432

Queens Community Board 10 Land Use Committee
Wednesday, January 6, 2016 at 7pm

115-01 Lefferts Blvd.
South Ozone Park, NY 11420

Queens Community Board 10 Full Board Meeting
Thursday, January 7, 2016 at 7:45pm
Knights of Columbus Hall
135-45 Lefferts Boulevard
South Ozone Park, NY 11420

Queens Community Board 12 Full Board Meeting
Wednesday, January 20, 2016 at 7pm
Robert Ross Johnson Family Life Center
172-17 Linden Boulevard
Jamaica, NY 11434

Queens Borough President Hearing
Thursday, January 28, 2016 at 10:30am
Queens Borough Hall
120-55 Queens Boulevard
Jamaica, NY 11424

Queens Borough Board Meeting
Monday, February 8, 2016 at 5:30pm
Queens Borough Hall
120-55 Queens Boulevard
Jamaica, NY 11424

City Planning Commission Review Session
Monday, February 22, 2016 at 10am
Spector Hall
22 Reade Street
New York, NY 10007

City Planning Commission Public Hearing
Wednesday, February 24, 2016 at 10am
Spector Hall
22 Reade Street
New York, NY 10007

Chapter 8: Cited References

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http://www.epa.gov/scram001/guidance/guide/appw_05.pdf

https://www3.epa.gov/airquality/greenbook/

http://www.epa.gov/ttn/scram/guidance/clarification/Additional_Clarifications_AppendixW_Hourly-NO2-NAAQS_FINAL_03-01-2011.pdf

http://www.nyc.gov/html/dep/html/press_releases/13-082pr.shtml

Chapter 9: List of Preparers

9-1 LIST OF PREPARERS

9-1-1 PORT AUTHORITY OF NEW YORK AND NEW JERSEY

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Kaunteya Chitnis, MCR Development LLC

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Appendices: Table of Contents

Appendix A: 2006, 2011, and 2014 Request for Proposals

The Port Authority of New York & New Jersey

ATTENTION: RFP CUSTODIAN
PROCUREMENT DEPARTMENT
ONE MADISON AVENUE – 7TH FLOOR
NEW YORK, NY 10010

ISSUED: DECEMBER 8, 2006

REQUEST FOR PROPOSALS

RFP #11002

TITLE: REQUEST FOR PROPOSAL FOR THE DEVELOPMENT AND IMPLEMENTATION OF ADAPTIVE REUSE OF THE TWA FLIGHT CENTER (BUILDING #60) AND ASSOCIATED SITE AT JOHN F. KENNEDY INTERNATIONAL AIRPORT, JAMAICA, NEW YORK 11430

QUESTIONS SHOULD BE SUBMITTED NO LATER THAN:	**March 15, 2007**	**TIME:**	**2:00 P.M.**
PROPOSAL DUE DATE:	**April 4, 2007**	**TIME:**	**2:00 P.M.**
CONTRACT OFFICER:	**Laurie Spencer**	**PHONE:**	**(212) 435-3980**
		FAX:	**(212) 435-3992**
		EMAIL:	**lspencer@panynj.gov**

PART I: INVITATION

The Port Authority of New York & New Jersey (hereinafter sometimes referred to as "the Authority" and sometimes the "Port Authority") hereby invites your proposal for the historic restoration/rehabilitation and adaptive reuse of Building #60 (the former Trans World Airlines (TWA) Flight Center at Terminal 5) and associated site (collectively referred to as the "Premises") located at John F. Kennedy International Airport (JFK).

Proposals shall:

- Provide a detailed program for performing the restoration and rehabilitation of Building #60;
- Provide in conjunction with the above, a proposed adaptive reuse development plan with details of design and construction, financing, management, and operation and maintenance of the Premises (as indicated in Attachment C1.1), under a 39-year lease agreement with the Authority in compliance, with the Memorandum of Agreement (MOA) (See Part II, Item E below, and Attachment A, included herewith and made a part hereof). (It should be noted that the attached copy of the MOA, Attachment A, has been redacted to exclude the signature pages.) The Authority is seeking substantial capital investment by private developers in the proposed Project. Proposed fee management arrangements are not acceptable, and shall not be considered hereunder. The selected Respondent will be responsible for design, construction, and all costs and risks associated with the Project.

The proposed restoration and adaptive reuse represents a unique and challenging development opportunity at one of the leading international gateways into the United States.

The Authority's goal for the Project is the preservation/restoration and rehabilitation of the Building #60 landmark structure and the establishment of an adaptive reuse of the Premises. The goal is to be achieved by satisfaction of the terms of the MOA and the capability of the selected Respondent. The proposed reuse shall be suitable for JFK airport, shall be to the benefit of the airport and public, and must demonstrate financial viability.

The Port Authority has retained the professional services of URS Corporation (as Program Manager), and the firms of William Nicholas Bodouva + Associates, and Beyer Blinder Belle, both for architectural services relative to this project. These firms are expressly ineligible to participate on any development team.

After review and consideration of this solicitation document, firms intending to submit a proposal are requested to notify Laurie Spencer, Contract Officer, by email at lspencer@panynj.gov.

PART II: BACKGROUND

The following information and guidelines are provided to assist Respondents in understanding the facility as needed to prepare their submissions. The Authority makes no representations or warranties regarding the accuracy and completeness of the information contained herein.

A. GENERAL INFORMATION

Building #60 was designed by renowned architect, Eero Saarinen for TWA. It is listed on the National and State Registers of Historical Places, the nation's official lists of properties worthy of preservation. Listing on the National Register recognizes the importance of this property to the history of our country and provides it with a measure of protection. The structure consists of a Main Terminal Building and the passenger connecting bridges ("flight tubes").

In preparing for this Project, the Authority wishes to consider all feasible approaches for the financing, construction, leasing and operation and maintenance of Building #60 and the associated site. The Authority may choose to not consider any proposal that includes elements inconsistent with the goals and guidelines stated herein.

This Project is part of the larger Terminal 5/6 proposed master plan development program, but independent of the phased construction of the master plan. Phase I of the master plan consists of the new Terminal 5 and Garage currently under construction in proximity to the Premises, including connection of the full-length existing "flight tubes" from Building #60, to the front of new Terminal 5. This new 26 gate Terminal has been sited behind Building #60 in order to minimize the visual impact on the landmark building, to retain the building's landside view and to keep it connected to an active aviation site. Construction of Phase I is being performed by JetBlue Airways Corporation pursuant to a 30(+) year, long-term lease for the Terminal 5 site. Construction of the garage and terminal are well underway with scheduled openings in early spring and late fall of 2008, respectively**.**

Phase II of the master plan covers the completion of the redevelopment of the remainder of the Terminal 5/6 Air Terminal site. However, it is not known when in the indefinite future redevelopment of the remainder of the site will occur and such redevelopment may not occur as currently envisioned. Currently it is anticipated that when the entire Terminal 5/6 Air Terminal Site is redeveloped, the area of the Premises will be increased as shown in Attachment C1.2 and, the frontage roadway for the Premise will be changed to a "conventional flow" configuration with the additional area as shown in Attachment C1.3.

Currently the Premises frontage roadway is being constructed to accommodate a "reverse-flow" configuration as shown on Attachment C1.1, and such reverse flow configuration will not be changed until the additional area shown on Attachment C1.2 is added to the Premises. The Premises roadway shall only be used for public drop-off and pick-up in either configuration, in accordance with JFK Airport regulations prohibiting public parking of any kind on frontage roadways.

B. JOHN F. KENNEDY INTERNATIONAL AIRPORT

JFK is one of the nation's premier international gateways. In 2005, it welcomed approximately 41 million passengers, including approximately 19 million international passengers. JFK is located in the southeastern section of Queens County, New York City, on Jamaica Bay. It is fifteen miles by highway from midtown Manhattan. Equivalent in size to

all of Manhattan Island from 42nd Street to the Battery, JFK consists of 4,930 acres, including 880 acres in the Central Terminal Area. The airport has more than 30 miles of roadways and provides employment for approximately 45,000 airline employees, 36,000 tenants and government employees. JFK also generates major economic benefits by providing over 59,000 jobs off-airport in businesses directly impacted by the aviation industry. JFK contributes $25.7 billion annually in economic activity to the NY/NJ region. That total includes $6.7 billion in wages and salaries.

C. JFK REDEVELOPMENT PROGRAM

The Authority and the airport's tenants recognized that in order to ensure continued air transportation services well into the 21st century, major efforts would be necessary to upgrade, change or expand many aspects of the airport. To this end, the JFK Redevelopment Program was established and includes the following elements: a new air traffic control tower; reconfiguration of the Central Terminal Area (CTA) roadways; modernization of airport utilities; a light rail transit system; five parking garages; and private investment projects including airline terminal improvements. The Program also includes a master plan for the redevelopment of the Terminal 5/6 Site as shown on the Revised Concept Master Plan, attached to the Memorandum of Agreement (MOA) (See Section E, below). Phase I of the Terminal 5/6 site redevelopment is a new Terminal 5 and a new 1500 space public parking garage, both under construction by JetBlue Airways on behalf of the Port Authority. Completed elements include the air traffic control tower, two 1400-space parking garages, a 750 space parking deck and a cogeneration facility that generates thermal and electrical power for the CTA. The reconfigured CTA roadways have improved vehicular circulation and the modernization of airport utilities has improved reliability. The light rail transit system was completed and placed into service at the end of 2003.

Private investments in airline terminals at JFK include construction of the new Terminal One, which opened in May 1998, Terminal Four, which opened in May 2001, expansion and renovations to British Airways Terminal Seven, and the construction of a new American Airlines Terminal Eight, which opened in August 2005 with continuing phased construction currently in progress. Other private investments include the cogeneration plant and expanded cargo facilities.

D. AIRTRAIN LIGHT RAIL SYSTEM

The Authority has completed construction of an 8.4-mile light rail system known as AirTrain at JFK. It consists of a 2-mile loop around the Central Terminal Area with stops at each terminal complex; a 3.4-mile extension to car rental facilities, employee and long-term parking lots and the Howard Beach Subway Station; and a 3-mile extension off-airport to the Jamaica transportation center (connecting to bus lines, Long Island Railroad Jamaica Station and subway stations). The system carried an average daily paid ridership of 9,330 in 2005, exceeding 3.4 million in total paid ridership for the year.

E. MEMORANDUM OF AGREEMENT

The federal environmental approval process for the redevelopment of the Terminal 5/6 site has been concluded pursuant to the National Environmental Policy Act of 1970 and the 106 Process required by the National Historic Preservation Act. The Authority, the Federal Aviation Administration, the New York State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation have entered into a Memorandum of Agreement

(MOA) covering the rehabilitation, restoration, adaptive reuse, operation and maintenance of the Premises.

F. BACKGROUND AND HISTORY OF THE TWA FLIGHT CENTER (BUILDING #60)

TWA Flight Center (Building #60) is a significant example of 20th Century modern architecture and engineering, designed by one of the preeminent architects of mid-20th century modernism in America. The Flight Center was designed by Eero Saarinen for TWA in the late 1950's and opened in May of 1962.

Eero Saarinen's most significant projects include: the Gateway Arch in St. Louis, Missouri; Dulles Airport in Chantilly, Virginia; and CBS Headquarters in New York City. The TWA Flight Center was one of his last projects and one of his most revolutionary and influential designs. It was Saarinen's intention that the terminal be an expression of "the excitement of travel".

Building #60 is located between existing Terminals 4 and 6, at the apex of a curve in the airport's main roadway system. The building consists of four reinforced-concrete vaults separated by narrow skylights and supported on four reinforced concrete buttresses, forming a shell 50 feet high and 315 feet long. Green-tinted glazed curtain walls are set within the vaults. The main building is flanked by wing-shaped single-story extensions on either side, which follow the curve of the roadway. Two elevated connector bridges, constructed of steel framing with a stucco finish and oval in section, extend from the rear of the terminal.

The interior of the TWA Flight Center is divided into three levels, and contains many curvilinear sculptural elements, which echo the exterior design. The consistently sculptural forms of signs, information boards, railings and counters help to create a unified interior environment.

This facility was listed on the National and New York State Registers of Historic Places in 2005, and earlier in 1994, the New York City Landmarks Preservation Commission had designated the terminal building, two connecting bridges and Flight Wing 2 a historic landmark. Flight Wing 2, not being a part of this Project, has been demolished as part of the redevelopment of Terminals 5 and 6 (see MOA, Attachment A).

G. THE BUILDING #60 SITE

The site is approximately 6 acres in size. The current development of a new airline terminal complex on the Terminal 5 and garage sites involve heavy construction activities immediately adjacent to and on the Premises. Portions of the Premises may not be immediately available.

Graphic representations of the Premises and Building #60 can be found in Attachment C.

H. NEW YORK CITY LEASE

The Port Authority operates the airport under a lease agreement with the City of New York (the "City") entered into in 1947, and amended and restated in 2004 (the "City Lease"). The City Lease currently expires on December 31, 2050.

PART III: SCOPE OF WORK

The Scope of Work and project requirements for the restoration/rehabilitation and adaptive reuse of Building #60 and associated site include, but are not limited to the following:

A. Design, construction, operation and maintenance of the Premises including Building #60, the Flight Wing 2 connecting bridge (”East Flight Tube”), and the outdoor plaza area, for complete implementation of an adaptive reuse.

B. Compliance with the terms and conditions of the MOA, which is provided as Attachment A. Upon execution of the lease agreement covering the Premises and the Project, the lessee shall be bound by the same requirements as bind the Authority with respect to the development, operation and maintenance obligations of the MOA, including without limitation those matters covered in stipulation paragraphs 2, 5, 6, 12, 13, 15, 16, 17, and 18 of the MOA. These development, operation and maintenance obligations must be acknowledged in the Respondents proposal.

C. Restoration and rehabilitation work is described in more detail in Attachment B – TWA Flight Center Rehabilitation Guidelines Report. This Report outlines scope for restoration and rehabilitation treatments and construction requirements. Building #60 and the Flight Wing 2 connecting bridge (“East Flight Tube”) contain asbestos and an abatement plan will be required. No abatement plan/work for the Flight Wing 1 connecting bridge (“West Flight Tube”) will be required.

D. The proposed design shall incorporate the following requirements:

1. Accommodate the provision of, at minimum, two (2) electronic ticketing kiosks in an appropriate setting within Building #60 for use by airline passengers without the need to check baggage.

   The Authority will require that any airline responsible for the ticketing kiosks will install, operate, and maintain the kiosks and monitor their usage. The kiosks shall be accessible during the normal operating hours of the restored/rehabilitated and adaptive reuse, Building #60**.**

2. Make available a prominent location in Building #60 consisting of an area approximately 20’x40’x10’high as a setting for an exhibit to be placed by the Port Authority, which exhibit or display shall be accessible to the public during the normal operating hours of the restored/rehabilitated and adaptive reuse, Building #60.

3. Allow public access through both passenger Connecting Flight Tubes, between Building #60 and the redeveloped Terminal 5/6 site, during the normal operating hours of the restored/rehabilitated and adaptive reuse, Building #60.

4. The frontage “reverse flow configuration” roadway area as indicated on Attachment C1.1, included herewith and made a part herein, has been established for the initial leasehold line of the Premises.

5. Establish and develop an outdoor plaza adjacent to and/or to the rear of the building within the designated initial leasehold line of the Premises.

6. For historic restoration and rehabilitation consideration, it is desired to the extent and degree possible, that the completed adaptive reuse project be comprised of, reside, and remain within the landmark base structure or larger portion of the existing structure, so as to preserve Building #60 exclusively in its present setting.

PART IV. TERMS AND PROVISIONS

At a minimum, the following issues must be addressed in your proposal.

1. TERM OF LEASE AGREEMENT BETWEEN THE PORT AUTHORITY AND SELECTED RESPONDENT

   The lease term will commence upon the execution thereof and will expire no later than (39) years after the date of lease execution.

   The selected Respondent's interest in the lease cannot be transferred to any other person/entity without the prior written consent of the Port Authority.

2. RENTAL PROVISIONS

   The Authority is seeking financial performance of this project to operate on a self-sustaining basis.

   Fixed Rental

   a. Ground Rental

      An annual ground rental will become payable on the earlier of the Date of Beneficial Occupancy (DBO) or 36-months after the effective date of the agreement. This annual rate in 2006 dollars is $92,464 per acre will be escalated annually, beginning on the first anniversary of the effective date of the lease by one-half of the Consumer Price Index (CPI SMSA New York Metropolitan Area) or 4%, whichever is greater. Additionally, it is expected that payment of all or a portion of this annual ground rental shall commence on the date of Initial Beneficial Occupancy.

   b. Additional Fixed Rentals

      If a mortgage or other security interest is required, an additional annual rent will be due the Authority. The Authority reserves the right to limit the conditions under which a mortgage or security interest is guaranteed.

   Participatory Rentals

   Other additional facility rentals shall be proposed by the Respondent and may take the form of any or all of, but are not limited to, the following:

   a. Percentage of gross receipts generated by the Respondent including retail and consumer service rentals. Identify each source of income and associated percentages for each year.

   b. Minimum guaranteed payments with respect to percentage fees.

3. FINANCING PLAN

   a. All project costs are the responsibility of the Respondent without recourse to the Authority, including leasehold roadway and utility work, construction overruns and improvements that are required during the term of the lease.

   b. The Authority requires the Respondent to demonstrate a substantial financial commitment to the Project. The Respondent must precisely state the form and size of the commitment.

   c. The Authority views the contemplated lease agreement to be entered into for the Premises as an operating asset of the Respondent, whereby a Return On Investment (ROI) will be derived from the successful operation of the Premises as a result of the Project.

d. No funds to finance this project are included in the Port Authority's Capital Budget.

e. Respondents are encouraged and directed to informational sources about historic property and preservation federal and state tax benefits by writing to the Historic Preservation Field Services Bureau or calling (518) 237-8643, and visiting the "Save America's Treasures" Program worldwide website at http://www.saveamericastreasures.org/index.html.

4. DEVELOPMENT PLAN

The Respondent, at its sole cost and expense, will be obligated to design, construct, restore, rehabilitate, operate and maintain the Premises. The Respondent will be expected to achieve Initial Beneficial Occupancy, no later than the opening of the T/5 Phase I Terminal, currently expected to occur in the last quarter of 2008. This Initial Beneficial Occupancy is hereby defined as restoration and rehabilitation of Building #60, to the extent necessary to accommodate airline passengers (without the need to check baggage) at the location(s) of the electronic ticketing kiosks and, to allow public access during the normal business hours of Building #60 to and from the redeveloped Terminal 5/6 site through both connecting Flight Tubes. However, final beneficial occupancy for the complete restoration/rehabilitation and adaptive reuse of Building #60 shall occur no later than 36 months from execution of the lease agreement. Respondents must submit a comprehensive Development Plan for the Premises as part of the Proposal including but not limited to:

a. Planned and proposed approaches, methodologies, safeguards, conventional and special techniques from demolition and removals if any, to final finishes for the restoration/rehabilitation of the landmark and the related continued maintenance thereafter.

b. Functional and conceptual delineation between proposed public and non-public space(s), services and amenities for the support of the proposed adaptive reuse and the relationship of the adaptive reuse with allowing public access through both "Tubes" between Building #60 and the redeveloped Terminal 5 site, should be included in a cohesive plan.

c. The plan must include graphics and narrative to fully describe the function and conceptual design of the Project, the development of the site, and public exposure of the Project. Submission requirements for this Project are described in Part V.

d. The Project shall comply with all federal, state and local laws, ordinances and regulations, applicable Port Authority and Airport Rules and Regulations, the lease agreement and the MOA.

5. DESIGN AND CONSTRUCTION CRITERIA, GUIDELINES, REVIEWS AND APPROVALS

The lease agreement will require submission of complete plans and specifications for the Project to the Authority for its approval in the form of a Port Authority Tenant Alteration Application as further described below.

Design and construction of the Project shall be in accordance with all Port Authority requirements and all federal, state and local laws, ordinances, and regulations including, but not limited to all provisions of the New York City Building Code, the Americans With Disabilities Act, the requirements as described in the Port Authority's Tenant Alteration Application Standards and Procedures Guide, the provisions of the Port Authority's Tenant Construction Review Manual, the Airports Standards Manual, and the Secretary of the

Interior's Standards for the Treatment of Historic Properties as referenced herein and as provided under Appendix "D" attached hereto. The proposed use should be appropriate to JFK airport and reflect the needs of the airport's patrons and other users. The development plan will constitute the basis for design development and final design for implementation.

6. OPERATIONS, MAINTENANCE AND REPAIR

The Authority expects the successful Respondent to be responsible for the operation, maintenance and repair of the Premises for the term of the lease, in accordance with the obligations of the MOA as stipulated in paragraph 17 thereof. The Respondent will be responsible for all costs associated with the operation, maintenance and repair of the Premises.

The Respondent will be obligated to clean, maintain, and perform structural and non-structural repairs to the Premises. If the Port Authority deems that the Premises is not being kept in a good state of repair, maintenance, or cleanliness, the Port Authority may assume the performance of such cleaning, maintenance and repairs. All costs associated with such cleaning, maintenance, and repair by the Port Authority, will be reimbursed by the Respondent to the Port Authority. This provision includes the operation of the Premises in accordance with sound environmental practices. A third party agreeable to both the Port Authority and the Respondent will be hired by the Respondent to periodically review the state of repair and maintenance of the Premises on a five-year cycle. The Authority and the Respondent shall share equally in the cost of such periodic reviews. The Respondent will be responsible for and correct any deficiencies at its expense.

For areas that have been restored or rehabilitated, the Respondent must adhere to the maintenance and preservation guidelines, requirements and inspection reporting requirements referenced in stipulation paragraphs 17 and 18 of the MOA.

7. MARKETING

Marketing and other public advertisement means will be required if deemed necessary by the Authority to ensure public awareness of the reuse and to attract likely patrons/customers.

The Respondent is expected to manage the Premises to enhance financial return, sustainability and landmark upkeep. A description of existing or proposed programs, for marketing and management, and marketing arrangements with other entities if applicable, must be provided.

8. SERVICE STANDARDS

Provide customer services on the premises for the benefit of airport patrons, and the general public and cooperate with the Port Authority in establishing and maintaining standards.

The Port Authority has committed to an aggressive, on-going service improvement campaign at the Airport to ensure superior levels of service that consistently exceed customer expectations. With input from its airport partners, the Port Authority has adopted Airport Customer Service Standards that identify the aspects of airport services that impact customer satisfaction and provide a means by which the services provided can be measured and tracked. The selected Respondent shall be responsible for, and be required to take all necessary measures to ensure compliance by all staff working at the Premises with all applicable sections of the most recent edition of the Airport Customer Service Standards, as provided by the Port Authority.

9. INDEMNIFICATIONS AND INSURANCE

The successful Respondent shall be responsible for the following:

- rebuilding the Premises in the event of casualty, and provide full replacement value property insurance.
- indemnifying the Port Authority against all claims for personal injury and property damage.
- providing all statutory required insurance coverage.
- Providing insurance for design and construction activities, business interruption insurance, commercial general liability insurance, automobile liability and such other insurance customarily carried in accordance with good business practice.
- The Authority cannot specify the exact insurance that will be required by the lease agreement at this time. Said insurance will depend on the actual exposures involved in the adaptive reuse.

10. UTILITIES

A. See current Port Authority provided and available utilities serving the Premises, their ratings/values, etc., as identified in Attachment C3.1 through C3.7

B. The selected Respondent shall be responsible for or must comply with the following:

   a. As necessary, the upgrade, modification, extension, or installation of new utilities for the Premises, and establish connections to airport utility services. Prior Port Authority approval for all such proposed connections is required.

   b. The operation and maintenance of the utilities that serve the premises exclusively

   c. The cost of all utility work for the Premises as stated herein

   d. Must purchase from the Port Authority hot water and chilled water provided to the Port Authority by KIAC Partners, the operator of the Cogeneration Facility at the Airport, for all of its heating and air conditioning requirements.

   e. Payment of hot water and chilled water costs in accordance with rates established by KIAC Partners.

   f. Payment of all electrical costs for the Premises in accordance with local utility rates.

   g. Payment of all domestic water costs for the Premises.

   h. Payment of all other utilities used at the Premises.

11. IDENTIFY IMPACTS

Identify any anticipated impacts or encumbrances affecting the Premises or Building #60 related to Terminal 5 or Garage construction, other than currently shown or listed in Attachments C2.1 through C2.General, specific to the Project Baseline Schedule that require mitigation and or clearing from the site by others, based upon a lease execution and/ or start of the Project construction. Schedule requirements are described in Part V.F.4

PART V: FORM AND SUBMISSION OF PROPOSALS

Respondents must submit all requested information. Proposals should be based on the designated site, in accordance with the criteria and guidelines contained herein. Your proposal must include the base landmark structure (shown as the shaded area) and the site area within the designated initial leasehold line as indicated in Attachment C1.1.1, dated 07/20/06, The Authority will consider and possibly accept a proposal that may entail limited variations, for example, the restoration/rehabilitation and adaptive reuse of a larger portion of the existing structure, or the integration of new space as may be allowed by the Secretary of the Interior, consistent with the terms of the MOA, and within the initial leasehold lines as shown on Attachment C1.1.1.

A proposal that includes a modification (e.g. the integration of new space) will only be considered if the Respondent thoroughly explains within the submission the shortfalls of the existing footprint.

Assumptions used in any plans and supporting analysis, must be clearly noted. Respondents are encouraged to include any additional information that would assist the Authority in understanding and evaluating the Respondent's capabilities and proposal.

Respondent's proposals must include completed Sections A through I below. The proposals shall be submitted in 2 SEPARATE PARTS AS FOLLOWS:

PART 1. Submit a concise proposal in response to the following Paragraphs A through G:

This portion of your Proposal shall be single-sided using 12 point or greater font size. Each resume shall be 2-page maximum, single-sided using 12 point or greater front size. The Proposal pages shall be numbered and bound, or in a 3-ring binder(s), with "Your Firm Name", and **RFP Number 11002** clearly indicated on the cover. Each section of the proposal shall be separated with a tab divider that is labeled in accordance with the letter of the requirements specified below as "A" through "G".

PART 2. Submit a concise cost proposal in response to the following Paragraphs H and I:

The cost proposal shall be single-sided, 12-point (or greater) font sized text and packaged within a separate sealed binding with your legal firm name and **"RFP Number 11002 – FINANCIAL INFORMATION"** clearly stated on the cover. Each section of the proposal shall be separated with a tab divider that is labeled in accordance with the letter of the requirements specified below as "H" and "I".

A. EXECUTIVE SUMMARY OF YOUR RESPONSE

Provide an overview or "executive summary" of the key elements of your submission. Address each of the areas noted below. This section should not exceed three pages.

1. Describe clearly the nature of your planned project. Include the highlights of your development and operations plans.
2. Identify all of the firms that will be members of the development and management team, describing briefly the role each will play, or if an individual, describe how you would develop and implement the project.
3. Describe in narrative form your proposed business arrangement for operation of the Premises, and how you plan to raise the capital required for the project.
4. Indicate other terms and conditions that may be necessary for your project.

B. LETTER OF TRANSMITTAL

Submit a letter on Respondent's letterhead, signed by an authorized representative, summarizing its experience and qualifications in meeting the requirements of this Request for Proposal. This letter shall include a statement on whether the Respondent is submitting a proposal as a single entity or a joint venture. In all cases, information required for a single entity is required for each participant in a joint venture.

The Letter of Transmittal shall contain:

1. Name and address of the Respondent and an original signature on the Letter of Transmittal by an authorized representative on behalf of the Respondent.
2. Name(s), title(s) and telephone number(s) of the individual(s) who are authorized to negotiate and execute the lease.
3. Name, title and telephone number of a contact person to whom the Port Authority can address questions or issues related to this Request for Proposal.
4. If a corporation: (a) a statement of the names and residences of its officers, and (b) a copy of its Certificate of Incorporation, with a written declaration signed by the secretary of the corporation, with the corporate seal affixed thereto, that the copy furnished is a true copy of the Certificate of Incorporation as of the date of the opening of the Proposals.

   If a partnership: a statement of the names and residences of its partners, indicating which are general and which are special partners.

   If an individual: a statement of residence.

   If a joint venture: information on each of the members consistent with the information requested above.

   If a joint venture which has not been established as a distinct legal entity submits a Proposal, it and all participants in the joint venture shall be bound jointly and severally and each such participant in the joint venture shall execute the Proposal and do each act and thing required by this Request For Proposal (RFP). On the original Proposal and wherever else the Respondent's name would appear, the name of the joint venture Respondent should appear if the joint venture is a distinct legal entity. If the Respondent is a common law joint venture, the names of all participants should be listed followed by the words "acting jointly and severally". All joint venture Respondents must provide documentation of their legal status.
5. The Respondent by signing the Letter of Transmittal, makes the certifications entitled "Certification of No Indictment, Conviction, Suspension, Debarment or Termination" and "Non-Collusion and Code of Ethics Certification; Certification of No Solicitation Based on Commission, Percentage, Brokerage, Contingent Fee or Other Fee" contained in Part VI of the RFP. If the Respondent cannot make any such certifications, it shall enclose an explanation of that inability.

C. AGREEMENT ON TERMS OF DISCUSSION

Submit a copy of the "Agreement on Terms of Discussion," signed by an authorized representative of the Respondent. The Agreement form is included as Appendix A and shall be submitted by the Respondent without any alterations or deviations. Any Respondent who fails to sign the Port Authority's "Agreement on Terms of Discussion" will not have its

proposal reviewed. If the Respondent is a joint venture, an authorized representative of each party must sign the Agreement.

D. PROJECT MANAGEMENT PLAN

Include a detailed narrative description of the Project Management Plan (management approach) and methods and practices that will be used to formulate and manage the proposed development. This should include design, construction, facility operations, maintenance and repair, staffing and on site requirements such as vehicles, man lifts, etc., and a description of the contemplated marketing strategies. Indicate how and why such methods and practices would be appropriate and effective.

E. DEVELOPMENT AND MANAGEMENT TEAM

1. Team Members and Organizational Structure

   a. Indicate the form of organization of the entity that would be the party to an agreement with the Authority. If the entity is a subsidiary of, or otherwise affiliated with, another organization the Respondent shall indicate such relationships. Indicate the state under whose laws the entity is organized.

   b. Identify all participants in the team and their respective roles, including design, construction, marketing, management, operations, legal, and financial firms or individuals, as well as investors and lending institutions.

   c. Submit an organization chart showing all team members, the reporting relationships, the responsibility of each team member, during the design, construction, and operation of the Project.

   In the event of a proposed subsequent change in or addition to the initial composition of the development team as submitted in response to this RFP, a full disclosure of the change must be made in writing to the Port Authority, which reserves the right to accept or reject the new team.

2. Team Experience and Qualifications

   a. Provide information on all firms on the team, including company profiles, individual resumes of key personnel who would be assigned to this Project, and descriptions of relevant experience. Your submission should include the most recently filed Securities and Exchange Commission (SEC) documents, if applicable, and audited financial statements (balance sheet and income statement) for each firm on your team.

   b. Each firm on the Respondent's submission team must provide the names and addresses of their primary banking institutions. All principal members of the development team should include a list of commercial or institutional credit references from which the developer has previously obtained substantial project financing.

   c. Provide information that demonstrates the experience and successful track record of the Respondent's primary team members, whether in finance, development, design, construction, management, and operation and maintenance, supporting their respective role proposed for this Project. Provide if applicable, examples of previous, existing and especially similar projects successfully undertaken by the Respondent

and, include measures used to evaluate performance. Respondents should identify appropriate references.

d. Provide information that demonstrates the experience and successful track record of design professionals and other principle members with projects of significant scope related to the preservation and adaptive reuse of landmarked or historical buildings.

e. Provide details on projects undertaken by any member of the team, or their subsidiaries or affiliates, which were foreclosed and indicate if any member or any subsidiary or affiliation of a member have been the subject of bankruptcy proceedings under Chapter 7 or Chapter 11 of the United States Bankruptcy Code or state that none exist.

F. DEVELOPMENT PLAN

Submit a complete and comprehensive development plan for the Premises. The proposed plan must include substantial graphics and narrative as required to fully describe the design and construction intent of the restoration/rehabilitation and adaptive reuse treatments, accommodation of public and non-public users and the overall development of the Premises.

The Development Plan shall be provided in a separate volume in the submission package, shall address each of the items in Part IV above, and shall include, but not be limited to the following:

1. Graphics

- Site plan including interfaces with other existing and planned facilities – one-fiftieth scale
- Floor plans and Elevations – one-eighth scale
- Sections and Details – appropriate larger scale
- Renderings

2. Narrative

- The graphics should be accompanied by a narrative, which fully describes the function and the design concept. A listing of all program elements and amenities for the Premises should be provided. Building and site information such as gross square footage, and square footage per use, should be clearly presented. Building materials and finishes proposed must also be clearly described for adaptive reuse, public and non-public areas.

- Describe your planned approach to address all areas of the building containing asbestos, including the abatement plans. Following Port Authority review and approval of the plan, update the plan as required to incorporate Authority comments, or any changing conditions identified by the Authority.

- Identify anticipated utility demand for electrical power, heating and cooling, domestic water, and sanitary for the proposed restoration, rehabilitation and adaptive reuse of Building #60.

- Describe your planned approach to the restoration and rehabilitation of the Premises in accordance with the terms of the MOA. Describe how they will meet or exceed the minimum historical treatment requirements.

- Comments may be generated by the Redevelopment Advisory Committee (RAC) on the design progress and plans for the restoration, rehabilitation and adaptive reuse of the TWA Main Terminal and Connecting Flight Tubes as stipulated in the MOA. Such comments shall be incorporated as directed by the Authority.
- All parking requirements for the Project should be identified. The plan must identify the location, number of spaces and hours of use for facility staff parking, and service vehicle access and times for deliveries. Vehicle parking control measures for Adaptive reuse operator's vehicles if contemplated, must be described as to necessity, detailed, and operator supervised.

3. Cost Estimate

   Provide a cost estimate, which will include all construction (hard) and non-construction (soft) costs required to complete the Project in the format indicated in Appendix C. Estimated costs for restoration and rehabilitation should be identified separately from the adaptive reuse estimate. The construction cost estimate submitted must follow Construction Specifications Institute designations.

4. Schedule

   Include a proposed Design and Construction Project Baseline Schedule in sufficient detail and in duration format to demonstrate your approach to implementing the project. Based on the Building #60 site information as described in Part III, provide a Baseline Schedule considering: (A) an encumbered site as shown on Attachments C2.5 and C2.6 and (B) an unencumbered site. For (A), consider the Attachment C2.8 "General" listing of conditions and indicate the duration from authorization, to when removal, mitigation, and or clearing of the Building #60 site is required to begin to commence work on this Project. For (A), provide in the schedule, best estimate of the duration for encumbrance removal and, the overall Project duration, and for (B), provide a Baseline Schedule considering an unencumbered site**.**

G. MANAGEMENT PLAN FOR OPERATIONS, MAINTENANCE AND REPAIR

Operations, Maintenance and Repair Plan

Identify how you propose to manage, operate, and maintain the Premises. State the operating hours for the facility. Indicate the level of service and overall appearance that can be expected from their operation and maintenance of the Premises. At a minimum, the level of service shall conform to Port Authority Customer Service Standards, as described in Part IV, paragraph 8.

Upon acceptance of its proposal and execution of a lease with the Port Authority, provide and submit for the review and approval of SHPO, a planned approach to the maintenance and preservation of areas that have been restored and rehabilitated. Identify methodologies to be used intended for compliance with Stipulation 17 in the MOA.

1. Marketing Plan

   Provide a description of your marketing plan, and other plans to promote public awareness and use of this specific property.

2. Retail Plan (if applicable)

Provide your estimates of expected sales and average rental rates by category of use for any planned retail component of the project. The Respondent is required to detail the basis of any assumptions used in estimating sales activity and rental rates.

H. FINANCING PLAN

1. Identify the lead firm or firms of the your team proposed for development and implementation of the financial plan. Briefly describe the role each such firm or member would play.

2. Describe your proposed plan for financing the project. Include the following:

   a) Identify each type of funding source expected to be available for the project, and provide a description and the estimated amount for each source.

   b) Indicate the financial commitment the Respondent is prepared to make to the project, and the form of such commitment.

   c) Provide an overall "sources and uses of funds" table for the construction period of the project that includes the types of funding sources identified above, and show how such funds would be applied to the various project and financing-related costs.

   d) Provide a schedule indicating when the Respondent proposes to secure the different types of capital proposed to provide for the project. The schedule should cover the period from initial design through the completion of construction of the project, and should clearly demonstrate to the satisfaction of the Authority that sufficient funds will always be available to meet the ongoing construction and other financial requirements of the project.

   e) Include specific details on any special financial treatment that you will apply for, be eligible for, and/or secure for Respondent's participation in the project.

   f) Describe the "flow of funds" proposed for the application of revenues derived from the project to the various payment obligations related to the project. Please also provide a tabular summary of the flow of funds.

   g) Describe any legal arrangements or covenants deemed necessary to support the plan for financing the project.

I. BUSINESS ARRANGEMENT FOR OPERATION OF THE PREMISES (BUSINESS PLAN)

As described in Part IV, the Authority expects to receive the following types of payments from the selected Respondent: 1) ground rent, 2) additional fixed rentals, if any, 3) participatory rentals including retail and consumer services payments. With respect to such payments please provide a delineation and detailed explanation of any and all forms of rental and consumer services payments.

1. Indicate how frequently each of the types of payments described in the prior paragraph would be made to the Authority, and where the different types of payments described would come in the "flow of funds" priority described in your response to Item H.2.f. above. You may reference the table contained in your response to Item H.2.f. if you wish.

2. Submit detailed pro forma financial projections, beginning at the estimated Date of Beneficial Occupancy and continuing through the term of the lease. These projections

should reflect your proposed plan for financing the project and your proposed business arrangement with the Port Authority for operating the Premises. Your projections should include the following information, as applicable, for all years:

a) all operating revenues

b) all operating and maintenance expenses

c) Port Authority ground rent

d) any fixed rental payments

e) participatory rentals

f) retail and consumer services payments **(**if other than covered in a, above**)**.

g) debt service payments on any bonds issued to finance the project and/or any other financial obligation payments

h) reserve for replacements of fixed assets

i) any capital improvements

The pro formas should include all line items of the suggested format in Appendix B. You should identify all revenue and expense items specific to your proposed business activity. All pro formas should be provided in hard copy and on CD digital media in Microsoft Excel 2000 or compatible files.

In the event of a negative cash flow, describe how your team would propose to address that scenario and the additional financial resources, if any, you would make available to the project to assure that your various financial obligations are met.

J. REFERENCES AND OTHER OUTSIDE SOURCES

The Port Authority reserves the right to contact references and to obtain relevant information from other outside sources and to consider any such information received.

K. ADDITIONAL INFORMATION

1. *Pre-Proposal Site Visit*

A pre-proposal Site Visit is scheduled for Wednesday, January 17, 2007, at 10:00: A.M. to allow Respondents to walk and observe visible areas of the building, the site and existing conditions prior to the submission of proposals. No questions will be addressed during the site inspection. Attendance is strongly recommended. Knowledge gained during the inspection may be useful to Respondents in preparing their submissions. Respondents interested in attending shall so notify Ms. Laurie Spencer via fax at (212) 435-3992, or via email at lspencer@panynj.gov. Attendees must notify Ms. Spencer at least 48-hours in advance of the site visit. Travel directions will be provided upon request.

2. *Oral Presentations*

After review of all proposal submissions, an oral presentation to the selection committee as appropriate, may be requested. Notification of presentation scheduling is made via e-mail. Please provide the name and e-mail address of the person who should be contacted for presentation scheduling, if applicable, as well as an alternate in the event that person is unavailable.

3. *Port Authority Communication*

At any time and from time to time after the receipt by the Port Authority of response to this RFP, the Manager, Professional, Technical & Advisory Services, Procurement Department of The Port Authority of New York and New Jersey, or his designated representative, may give oral or written notice to your organization to furnish additional information relating to its qualifications and to meet with designated representatives of the Port Authority with respect to its qualifications. Neither the furnishing of this RFP to your organization, the submission of any materials, documents, or other information by your organization, nor the acceptance thereof by the Port Authority, nor any correspondence, discussions, negotiations, meetings or other communications between your organization and the Port Authority, nor anything stated by the Port Authority in or at any such correspondence, discussions, negotiations, meetings or other communications shall be construed or interpreted by you to mean that the Port Authority has made a determination that your organization is qualified to become lessee under the lease agreement for the Premises nor be deemed to impose any obligations whatsoever on the Port Authority to compensate or reimburse you for any costs or expenses incurred in connection with your response to this RFP.

4. *Proposal Acceptance*

   No rights shall accrue to any respondent except upon acceptance of a proposal. Acceptance of a proposal shall be only by the due execution of a lease agreement covering the subject matter of this RFP by an authorized representative of the Port Authority and of the Respondent and delivery by the Port Authority of that agreement, fully executed by all parties, to the selected Respondent. No other act of the Port Authority, its Commissioners, officers, agents, representatives, or employees shall constitute acceptance of a proposal.

5. *Instructions For Submission of Proposals*

   Proposals are due no later than 2:00 o'clock P.M., New York Time on Wednesday, April 4,_2007 (the "Proposal Due Date") One original containing original signatures and (15) copies of the completed proposal together with a copy on CD media must be delivered to:

   The Port Authority of New York and New Jersey
   ATTENTION: RFP CUSTODIAN
   One Madison Avenue, 7th Floor
   New York, NY 10003

   All questions and requests for information must be forwarded to Ms. Laurie Spencer via fax at (212)-435-3992, or via email at lspencer@panynj.gov no later than 2:00 P.M. on Thursday, March 15, 2007.

6. There shall be no compensation for proposal preparation or presentation.

7. The Authority reserves the unqualified right, in its sole and absolute discretion, to reject all Proposals, to waive defects in proposals, to undertake discussions and modifications with one or more consultants and to proceed with that Proposal or modified Proposal, if any, which in its judgment will, under all the circumstances, best serve the public interest. Refer to Parts VII and VIII for other conditions, terms and limitations.

PART VI: DEVELOPER SELECTION

EVALUATION CRITERIA

The Respondent's proposal, including all information required in Parts IV and V of this RFP, will, subject to the terms of Part VII hereof, be evaluated against the criteria noted below. The Authority will examine the extent to which the information provided in the proposals is within a range of reasonable projections.

The selection of a successful Respondent will be made solely at the discretion of the Port Authority. In evaluating the proposals, the Port Authority will consider the following criteria listed in relative order of importance.

A. Technical approach, including but not limited to the following:

- Satisfaction of the terms of the MOA for historic restoration and rehabilitation and the degree to which the completed Project will entail, and only be comprised of, the landmark base structure or larger portion of the existing structure, preserved exclusively in its present setting.
- Benefit to the general public and/or airport community (travelers, visitors and employees) of the proposed function, the appropriateness and suitability of use within the airport environment, and the level of service of proposed use (intrinsic value, convenience, efficiency, etc.).
- The quality of the Development Plan including the architectural and contextual appropriateness of the proposed concept, benefit and feasibility of proposed completion schedules.

B. Quality of the Financing and Business Plans.

C. Management Approach including quality of the Project Management Plan and the Operations and Maintenance Plan for the Premises.

D. Qualifications and Experience of the Respondent including but not limited to demonstrated experience in the development, implementation, and operation of projects of comparable scale.

E. Staff Qualifications and Experience including consideration of the composition, experience and qualifications of the Development and Management Team.

PART VII: CONDITIONS, TERMS AND LIMITATIONS

The following terms and conditions apply with respect to this RFP, any application or response made thereto and to the selected candidates:

1. The information contained herein has been provided as general information only. The Port Authority makes no representations, warranties or guarantees that the information contained herein is accurate, complete or timely or that such information accurately represents the conditions that would be encountered at JFK Airport, now or in the future. The furnishing of such information by the Port Authority shall not create or be deemed to create any obligation or liability upon it for any reasons whatsoever and each organization by submitting its proposal expressly agrees that it has not relied upon the foregoing information, and that it shall not hold the Port Authority liable or responsible therefore in any manner whatsoever.

2. The Port Authority reserves the unqualified right in evaluating a proposal to use the criteria indicated in Part IV of this RFP or to use any other criteria or manner of evaluation as the Port Authority may choose, including without limitation, proceeding with a proposal that does not provide the most favorable financial arrangements. Neither the release of this RFP nor the opening of any response thereto shall compel the Port Authority to accept any proposal. The Port Authority shall not be obligated in any manner whatsoever to any Respondent until a proposal is accepted by the Port Authority in the manner provided in the Section of this RFP entitled "Proposal Acceptance"

   The Port Authority reserves, the unqualified right, at any time and in its sole discretion, to change or modify this RFP, to reject any and all proposals on the basis of an evaluation of the factors listed in this RFP or for other reasons or for no reason, to waive defects or irregularities in proposals received, to seek clarification of proposals, to request additional information, to request any or all Respondents to make a presentation, to undertake discussions or modifications with one or more Respondents, or to negotiate an agreement with any Respondent or any third person or to proceed with the Project itself, to terminate further participation in the proposal process by a Respondent or to proceed with any proposal or modified proposal., The Port Authority also reserves any additional rights which are available to it at law or in equity with respect to this RFP. The Port Authority may, but shall not be obligated to, consider incomplete proposals or to request or accept additional material or information. The holding of any discussions with any Respondent shall not constitute acceptance of any proposal. A proposal may be accepted only in accordance with Part V, paragraph K.4, entitled Proposal Acceptance.

3. Neither the expression of your organization's interest, nor the submission of your organization's proposal and any documents or other information, nor the acceptance thereof by the Port Authority, nor any correspondence, discussions, meetings or other communications between your organization and the Port Authority, nor a determination by the Port Authority that your organization is qualified hereunder shall impose any obligation on the Port Authority to include your organization in any such further procedures which the Port Authority may utilize prior to the selection of a lessee for the Project, shall be deemed to impose any obligation whatsoever on the Port Authority to accept your organization, to discuss any proposal which your organization may submit, to enter into negotiations with your organization, or shall entitle you to any compensation or reimbursement for any costs or expenses incurred by you in connection with the expression of your organization's

interest and the submission of your organization's qualifications, proposal or development and management plan hereunder.

4. Unless and until an agreement covering the leasing, design, financing, construction, and operation of the Premises is finally executed by the Port Authority and your organization and approved by the Port Authority's Board of Commissioners, either the Port Authority or your organization at any time, and for any reason whatsoever, or for no reason, may withdraw from any discussions or negotiations which may be pending between them, and from any commitments made by either party in any manner, and no party shall be liable to the other for any damages or costs of any kind in such event.

5. The Port Authority may consult references familiar with your organization regarding your prior operations and development or management projects or financial plan. Submission of a proposal in response to this RFP shall constitute permission for the Port Authority to make such inquiries and authorization to third parties to respond thereto.

6. Neither the Commissioners of the Port Authority nor any of them, nor any officer, agent or employee thereof shall be charged personally by your organization with any liability or held liable to it under any term or provision of this RFP or any statements made herein.

7. The Port Authority shall have no obligation to any Respondent with respect to the MOA and the Port Authority has the unrestricted right consistent with the MOA to amend, modify, supplement and replace the existing MOA.

8. **Certification of No Indictment, Conviction, Suspension, Debarment or Termination**

   By responding to this RFP, the Respondent and each person signing on behalf of the Respondent certifies, and in the case of a joint venture each party thereto certifies as to its own organization that the Respondent and each parent and/or affiliate of the Respondent has not (a) been indicted or convicted in any jurisdiction; (b) been suspended, debarred, found not responsible or otherwise disqualified from entering into contracts with any governmental agency or been denied a government contract or agreement for failure to meet pre-qualification standards; (c) had a contract or agreement terminated by any governmental agency for breach of contract or for any cause related directly or indirectly to an indictment or conviction; (d) changed its name and/or Employer Identification Number (taxpayer identification number) following its having been indicted, convicted, suspended, debarred or otherwise disqualified, or has a contract or agreement terminated as more fully provided in (a), (b) and (c) above; (e) ever used a name, trade name or abbreviated name, or an Employer Identification Number different from those inserted in the proposal; (f) been denied a contract or agreement by any governmental agency for failure to provide the required security, including bid, payment or performance bonds or any alternative security deemed acceptable by the agency letting the contract or agreement; (g) failed to file any required tax returns or failed to pay any applicable federal, state or local taxes; (h) had a lien imposed upon its property based on taxes owed and fines and penalties assessed by any agency of the federal, state or local government; (i) been, and is not currently, the subject of a criminal investigation by any federal, state or local prosecuting or investigative agency and/or a civil anti-trust investigation by any federal, state or local prosecuting or investigative agency; (j) had any sanctions imposed as a result of a judicial or administrative proceeding with respect to any professional license held or with respect to any violation of a federal, state or local environmental law, rule or regulation; and (k) shared space, staff or equipment with any business entity.

The foregoing certification as to "(a)" through "(k)" shall be deemed to have been made by the Respondent as follows: if the Respondent is a corporation, such certification shall be deemed to have been made not only with respect to the Respondent itself, but also with respect to each director and officer, as well as, to the best of the certifier's knowledge and belief, each stockholder with an ownership interest in excess of 10%; if the Respondent is a partnership, such certification shall be deemed to have been made not only with respect to the Respondent itself, but also with respect to each partner. Moreover, the foregoing certification, if made by a corporate Respondent, shall be deemed to have been authorized by the Board of Directors of the Respondent and such authorization shall be deemed to include the signing and submission of its proposal and the inclusion therein of such certification as the act and deed of the corporation.

In any case where the Respondent cannot make the foregoing certification, the Respondent shall so state and shall furnish with its proposal a signed statement, which sets forth in detail the reason therefore.

If the Respondent is uncertain as to whether it can make the foregoing certification, it shall so indicate in a signed statement furnished with its proposal setting forth an explanation for its uncertainty.

Notwithstanding that the certification may be an accurate representation of the Respondent's status with respect to the enumerated circumstances provided for in this clause as requiring disclosure at the time that the proposal is submitted, the Respondent agrees to immediately notify the Authority in writing of any change in circumstances.

The foregoing certification or signed statement shall be deemed to have been made by the Respondent with full knowledge that it would become a part of the records of the Authority and that the Authority will rely on its truth and accuracy. In the event that the Authority determines at any time prior or subsequent to the submission of the proposal, that the Respondent has falsely certified as to any material item in the foregoing certification; willfully or fraudulently submitted any signed statement pursuant to this clause which is false in any material respect; or has not completely and accurately represented its status with respect to the circumstances provided for in this clause as requiring disclosure, the Authority may determine that the Respondent is not responsible with respect to its proposal or with respect to future bids or proposals. In addition, the Respondent is advised that knowingly providing false certification or statement pursuant hereto may be the basis for prosecution for offering a false instrument for filing (see e.g., New York Penal Law, Section 175.30 et seq.). Respondents are also advised that the inability to make such certification will not in and of itself disqualify a Respondent, and that it each instance, the Authority will evaluate the reasons therefore provided by the Respondent.

As used in this clause, the following terms shall mean:

Affiliate: An entity in which the parent of the Respondent owns more than fifty percent of the voting stock, or an entity in which a group of principal owners which owns more than fifty percent of the Respondent owns more than fifty percent of the voting stock.

Agency or Governmental Agency: Any Federal, State, City or other local agency including departments, offices, quasi-public agencies, public authorities and corporations, Boards of Education and higher education, public development corporations, local development corporations, and others.

Employer Identification Number: The tax identification number assigned to firms by the Federal government for tax purposes.

Investigation: Any inquiries made by any federal, state or local criminal prosecuting agency and any inquiries concerning civil anti-trust investigations made by any federal, sate or local governmental agency. Except for inquiries concerning civil anti-trust investigations, the term does not include inquiries made by any civil government agency concerning compliance with any regulation, the nature of which does not carry criminal penalties, nor does it include any background investigations for employment, or federal, state and local inquiries into tax returns.

Officer: Any individual who serves as chief executive officer, chief financial officer, or chief operating officer of the Respondent by whatever titles known.

Parent: An individual, partnership, joint venture or corporation, which owns more than 50% of the voting stock of the Respondent.

Space Sharing: Space shall be considered to be shared when any part of the floor space utilized by the submitting business at any of its sites is also utilized on a regular or intermittent basis for any purpose by any other business or not-for-profit organization, and where there is no lease or sublease in effect between the submitting business and any other business or not-for-profit organization that is sharing space with the submitting business.

Staff Sharing: Staff shall be considered to be shared when any individual provides the services of an employee, whether paid or unpaid, to the Respondent and also, on either a regular or irregular basis, provides the services of an employee, paid or unpaid, to one or more business(es) and/or not-for-profit organization(s), if such services are provided during any part of the same hours the individual is providing services to the Respondent or if such services are provided on an alternating and interchangeable basis between the Respondent and the other business(es) or not-for-profit organization(s). The services of an employee: should be understood to include services of any type or level, including managerial and supervisory. This type of sharing may include, but not be limited to, individuals who provide the following services: telephone answering, receptionist, delivery, custodial, and driving.

Equipment Sharing: Equipment shall be considered shared, whenever the Respondent shares the ownership and/or the use of any equipment with any other business or not-for-profit organization. Such equipment may include, but not be limited to, telephone or telephone systems, photocopiers, computers, motor vehicles and construction equipment. Equipment shall not be considered to be shared under the following two circumstances: when, although the equipment is owned by another business or not-for-profit organization, the Respondent has entered into a formal lease for the use of the equipment and exercises exclusive use of the equipment; or when the Respondent owns equipment that is formally leased to another business or not-for-profit organization, and for the duration of such lease the Respondent has relinquished all right to the use of such leased equipment.

9. **Non-Collusion and Code of Ethics Certification; Certification of No Solicitation Based on Commission, Percentage, Brokerage, Contingent Fee or Other Fee**

By submitting a proposal in response to this RFP, each Respondent and each person signing on behalf of any Respondent certifies, and in the case of a joint venture each party thereto certifies as to its own organization that: (a) the terms of its proposal have been arrived at

independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such terms with any other proposal or with any competitor; (b) the terms of its proposal have not been and will not be knowingly disclosed, directly or indirectly, by the Respondent prior to the official opening of such proposal to any other Respondent or to any competitor; (c) no attempt has been made and none will be made by the Respondent to induce any other person, partnership or corporation to submit or not to submit a proposal for the purpose of restricting competition; (d) this organization has not made any offers or agreements or taken any other action with respect to any Port Authority employee or former employee or immediate family member of either which could constitute a breach of ethical standards under the Code of Ethics effective April 11, 1996 (a copy of which is available upon request to the Authority) nor does this organization have any knowledge of any act on the part of an Authority employee or former Authority employee relating either directly or indirectly to this organization which constitutes a breach of ethical standards set forth in said Code; and (e) no person or selling agency, other than a bona fide employee or a bona fide established commercial or selling agency retained by the Respondent for the purpose of securing business, has been employed or retained by the Respondent to solicit or secure this proposal on the understanding that a commission, percentage, brokerage, contingent or other fee would be paid to such person or selling agency.

The foregoing certification as to "(a)", "(b)", "(c)", "(d)" and "(e)" shall be deemed to have been made by the Respondent as follows: if the Respondent is a corporation, such certification shall be deemed to have been made not only with respect to the Respondent itself, but also with respect to each parent, affiliate, director and officer of the Respondent, as well as, to the best of the certifier's knowledge and belief, each stockholder of the Respondent with an ownership interest in excess of 10%; if the Respondent is a partnership, such certification shall be deemed to have been made not only with respect to the Respondent itself, but also with respect to each partner. Moreover, the foregoing certification, if made by a corporate Respondent, shall be deemed to have been authorized by the Board of Directors of the Respondent, and such authorization shall be deemed to include the signing and submission of the proposal an act and deed of the corporation.

In any case where the Respondent cannot make the foregoing certification, the Respondent shall so state and shall furnish with the signed Proposal, a signed statement which sets forth in detail the reasons therefore. If the Respondent is uncertain as to whether it can make the foregoing certification, it shall so indicate in a signed statement furnished with its proposal, setting forth in such statement the reasons for its uncertainty.

Notwithstanding that the Respondent may be able to make the foregoing certification at the time the proposal is submitted, the Respondent shall immediately notify the Authority in writing of any change in circumstances which might under the clause make it unable to make the foregoing certification or required disclosure. The foregoing certification or signed statement shall be deemed to have been made by the Respondent with full knowledge that it would become part of the records of the Authority and that the Authority will rely on its truth and accuracy. In the event that the Authority should determine at any time prior or subsequent to the submission of this proposal that the Respondent has falsely certified as to any material item in the foregoing certification or has willfully or fraudulently furnished a signed statement which is false in any material respect, or has not fully and accurately represented any circumstance with respect to any item in the foregoing certification required

to be disclosed, the Authority may determine that the Respondent is not responsible with respect to its proposal or with respect to future bids or proposals on Authority agreements.

In addition, Respondents are advised that knowingly providing a false certification or statement pursuant hereto may be the basis for prosecution for offering a false instrument for filing (see e.g., New York Penal Law, Sections 175.30 et seq.). Respondents are also advised that the inability to make such certification will not in and of itself disqualify a Respondent, and that in each instance the Authority will evaluate the reasons therefore provided by the Respondent.

10. Eligibility for Award of Contracts - Determination by an Agency of the State of New York Concerning Eligibility to Receive Public Contracts

The Respondent is advised that the Authority has adopted a policy to the effect that in awarding its contracts it will honor any determination by an agency of the State of New York or New Jersey that a bidder or Respondent is not eligible to bid on or be awarded public contracts because the bidder or Respondent has been determined to have engaged in illegal or dishonest conduct or to have violated prevailing rate of wage legislation.

The policy permits a bidder or Respondent whose ineligibility has been so determined by an agency of the State of New York or New Jersey to submit a bid or proposal on a Port Authority contract and then to establish that it is eligible to be awarded the contract on which it has bid or submitted a proposal because (i) the state agency determination relied upon does not apply to the bidder or Respondent, or (ii) the state agency determination relied upon was made without affording the bidder or Respondent the notice and hearing to which the bidder or Respondent was entitled by the requirements of due process of law, or (iii) the state agency determination was clearly erroneous or (iv) the state agency determination relied upon was not based on a finding of conduct demonstrating a lack of integrity or a violation of a prevailing rate of wage law.

The full text of the resolution adopting the policy may be found in the Minutes of the Authority's Board of Commissioners meeting of September 9, 1993.

11. Minority and Women's Business Enterprises Program (MBE/WBE)

The Port Authority has a long-standing practice of making its design and construction contract opportunities available to as many firms as possible and has taken affirmative steps to encourage Minority Business Enterprises (MBEs) and Women's Business Enterprises (WBEs) to seek business opportunities with it.

"Minority-owned business" or "MBE" means a business entity which is at least 51 percent owned by one or more members of one or more minority groups, or, in the case of a publicly held corporation, at least 51 percent of the stock of which is owned by one or more members of one or more minority groups; and whose management and daily business operations are controlled by one or more such individuals who are citizens or permanent resident aliens.

"Women-owned business" or "WBE" means a business entity which is at least 51 percent owned by one or more women, or, in the case of a publicly held corporation, at least 51 percent of the stock of which is owned by one or more women; and whose management and daily business operations are controlled by one or more women who are citizens or permanent resident aliens

"Minority group" means any of the following racial or ethnic groups:

Black persons having origins in any of the black African racial groups not of Hispanic origins;

Hispanic persons of Puerto Rican, Mexican, Dominican, Cuban, Central, or South American culture or origin, regardless of race;

Asian and Pacific Islander persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent or the Pacific Islands;

American Indian or Alaskan native persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification.

To ensure meaningful participation of MBEs and WBEs on the construction aspect of this project, the Authority has set goals of 12 percent from firms owned and controlled by minorities, and 5 percent for firms owned and controlled by women. Participation percentages shall be monitored throughout the performance of the agreement. Good faith effort shall include at least the following:

(a) Dividing the work to be subcontracted into smaller portions where feasible.

(b) Actively and affirmatively soliciting bids for subcontracts from MBEs and WBEs, including circulation of solicitations to minority and female contractor associations. The successful Respondent shall maintain records detailing the efforts made to provide for meaningful MBE and WBE participation in the work, including the names and addresses of all MBEs and WBEs contacted and, if any such MBE or WBE is not selected as a joint venture or subcontractor, the reasons for such decision.

(c) Providing a sufficient supply of plans and specifications of prospective work available to MBEs/WBEs, and providing appropriate materials to each in sufficient time to review.

(d) Utilizing the Authority's directory of MBEs/WBEs or seeking MBEs/WBEs from other sources for the purpose of soliciting bids for subcontracts and materials in accordance with the provisions below.

(e) Encouraging the formation of joint ventures, partnerships or other similar arrangements among subcontractors, where appropriate, to insure that the successful Respondent will meet its obligations hereunder.

(f) Insuring that provision is made to provide progress payments to MBEs/WBEs on a timely basis.

(g) Not requiring bonds from and/or providing bonds and insurance for MBEs/WBEs, where appropriate.

(h) Following up on specific suggestions made by Authority staff responsible for stimulating MBE/WBE participation.

PART VIII: APPENDICES

AGREEMENT ON TERMS OF DISCUSSION

REQUEST FOR PROPOSALS FOR THE RESTORATION/REHABILITATION, DEVELOPMENT AND IMPLEMENTATION OF ADAPTIVE REUSE OF THE TWA FLIGHT CENTER (BUILDING #60) AND ASSOCIATED SITE AT JOHN F. KENNEDY INTERNATIONAL AIRPORT

The undersigned hereby acknowledges that it is fully familiar with all of the provisions contained in The Port Authority of New York and New Jersey RFP #11002, and in any addenda issued in connection therewith, and the undersigned hereby represents and warrants that it is submitting the proposal subject to and in accordance with all of the terms and provisions thereof.

The Port Authority's receipt or discussion of any information (including information contained in any proposal, vendor qualification, ideas, models, drawings, or other material communicated or exhibited by us or on our behalf whether orally or in writing and whether before, with or after the submission of this proposal of which this Agreement is a part) shall not impose any obligations whatsoever on the Port Authority or entitle us to any compensation therefore and is not given in confidence. Such information may be used, or disclosed to others, for any purpose at any time without obligation or compensation and without liability of any kind whatsoever. Any oral or written statement which is inconsistent with this agreement, whether made as part of or in connection with this Agreement shall be void and of no effect. This Agreement is not intended, however, to grant to the Port Authority rights to any matter, which is the subject of valid existing or potential letters patent. The foregoing applies to any information, whether or not given at the invitation of the Port Authority.

Notwithstanding the above, and without assuming any legal obligation, the Port Authority will employ reasonable efforts, subject to the provisions of the Port Authority's Freedom of Information Resolution adopted by its Committee on Operations on August13, 1992, a copy of which is annexed hereto, not to disclose to any competitor of the undersigned, information submitted which are trade secrets or is maintained for regulation or supervision of commercial enterprise which, if disclosed, would cause substantial injury to the competitive position of the enterprise, and which information is identified by the Respondent as proprietary, which may be disclosed by the undersigned to the Port Authority as part of or in connection with the submission of a Proposal. The undersigned agrees to adhere to the terms and conditions in the referenced Memorandum of Agreement.

The undersigned agrees that it will not use any document obtained from the Port Authority in connection with this RFP for any purpose other than its response thereto and further agrees that it will not disseminate any such document to any third party.

The undersigned hereby designates the following person as its representative for purposes of providing clarification and any additional information required in connection with this RFP, and address as its representative and office to which notices or other papers may be delivered or mailed:

Name of Representative:

Address:

Name of Organization

By

Title

Date

APPENDIX B – FORMAT FOR PROJECT CASH FLOW PRO FORMA

Project Cash Flow

(Dollars in Thousands)
Specify Line Items in Detail

	Year 1	Year 2	Year XX*
Gross Revenues…			
Revenues from Primary Use:			
Revenue 1			
Revenue 2			
•			
•			
Subtotal Revenues from Primary Use:			
Concessions			
Other Operating Revenues			
Other			
Total Revenues:			
Operating Expenses…			
Primary Use Expenses:			
Expense 1			
Expense 2			
•			
•			
Subtotal Primary Use Expenses			
Concessions			
Other Operating Expenses			
Total Operating Expenses:			
Gross Operating Income:			
Undistributed Operating Expenses			
Administrative & General			
Marketing			
Energy Costs			
Property Operations & Maintenance			
Other			
Total Undistributed Operating Expenses:			
Income from Operations, before Fixed Charges:			
Fixed Charges…			
Rental Payment to PA			
Insurance			
Other Fixed Charges			
Total Fixed Charges:			
Income from Operations:			
Cash Flow Available for Debt Service:			
Debt Service:			
Residual Cash Flow:			

*Minimum 10 years – Maximum 39 years

APPENDIX C – PROJECT CAPITAL INVESTMENT SCHEDULE

PROJECT DEVELOPMENT ESTIMATE

Construction *(Note: breakout restoration and rehabilitation costs)*

Building Costs	Restoration			Rehabilitation			Adaptive Reuse			**Total $**
	Qty	Unit of Measure	Total $	Qty	Unit of Measure	Total $	Qty	Unit of Measure	Total $	
Demolition & Removals										
Asbestos										
Foundations										
Superstructure										
Exterior Enclosure										
Roofing and Skylights										
Interior Construction										
Interior Finishes										
Mechanical Systems										
Electrical Systems										
Amenities										
Special Equipment										
Furnishings, Fixtures & Equipment										
Total Building										

Site Development Costs	Restoration			Rehabilitation			Adaptive Reuse			Total $
	Qty	Unit of Measure	Total $	Qty	Unit of Measure	Total $	Qty	Unit of Measure	Total $	
Underground Utilities										
Area Lighting										
Roadways										
Surface Parking										
Landscape										
Hardscape										
Total Site										

APPENDIX D – ADDITIONAL INFORMATION

Certain documents, listed below, will be available for viewing by Respondents. To review these documents, Respondents must schedule appointments in advance. To schedule an appointment, please email Ms. Laurie Spencer at lspencer@panynj.gov at least 48 hours in advance.

By its review, the Respondent agrees that it will not use such documents for any purpose other than in response to this proposal and further agrees that it will not disseminate the contents of any document to any third party.

These documents were not specifically prepared for use with this RFP but will be provided to potential Respondents solely to make available information in the Authority's possession. The Authority shall not be responsible for their accuracy or for any conclusions drawn by the Respondent from information contained therein.

DOCUMENTS:

- Freedom of Information – Port Authority Policy and Procedure (Operations dated 8/13/92)
- Final Environmental Assessment - Terminal 5 and 6 Redevelopment Project - October 2004
- Final Environmental Assessment – FAA's Finding of No Significant Impact /Record of Decision (FONSI/ROD)
- Airport Standards Manual -
  - Customer Service – Fourth Edition – May 2005
  - Planning and Design For Terminals and Facilities – First Edition – May 2005
  - Signing and Wayfinding – Third Edition – July 2005
- Tenant Liaison Documents:
  - Tenant Alteration Application Standards and Procedures Guide – September 2006
  - Tenant Construction Review Manual – March 2003
  - KIAC (Calpine) Design Manual (Hot & Chilled Water) dated March 2001, Rev. A
- Reference Drawings – various:
  Architectural, Structural, Mechanical/HVAC, Electrical, Plumbing, Additions and Modifications, and Restaurants/Clubs/Lounges

ATTACHMENTS:

Attachment A - Memorandum of Agreement, dated 8/20/2004
Attachment B - TWA Flight Center Terminal Rehabilitation Guidelines Report - dated October 2002
Attachment C - Premises with Building #60 Drawings, dated 07/20/06

C1 series:
Site, Area, and Coordinates

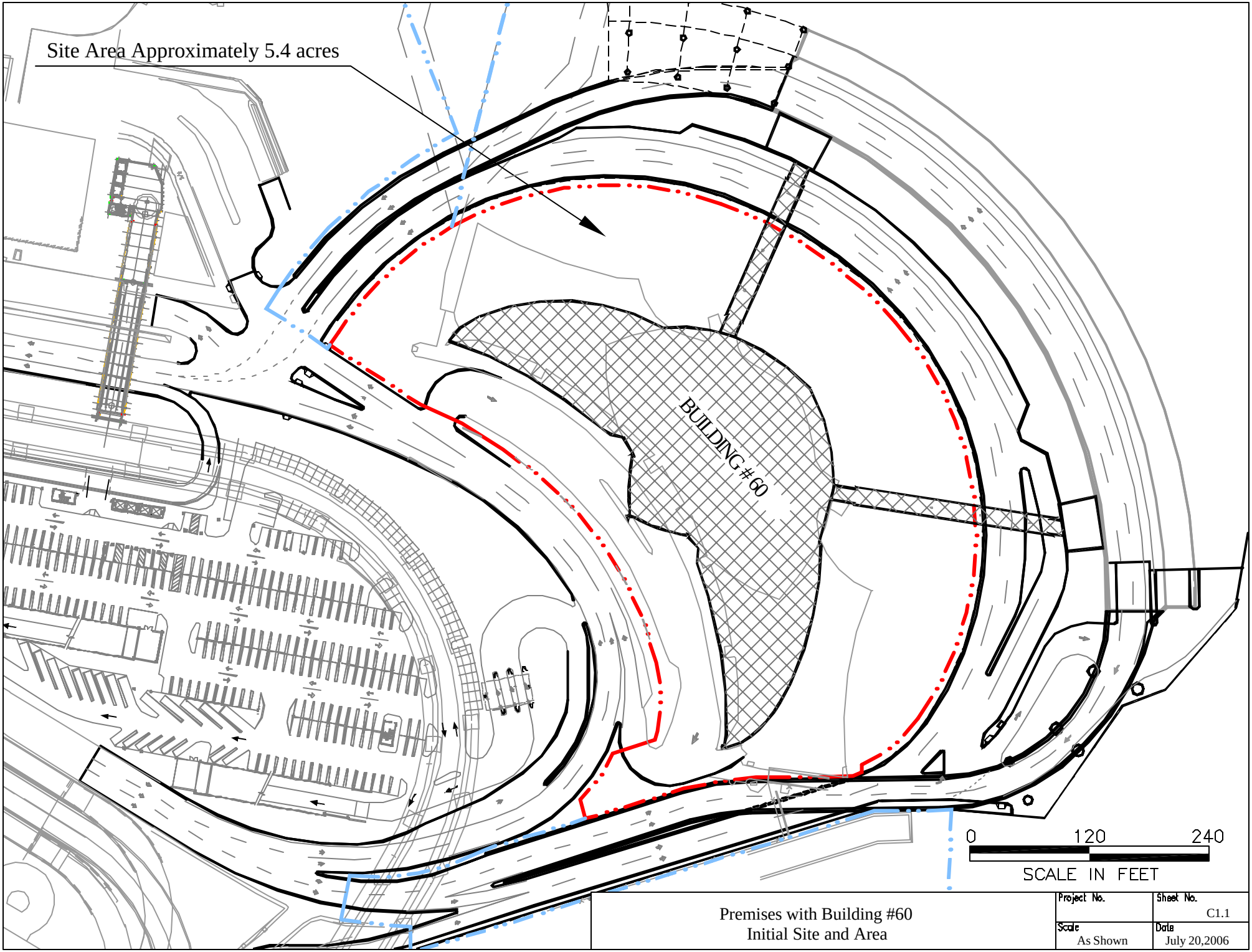
- Attachment C1.1 Initial Site and Area
- Attachment C1.1.1 Coordinates for Initial Site
- Attachment C1.2. Supplement to Initial Site and Area
- Attachment C1.2.1 Coordinates for Supplement to Initial Site
- Attachment C1.3 Future Proposed Final Site and area
- Attachment C1.3.1 Coordinates for Future Proposed Final Site

C2 series:
Site Restrictions and Encumbrances

- Attachment C2.5 Site Restrictions with T/5 Construction Activity – 1/01/08 to 10/1/08
- Attachment C2.6 Site Restrictions with T/5 Construction Activity – 10/1/08 - forward
- Attachment C2.7 Details and Sections
- Attachment C2.8 General

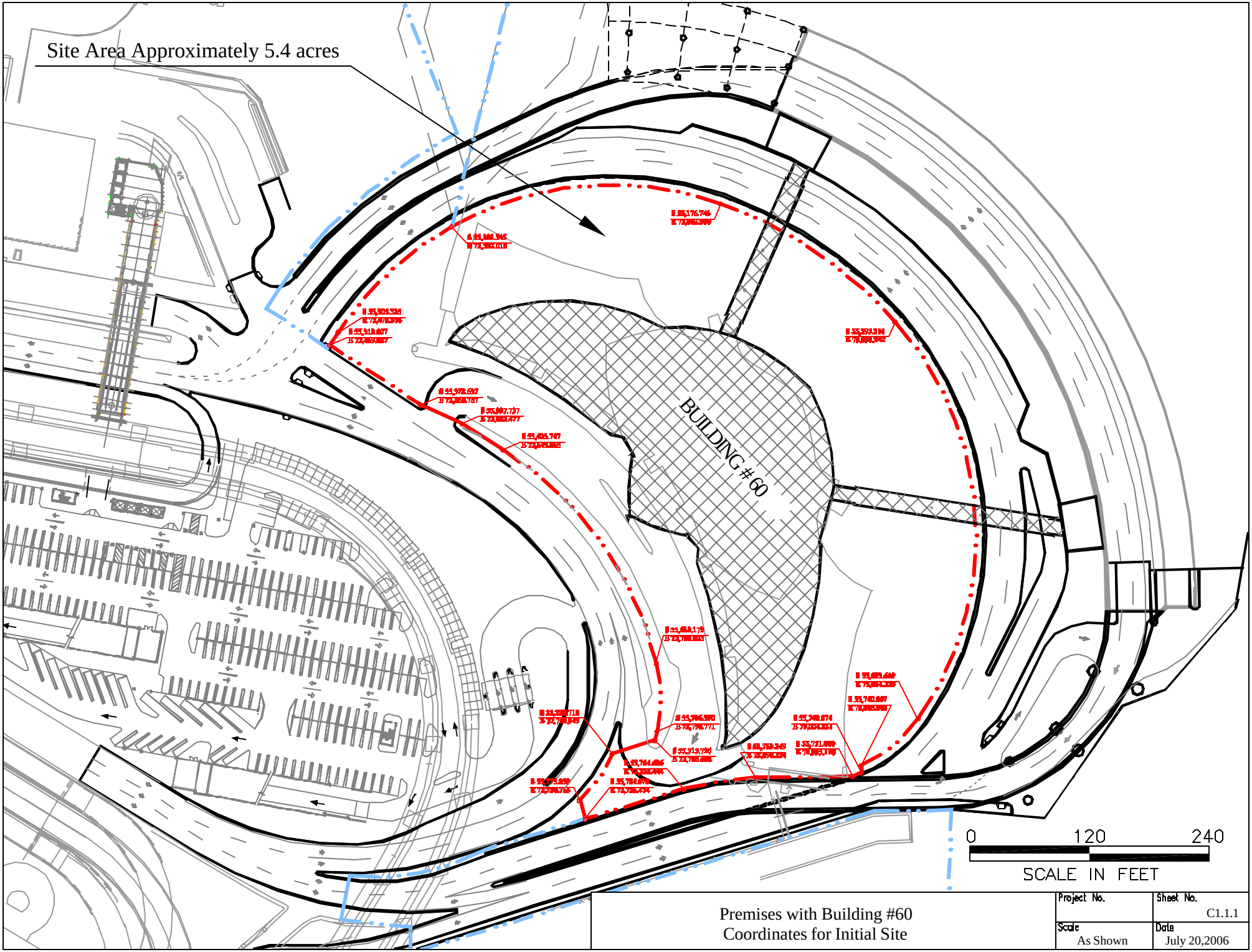
C3 series:
Utility Services - Existing (Current) Utility connected services (and capacities)

- Attachment C3.1 5kV – Power (Electrical)
- Attachment C3.2 MTHW & CHW – Thermal Distribution (Heating & Cooling)
- Attachment C3.3 Drainage (Storm)
- Attachment C3.4 Sanitary
- Attachment C3.5 LPW & HPW – Water (Domestic & Fire Protection)
- Attachment C3.6 Communication
- Attachment C3.7 Gas



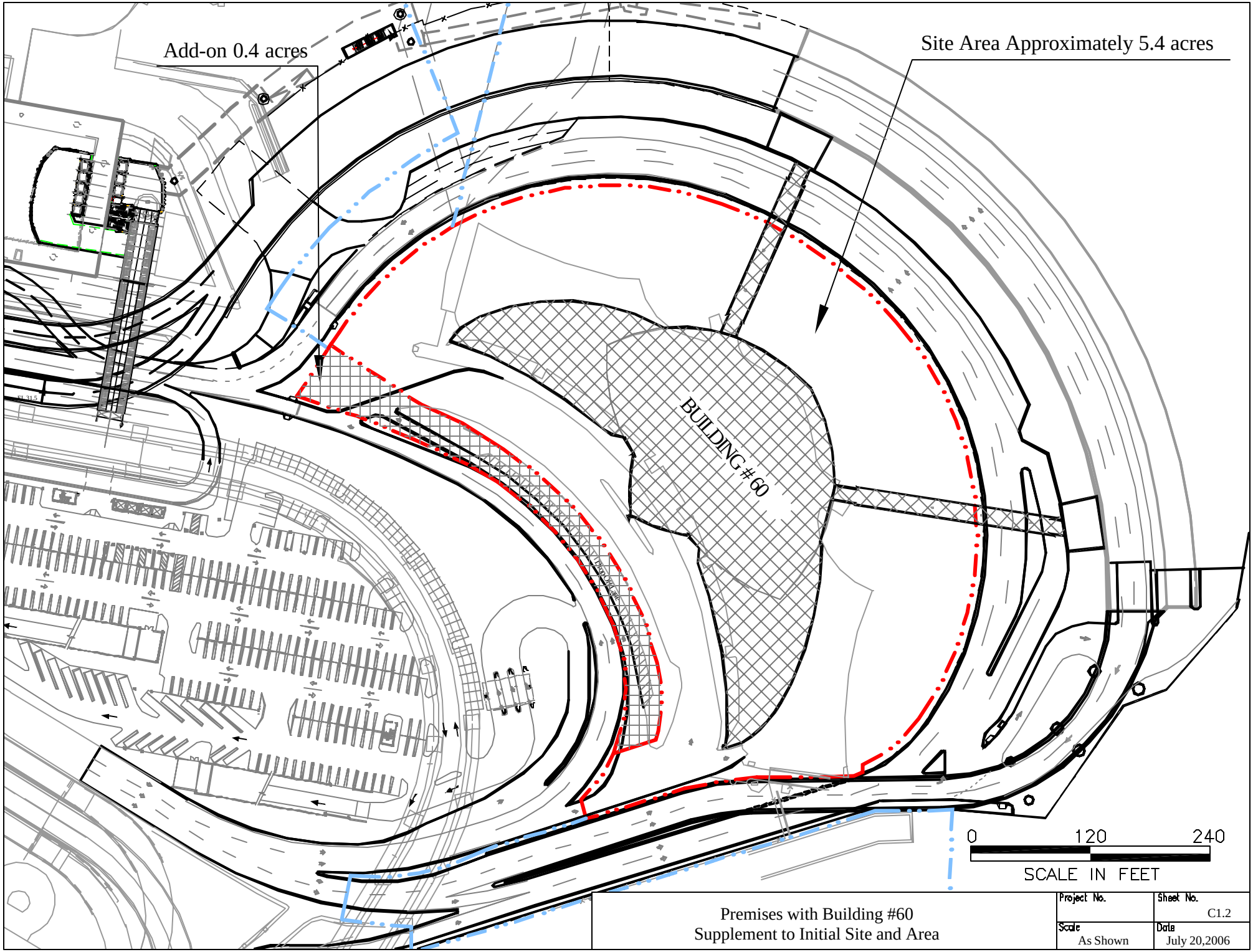
Premises with Building #60
Initial Site and Area

Project No.	Sheet No.
	C1.1
Scale: As Shown	Date: July 20,2006



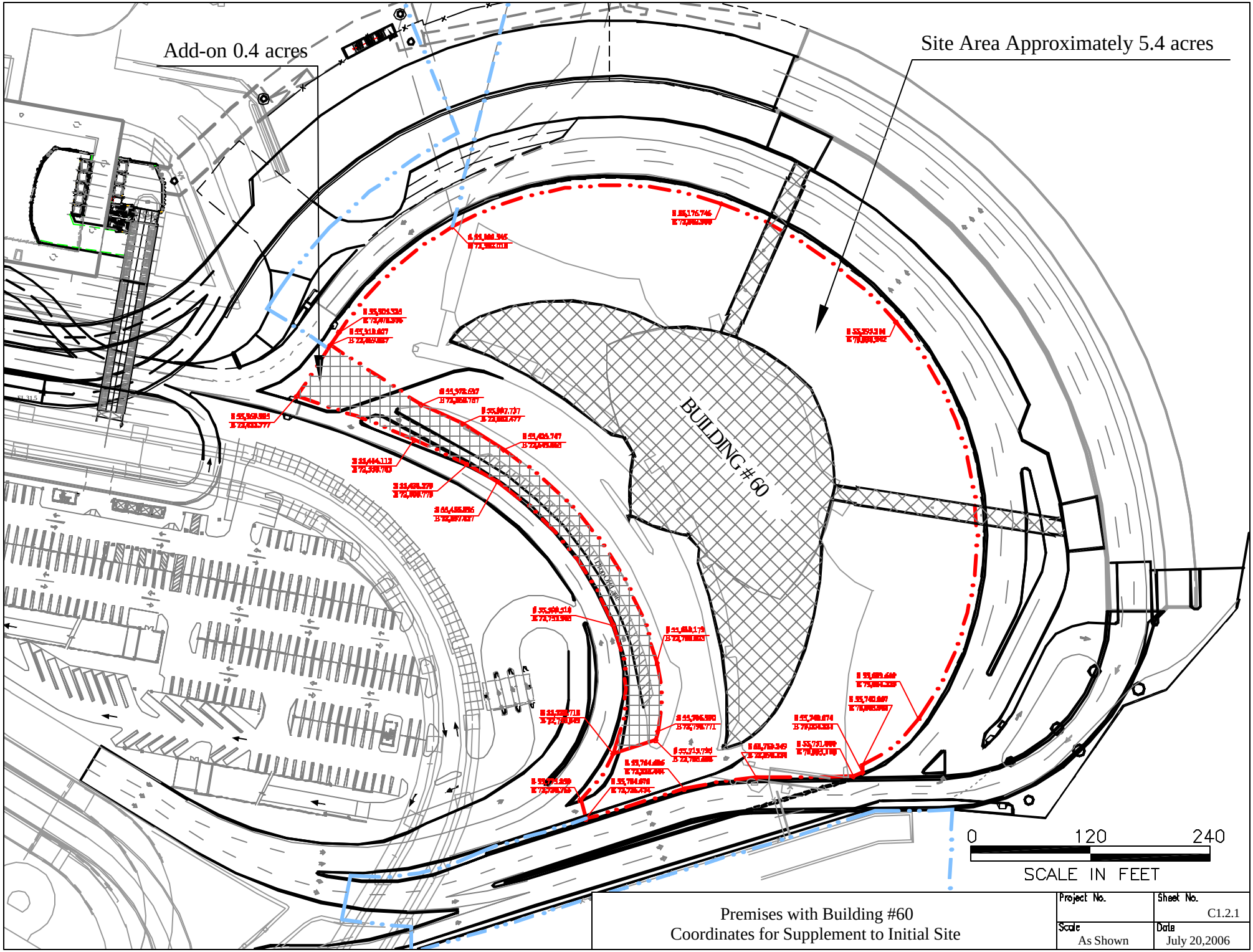
Premises with Building #60
Coordinates for Initial Site

Project No.	Sheet No.
	C1.1.1
Scale: As Shown	Date: July 20,2006



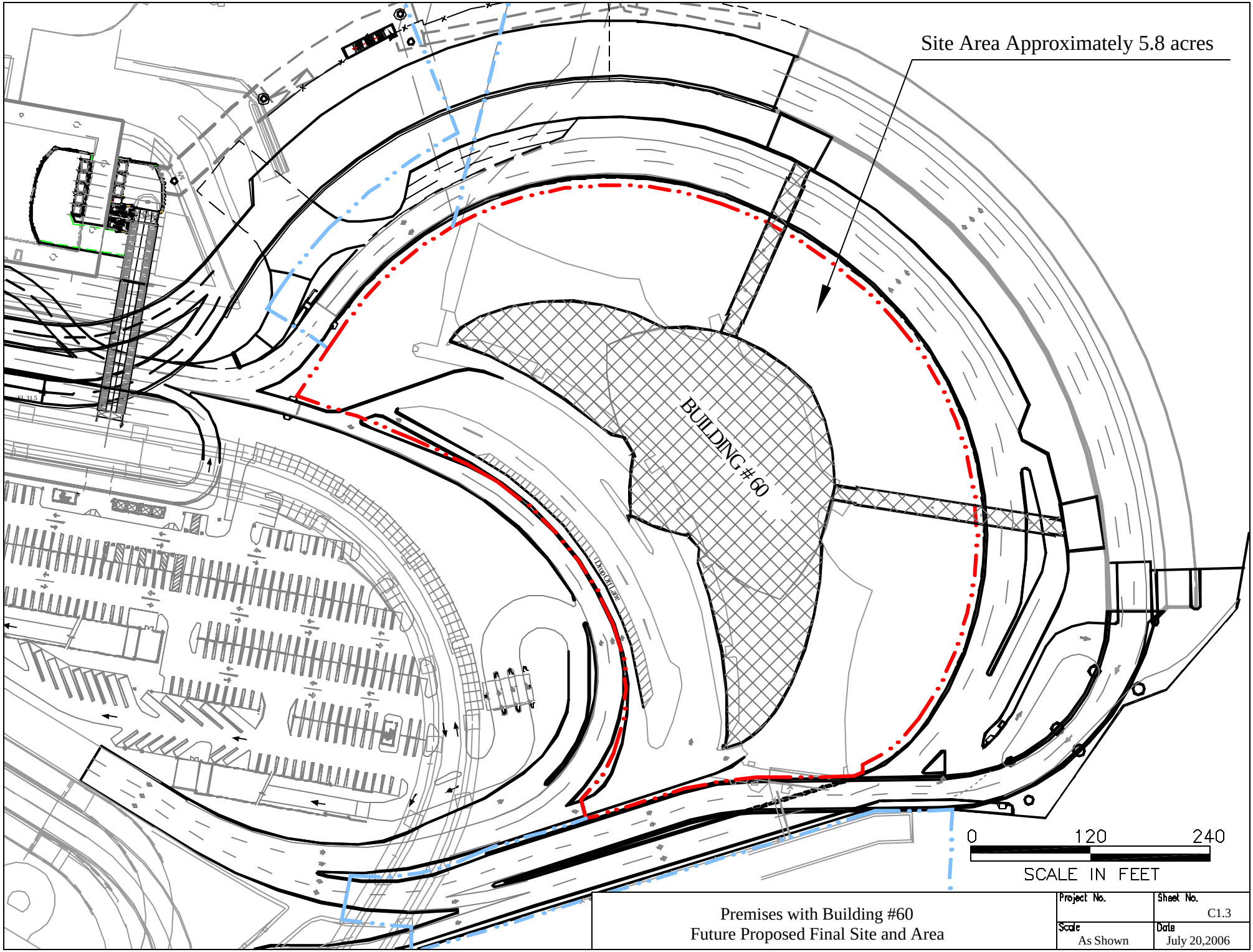
Premises with Building #60
Supplement to Initial Site and Area

Project No.	Sheet No.
	C1.2
Scale: As Shown	Date: July 20,2006



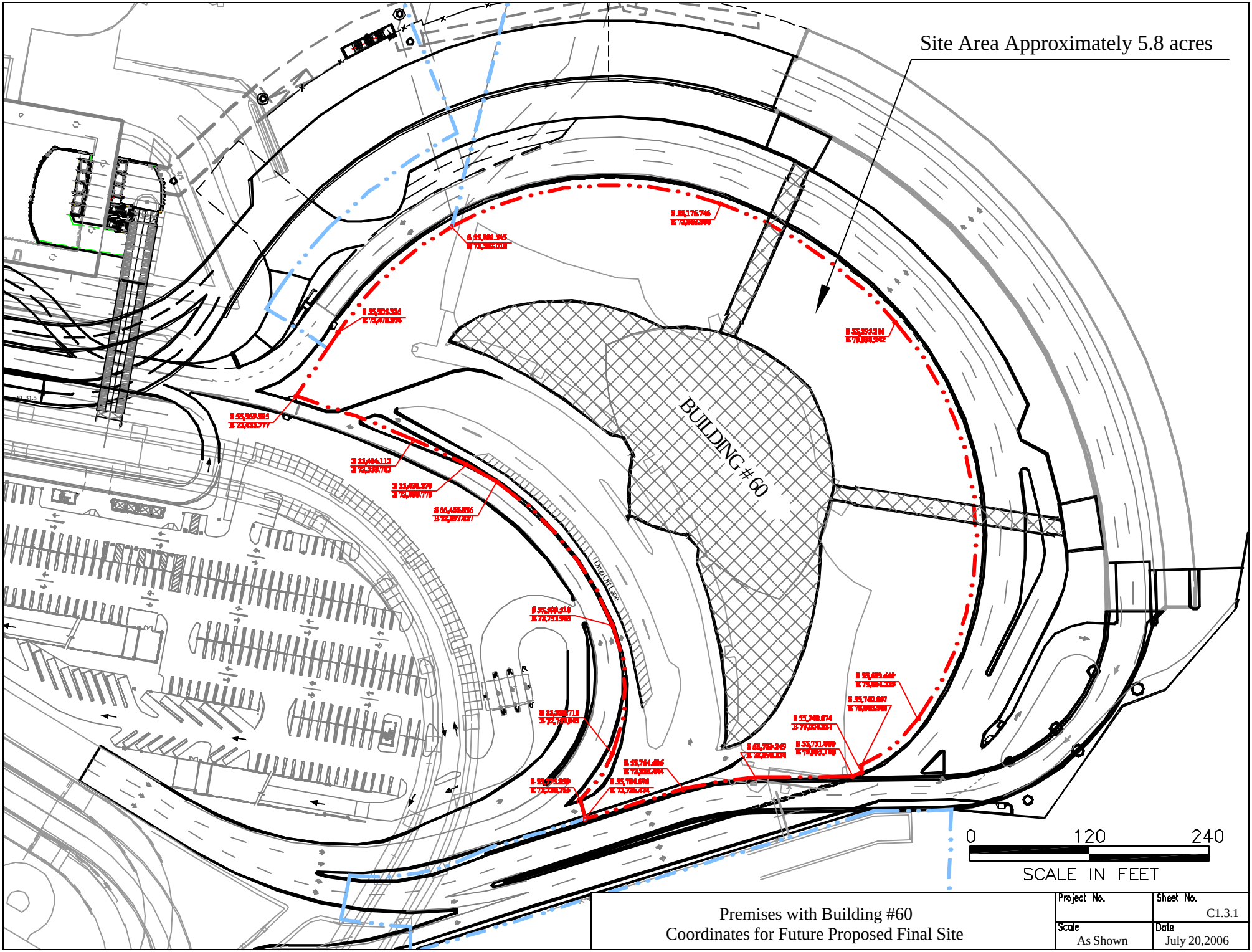
Premises with Building #60
Coordinates for Supplement to Initial Site

Project No.	Sheet No.
	C1.2.1
Scale: As Shown	Date: July 20,2006



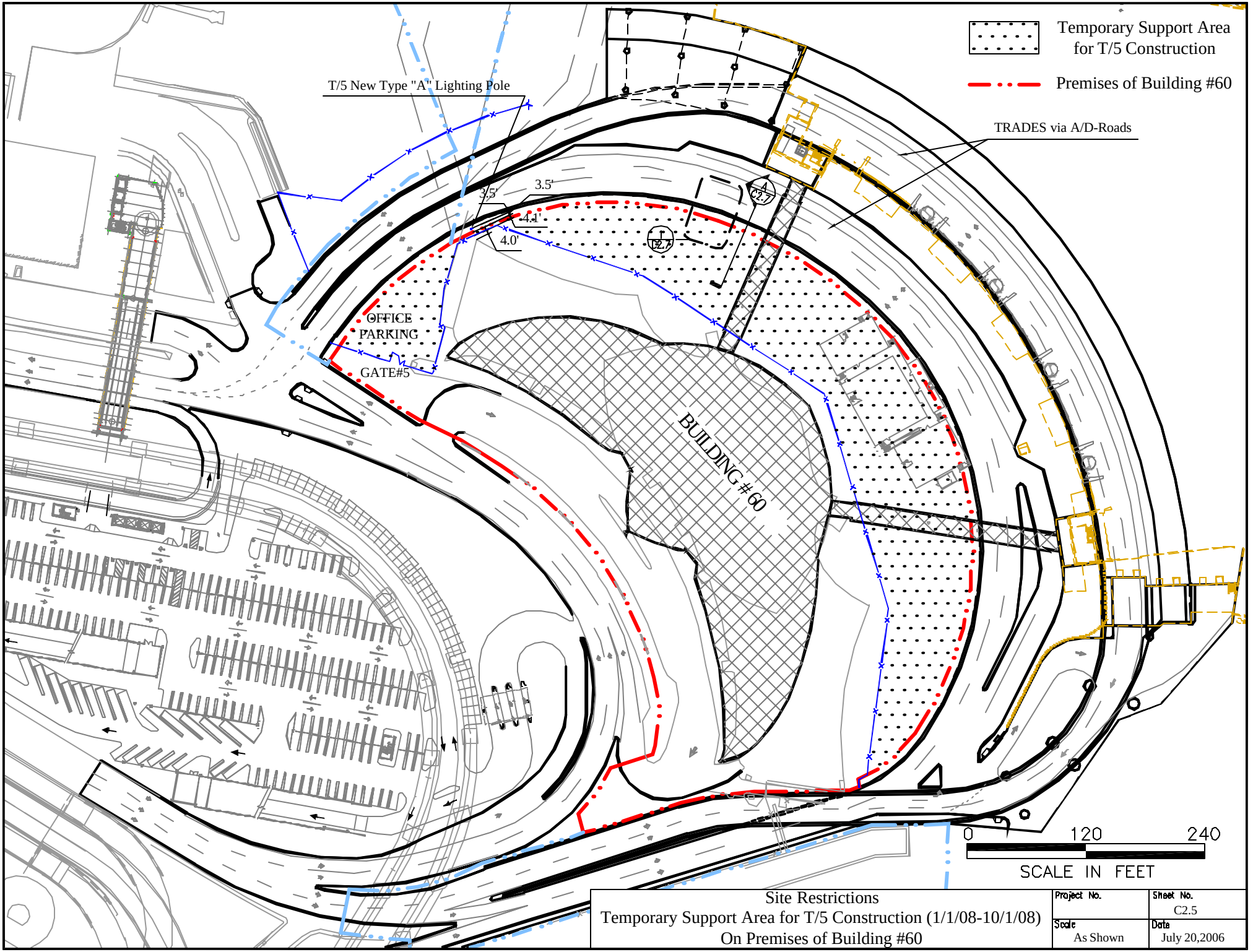
Premises with Building #60
Future Proposed Final Site and Area

Project No.	Sheet No.
	C1.3
Scale: As Shown	Date: July 20,2006



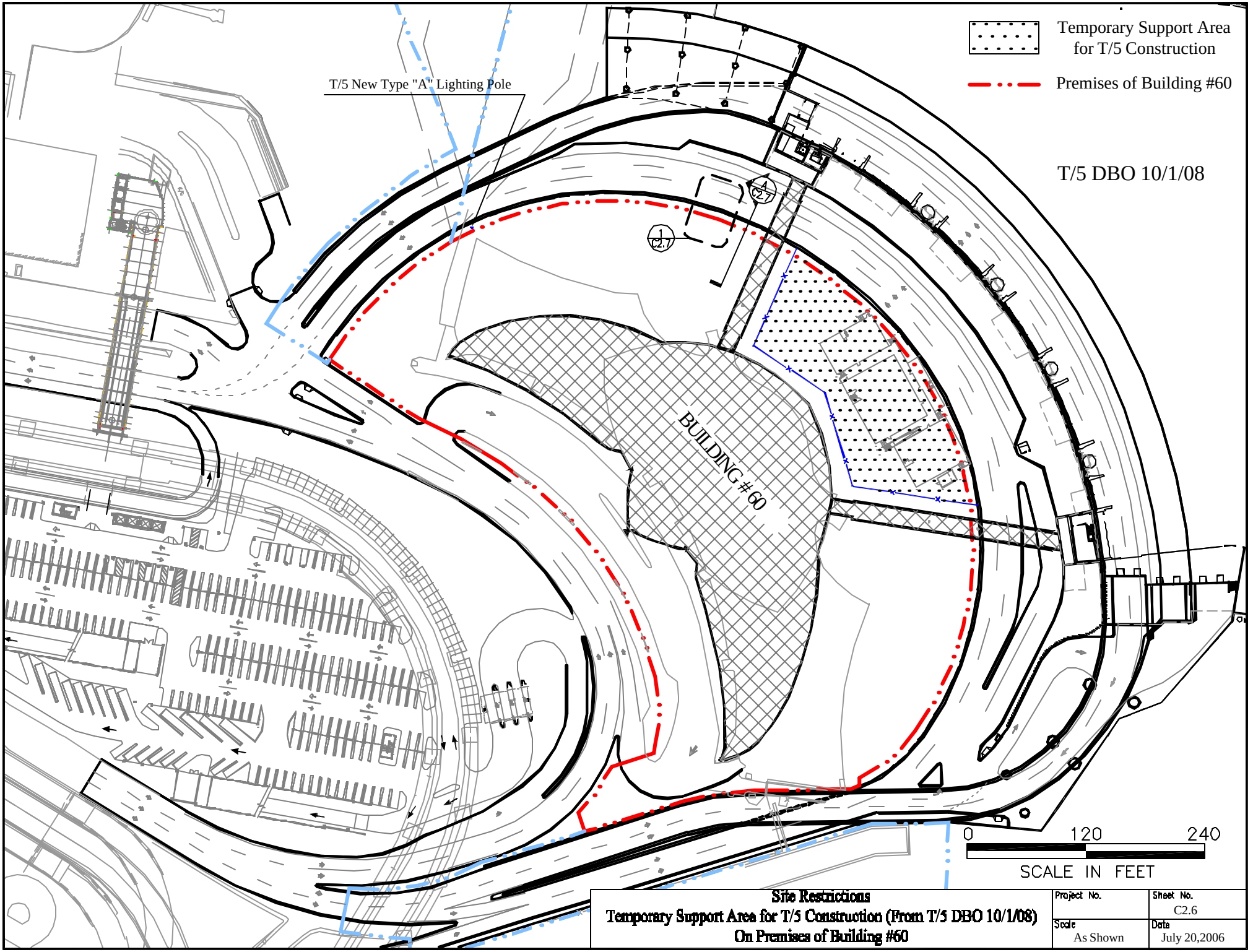
Premises with Building #60
Coordinates for Future Proposed Final Site

Project No.	Sheet No.
	C1.3.1
Scale: As Shown	Date: July 20,2006



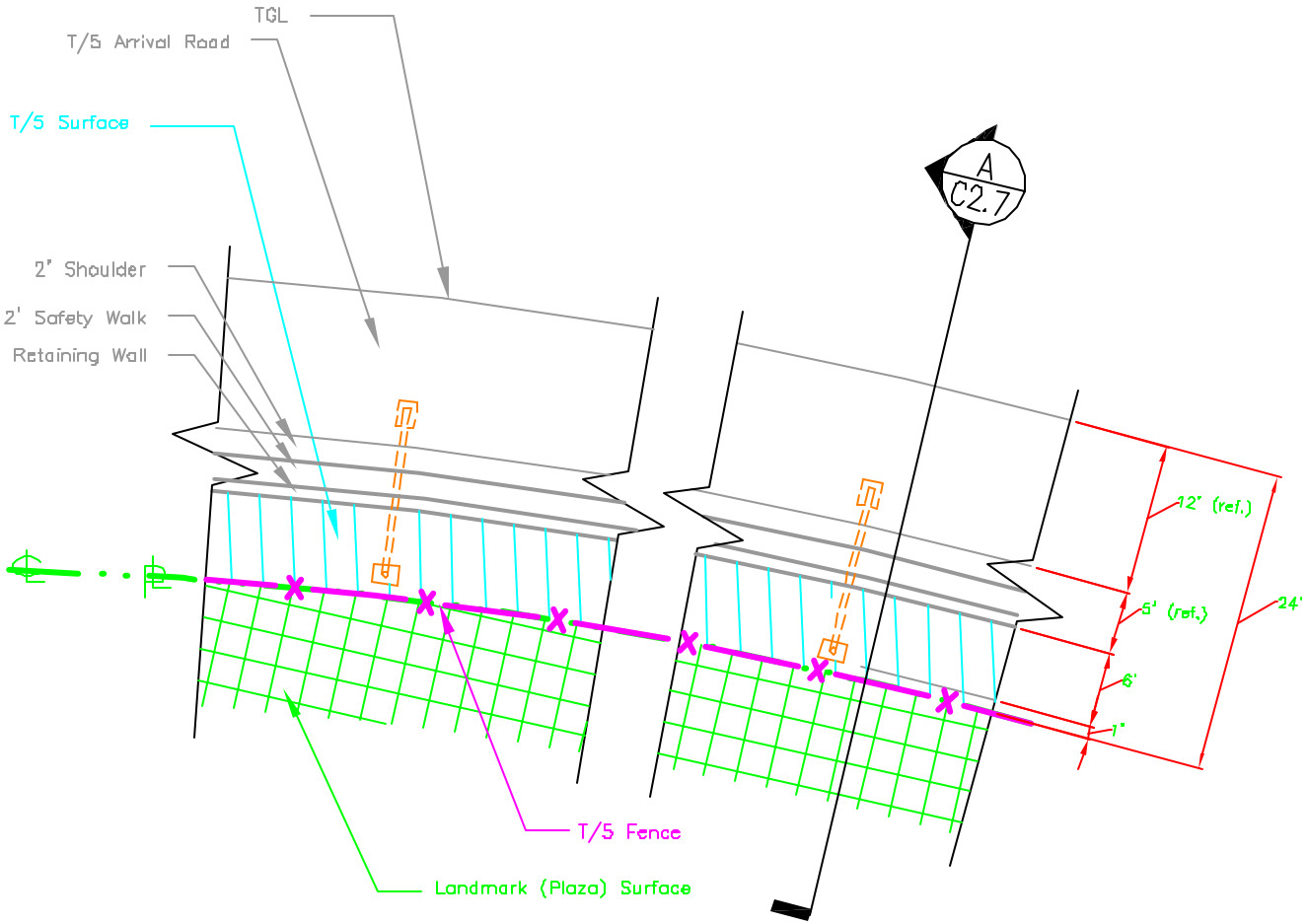
Site Restrictions
Temporary Support Area for T/5 Construction (1/1/08-10/1/08)
On Premises of Building #60

Project No.	Sheet No.
	C2.5
Scale: As Shown	Date: July 20,2006

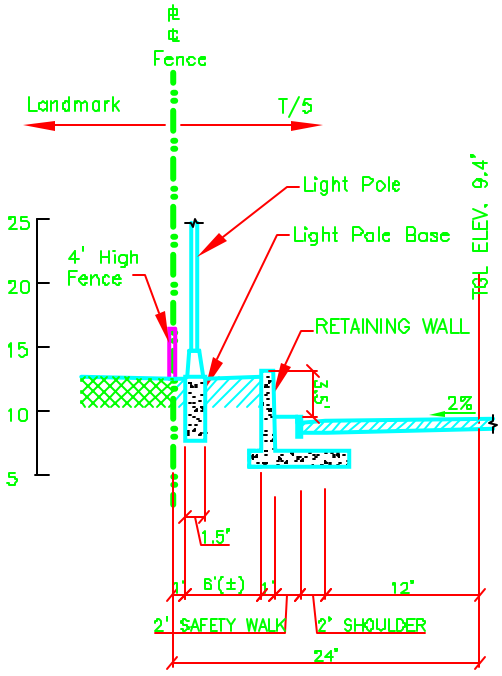


Site Restrictions
Temporary Support Area for T/5 Construction (From T/5 DBO 10/1/08)
On Premises of Building #60

Project No.	Sheet No.
	C2.6
Scale: As Shown	Date: July 20,2006



Detail 1



Section A

0 15 30

SCALE IN FEET

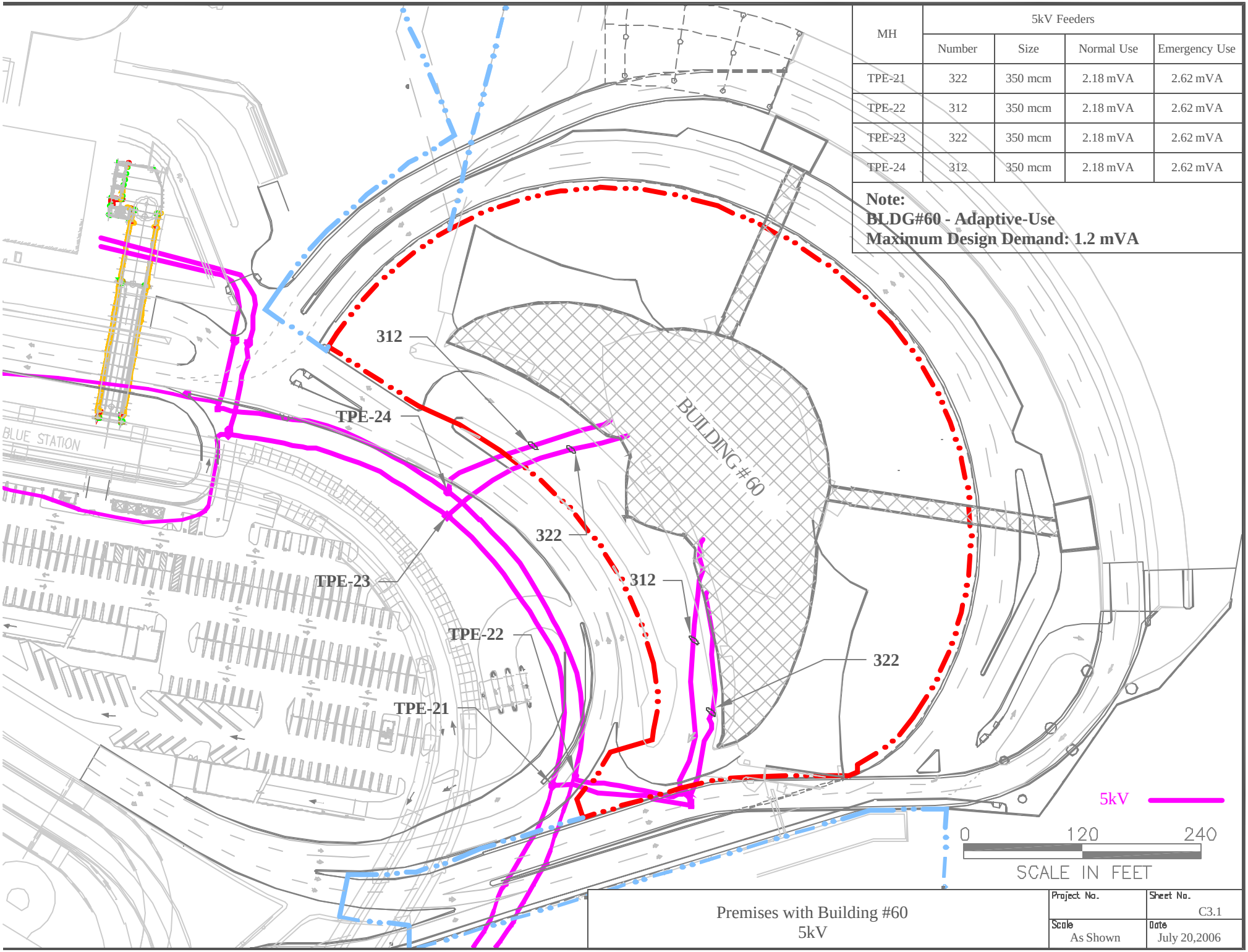
Site Restrictions Detail and Section at Property Line Between Building #60 and T/5	Project No.	Sheet No. C2.7
	Scale As Shown	Date July 20,2006

T/5 Encroachment/Encumbrance/Required Corrective Action on the Bldg # 60 site (current listing) – Impacts not shown on “C2.series attachments.

- Plaza flooding, potential affect on needed demolition by adaptive reuse.
- Plaza general condition left by J/B, needing cleaning out of M.H’s, and SD’s.
- Plaza pavement replacement, cost offset, or other mitigation measure.
- Replace demolished Exhaust/Fire Dampers in rear of basement.
- Remove temp power (conduit, appurtenances, including patching), and restore switchgear and panels.
- Final limits of FIS tunnel demolition and leakage/flooding, pumps, drain interruptions, etc.
- Terminal basement leakage/flooding.
- Rectify flood damage, to walls, floors, and escalators.
- Restore adequate vehicle (delivery truck) access to existing Flight Center loading deck with reversed frontage road.
- Plaza drainage compatibility, interface, access, and responsibility.
- T/5 Plaza property line to A/road material selection, color, finish and grades.
- Temporary and permanent general and specific utility disconnects and interruptions to/from building and site, for existing Flight Center.
- Operation/maintenance of “bridges” (tubes)/new stair towers (external/internal including services/utilities and the extent of each by whom), and security interface,

Unresolved details and conditions for MOA satisfaction

- Determine Interpretive Display, its physical (volumetric) size, definition, utility/environmental/security, and other needed services and requirements.

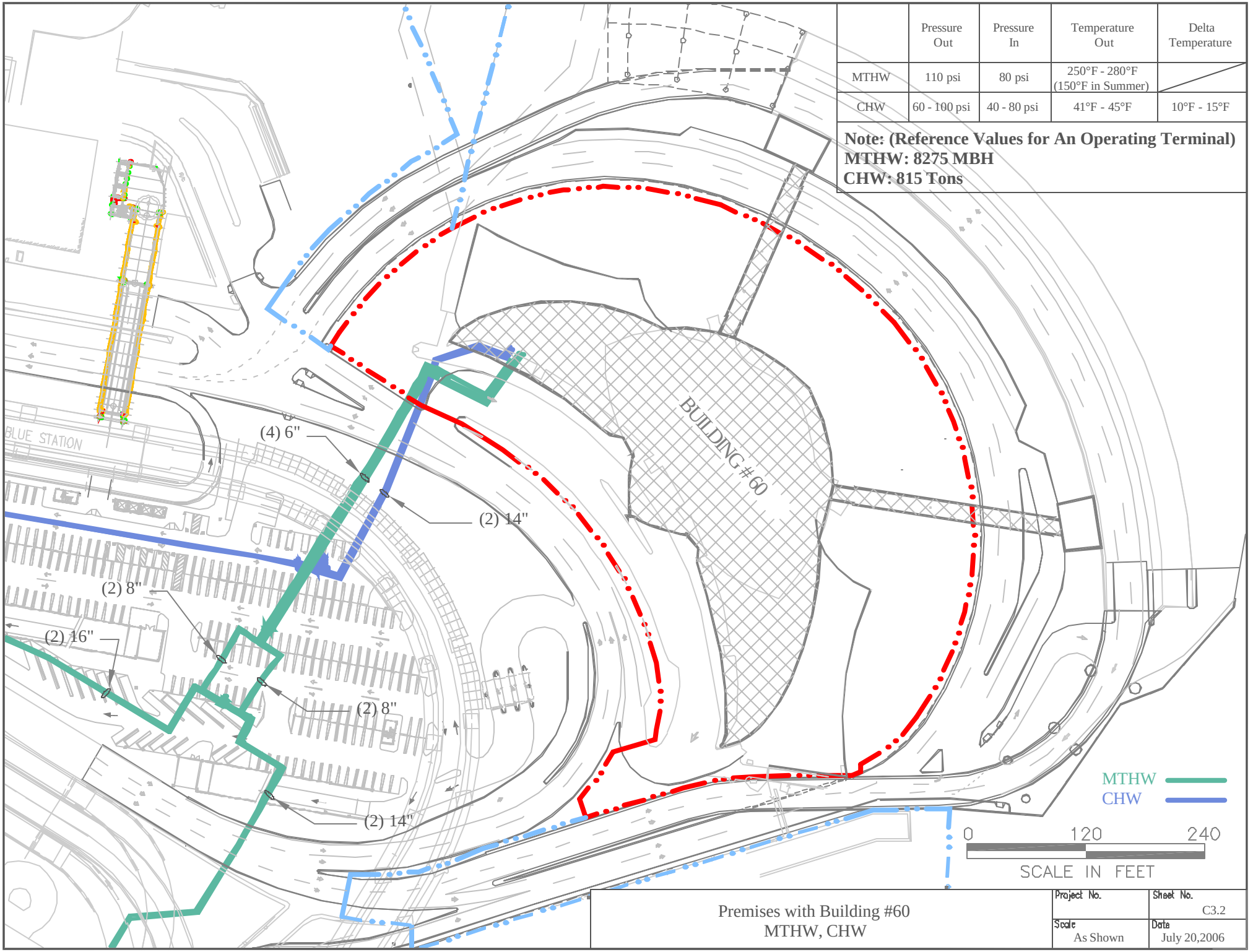


MH	5kV Feeders			
	Number	Size	Normal Use	Emergency Use
TPE-21	322	350 mcm	2.18 mVA	2.62 mVA
TPE-22	312	350 mcm	2.18 mVA	2.62 mVA
TPE-23	322	350 mcm	2.18 mVA	2.62 mVA
TPE-24	312	350 mcm	2.18 mVA	2.62 mVA

Note:
BLDG#60 - Adaptive-Use
Maximum Design Demand: 1.2 mVA

Premises with Building #60
5kV

Project No.	Sheet No.
	C3.1
Scale: As Shown	Date: July 20,2006

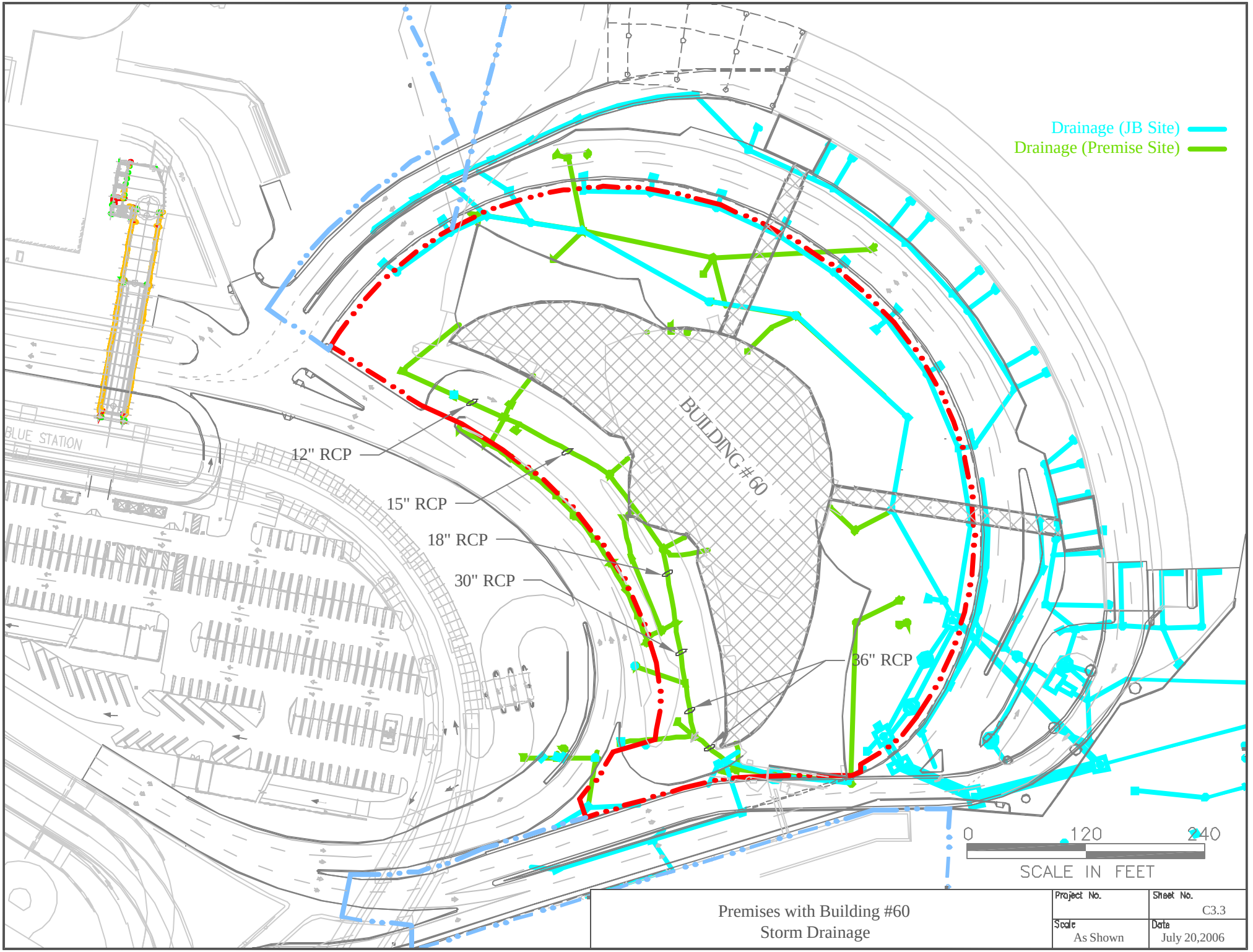


	Pressure Out	Pressure In	Temperature Out	Delta Temperature
MTHW	110 psi	80 psi	250°F - 280°F (150°F in Summer)	
CHW	60 - 100 psi	40 - 80 psi	41°F - 45°F	10°F - 15°F

Note: (Reference Values for An Operating Terminal)
MTHW: 8275 MBH
CHW: 815 Tons

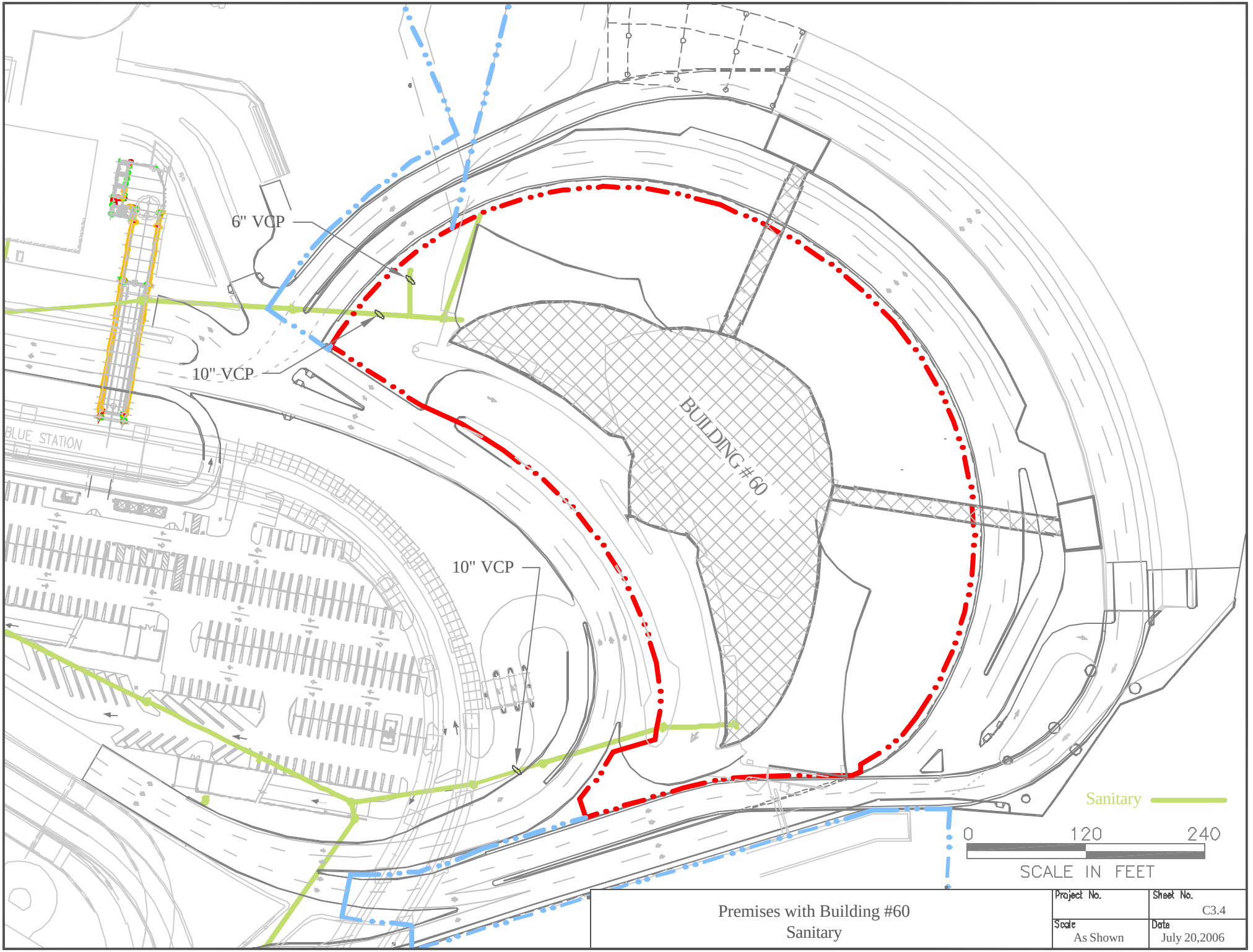
Premises with Building #60
MTHW, CHW

Project No.	Sheet No.
	C3.2
Scale: As Shown	Date: July 20,2006



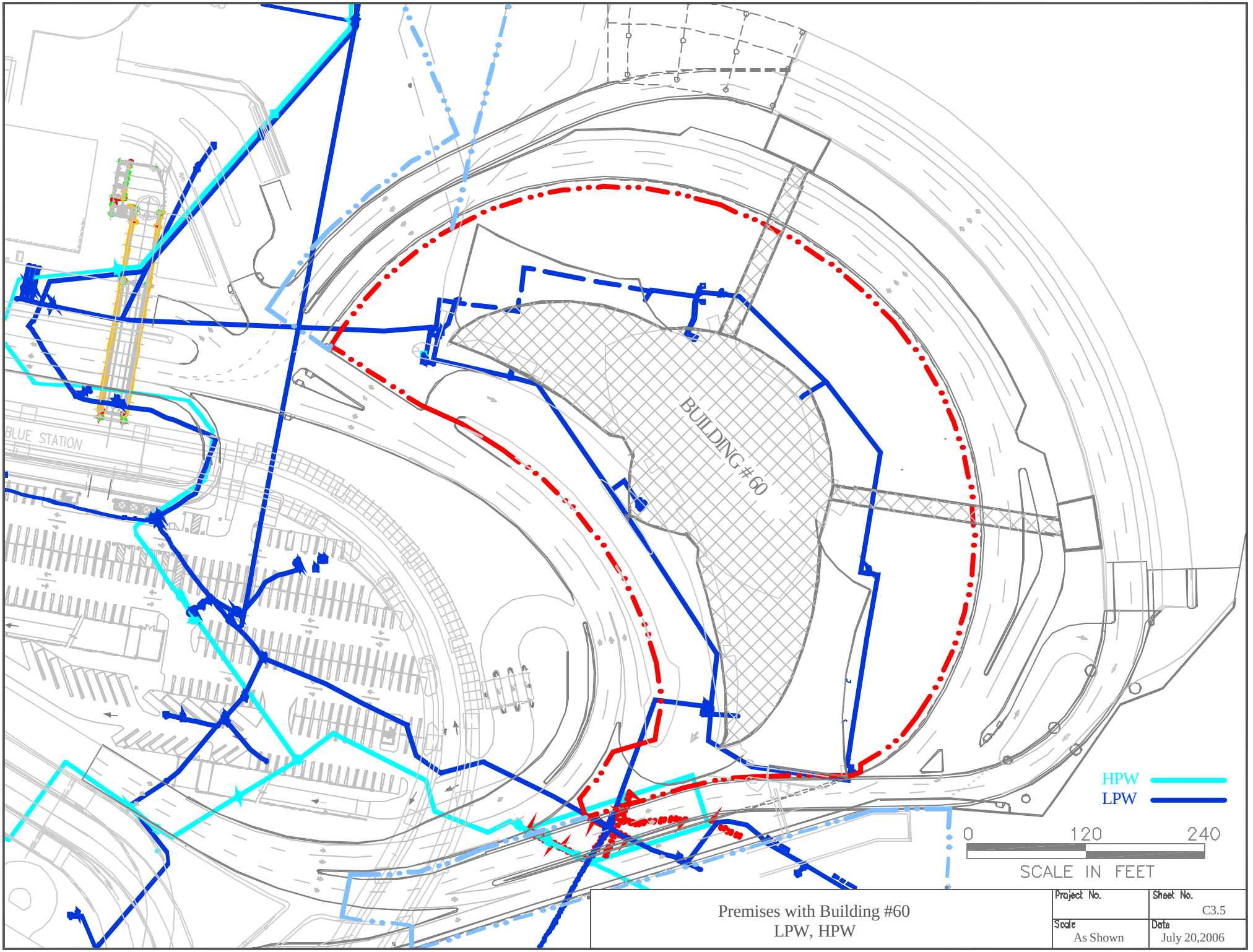
Premises with Building #60
Storm Drainage

Project No.	Sheet No.
	C3.3
Scale: As Shown	Date: July 20,2006



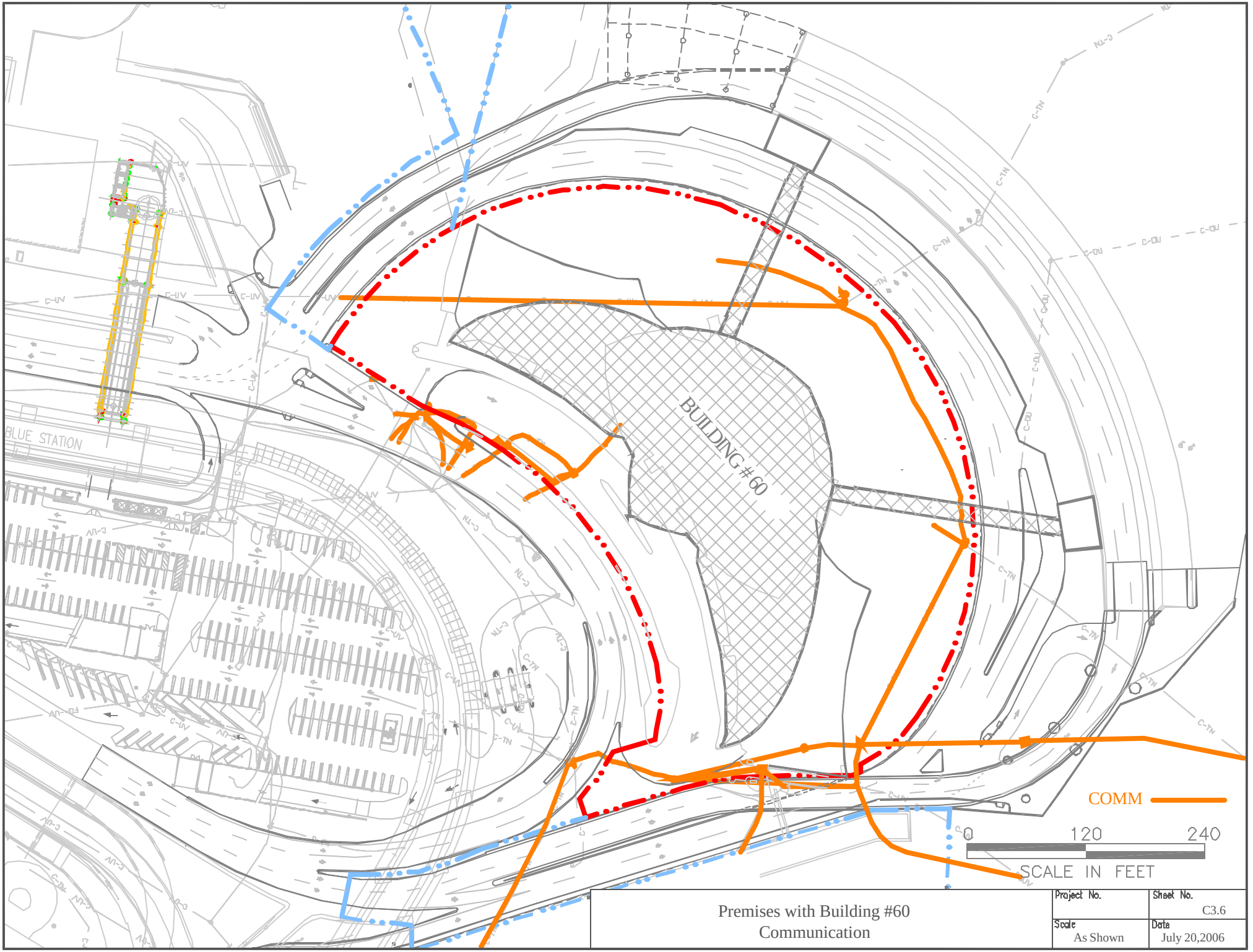
Premises with Building #60
Sanitary

Project No.	Sheet No.
	C3.4
Scale: As Shown	Date: July 20,2006



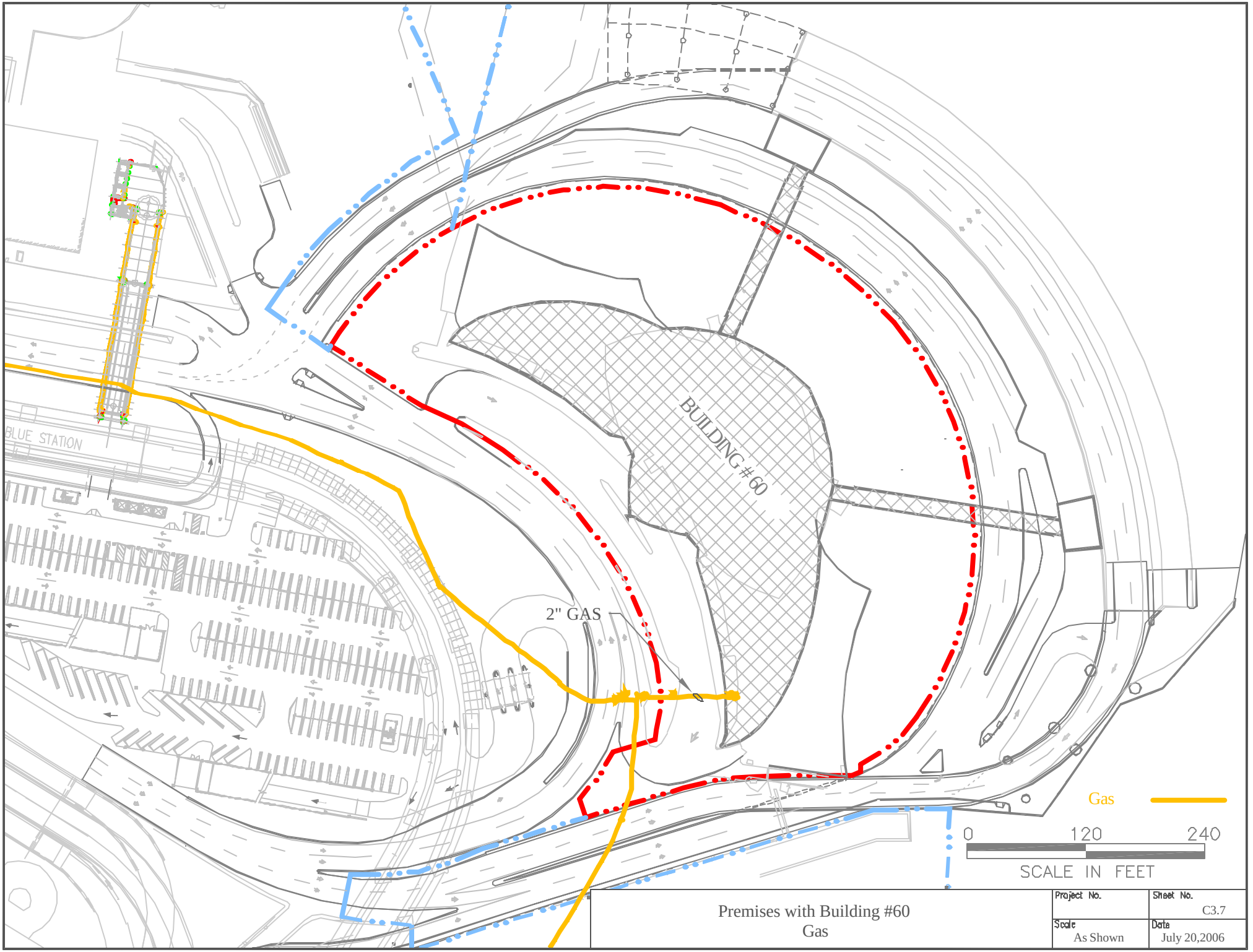
Premises with Building #60
LPW, HPW

Project No.	Sheet No.
	C3.5
Scale: As Shown	Date: July 20,2006



Premises with Building #60
Communication

Project No.	Sheet No.
	C3.6
Scale: As Shown	Date: July 20,2006



Premises with Building #60
Gas

Project No.	Sheet No.
	C3.7
Scale: As Shown	Date: July 20,2006

THE PORT AUTHORITY OF NY & NJ

One Madison Avenue
New York, NY 10010

May 16, 2011

SUBJECT: REQUEST FOR PROPOSALS FOR THE DEVELOPMENT, LEASING, MANAGEMENT AND OPERATION OF A HOTEL, INCORPORATING THE TWA FLIGHT CENTER AT JOHN F. KENNEDY INTERNATIONAL AIRPORT (RFP #24852)

Dear <<>>:

The Port Authority of New York and New Jersey (Authority) has completed its review of your submission in response to the Request for Qualifications relating to the subject project. The Authority hereby solicits your response to this Request for Proposals (RFP).

The Authority is seeking a developer (Developer) to enter into a long-term lease for financing, planning and design, brand-selection (if applicable), rehabilitation/restoration/construction, management, operation, and marketing of the proposed hotel (Hotel). The selected Developer shall have sole responsibility for obtaining all equity and debt necessary for the project. All conveyances and other financing must be subordinated to the Authority's interest as landlord under the lease.

Proposers responding to this RFP must confirm collaboration with the entities named in their RFQ submission. Technical consultants may continue to participate on more than one development team, as appropriate.

The RFP documents, which include this letter, are organized as follows:

RFP Letter - Project description, submission requirements, and selection criteria
Attachment A-1- Background information about the site and project, and available documents
Attachment B - Agreement on Terms of Discussion
Attachment C - Development Pro Forma
Attachment D - Sample Lease Provisions *(file forthcoming)*
Exhibit I - Reading Room Guidelines
Exhibit II - Certification of No Investigation

I. PROJECT DESCRIPTION

The Authority is seeking a creative and innovative hotel development that respects, and enhances, the historic significance of the TWA Flight Center (Flight Center) as an international icon of visionary architecture. The Flight Center is designated as a landmark by the City of New York and is listed on the National and State Registers of Historic Places. The scope and size of the proposed redevelopment must be in accordance with the terms of the Memorandum of Agreement (MOA) between the Authority, the Federal Aviation Administration, the New York State Historic Preservation Office and the Advisory Council on Historic Preservation (See Attachment A, Section II, item 4). Considering the Flight Center's location within the Central Terminal Area of John F. Kennedy International Airport

(Airport), the Authority seeks a high-quality development that is consistent with its recent investment to rehabilitate and restore portions of the building (See Attachment A, Section I) and with other major redevelopment activities at the Airport.

It is preferred that completion of design and construction occur within 24 months from execution of all required agreements and, to the greatest extent practical, that public areas of the Flight Center remain open during construction (See Attachment A, Section II, item 3). The selected Developer must develop and operate the Hotel consistent with the Authority's sustainability goals by minimizing, offsetting and/or eliminating carbon contributions from Hotel activities.

As noted in the RFQ, another on-airport hotel development is expected as a result of the Authority's recent public solicitation process for the redevelopment of the former Ramada Plaza Hotel located at the Airport's entrance. Details of the selection have not yet been made public.

II. PROPOSAL FORMAT REQUIREMENTS

To respond to this RFP, Proposers must submit a concise proposal complying with the following format requirements:

A. To be acceptable, proposals must be single-sided (except as noted otherwise) using 12-point or greater font size and no more than 100 pages in length, not including any resumes, reference letters, renderings, pro forma, or financial statements. Individual sheet size must not exceed 11" by 17". Brochures or other promotional materials should not be included. Pages must be numbered and bound or placed in a 3-ring binder, with the Proposer's full name, and **RFP Number 24852** clearly indicated on the cover.

B. Separate each section of the proposal with a tab divider that is labeled in accordance with the requirements specified below in Section III.

C. All proposals must be delivered in sealed envelopes and/or packages addressed to: The Port Authority of New York and New Jersey, One Madison Avenue, 7th Floor, New York, NY 10010, Attention: RFP Custodian. Do not address your proposal to any other name. You are requested to submit one (1) reproducible original, clearly labeled "Original Proposal Package," and twenty two (22) hard copies. In addition, submit two (2) electronic copies of the proposal on a USB flash drive or compact disc, which shall include a working Excel model of the Pro Forma and AutoCAD files requested in this RFP. In case of conflict, the reproducible original of the proposal will take precedence over material on the flash drive or compact disc.

   The Authority requests that all documents submitted be in a form that can be easily recycled (i.e., no plastic covers or binding), and that all supporting literature be in direct response to the RFP.

D. Each submission to the Authority, including all electronic and hard copies, must indicate the Proposer's **FULL LEGAL NAME WITHOUT ABBREVIATIONS**. Failure to comply with this requirement may delay or even preclude the proposal from being considered, and any such result will be the responsibility, and at the risk, of the Proposer.

E. Proposals should be forwarded in sufficient time so that the Authority receives them **no later than 2:00 p.m. on July 25, 2011**. The cover of your proposal must include the RFP Number (as stated above) and the RFP title.

F. The Authority assumes no responsibility for delays caused by any delivery services. For submissions delivered by messenger, it should be noted that only individuals with photo identification will be permitted access to the Authority's offices. Messengers without proper identification will be turned away and their packages not accepted.

III. PROPOSAL CONTENT REQUIREMENTS

The Authority requires a complete response to each item below, and reserves the right to deem a proposal non-responsive if the Authority determines, in its sole discretion, that a proposal is incomplete. Any changes to the Proposer's team members from those identified in its RFQ submission are subject to review and approval by the Authority. Unless subsequently modified in writing, proposal contents must include the following information:

A. General:

In the front of your proposal, a copy of Attachment B (Agreement on Terms of Discussion) signed by a duly authorized officer of your firm. If the Proposer is a joint venture, an authorized representative of each party shall sign a copy of Attachment B.

B. Developer/Owner:

1. A statement describing in detail the type, percentage share and dollar amount of financial investment that each principal in the team will provide, and the financial return each principal expects to receive.

2. A statement describing the amount and sources of debt and/or equity financing required for the project.

3. Confirmation of the development team, including a fully developed organizational chart, which must be consistent with the Proposer's RFQ submission, along with written acknowledgments from all team members (firms) confirming awareness of, and agreement to, their participation and role on the Proposer's team. Clearly identify any changes from the development team stated in the RFQ and include the qualifications and experience of any new team members.

4. The name, address, Employer Identification Number (EIN)/Federal Tax Identification Number, telephone number, facsimile number and email address for the Proposer, including each member of the proposed joint venture/ownership entity. Please identify the primary contact for information regarding the proposal.

5. A complete list of the Proposer's affiliates or its constituent entities. For this purpose, affiliates or constituent entities will mean any individual, company (including a limited liability company), corporation, partnership, joint venture, estate, trust, unincorporated association, any Federal, state, county or municipal government, bureau, department, agency or any other entity that directly or indirectly controls the Proposer. "Control" is hereby defined as any individual or entity that has (i) ownership of fifty percent (50%) or more of all voting stock of a corporation or more than fifty percent (50%) of all legal or equitable interests in any business entity or (ii) the power to cause the direction of management and/or policies of the Proposer's entity, its affiliates or constituent entities (whether through voting securities, by contract, by common directors, officers or trustees or otherwise). Affiliate will also include any person who is a family member (whether by birth or marriage) of an individual. For the purposes of this definition, family will include a spouse, a sibling (of whole or half blood), the spouse of any sibling, a lineal descendant or ancestor (including an individual related by or through legal adoption) of such individual or a trust for the benefit of such individual or any of the foregoing.

Note: All joint venture Proposers must provide documentation of their legal status. If the proposal is submitted by a joint venture that has not been established as a distinct legal entity (a "common law joint venture"), each participant of the joint venture will be held jointly and severally liable and must individually execute and perform all acts required by the proposal. Documents signed by a common law joint venture in connection with a proposal must include the names of all participants of the joint venture followed by the words "acting jointly and severally."

C. Hotel Management:

1. Describe the proposed management, operations and marketing approach, as required to enable the Authority to understand fully the Proposer's management strategy for the proposed Hotel. This must also include a summary of the following:

   a. marketing plan for the Hotel, indicating strategies for penetrating the appropriate lodging demand segments within the JFK Airport market area;

   b. Management Company's base and incentive fees, if separate from the Proposer;

   c. Franchisor's fee structure and services provided, if applicable.

2. Describe the technical approach to the routine maintenance and long-term preservation of the historic portions of the Flight Center.

D. Design and Construction:

The proposed design concept must be detailed in a design narrative, as well as two-dimensional plans and three-dimensional (3-D) renderings, showing the relationship of new construction to the Flight Center, surrounding airport structures, and roadways. It should be appropriate in its scale, location and materials to the historic building. While it is not necessary to replicate the historic building, design interventions must be compatible with the Flight Center. In addition, the design should retain the key character defining features of the Flight Center, including the restored central lobby, pedestrian bridges and the principal building façades.

1. Submit a narrative of the design concept, and describe the technical approach to the development program, engineering design of the structure, and foundation for new construction, enabling the Authority to determine the overall extent to which the proposed project meets the objectives set forth in this RFP. This must include a detailed description of the following:

    a. the type of hotel (limited-, select-, or full-service), proposed chain affiliation (if any), the proposed total square footage, the number and type of hotel rooms, square footage of facilities, proposed amenities and plans for back-of-the-house space;

    b. the proposed improvements to, and use of, the interior historic portions to be restored, modifications, if any, to the restored portions of the building, the treatment of the existing exterior of the building, and any proposed new construction both inside and outside of the existing structure;

    c. the technical approach to restoration of the TWA Flight Center with regard to treatment, materials and workmanship;

    d. any proposed new space, or any changes to the elevations, massing, exterior materials, streetscape and landscape, identifying changes to the historic scene or setting of the landmark structure. In addition, describe any additions or removal of signage, lighting, entrances, loading and service docks, skylights and other roof modifications.

    e. how the proposed project is consistent with the MOA, including compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

    f. sustainable building practices that shall be incorporated into the project, including the development, construction and operation of the building.

    g. building systems upgrades or other changes required to the existing structure, including mechanical, electrical, life safety, and other systems;

    h. a projection of the number of on-site and off-site parking spaces required to accommodate guests and employees for the proposed Hotel operation.

2. Submit visual representations of the design concept, including the following:

    a. A set of conceptual floor plans, sections and exterior elevations to illustrate the proposed design. Provide these on 11" by 17" paper and in a Computer-aided design (AutoCAD) file in Design Web Format (DWF) format.

    b. At a minimum, a set of high quality, 3-D color renderings of the proposed design, including the required exterior and interior locations indicated in Attachment A-1, Section II, item 4. The 3-D illustrations should identify the Flight Center in its setting and context, including street level and aerial views of the structure, exterior materials, streetscape and landscape plans, entry features and signage. Provide these on 11" by 17" paper and in a Computer-aided design (AutoCAD) file in Design Web Format (DWF) format.

    c. Additional renderings include typical guest room floor plans, interior public space layouts and site plans, showing interfaces with other existing or planned facilities.

Note: The Authority may require a 3-D animation "flyover" of the building and interior walkthrough at a future time to address specific landmark concerns.

3. If not included in your RFQ submission, identify the Mechanical, Structural, and Geotechnical (if applicable) Engineering firms and the intended leads on this project. Include a description of their relevant experience and qualifications in projects of similar size, scope and complexity.

E. Construction Budget:

Provide a budget indicating a preliminary cost estimate of the conceptual design and construction costs (including breakdown of hard costs, FF&E and soft costs), exclusive of debt service.

F. Project Schedule:

Prepare a project schedule indicating the proposed design, construction and operating sub-tasks, and milestones. Include the following with the project schedule:

1. A description of the phasing of construction, including demonstrated need, if any, to close portions of the Flight Center's public areas during construction. Since the construction site is in close proximity to other airport facilities, phasing should account for operational constraints to certain construction activities that may affect vehicular access to those facilities during peak hours.

2. A statement setting forth all construction contingencies and risks, and their potential effect on the timeline.

G. Ground Lease Term and Rentals:

The term of the ground lease agreement (Lease) subsequently entered into between the Authority and the selected Developer will be appropriate to permit the acquisition of sufficient financing to support the development proposal approved by the Authority. Proposers are required to propose specific terms and conditions for the Lease. The Flight Center site is currently leased by the Authority from the City of New York pursuant to a ground lease that expires in 2050 (Underlying City Lease). (See Attachment A-1, Section II, item 3.) A composite of Sample Lease Provisions is also attached to this RFP as Attachment D. The Authority reserves the right to modify or add provisions to Attachment D.

The Authority expects fair market value of the land to be achieved from the present value of proposed rentals, including additional participation in net proceeds of a refinancing or sale, to provide the Authority with a share of the financial project upside. The estimate of present value to the Authority will consider the level of risk associated with the source of each type of rental payment.

Considering the above, provide a full description of the proposed Lease rental terms, including each of the following items:

1. The proposed initial term and any optional renewal terms of the Lease.

2. A statement as to whether or not the term of the Underlying City Lease will be an issue and how it may affect the Proposer's ability to finance the project.

3. The amount to be paid to the Authority upon execution of the Lease. The Authority expects a minimum payment of $200,000.

4. The timing and amount of all payments to the Authority during the construction period. Specify whether these are a fixed dollar amount, based on construction progress, or some other calculation.

5. The timing and amount of regular lease payments to the Authority subsequent to the Hotel opening. These payments must include, at minimum, a fixed annual amount with regular escalations to reflect inflation.

6. A description of the following additional rentals which the Authority expects to receive, including participatory rentals to compensate the Authority for increases in value of the property over the term of the Lease:

   a. A statement of annual participation payments over the term of the Lease, preferably based on a percentage of gross revenue, and

   b. A statement of participation in the gross proceeds from the sale and refinancing of the Hotel.

7. Specify any contingencies pertaining to any proposed form of rental payment (e.g., commencement or completion of construction, etc.).

H. Financial Information and Plan:

1. Complete Attachment C, Development Pro Forma (Pro Forma), as required to enable the Authority to evaluate Proposer cost estimates and returns to the Authority. This information must be prepared in Microsoft Excel format. The model prepared by the Proposer shall be similar in format to Attachment C, and shall include all information requested therein. The Proposer is responsible for ensuring the accuracy and correctness of any Pro Forma model, or any other financial information submitted, whether or not it is based on the model included herewith as Attachment C. (The hard copies must be submitted in separate sealed envelopes clearly labeled "DEVELOPMENT PRO FORMA." The working Excel models must be included with the other electronic files in on a USB flash drive or compact disc, as noted in Section II.)

   The Pro Forma must include the following information:

   a. A 10-year annual Pro Forma model commencing on the estimated start date of January 1, 2012, which will also be the estimated Lease commencement date. Include a breakdown of all hard and soft costs, the financing costs, as well as the timing and amount of all construction costs, construction loan draw-down schedule, anticipated revenue sources, operating and other expenses, other deductions from revenue, and debt service.

b. A summary of the estimated operating income and expense assumptions for the stabilized year in 2011 dollars, as shown in Attachment C. Cleary indicate the following: year in which stabilization is anticipated to occur, the assumption for inflation of each line item, and the basis for each assumption using typical industry standards as follows:

   i. POR – per occupied room

   ii. PAR – per available room

   iii. % Room – percent of room revenues

   iv. % – percent of departmental revenue

   v. % Total – percent of total revenues

   vi. Total dollar amount

   If some other basis for calculation is used, it should be clearly stated. If the Proposer does not utilize the model provided in Attachment C, any items forecasted on a POR or PAR basis should include the constant dollar and inflated dollar amounts.

c. 3. Detailed assumptions for the estimated present value of all rentals to the Authority, including up-front payments, fixed annual payments, annual participation in gross revenues, and share of net proceeds of any sale or refinancing. Each type of income stream to the Authority will involve a unique level of risk to the Authority. As such, assign a unique discount rate reflecting the appropriate level of risk associated with that type of payment (e.g., fixed payments, annual participation in gross revenues, share of net proceeds, etc.).

2. Provide a financing plan, enabling the Authority to evaluate the Proposer's financial strength and ability to obtain equity and debt financing for the project. Provide reasonable assurance of the Developer's ability to deliver the proposed Hotel development within the expected timeframe. The financing plan must include the following:

   a. A description of the intended sources and amount of equity for the proposed project, including a contact person, mailing and email addresses, and phone number for each intended source of equity.

   b. A description of the intended sources and amount of debt financing. If available, provide a letter of commitment or interest from all persons or entities providing any debt for the proposed project.

   c. A statement disclosing whether or not the Proposer intends to utilize any public development programs, historic property preservation/renovation programs, or federal/state tax benefit programs. If applicable, describe how and the extent to which the Proposer intends to utilize such programs or tax benefits. The selected Developer will have sole responsibility for obtaining all equity and debt necessary for the project.

Note: The selected Developer must be prepared to provide more detailed information concerning the sources of financing and the certainty of their commitments to the project.

I. Business Opportunities for M/WBE, LBE/LEO and ACDBEs:

Submit participation plans demonstrating a good faith effort to achieve the goals for each effort (M/WBE and ACDBE) described below. Treating each effort separately, provide a plan with the following information:

1. Identification of M/WBEs and ACDBEs: Provide the names and addresses of all M/WBE and ACDBEs with which you intend to collaborate. If none are identified, describe the process for selecting participant firms/individuals in order to achieve the good faith goals as they will be established in the Lease between the Authority and the selected Developer.
2. Level of Participation: Indicate the expected percentage of participation achieved under each plan.
3. Scope of Work: Describe the scope of work to be performed by the M/WBEs and ACDBEs.
4. Previous Participation: Describe, for informational purposes, any previous or current experience with M/WBE and ACDBE participation in executing services similar to this project.

Minority-/Women-Owned Business Enterprises (M/WBE) – The Authority has a long-standing practice of making its business opportunities available to M/WBE. In addition, the Authority has taken affirmative steps to encourage such firms to seek business opportunities with the Authority and its tenants and contractors. The selected Developer will make a good faith effort to include 12 percent participation by MBEs and five percent participation by WBEs in all construction, procurement, subcontracting and ancillary service opportunities associated with the leasehold as defined in Schedule E of Attachment D.

Airport Concession Disadvantaged Business Enterprise (ACDBE) – In accordance with regulations of the U.S. Department of Transportation 49 Code of Federal Regulations (CFR) Part 23, the Authority implemented a ACDBE program under which qualified firms may have the opportunity to operate an on-airport business. The selected Developer will be subject to the requirements of 49 CFR Part 23 and, to the extent feasible, to the Authority's established ACDBE participation goal of 17 percent for this project, as measured by the total estimated annual gross receipts from concession operations and further defined in Schedule G of Attachment D.

Note: The Authority also requires that the selected Developer make a good faith effort to maximize the participation of Local Business Enterprises (LBE) in the Contract Work on this project, as well as make employment opportunities available to labor talent from the communities surrounding the airport, referred to as Local Employment Opportunity (LEO). For the purposes of this project, the local community is defined as individuals or businesses within the County of Queens, NY and as defined in Schedule F of Attachment D.

J. Conflict of Interest Disclosure:

If the Proposer or any employee, agent or subcontractor may have, or may give the appearance of, a possible conflict of interest, the Proposer must include in its submission, a statement indicating the nature of the conflict or possible conflict. If applicable, the Proposer must describe measures it will implement to minimize or eliminate a conflict of interest.

K. Certification Statement

Exhibit II, which includes clauses entitled "Certification of No Investigation (Criminal Or Civil Anti-Trust), Indictment, Conviction, Debarment, Suspension, Disqualification and Disclosure Of Other Information" and "Non-Collusive Proposing, and Code of Ethics Certification; Certification of No Solicitation Based on Commission, Percentage, Brokerage, Contingent or Other Fees." By submitting a proposal, the selected Developer will be deemed to have made the certifications contained therein unless a statement is included in its proposal explaining why any such certification(s) cannot be made. Such a submission must be submitted in a separate envelope along with the proposal, clearly marked "CERTIFICATION STATEMENT."

IV. SELECTION PROCESS

The Authority reserves the right to disqualify the Proposer if, in its sole discretion, determines that any interest disclosed from any source could create, or give the appearance of, a conflict of interest. The Authority's determination regarding any question(s) of conflict of interest will be final.

The Authority will review and evaluate proposals employing the following criteria. After evaluating submittals, the Authority may enter into negotiations with the Proposer(s) deemed best suited to meet the project objectives.

Category 1 - Developer/Owner

1. commitment and amount of equity and debt financing;
2. overall qualifications and experience of the team; and
3. confirmation of its prequalified development team, to the extent it is consistent with its previous qualifications submission and includes the required written acknowledgments from all team members

Category 2 – Hotel Management

1. technical approach for management, operations and marketing of the proposed Hotel
2. technical approach for the maintenance of the historic portions of the Flight Center

Category 3 – Design and Construction

1. quality of the design concept, including its innovation and compatibility with the airport facility and local lodging market
2. technical approach to the restoration aspects of the project and consistency with the setting, historical context and conformance to the requirements of the MOA

3. qualifications and experience of the proposed mechanical, structural, and geotechnical (as applicable) engineering firms on projects of similar size, scope and complexity
4. commitment of the team to achieving the sustainable building goals and the extent to which they will be incorporated into the building; and
5. approach to phasing the work and the schedule/timing for completing the improvements.

Category 4 – Ground Lease Terms and Financial Proposal

1. terms of the proposed Lease including the net present value of the proposed ground rents and any other payments to the Authority
2. feasibility of achieving projected cash flows as shown in its 10-year Pro Forma, including consideration of the overall project schedule, construction costs, the construction loan schedule, anticipated revenue sources, operating and other expenses, and debt service

   appropriateness of all costs, including construction, operating and maintenance costs, capital reserves and labor costs (estimated to support the proposed Hotel's competitive position and quality of operations), as well as costs to maintain the restored historic portions of the landmark structure.

V. ORAL PRESENTATIONS

Proposers may be asked to conduct oral presentations to the selection committee and others, as appropriate**.** Presentations will be limited to one (1) hour and are to include the material contained in your proposal. The presentation will be followed by a question and answe**r** session of approximately 45 minutes. The Proposer's ownership representative, who may be supported by no more than six (6) other senior staff members on this project, will lead the presentation. Provide the name, telephone, fax and e-mail address of the person who should be contacted for presentation scheduling, if applicable, as well as an alternate in the event that person is unavailable.

VI. PRE-PROPOSAL CONFERENCE AND SITE TOUR

A pre-proposal conference and site tour is scheduled at the Flight Center (directions to be provided upon attendance confirmation) on **Wednesday, June 1, 2011 at 9:00 a.m. and Wednesday, June 8, 2011 at 9:00 a.m.** to discuss the project and tour all portions of the site. Proposers are strongly encouraged to attend one of the sessions.

To attend this site visit, proposers are required to send a written request via e-mail to Laurie Spencer at the following e-mail address: lspencer@panynj.gov to confirm your attendance, including the Proposer's name, name(s) of attendee(s), and contact information of the one person from the Proposer's team to be notified of any changes in the conference location or restrictions as to the number of attendees.

VII. DOCUMENT REVIEW

The Authority will make related documents available for review by the Proposer. By its review, the Proposer agrees that it will not use such documents for any purpose other than in response to this RFP and further agrees that it will not disseminate the contents of any documents to a third party.

Some documents listed in the RFP are only available at the Authority's offices. Prior to viewing these documents, Proposers will be required to sign and submit a copy of the Reading Room Guidelines (Exhibit I). To arrange a document review appointment, send an email to Ms. Spencer as noted above.

VIII. ADDITIONAL INFORMATION

A. Governmental Assessments

The proposed Hotel is located on land controlled by the Authority and therefore not subject to real property taxes. However, the selected Developer will be required to pay all appropriate governmental assessments, including recordation and transfer taxes, hotel room taxes, excises, license fees, levies, duties, and charges levied against the Site or its operation. The foregoing is not meant to be an exhaustive representation, but merely illustrative of the fact that the selected Developer will pay all governmental assessments necessary for it to conduct its business.

B. Performance Bond

The selected Developer must provide the Authority with a performance bond issued by a responsible surety company licensed to do business in the State of New York and satisfactory to the Authority. Such bond must guarantee construction of the leasehold improvements at the site and be in an amount not less than 100 percent of the cost of said improvements.

C. Environmental Remediation

1. The selected Developer will be responsible for the removal or remediation, to the extent required by law, of above-ground (including building basement) hazardous substances and asbestos-containing materials found with underground utilities during construction. Requirements for removal and remediation will depend on the proposed restoration/construction plans.

2. The selected Developer, at its sole cost and at the expiration or termination of the Lease, will also be responsible for the remediation of any environmental condition not shown in the March 2010 Environmental Subsurface Baseline Report provided as part of the RFQ. (See also Attachment D.)

D. Requirements of the States of New York and New Jersey

It is Authority policy that its contractors, vendors and tenants comply with the legal requirements of the States of New York and New Jersey. Proposer's attention is therefore called to New York State's requirements that certain contractors, affiliates, subcontractors and subcontractors' affiliates register with the New York State Department of Taxation and Finance for the purpose of collection and remittance of sales and use taxes. Similarly, New Jersey requires business organizations to obtain appropriate Business Registration Certificates from the Division of Revenue of the State's Department of the Treasury.

Should you have any questions regarding this RFP, please e-mail them to Laurie Spencer, Procurement Manager, at lspencer@panynj.gov. All such emails must have "**RFP 24852"** in the subject line. All questions should be submitted no later than 4:00 P.M. ten (10) business days prior to the proposal due date. Neither Ms. Spencer nor any other employee of the Authority is authorized to interpret the provisions of this RFP or enclosed documents or give additional information as to its requirements. If interpretation or additional information is required, it will be communicated by written addendum issued by the undersigned and such writing will form a part of this RFP or the enclosed documents, as appropriate.

Proposal preparation costs are not reimbursable by the Authority, and the Authority will have no obligation to any firm except under a duly authorized agreement executed by the Authority.

No rights accrue to any Proposer except under a duly authorized definitive agreement for performance of the specified services.

The Authority reserves the right, in its sole and absolute discretion, to reject any or all proposals, to undertake discussions and modifications with one or more Proposers to waive defects in submissions, and to proceed with that proposal or modified proposal, if any, which in its judgment will, under all the circumstances, best serve the public interest.

Sincerely yours,

Tim Volonakis
Manager
Professional, Technical and Advisory Services Division
Procurement Department

Attachments

ATTACHMENT A-1

DEVELOPMENT, LEASING, MANAGEMENT AND OPERATION OF A HOTEL INCORPORATING THE TWA FLIGHT CENTER AT JOHN F. KENNEDY INTERNATIONAL AIRPORT

The following information supplements Attachment A of the Request for Qualifications (RFQ). Although some information from Attachment A is repeated here to provide context for new information, each document contains separate but equally important information. Proposers should carefully review both documents and the RFQ Addenda 1-5, as they provide information about the site, the project and additional documents containing related information.

I. The Site

A. Utilities

The 5.8-acre site includes the former Trans World Airways Flight Center (Flight Center) and is located in the eastern portion of the Central Terminal Area (CTA) of JFK International Airport (Airport) in Jamaica, New York. The site is bounded to the east by Terminal 5 (JetBlue Airways Corporation) and to the west by access roads, the AirTrain Station and the Yellow Parking garage. Utilities are available at the site, including electricity, gas, telephone, water and sewer service (See Section II, item 2).

B. Hotel Parking

Access to the site is from the southbound Van Wyck Expressway, via the ramp to the CTA. Hotel guests may also arrive via the AirTrain system, which services the passenger terminals, long- and short-term parking lots, and connections to Manhattan and other points of interest throughout the area.

Parking for hotel guests and employees may be available in the existing parking lots located at the Airport and will be negotiated as part of the business terms of the final lease agreement with the selected Developer. A projection of the Proposer's parking needs is requested as part of this RFP.

C. Tax Incentives

In 1994, the New York City Landmarks Preservation Commission designated the Flight Center as a historic landmark. In 2005, this facility was listed on the National and New York State Registers of Historic Places. Listing on the National Register recognizes the importance of this property to the history of the country. Listing also makes restoration or rehabilitation work eligible for Historic Preservation Tax Incentives.

D. Development Requirements and Related Information

Code Compliance:

The selected Developer must comply with all relevant standards required by the Port Authority Tenant Alteration Application (See Attachment A, Section II, item 9). Americans with Disabilities Act and NYC Building Code requirements will depend on the proposed development and use of the affected spaces. The Proposer, together with its historic consultant, architect and code expert, should examine code requirements with

respect to their proposed work. The Authority will evaluate the Proposer's design as part of the Tenant Alteration Application process to assess code compliance with respect to historic and non-historic spaces.

There is no site-specific floor area ratio (FAR) requirement for the Flight Center site. All structures on the site are subject to line-of-sight height restrictions (See Attachment A, Section II, item 2), as well as the requirement to retain the historic portions of the building (See Attachment A, Section II, item 3). While the historic portions of the Flight Center must remain intact, changes/modifications to the non-historic portions of the building may be proposed. All design concepts will be reviewed for compatibility with the setting and context of the landmark, as indicated below and in Attachment A, Section I, items C and D.

Restoration Responsibilities:

The scope and size of the proposed redevelopment must be in accordance with the terms of the Memorandum of Agreement (MOA) between the Authority, the Federal Aviation Administration, the New York State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (See Attachment A, Section II, item 4). The MOA will govern the restoration and rehabilitation of the historic portions of the existing structure as well as any proposed new construction, which will be reviewed for compatibility with the setting and context of the landmark.

The Authority, following review and comment by the Redevelopment Advisory Committee (RAC), and in consultation with the SHPO, will have to approve any changes to the height or massing in connection with new improvements at the site. The RAC was created to advise on the restoration/rehabilitation and reuse of the Flight Center to minimize adverse effects on the historic building.

The selected Developer will be bound by the same requirements that bind the Authority with respect to the development, operation and maintenance obligations of the Flight Center, as described in the MOA.

Guidelines for the restoration and rehabilitation work are described in the TWA Flight Center Restoration and Rehabilitation Guideline Report and Drawings (See Attachment A, Section II, item 7). The report outlines construction requirements and the scope of restoration and rehabilitation treatments, and was the basis for the restoration and rehabilitation work performed by the Authority.

Public Space Responsibilities:

The project must incorporate public access through the Flight Center, which will provide additional food and beverage or other ancillary revenue opportunities for the selected Developer. The following are select requirements as detailed in the MOA:

1. Accommodate a minimum of two (2) electronic ticketing kiosks in an appropriate setting within the Flight Center for use by airline passengers without the need to check baggage. The Authority will require any airline responsible for the ticketing kiosks to install, operate, and maintain the kiosks and monitor their usage.

2. Accommodate an interpretive display on the TWA Terminal and its relationship to JFK International Airport placed by the Authority in a prominent location at the Flight Center and accessible to the public during the normal operating hours after the hotel development is complete.
3. Establish and develop an outdoor plaza that is within the leased premises.
4. It is preferred that, to the greatest extent practical, public areas of the Flight Center remain open during construction.

Functional Requirements and Information:

1. The proposed design should consider the following:
    a. Maintain unobstructed views of the Flight Center from Terminal 5, between the Flight Tubes.
    b. Maintain views of the Flight Center's character defining features from the main public roadways in the CTA, on approach to the Flight Center.
    c. Maintain access from the landside entrance of the Flight Center to Terminal 5 via the upper lobby and connecting tubes.
    d. Some of the existing building systems (including, but not limited to, HVAC, power, lighting and communications) were incorporated into the architectural elements within the building. Rehabilitation of those systems must be undertaken with sensitivity toward preserving the historical aspects of the Flight Center.
    e. The ground floor of the east wing of the original building, adjacent to the loading dock, housed a kitchen and an employee cafeteria. These areas are not considered historic and can be modified.
    f. Traffic flow and frontage roads for the Flight Center, including the location of the loading dock.
    g. Subsurface conditions, including utilities, geotechnical data and groundwater elevations (See Attachment A, Section II, item 5).
2. The site's frontage must be maintained in a presentable condition during construction.
3. The Authority will soon complete the installation of a public safety radio system to ensure radio coverage throughout the site. The system will need to remain in service and any new construction on the site may require additional antennas or supporting equipment. (See Attachment A, Section II, item 8)
4. The Proposer's design and construction documents must comply with the guidelines provided as part of the RFQ: Port Authority Tenant Construction Review Manual; Port Authority Tenant Alteration Procedures and Standards Guide; Line of Sight Height Restrictions; and the Port Authority Building and Sustainability Guidelines and Customer Service Standards.

II. INFORMATION PROVIDED BY THE AUTHORITY

The Authority makes the following documents available as additional information to the Proposer. The Authority makes no representation or guarantee as to their accuracy, completeness or pertinence, and will not be responsible for any conclusions drawn from these documents. Documents marked with an asterisk "*" will be available to recipients of the RFP at the Authority offices at One Madison Avenue, New York, New York during regular business hours and as indicated in the RFP Letter.

The available documents are as follows:

1. Electrical System – Stage I Report – March 2009
2. Underground Utility Systems Drawings
3. Underlying City Lease between the Port Authority and the City of New York
4. Required Exterior and Interior Design Views
5. Tenant Alternation Applications for Terminal 5, Including the Vicinity of Building 60 – Site Preparation (April 2009) and Civil Landside (May 2009)*

* * *

THE PORT AUTHORITY OF NY & NJ

August 8, 2014

SUBJECT: REQUEST FOR PROPOSALS FOR THE DEVELOPMENT, LEASING, MANAGEMENT AND OPERATION OF A HOTEL INCORPORATING THE TWA FLIGHT CENTER AT JOHN F. KENNEDY INTERNATIONAL AIRPORT (RFP #38826)

Dear Proposer:

The Port Authority of New York and New Jersey (Authority) hereby invites real estate developers and hotel owners/operators (Proposers) to respond to this Request for Proposals (RFP). This RFP is part of a process to identify a development team (Developer) capable of completing an adaptive reuse of the landmark Trans World Airlines Flight Center, Building #60 (Flight Center), located at John F. Kennedy International Airport (Airport), as a high-quality hotel (Hotel) that is economically viable and respects the historic significance of this property.

To accomplish the redevelopment, the Authority is seeking a Developer to lease the Flight Center under a long-term lease for financing, planning and design, brand-selection (if applicable), rehabilitation/restoration/construction, management, operation, and marketing of the proposed Hotel. The Developer will have sole responsibility for obtaining all equity and debt necessary for the project. All conveyances and other financing must be subordinated to the Authority's interest as landlord under the lease.

Proposers may collaborate with other entities as required to complete the Hotel project. Historic preservation and other technical consultants may participate on more than one Proposer's team. Only one submission from each Proposer will be accepted.

The RFP documents, which include this letter, are organized as follows:

RFP Letter - Project description, submission requirements, and selection criteria

Attachment A - Background information about the site and project

Attachment B - Agreement on Terms of Discussion

Attachment C - Development Pro Forma

Attachment D - Sample Flight Center Lease

Exhibit I, Ia, Ib - Non-Disclosure Agreement, Electronic Portal Access Form, and Reading Room Guidelines

Exhibit II - Conflict of Interest Disclosure Statement

Exhibit III - Certification of No Investigation

Exhibit IV - Exterior and Interior Design Views

Exhibit V - List of Available Documents

I. PROJECT DESCRIPTION

The Authority is seeking a creative and innovative hotel development that respects, and enhances, the historic significance of the Flight Center as an international icon of visionary architecture. The Flight Center is designated as a landmark by the City of New York and is listed on the National and State Registers of Historic Places. The scope and size of the proposed redevelopment must be in accordance with the terms of the Memorandum of Agreement (MOA) among the Authority, the Federal Aviation Administration, the New York State Historic Preservation Office and the Advisory Council on Historic Preservation (See Exhibit V, item 5). Considering the Flight Center's location within the Central Terminal Area (CTA) of the Airport, the Authority seeks a high-quality development that is consistent with its recent investment to rehabilitate and restore portions of the building and with other major redevelopment activities at the Airport.

It is preferred that completion of design and construction occur within 24 months from execution of all required agreements (See Attachment D, Sample Flight Center Lease). The selected Developer must develop and operate the Hotel consistent with the Authority's sustainability goals by minimizing, offsetting and/or eliminating carbon contributions from Hotel activities.

II. PROPOSAL FORMAT REQUIREMENTS

To respond to this RFP, Proposers must submit a concise proposal complying with the following format requirements:

A. To be acceptable, proposals must be single-sided (except as noted otherwise) using 12-point or greater font size and no more than 100 pages in length, not including any resumes, reference letters, renderings, pro forma, or financial statements. Individual sheet size must not exceed 11" by 17". Brochures or other promotional materials should not be included. Pages must be numbered and bound or placed in a 3-ring binder, with the Proposer's full name, and **RFP Number 38826** clearly indicated on the cover.

B. Each section of the proposal shall be separated with a tab divider that is labeled in accordance with the requirements specified below in Section III.

C. All proposals must be delivered in sealed containers addressed to: The Port Authority of New York and New Jersey, Two Montgomery Street, 3rd Floor, Jersey City, NJ 07302, Attention: RFP Custodian. Proposals shall not be addressed to any other name. One (1) reproducible original, clearly labeled "Original Proposal Package," and twenty (20) hard copies shall be submitted. In addition, two (2) electronic copies of the proposal shall be submitted on a USB flash drive or compact disc, which shall include a working Excel model of the Pro Forma and AutoCAD files requested in this RFP. In case of conflict, the reproducible original of the proposal will take precedence over material on the flash drive or compact disc.

The Authority requests that all documents submitted be in a form that can be easily recycled (i.e., no plastic covers or binding), and that all supporting literature be in direct response to the RFP.

D. Each submission to the Authority, including all electronic and hard copies, must indicate the Proposer's **FULL LEGAL NAME WITHOUT ABBREVIATIONS**. Failure to comply with this requirement may delay or even preclude the proposal from being considered, and any such result will be the responsibility, and at the risk, of the Proposer.

E. Proposals should be forwarded in sufficient time so that the Authority receives them no later than 2:00 p.m. on September 23, 2014. The cover of your proposal must include the RFP Number (as stated above) and the RFP title.

F. The Authority assumes no responsibility for delays caused by any delivery services. For submissions delivered by messenger, it should be noted that only individuals with photo identification will be permitted access to the Authority's offices. Messengers without proper identification will be turned away and their packages not accepted.

III. PROPOSAL CONTENT REQUIREMENTS

The Authority requires a complete response to each item below, and reserves the right to deem a proposal non-responsive if the Authority determines, in its sole discretion, that a proposal is incomplete. The Proposer's team members must be disclosed and are subject to review and approval by the Authority. Unless subsequently modified in writing, proposal contents must include the following information:

General:

In the front of your proposal, a copy of Attachment B (Agreement on Terms of Discussion) signed by a duly authorized officer of your firm. If the Proposer is a joint venture, an authorized representative of each party shall sign a copy of Attachment B.

A. Developer/Owner

1. Structure of Ownership Entity/Ground Lessee – A description of the proposed ownership structure of the Proposer shall include, but not be limited to:

   a. A description of the Proposer's ownership entity (ground lessee), each of its partners/members and percentage ownership of each party;

   b. An organization chart illustrating the relationships between the various partners/members;

   c. A statement identifying the owner's managing individual(s), principal partner(s), and/or co-venturer(s); and

   d. A resume of the owner's intended lead manager/contact person for this project. All joint venture Proposers must provide documentation of their legal status (or documentation of its pending status). If the qualifications package is submitted by a joint venture that has not been established as a distinct legal entity (a "common

law joint venture"), each participant of the joint venture shall be held jointly and severally liable and must individually execute and perform all acts required by the RFP. Documents signed by a common law joint venture in connection with a submission shall include the names of all participants of the joint venture followed by the words "acting jointly and severally."

2. Hotel Development and Ownership Experience – Demonstrate experience in the development and ownership of hotels. Submittals will be considered from Proposers (its principals, members and partners, collectively or individually) exhibiting experience in the following areas:

   a. Real estate development business, highlighting the rehabilitation and development of hotels during the last ten (10) years and the number of rooms in each property, date completed and total project cost; and

   b. Current ownership of hotels, representing over 200 rooms in aggregate, of a similar service and quality level to the proposed Hotel in a major metropolitan city(ies) or at a major international airport(s).

3. Historic Restoration Experience – Provide details of any relevant experience with historic restoration, or adaptive reuse, projects of similar size, scope and complexity. Highlight any projects involving properties listed in the National Register of Historic Places, locally designated landmarks or historically significant buildings, as well as the strategy employed to integrate improvements within existing historic structures.

4. Hotel Financing Experience – Demonstrate a history of successful financing for similar projects by providing the following information:

   a. Summaries of the financial structures of past projects indicated in 2(a) above;

   b. Two (2) reference letters from banking/financial institutions for the ownership entity;

   c. Three (3) years of certified financial statements for the ownership entity (if an ownership entity has been or will be formed specifically for this Hotel project, the financial statements for each constituent entity); and

   d. Any other documentation attesting to the Proposer's ability to finance the Hotel.

B. Hotel Management Company/Franchise Affiliation

Provide the following:

1. A description of the hotel management company and its relevant qualifications and experience in managing and operating hotels of the type proposed, highlighting any experience with operating hotels: in a major metropolitan city(ies), at a major international airport(s), and/or in a historic landmark building(s);

2. A resume of the management company's intended lead manager for this project.

3. A description of the Hotel's proposed franchise affiliation (if any), including a letter of interest in the Hotel project from the proposed franchisor; and

4. A description of the hotel management company's experience (or the experience of

other hotel management professionals on the team) with the proposed franchise affiliation (if applicable).

C. Design Team

1. Provide a description of the relevant experience of the design team in designing projects of similar size, scope and complexity, including the dollar value of each project identified. The design team must have experience in the design of adaptive reuse projects for historic buildings. Highlight in the description of experience any projects involving historic buildings and demonstrate relevant experience with any of the following areas:

    a. Mid-century Modern landmarks

    b. The design of significant historic interior and exterior restoration

    c. Cast-in-place construction

    d. Egress and life safety design within historic buildings

    e. Integration of engineering systems within history buildings

    f. Specification of long-term maintenance programs for landmark buildings

    g. Working with the New York State (or other state) Historic Preservation Office and/or the Advisory Council on Historic Preservation

2. Provide a resume for the design team's project director. Note that the proposed architect or engineer of record must be licensed in New York State.

D. Historic Restoration Consultant(s)

Demonstrate the relevant experience (and specific role), and qualifications of the historic restoration consultant(s) in projects of similar size, scope and complexity, including the dollar value of each project, where applicable. Include a resume of the intended lead consultant for this project. Highlight projects within the last ten (10) years, demonstrating experience with the following:

1. The design and construction of restoration and/or modifications to landmarked buildings, and knowledge of state and federal guidelines for renovating historic buildings;

2. Advising on the long-term maintenance of a landmark building, describing the type of facility, location, and length/nature of contribution;

3. Experience working with the New York (or other) State Historic Preservation Office and/or the Advisory Council on Historic Preservation; and

4. Relevant experience with any of the following areas:

    a. Mid-century Modern landmarks;

    b. Consulting, as part of a design team, on the appropriateness of design interventions, and

    c. Consulting on the integration of exterior improvements which may affect the

historic aspects of a structure, including lighting, signage, rooftop mechanical equipment, skylights, and appurtenances.

E. Construction Firm(s)

Provide the following:

1. A description of the relevant experience and qualifications of the construction firm(s) in building and renovating hotel projects of similar size, scope and complexity, including a statement of the dollar value of such projects, where applicable; and

2. The construction manager's resume, demonstrating qualifications for and experience with building and renovating hotel projects of similar size, scope and complexity, including the dollar value of such projects and references for any experience with historically significant buildings. Please also highlight any specific hotel projects completed in the last 5 years valued at or above $30 million.

F. Engineering Firm(s)

Provide the identity of the Mechanical, Structural, and Geotechnical (if applicable) Engineering firms and the intended leads on this project. Include a description of their relevant experience and qualifications in projects of similar size, scope and complexity.

G. Design and Construction:

The proposed design concept must be detailed in a design narrative, as well as two-dimensional plans and three-dimensional (3-D) renderings, showing the relationship of new construction to the Flight Center, surrounding airport structures, and roadways. It should be appropriate in its scale, location and materials to the historic building. While it is not necessary to replicate the historic building, design interventions must be compatible with the Flight Center. In addition, the design should retain the key character defining features of the Flight Center, including the restored central lobby, pedestrian bridges and the principal building façades.

1. Submit a narrative of the design concept, and describe the technical approach to the development program, engineering design of the structure, and foundation for new construction, enabling the Authority to determine the overall extent to which the proposed project meets the objectives set forth in this RFP. This must include a detailed description of the following:

   a. the type of hotel (limited-, select-, or full-service), proposed chain affiliation (if any), the proposed total square footage, the number and type of hotel rooms, square footage of facilities, proposed amenities and plans for back-of-the-house space;

   b. the proposed improvements to, and use of, the interior historic portions to be restored, modifications, if any, to the restored portions of the building, the treatment of the existing exterior of the building, and any proposed new construction both inside and outside of the existing structure;

Note: *Using public spaces or dedicated meeting rooms for banquets or events is permitted in the Flight Center, however code and sensitivity to passenger flow through the main space as well as maintaining the historic aspects of the space will be taken into consideration when evaluating the proposer's concept.*

c. the technical approach to restoration of the TWA Flight Center with regard to treatment, materials and workmanship;

d. any proposed new space, or any changes to the elevations, massing, exterior materials, streetscape and landscape, identifying changes to the historic scene or setting of the landmark structure. In addition, describe any additions or removal of signage, lighting, entrances, loading and service docks, skylights and other roof modifications.

e. how the proposed project is consistent with the MOA, including compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

f. sustainable building practices that shall be incorporated into the project, including the development, construction and operation of the building.

g. building systems upgrades or other changes required to the existing structure, including mechanical, electrical, life safety, and other systems;

h. a projection of the number of on-site and off-site parking spaces required to accommodate guests and employees for the proposed Hotel operation. Any hotel parking at airport lots (other than on the Flight Center site) would entail a separate fee to the Port Authority to be negotiated.

4. Submit visual representations of the design concept, including the following:

a. A set of conceptual floor plans, sections and exterior elevations to illustrate the proposed design. Provide these on 11" by 17" paper and in a Computer-aided design (AutoCAD) file in Design Web Format (DWF) format.

b. At a minimum, a set of high quality, 3-D color renderings of the proposed design, including the required exterior and interior locations indicated in Attachment A-1, Section II, item 4. The 3-D illustrations should identify the Flight Center in its setting and context, including street level and aerial views of the structure, exterior materials, streetscape and landscape plans, entry features and signage. Provide these on 11" by 17" paper and in a Computer-aided design (AutoCAD) file in Design Web Format (DWF) format.

c. Additional renderings should include typical guest room floor plans, interior public space layouts and site plans, showing interfaces with other existing or planned facilities.

Note: The Authority may require a 3-D animation "flyover" of the building and interior walkthrough at a future time to address specific landmark concerns.

H. <u>Construction Budget:</u>

Provide a budget indicating a cost estimate of the conceptual design and construction

costs (including breakdown of hard costs, FF&E and soft costs), exclusive of debt service.

I. Project Schedule:

Prepare a project schedule indicating the proposed design, construction and operating sub-tasks, and milestones. Include the following with the project schedule:

1. A description of the phasing of construction. There is a desire to open the Flight Center to the public and it should be indicated when this can happen during or after the construction. Since the construction site is in close proximity to other airport facilities, phasing should account for operational constraints to certain construction activities that may affect vehicular access to those facilities during peak hours.

2. A statement setting forth all construction contingencies and risks, and their potential effect on the timeline.

J. Lease Term and Rentals:

A form of ground lease specific to the Flight Center is attached as Attachment D to the RFP. The Proposer should review and include with its proposal a redlined version showing all proposed changes to the form of ground lease in order to allow the Authority to determine the likelihood of coming to terms with the proposer within a reasonable time frame; this will be part of the evaluation criteria, as noted in Section IV. The Authority has spent a considerable amount of time preparing the form of ground lease specific to the Flight Center. The term of the actual ground lease agreement (Lease) subsequently entered into between the Authority and the selected Developer will be appropriate to permit the acquisition of sufficient financing to support the development proposal approved by the Authority. The Airport, including the Flight Center site, is currently leased by the Authority from the City of New York pursuant to a ground lease that expires in 2050 (City Lease) (Exhibit V, item 4.) The Lease could have a term of up to 75 years, subject to the expiration or earlier termination of the underlying City Lease. However, to assure its continuing ability to lease the Hotel after 2050, the Developer would have to enter into an "Agreement to Enter into Lease" with the City of New York, which would probably involve a "ULURP". The Authority reserves the right to modify or add provisions to Attachment D.

The Authority expects fair market value of the land to be achieved from the present value of proposed rentals, including additional participation in the gross proceeds of refinancings and sales of the project, and sales of direct and indirect equity interests in the Lessee, to provide the Authority with a share of the financial project upside. The estimate of present value to the Authority will consider the level of risk associated with the source of each type of rental payment.

Considering the above, provide a full description of the proposed Lease rental terms, including each of the following items:

1. The proposed initial term and any optional renewal terms of the Lease.

2. A statement as to whether or not the term of the underlying City Lease (expiring in 2050) will be an issue and how it may affect the Proposer's ability to finance the project versus requesting an extension from the City for a total of a 75-year lease term.

3. The timing and amount of all payments to the Authority during the construction

period. Specify whether these are a fixed dollar amount, based on construction progress, or some other calculation.

4. The timing and amount of regular lease payments to the Authority subsequent to the Hotel opening. These payments must include, at minimum, a fixed annual amount with regular escalations to reflect inflation (i.e., MAG).

5. A description of the following additional rental payments which the Authority expects to receive, including participatory rentals to compensate the Authority for increases in value of the property over the term of the Lease:

   a. A statement of annual participation payments over the term of the Lease, preferably based on a percentage of gross revenue, and

   b. A statement of participation in the gross proceeds of refinancing and sales of the Hotel project, and sales of direct and indirect equity interests in the Lessee.

6. Specify any contingencies pertaining to any proposed form of rental payment (e.g., commencement or completion of construction, etc.).

7. The Port Authority is capital constrained, has already invested over $20 million in the Flight Center and is not expecting to invest additional funds. However, if the only means to achieve project feasibility is the infusion of additional capital by the Port Authority, the amount should be detailed in the sources and uses, with a justification of need for the required capital and the impact on the IRR. Describe the terms of the required investment from the Port Authority (grant, loan term and interest rate, etc.)

K. Financial Information and Plan:

1. Complete Attachment C, Development Pro Forma (Pro Forma), as required to enable the Authority to evaluate Proposer cost estimates and returns to the Authority. This information must be prepared in Microsoft Excel format. The model prepared by the Proposer shall be in the format of Attachment C, and shall include all information requested therein. The Proposer is responsible for ensuring the accuracy and correctness of any Pro Forma model, or any other financial information submitted, whether or not it is based on the model included herewith as Attachment C. (The hard copies must be submitted in separate sealed envelopes clearly labeled "DEVELOPMENT PRO FORMA." The working Excel models must be included with the other electronic files on a USB flash drive or compact disc, as noted in Section II.)

   The Pro Forma must include the following information:

   a. A 10-year annual Pro Forma model commencing on the estimated start date of January 1, 2016, which will also be the estimated Lease commencement date. Include a breakdown of all hard and soft costs, the financing costs, as well as the timing and amount of all construction costs, construction loan draw-down schedule, anticipated revenue sources, operating and other expenses, other deductions from revenue, and debt service.

   b. A summary of the estimated operating income and expense assumptions for the

stabilized year in 2014 dollars, as shown in Attachment C. The following shall be clearly indicated in the following: year in which stabilization is anticipated to occur, the assumption for inflation of each line item, and the basis for each assumption using typical industry standards as follows:

i. POR – per occupied room

ii. PAR – per available room

iii. % Room – percent of room revenues

iv. % – percent of departmental revenue

v. % Total – percent of total revenues

vi. Total dollar amount

If some other basis for calculation is used, it should be clearly stated. If the Proposer does not utilize the model provided in Attachment C, any items forecasted on a POR or PAR basis should include the constant dollar and inflated dollar amounts.

c. Detailed assumptions for the estimated present value of all rentals to the Authority, including fixed annual payments, annual participation in gross revenues, and share of proceeds of refinancings and sales (including sales of direct and indirect equity interests in the Lessee). Each type of income stream to the Authority will involve a unique level of risk to the Authority. As such, assign a unique discount rate reflecting the appropriate level of risk associated with that type of payment (e.g., fixed payments, annual participation in gross revenues, share gross proceeds, etc.).

2. Provide a financing plan, enabling the Authority to evaluate the Proposer's financial strength and ability to obtain equity and debt financing for the project. Provide reasonable assurance of the Developer's ability to deliver the proposed Hotel development within the expected timeframe. The selected Developer will have sole responsibility for obtaining all equity and debt necessary for the project. The financing plan must include the following:

a. A description of the intended sources and amount of equity for the proposed project, including a contact person, mailing and email addresses, and phone number for each intended source of equity.

b. A description of the intended sources and amount of debt financing. If available, provide a letter of commitment or interest from all persons or entities providing any debt for the proposed project.

c. A statement disclosing whether or not the Proposer intends to utilize any public development programs, historic property preservation/renovation programs, or federal/state tax benefit programs. If applicable, describe how and the extent to which the Proposer intends to utilize such programs or tax benefits.

d. If the developer requires additional investment by the Port Authority (as described in J. 7), provide the reasons and justification, including use of funds.

Note: If requested the selected Developer must be prepared to provide more detailed information concerning the sources of financing and the certainty of their commitments to the project.

L. Business Opportunities for M/WBE, LBE/LEO and ACDBEs:

Submit participation plans demonstrating a good faith effort to achieve the goals for each effort (M/WBE and ACDBE) described below. Treating each effort separately, provide a plan with the following information:

1. Identification of M/WBEs and ACDBEs: Provide the names and addresses of all M/WBE and ACDBEs with which you intend to collaborate. If none are identified, describe the process for selecting participant firms/individuals in order to achieve the good faith goals as they will be established in the Lease between the Authority and the selected Developer.
2. Level of Participation: Indicate the expected percentage of participation achieved under each plan.
3. Scope of Work: Describe the scope of work to be performed by the M/WBEs and ACDBEs.
4. Previous Participation: Describe, for informational purposes, any previous or current experience with M/WBE and ACDBE participation in executing services similar to this project.
5. Minority-/Women-Owned Business Enterprises (M/WBE) – The Authority has a long-standing practice of making its business opportunities available to M/WBE. In addition, the Authority has taken affirmative steps to encourage such firms to seek business opportunities with the Authority and its tenants and contractors. The selected Developer will make a good faith effort to include 12 percent participation by MBEs and five percent participation by WBEs in all construction, procurement, subcontracting and ancillary service opportunities associated with the leasehold as defined in Schedule E of Attachment D.
6. Airport Concession Disadvantaged Business Enterprise (ACDBE) – In accordance with regulations of the U.S. Department of Transportation 49 Code of Federal Regulations (CFR) Part 23, the Authority implemented a ACDBE program under which qualified firms may have the opportunity to operate an on-airport business. The selected Developer will be subject to the requirements of 49 CFR Part 23 and, to the extent feasible, to the Authority's established ACDBE participation goal of 17 percent for this project, as measured by the total estimated annual gross receipts from concession operations and further defined in Schedule G of Attachment D.

Note: The Authority also requires that the selected Developer make a good faith effort to maximize the participation of Local Business Enterprises (LBE) in the Contract Work on this project, as well as make employment opportunities available to labor talent from the communities surrounding the airport, referred to as Local Employment Opportunity (LEO). For the purposes of this project, the local community is defined as individuals or businesses within the County of Queens,

NY and as defined in Schedule F of Attachment D.

M. Conflict of Interest Disclosure:

Exhibit II, which indicates that if the Proposer or any employee, agent or subcontractor may have, or may give the appearance of, a possible conflict of interest, the Proposer must include in its submission, a statement indicating the nature of the conflict or possible conflict. If applicable, the Proposer must describe measures it will implement to minimize or eliminate a conflict of interest.

N. Certification Statement

Exhibit III, which includes clauses entitled "Certification of No Investigation (Criminal Or Civil Anti-Trust), Indictment, Conviction, Debarment, Suspension, Disqualification and Disclosure Of Other Information" and "Non-Collusive Proposing, and Code of Ethics Certification; Certification of No Solicitation Based on Commission, Percentage, Brokerage, Contingent or Other Fees." By submitting a proposal, the selected Developer will be deemed to have made the certifications contained therein unless a statement is included in its proposal explaining why any such certification(s) cannot be made. Such a submission must be submitted in a separate envelope along with the proposal, clearly marked "CERTIFICATION STATEMENT."

IV. SELECTION PROCESS

The Authority reserves the right to disqualify the Proposer if the Authority, in its sole discretion, determines that any interest disclosed from any source could create, or give the appearance of, a conflict of interest. The Authority's determination regarding any question(s) of conflict of interest will be final.

The Authority will review and evaluate proposals employing the following criteria. After evaluating submittals, the Authority may enter into negotiations with one or more Proposers deemed best suited to meet the project objectives.

Category 1 – Design and Construction

1. quality of the design concept, including its innovation and compatibility with the airport facility and local lodging market
2. technical approach to the restoration aspects of the project and consistency with the setting, historical context and conformance to the requirements of the MOA
3. qualifications and experience of the proposed mechanical, structural, and geotechnical (as applicable) engineering firms on projects of similar size, scope and complexity
4. commitment of the team to achieving the sustainable building goals and the extent to which they will be incorporated into the building recognizing that this is a historic rehabilitation and the greatest opportunity exists in the new hotel portions; and
5. approach to phasing the work and the schedule/timing for completing the improvements.

Category 2 - Developer/Owner

1. overall qualifications and experience of the team including the quality of prior hotels
2. commitment and amount of equity and debt financing.

Category 3 – Ground Lease Terms and Financial Proposal

1. terms of the proposed Lease, including the net present value of the proposed ground rents, any other payments to the Authority and the net impact of any funding requested from the Authority
2. feasibility of achieving projected cash flows as shown in its 10-year Pro Forma, including consideration of the overall project schedule, construction costs, the construction loan schedule, anticipated revenue sources, operating and other expenses, and debt service
3. appropriateness of all costs, including construction, operating and maintenance costs, capital reserves and labor costs (estimated to support the proposed Hotel's competitive position and quality of operations), as well as costs to maintain the restored historic portions of the landmark structure.

Category 4 – Hotel Management

1. technical approach for management, operations and marketing of the proposed Hotel
2. technical approach for the maintenance of the historic portions of the Flight Center

V. ORAL PRESENTATIONS

Proposers may be asked to conduct oral presentations to the selection committee and others, as appropriate**.** Presentations will be limited to one (1) hour and are to include the material contained in your proposal. The presentation will be followed by a question and answer session of approximately 45 minutes. The Proposer's ownership representative, who may be supported by no more than six (6) other senior staff members on this project, will lead the presentation. Provide the name, telephone, fax and e-mail address of the person who should be contacted for presentation scheduling, if applicable, as well as an alternate in the event that person is unavailable.

VI. PRE-PROPOSAL CONFERENCE AND SITE TOUR

A pre-proposal conference and site tour is scheduled at the Flight Center (directions to be provided upon attendance confirmation) on Tuesday, August 19, 2014, at 10:00 am. to discuss the project and tour all portions of the site. Proposers are strongly encouraged to attend the session. Team members capable of assessing site conditions and capital improvements required to complete construction are encouraged to attend.

To attend this site visit, Proposers are required to send a written request via e-mail to Laurie E. Spencer at the following e-mail address: lspencer@panynj.gov to confirm your attendance, including the Proposer's name, name(s) of attendee(s), and contact information of the one person from the Proposer's team to be notified of any changes in

the conference location or restrictions as to the number of attendees.

VII. DOCUMENT REVIEW

The Authority will make related documents available for review by the Proposer. These Documents listed in Exhibit V are considered "Proprietary Information" and shall only be made available to respondents to this RFP that have completed and submitted a copy of the Authority's *Non-Disclosure Agreement*, Exhibit I. The documents will be made available via an electronic portal. To view the documents, send a scanned copy of the signed NDA to Laurie Spencer at lspencer@panynj.gov, along with a completed Electronic Portal Access Form, Exhibit Ia. By its review, the Proposer agrees that it will not use such documents for any purpose other than in response to this RFP and further agrees that it will not disseminate the contents of any documents to a third party. The original, signed NDA must be submitted, in person, or by mail, to The Port Authority of New York and New Jersey, Procurement Department, 2 Montgomery Street, 3rd Floor, Jersey City, NJ 07302, Attention: Laurie E. Spencer. The Port Authority Information Security Handbook referenced in Exhibit I can be found at http://www.panynj.gov/business-opportunities/pdf/Corporate-Information-Security-Handbook.pdf

In addition, for ease of review, the Authority will also make available for viewing in hard copy certain drawings in a "Reading Room" at the Airport. To make arrangements to visit the Reading Room, please contact Laurie Spencer at the email address above. Persons viewing documents in the Reading Room must comply with and sign the Reading Room Instructions attached herewith as Exhibit I-B, in addition to submitting the NDA as described above.

VIII. ADDITIONAL INFORMATION

A. Governmental Assessments

The proposed Hotel is located on land controlled by the Authority and therefore not subject to real property taxes. However, the selected Developer will be required to pay all appropriate governmental assessments, including recordation and transfer taxes, hotel room taxes, excises, license fees, levies, duties, and charges levied against the Hotel or its operation. The foregoing is not meant to be an exhaustive representation, but merely illustrative of the fact that the selected Developer will pay all governmental assessments necessary for it to conduct its business.

B. Performance Bond

The selected Developer must provide the Authority with a performance bond issued by a responsible surety company licensed to do business in the State of New York and satisfactory to the Authority. Such bond must guarantee construction of the leasehold improvements at the site and be in an amount not less than 100 percent of the cost of said improvements.

C. Environmental Remediation

1. The selected Developer will be responsible for the removal or remediation, to the extent required by law, of all hazardous substances including asbestos containing materials (including building basement locations and hazardous substances and asbestos-containing materials found within above and underground utilities disturbed or encountered during construction.) Requirements for removal and remediation will depend on the proposed restoration/construction plans in compliance with Tenant Alteration Application permit and applicable law.

2. The selected Developer, at its sole cost and at the expiration or termination of the Lease, will also be responsible for the remediation of any environmental condition not shown in the March 2010 Environmental Subsurface Baseline Report. (See Attachment D.)

D. Utility Contract and Effective Costs

Energy requirements for JFK are currently met by a 110 MW natural gas-fired cogeneration plant located on-airport, the Kennedy International Airport Cogeneration (KIAC) Plant. The agreements with KIAC's current operator will expire on January 31, 2020. Currently, KIAC is responsible for the operation and maintenance of the Plant, and for supplying all the electricity requirements to the entire Airport as well as the requirements for thermal energy to heat and cool the Airport's Central Terminal Area buildings. The Plant provides the Authority with electricity in the form of sold electricity (the Plant is not directly connected, electrically, to the Airport), and hot and chilled water for the Authority's own consumption and for resale to Airport tenants of the Authority. The Authority currently sub-meters and sub-bills Airport tenants for electricity and thermal energy purchased from the Plant. Electric rates charged to tenants are based on applicable rates that would otherwise be charged by the local regulated utility, Con Edison. Thermal energy rates are based on formulae established in the Authority's contract with the Plant's current operator. The Authority plans to identify an operator/developer to replace or rehabilitate or redesign, as well as operate and maintain the Plant for a new term to start on February 1, 2020 and end on or about January 31, 2040.

	Electricity	**Thermal Heating**	**Thermal Cooling**	**Water**
	$ /kWh	**$ /MMBtu**	**$ /MMBtu**	**$ /Cubic ft.**
January	0.3040	43.8282	112.2184	0.099
February	0.2140	43.5431	111.3594	0.099
March	0.1590	37.7886	121.7205	0.099
April	0.1380	29.3375	113.4400	0.099
May	0.1640	28.3498	113.4677	0.099
June	0.1800	27.7296	112.4476	0.099

Note: energy service rates for January-March 2014 were significantly higher than expected due to the extreme cold weather. The cold weather impacted the natural gas supply and produced challenging electrical system conditions across New York State.

E. Requirements of the States of New York and New Jersey

It is Authority policy that its contractors, vendors and tenants comply with the legal requirements of the States of New York and New Jersey. Proposer's attention is therefore called to New York State's requirements that certain contractors, affiliates, subcontractors and subcontractors' affiliates register with the New York State Department of Taxation and Finance for the purpose of collection and remittance of sales and use taxes. Similarly, New Jersey requires business organizations to obtain appropriate Business Registration Certificates from the Division of Revenue of the State's Department of the Treasury.

Should you have any questions regarding this RFP, please e-mail them to Laurie E. Spencer at lspencer@panynj.gov. All such emails must have **"RFP No. 38826"** in the subject line. All questions should be submitted no later than 4:00 P.M. ten (10) business days prior to the proposal due date. Neither Ms. Spencer nor any other employee of the Authority is authorized to interpret the provisions of this RFP or enclosed documents or give additional information as to its requirements. If interpretation or additional information is required, it will be communicated by written addendum issued by the undersigned and such writing will form a part of this RFP or the enclosed documents, as appropriate.

Proposal preparation costs are not reimbursable by the Authority, and the Authority will have no obligation to any firm except under a duly authorized agreement executed by the Authority.

No rights accrue to any Proposer except under a duly authorized definitive agreement for performance of the specified services.

The Authority reserves the right, in its sole and absolute discretion, to reject any or all proposals, to undertake discussions and modifications with one or more Proposers to waive defects in submissions, and to proceed with that proposal or modified proposal, if any, which in its judgment will, under all the circumstances, best serve the public interest.

Sincerely yours,

Laurie E. Spencer
Manager, Alternative Project Delivery
Procurement

Attachments

ATTACHMENT A

DEVELOPMENT, LEASING, MANAGEMENT AND OPERATION OF A HOTEL INCORPORATING THE TWA FLIGHT CENTER AT JOHN F. KENNEDY INTERNATIONAL AIRPORT (RFP #38826)

BACKGROUND

The Port Authority of New York and New Jersey (the "Port Authority" or "Authority") is an agency of the States of New York and New Jersey, created and existing by virtue of the Compact of April 30, 1921, made by and between the two States, and thereafter consented to by the Congress of the United States. It is charged with providing transportation, terminal and other facilities of trade and commerce within the Port District. The Port District comprises an area of about 1,500 square miles in both States, centering about New York Harbor. The Port District includes the Cities of New York and Yonkers in New York State, and the cities of Newark, Jersey City, Bayonne, Hoboken and Elizabeth in the State of New Jersey, and over 200 other municipalities, including all or part of seventeen counties, in the two States. The Authority manages and/or operates all of the region's major commercial airports (Newark Liberty International, John F. Kennedy International, Teterboro, LaGuardia Stewart International, Atlantic City), marine terminals in both New Jersey and New York (Port Newark and Elizabeth, Howland Hook and Brooklyn Piers), and its interstate tunnels and bridges (the Lincoln and Holland Tunnels; the George Washington, Bayonne, and Goethals Bridges; and the Outerbridge Crossing), which are vital "Gateways to the Nation."

The Airport is located on Jamaica Bay in the Borough of Queens, New York. It is the principal international airport in the New York metropolitan region, providing domestic and international passenger and air cargo services. The airport spans approximately 4,960 acres and includes the following principal facilities: two pairs of parallel runways; a central terminal area with seven passenger terminals, five of which contain Federal Inspection Services facilities for processing international passengers; 123 aircraft contact gates; and AirTrain, a light-rail transit system linking passenger terminals with each other and with public transit lines. For more information about JFK, please visit www.panynj.info.

The legal address of the Flight Center is John F. Kennedy International Airport, Building #60, Jamaica, New York, 11430. A site plan is included in the list of Supplemental Documents (see Section II below).

A. The Site

The 5.8-acre site is located in the eastern portion of the Central Terminal Area of John F. Kennedy International Airport in Jamaica, New York. It is adjacent to Terminal 5 and includes the former Trans World Airways Flight Center and the grounds around it. Airplanes operate at JFK 24 hours a day, 7 days a week, 365 days a year. The site is bounded to the east by Terminal 5 (JetBlue Airways Corporation) and to the west by access roads, the AirTrain Station and the Yellow Parking garage. Utilities are

available at the site, including electricity, gas, telephone, water and sewer service.

As indicated in the Area Map below, access to the site is from southbound Van Wyck Expressway via the ramp to the CTA. Hotel guests may also arrive at the property via the AirTrain system, which provides access to the passenger terminals, Manhattan and other points of interest throughout the area.

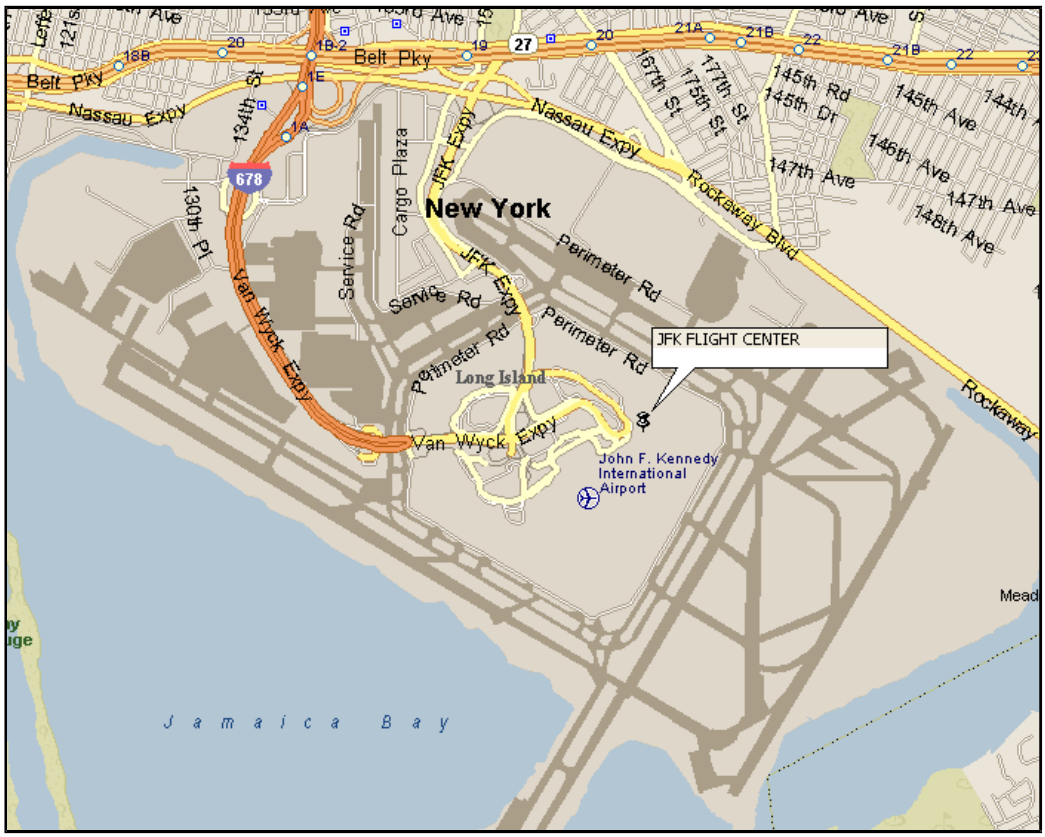
Since 2004, the AirTrain provides complimentary mass-transit access among the car rental area (Federal Circle), the eight passenger terminals and, for a $5 fare, links with the Long Island Rail Road and New York City subway system. Travel time via the AirTrain and these public transit systems to Manhattan is less than one hour.

Parking for hotel guests and employees may be available in the existing parking lots located at the Airport and will be negotiated as part of the business terms of the final lease agreement with the selected Developer. A projection of the Proposer's parking needs is requested as part of this RFP.

Area Map


JFK FLIGHT CENTER
Hackensack
Teaneck
Englewood Cliffs
Garfield
Bogota
Passaic
Leonia
Hasbrouck Heights
Little Ferry
Ridgefield Park
Wood-Ridge
BERGEN
Fort Lee
East Rutherford
Ridgefield
Rutherford
Carlstadt
Fairview
Cliffside Park
Lyndhurst
North Bergen
NEW JERSEY
Guttenberg
West New York
Union City
Columbia Park
Manhattan
Hoboken
HUDSON
Lincroft
Jersey City
Liberty State Park
New York
Liberty Island
Bayonne
Upper New York Bay
Staten Island Ferry
Kill Van Kull
Victory Blvd
Graismere Lake
RICHMOND
Staten Island
Lower New York Bay
Brooklyn
KINGS
Prospect Park Lake
Eastern Pky
Empire Blvd
Belt Pky
Ocean Pky
Avenue U
Surf Ave
Floyd Bennett Field
Jamaica Bay
Beach Channel Dr
Atlantic Ocean
Rockaway Ave
Long Island
Atlanta Ave
Rockaway Blvd
Jamaica Ave
Cypress Ave
Bushwick Ave
De Kalb Ave
Metropolitan Ave
Queens
NEW YORK
QUEENS
Newtown Creek
Willow Lake
Grand Central Pky
Broadway
Grand Central
Flushing Airport
Ferry Point Park
Bronx Park
BRONX
Bronx
Jerome Park Reservoir
Bailey Ave
Grand Concourse
3rd Ave
Bruckner Blvd
Harlem River
Wards Island
Socrates Sculpture Park
NEW YORK
Manhattan
Evers Airport
Long Island Sound
Port Washington North
Manorhaven
County Park
Port Washington
Kings Point
Flower Hill
Great Neck
Manhasset
Great Neck Estates
Great Neck Plaza
Lake Success
North New Hyde Park
Cross Island Pky
Floral Park
Elmont
Franklin Square
North Valley Stream
Valley Stream
Hewlett
South Valley Stream
Woodmere
Cedarhurst
Inwood
Lawrence
Atlantic Beach
John F. Kennedy International Airport
Belt Pky
Baisley Pond
Linden Blvd
Merrick Blvd
Francis Lewis Blvd
Utopia Pky
Shore Rd
Hackensack
Columbia Park
Newtown Creek
Gerard Ave
Liberty Island
Ocean Ave
Rockaway Ave
Utica Ave
Ralph Ave
Fort Hamilton Pky
4th Ave
14th Ave
Bay St
Clove Rd
Richmond Rd
Victory Blvd
Graismere Lake
Belt Pky
Surf Ave
Beach Channel Dr
Floyd Bennett Field
Jamaica Bay
Lower New York Bay
Atlantic Ocean

Neighborhood Map



B. History of the Flight Center

The Flight Center was designed for TWA in the late 1950s by Eero Saarinen, one of the preeminent architects of mid-20th century modernism in America. Saarinen's most significant projects include: the Flight Center in New York City, the Gateway Arch in St. Louis, Missouri; Dulles Airport in Chantilly, Virginia; and the CBS Headquarters in New York City. Opening in May 1962, the Flight Center was intended to be an expression of "the excitement of travel." This was one of Saarinen's last and most influential designs.

The building consists of four reinforced-concrete vaults separated by narrow skylights and supported on four reinforced-concrete buttresses, forming a shell 50 feet high and 315 feet long. Green-tinted glazed curtain walls are set within the vaults. The main building is flanked by wing-shaped single-story extensions on either side, which follow the curve of the roadway. Two elevated pedestrian connector bridges (Flight Tubes), constructed of steel framing with a stucco finish and oval in section, extend from the rear of the building and connect to Terminal 5.

The interior of the Flight Center is divided into three levels and contains many curvilinear sculptural elements, which echo the exterior design. The sculptural forms of signs, information boards, railings and counters help to create a unified interior environment.

In 1994, the New York City Landmarks Preservation Commission designated the Flight

Center's terminal building, Flight Tubes and Flight Wing 2 as a historic landmark (Flight Wing 2 was subsequently removed in connection with the approved project for the new Terminal 5.) In 2005, this facility was listed on the National and New York State Registers of Historic Places. Listing on the National Register recognizes the importance of this property to the history of our country. This listing also makes restoration or rehabilitation work eligible for Historic Preservation Tax Incentives.

C. Site Master Plan and Work Completed to Date

The federal environmental approval process for the redevelopment of the Terminal 5/6 site was conducted pursuant to the National Environmental Policy Act of 1970 and the Section 106 Process required by the National Historic Preservation Act. The Authority, the Federal Aviation Administration, the New York State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation entered into a Memorandum of Agreement (MOA) in 2004 to establish the guidelines for the rehabilitation, restoration, adaptive reuse, operation and maintenance of the Flight Center as part of the master plan for the redevelopment of the Terminal 5/6 site (Master Plan).

Following review and comment by the Redevelopment Advisory Committee (RAC), the Authority, in consultation with the SHPO, would have to approve any changes to the height or massing in connection with new improvements at the site. The RAC was created to advise on the restoration/rehabilitation and reuse of the Flight Center in order to minimize adverse effects on the historic building. The MOA will govern the restoration and rehabilitation of the historic portions of the existing structure as well as any proposed new construction, which will be reviewed for compatibility with the setting and context of the landmark.

As part of Phase I of the Master Plan, Terminal 5 and a parking garage directly across from the Flight Center were completed in 2008. In addition, the existing Flight Tubes were connected to Terminal 5, allowing a public passageway through the Flight Center. Terminal 5 International Arrivals is currently under construction. The operation of Terminal 5 and the parking garage generate significant passenger traffic and related activities immediately adjacent to the proposed location of the Hotel. Flight Center construction will need to be carefully coordinated with these other uses.

The Authority has spent approximately $20 million performing extensive restoration work on the Flight Center. In summary, the work consisted of replacing soundproofing material on the ceiling of the main hall, restoration of the lower and upper lobby areas of the main hall, replacement of skylights, restoration of the "East Flight Tube" bridge and removal and restoration of portions of the exterior. The work has been completed. Details of the work are described more fully in the contract documents (Exhibit V, item 16). Additional areas require restoration, as shown in Historic and Non-Historic Area Floor Plans and the Restoration and Rehabilitation Guidelines Report, included herewith and made a part hereof.

Phase II of the Master Plan includes redevelopment by JetBlue Airlines of the remaining portions of the Terminal 5/6 site.

D. Public Space Responsibilities

The project must incorporate public access through the Flight Center, which will provide additional food and beverage or other ancillary revenue opportunities for the selected Developer. The following are select requirements as detailed in the MOA:

1. Accommodate a minimum of two (2) electronic ticketing kiosks in an appropriate setting within the Flight Center for use by airline passengers without the need to check baggage. The Authority will require any airline responsible for the ticketing kiosks to install, operate, and maintain the kiosks and monitor their usage.

2. Accommodate an interpretive display on the TWA Terminal and other historic terminals and their relationship to JFK International Airport placed by the Authority in a prominent location at the Flight Center and accessible to the public during the normal operating hours after the hotel development is complete.

3. It is preferred that public access to the Flight Center be available as soon as practical, and the Proposer should identify when that can happen.

E. Zoning and Other Development Restrictions

As a bi-state agency, the Authority is not subject to local laws and regulations. However, pursuant to its lease with the City of New York for the Airport, the Authority has agreed as a matter of policy to conform to the extent practicable to the enactments, ordinances, resolutions and regulations of the City and its various departments, boards and bureaus with regard to the construction and maintenance of all improvements, and to life safety, health and fire protection. Therefore, as a matter of policy, the Authority will require the Developer to conform to New York City zoning and building codes and regulations. The Developer's plans and construction work shall be subject to the review and approval of the Authority, not the NYC Buildings Department.

The historic portions of the Flight Center must remain intact. Restoration/rehabilitation of the Flight Center's historic portions and any reconstruction or proposed addition to the structure is subject to review and approval in accordance with the MOA. Work must be in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties (http://www.nps.gov/hps/tps/standguide). A drawing indicating the landmarked areas of the Site and Flight Center are included herewith and made a part hereof.

1. The proposed project shall comply with the following requirements:

   a. Maintain unobstructed views of the Flight Center from Terminal 5, between the Flight Tubes.

   b. Maintain views of the Flight Center's character defining features from the main public roadways in the CTA, on approach to the Flight Center.

   c. Maintain access from the landside entrance of the Flight Center to Terminal 5 via the upper lobby and connecting tubes.

d. Some of the existing building systems (including, but not limited to, HVAC, power, lighting and communications) were incorporated in the architectural elements within the building. Rehabilitation of those systems must be undertaken with sensitivity toward preserving the historical aspects of the Flight Center.

e. The ground floor of the east wing of the original building, adjacent to the loading dock, housed a kitchen and an employee cafeteria. There is also a west wing baggage area. Although these areas are not considered historic and can be modified all building changes require review by the Redevelopment Advisory Committee--RAC (Historic Preservation).

f. Traffic flow and frontage roads for the Flight Center, including the location of the truck dock may be modified at the Proposer's cost so the direction of traffic can be altered from what currently exists to improve efficiency. Any proposed changes are subject to approval by the Port Authority.

g. Subsurface conditions, including utilities, geotechnical data and groundwater elevations.

2. The site's frontage must be maintained in a presentable condition during construction.

3. The Authority will soon complete the installation of a public safety radio system to ensure radio coverage throughout the site. The system will need to remain in service and any new construction on the site may require additional antennas or supporting equipment.

4. The Proposer's design and construction documents shall also comply with the following guidelines, included herewith and made a part hereof: Port Authority Tenant Construction Review Manual (Exhibit V, item 11); Port Authority Tenant Alteration Procedures and Standards Guide (Exhibit V, item 12), Line of Sight Height Restrictions (Exhibit V, item 2); the Port Authority Building and Sustainability Guidelines (Exhibit V, item13), and Port Authority Customer Service Standards (Exhibit V, item 14).

F. <u>New York City Lodging Market</u>

The property is located in the New York City lodging market, which achieves higher Average Daily Rate (ADR) and guest room revenue per available room (RevPAR) levels than any other major metropolitan market in the United States. While hotels are located throughout all five boroughs of the City, Manhattan by far contains the highest concentration of properties and guest rooms, and is considered the most desirable hotel location in the City, appealing broadly to business travelers, tourists and meeting attendees.

Hotels throughout New York City achieved very strong growth in occupancy, ADR and RevPAR throughout the recent economic recovery. Between 2009 and 2013, RevPAR increased 30% for Manhattan hotels and 50% for JFK area hotels. This tremendous improvement, which occurred despite new hotels opening in both market areas and continued economic uncertainty, reflects the remarkable appeal of New York City to all types of overnight visitors.

The following table presents relevant operating statistics for all Manhattan hotels from January 2008 through December 2013.

Table 1 – Manhattan Hotels 2008 – 2014

Year	Occupancy (%)	ADR ($)	RevPAR ($)	Available Rooms	Room Night Demand	Rooms Revenue ($)
2008	84.3%	306.17	258.09	24,536,071	20,683,639	6,332,613,833
2009	80.2%	236.84	189.89	25,812,724	20,696,281	4,901,677,410
2010	83.5%	256.28	213.88	27,173,960	22,678,024	5,811,967,569
2011	83.5%	270.53	226.02	28,756,522	24,025,049	6,499,563,571
2012	85.9%	277.34	238.36	29,305,136	25,186,078	6,985,067,352
2013	86.6%	286.25	248.02	30,047,455	26,034,770	7,452,462,530
Average Occupancy	84.0%					
CAGR (2008-2013)	0.6%	-1.3%	-0.8%	4.1%	4.7%	3.3%
Year-to-Date	Occupancy (%)	ADR ($)	RevPAR ($)	Available Rooms	Room Night Demand	Rooms Revenue ($)
YTD 6/30/2013	84.4%	264.36	223.06	14,745,980	12,442,430	3,289,254,994
YTD 6/30/2014	84.9%	271.25	230.20	15,569,634	13,213,573	3,584,146,470
% Change	0.6%	2.6%	3.2%	5.6%	6.2%	9.0%

Source: Smith Travel Research

Occupancy levels for Manhattan hotels ranged from a low of 80% in 2009, the first full calendar year after the 2008 financial crisis, to a high of 87% in 2013. Between 2008 and 2013 the average occupancy for these hotels was 84%. Although occupancies did decrease in 2009 due to the recent recession and a 5% increase in available guest rooms, occupancy levels for these properties remained above 80%. Further, occupancies in 2010 and 2001 rebounded sharply to near historic highs despite continued economic difficulties and increases in available guest rooms of 5% and 6%, respectively, during those years.

ADR levels for Manhattan hotels in 2013 were $286, still below the record-high of $306 in 2008. This reflects the period's challenging economy, and an increase of over 22% in available guest room nights in Manhattan. According to STR nearly 15,100 hotel rooms were added to the market between 2008 and 2013, increasing nightly guest room supply by over 5.5 million.

As a result of the 2008 financial crisis, RevPAR for Manhattan hotels decreased 26%, from a record $258 in 2008 to $190 in 2009. However, the strong recovery in occupancy and consistent increases in ADR since 2009 resulted in a 2013 RevPar of $248 for Manhattan hotels, just 4% below their 2008 record.

The above statistics indicate that the Manhattan hotel market, the premier location within the New York City area, began to recover in 2010 despite significant increases in new inventory during 2009, 2010, and 2011. Further, NYC & Company, the City's convention and visitor's bureau, indicates that a record 52.7 million visitors came to the City in 2012. As occupancy and ADR levels continue to increase in Manhattan, other markets in the City, including the JFK International Airport market, will continue to experience strong overflow demand and will likely experience increases to occupancy and ADR.

The underlying strength of the Manhattan hotel market is also evident in room night demand trends. Between 2008 and 2013, room night demand increased at a Compounded Annual Growth Rate (CAGR) of 4.1%. Despite tremendous economic difficulties, room night demand for 2009 increased slightly compared with 2008 levels, and room night demand for 2013 was a record high of over 26 million.

Guest room supply in Manhattan increased every year during this period, from 24.5 million in 2008 to 30.0 million in 2013. However, the 4.1% CAGR in available guest rooms remains below the 4.7% CAGR in room night demand during this period, suggesting an increasingly tight market despite these additions to supply.

New hotels are currently under construction, planned or proposed throughout New York City, especially in Lower Manhattan. However, given pressure from competing land uses, a relative dearth of available hotel sites and the current lending environment, it is anticipated that the Manhattan lodging market will continue to have a favorable supply/demand imbalance for the long term.

Year-to-date statistics through June 30, 2014 for Manhattan hotels indicate continued growth in occupancy, ADR and RevPAR, with demand for hotel rooms continuing to outpace increases in supply. As such, guest room revenue for Manhattan hotels increased 9% for YTD 2014 compared with the same period in 2013, from $3.3 billion to nearly $3.6 billion.

G. JFK Airport Lodging Market – Midscale to Upper Upscale Hotels

To better understand trends in the local lodging market, a Smith Travel Research report for midscale through upper upscale hotels in the vicinity of JFK was obtained. The following table presents statistics for these ten hotels, which together contain 2,219 guest rooms.

Table 2 – Selected JFK Airport/Queens Hotels

Year	Occupancy (%)	ADR ($)	RevPAR ($)	Available Rooms	Room Night Demand	Rooms Revenue ($)
2008	80.0%	146.47	117.18	838,750	671,001	98,283,329
2009	74.3%	126.62	94.05	790,739	587,366	74,370,533
2010	84.1%	134.48	113.09	672,744	565,715	76,077,714
2011	79.0%	138.40	109.37	639,525	505,385	69,947,511
2012	79.5%	155.68	123.79	678,205	539,281	83,957,150
2013	87.5%	159.81	139.81	689,120	602,885	96,345,682
Average Occupancy	80.7%					
CAGR (2008-2013)	1.8%	1.8%	3.6%	-3.9%	-2.1%	-0.4%
Year-to-Date	Occupancy (%)	ADR ($)	RevPAR ($)	Available Rooms	Room Night Demand	Rooms Revenue ($)
YTD 6/30/2013	87.6%	165.46	144.95	341,728	299,375	49,533,642
YTD 6/30/14	78.3%	149.95	117.42	401,608	314,477	47,156,489
% Change	-10.6%	-9.4%	-19.0%	17.5%	5.0%	-4.8%

Source: Smith Travel Research

Sample Includes: Hilton Garden Inn JFK, Sheraton JFK, Radisson JFK, Garden Inn & Suites, Fairfield Inn JFK Holiday Inn Express JFK, Crowne Plaza JFK, Hampton Inn JFK, Courtyard JFK, Hilton JFK, Ramada Plaza JFK (closed)

Although JFK Airport/Queens hotels underperform Manhattan hotels overall, these competitors achieve higher occupancy, ADR, and RevPAR levels than most domestic lodging markets.

Between 2008 and 2013, occupancies in the local lodging market ranged from a low of 74.3% in 2009 to a high of 87.5% in 2013, and averaged 80.7% for this five-year period. The record high occupancy in 2013 resulted from a strong 12% increase in room night demand, reflecting increased travel to the New York City area.

ADRs for the area hotels ranged from a low of nearly $127 in 2009 to a high of nearly $160 in 2013. The $160 ADR was a record high for the competitive market, surpassing the previous high of $156 in 2012.

It should be noted that the ADR for the JFK Airport/Queens hotels in 2013 was $126 below the average for Manhattan hotels in that year. While this discount declined from $160 in 2008, JFK Airport/Queens hotels still reflect a significant savings compared with hotels located elsewhere in New York. With the introduction of the AirTrain service at the end of 2003, the ability of local hotels to compete more effectively with those located throughout the City significantly increased.

The number of occupied room nights in the market decreased between 2008 and 2013 in the local market due to the closing of the Ramada Plaza and the resulting decrease in available supply. As a result, current occupancies have increased to high levels, suggesting the remaining hotels were frequently turning away demand for potential business during the 2009 to 2013 period.

The most recent addition to guest room supply in the market is the 330 room Crowne Plaza JFK, which was previously affiliated with Hilton and Best Western, but had not operated as a hotel since the 1980s. This redeveloped property opened in January of 2014 and increased available rooms by over 18%. As a result, year-to-date occupancy, ADR and RevPAR through June 30, 2014 decreased compared with the prior year, as typically happens when a new hotel opens in a market. However, room night demand did increase 5% during the first six months of 2014, indicating that turnaway demand does exist in the market. Even with the opening of the Crowne Plaza the number of available rooms in the market still remain below 2008 levels.

This fact, together with the continued increases in passenger traffic anticipated at JFK, and the continued growth in NYC visitation, strongly supports the long-term viability of the JFK lodging market. The proposed Hotel, which is located on the airport in the Central Terminal Area, and is therefore the closest lodging facility to the area's primary demand generator, should have a significant competitive advantage over other hotels in the market.

H. New Supply

To the Authority's knowledge, there are no new hotels currently under construction or proposed in the competitive market area.

ATTACHMENT B
REQUEST FOR PROPOSALS FOR THE DEVELOPMENT, LEASING, MANAGEMENT AND OPERATION OF A HOTEL INCORPORATING THE TWA FLIGHT CENTER AT JOHN F. KENNEDY INTERNATIONAL AIRPORT
(RFP #38826)

AGREEMENT ON TERMS OF DISCUSSION

The Port Authority's receipt or discussion of any information (including information contained in any proposal, vendor qualification, ideas, models, drawings, or other material communicated or exhibited by us or on our behalf) shall not impose any obligations whatsoever on the Port Authority or entitle us to any compensation therefor (except to the extent specifically provided in such written agreement, if any, as may be entered into between the Port Authority and us). Any such information given to the Port Authority before, with or after this Agreement on Terms of Discussion ("Agreement"), either orally or in writing, is not given in confidence. Such information may be used, or disclosed to others, for any purpose at any time without obligation or compensation and without liability of any kind whatsoever. Any statement which is inconsistent with this Agreement, whether made as part of or in connection with this Agreement, shall be void and of no effect. This Agreement is not intended, however, to grant to the Port Authority rights to any matter, which is the subject of valid existing or potential letters patent. The foregoing applies to any information, whether or not given at the invitation of the Authority.

Notwithstanding the above, and without assuming any legal obligation, the Port Authority will employ reasonable efforts, subject to the provisions of the Port Authority's Freedom of Information Policy and Procedure adopted by the Port Authority's Board of Commissioners on November 20, 2008, which may be found on the Port Authority website at: *http://www.panynj.gov/corporate-information/freedom-of-information.cfm*, not to disclose to any competitor of the undersigned, information submitted which are trade secrets or is maintained for the regulation or supervision of commercial enterprise which, if disclosed, would cause substantial injury to the competitive position of the enterprise, and which information is identified by the Proposer as proprietary, which may be disclosed by the undersigned to the Port Authority as part of or in connection with the submission of a proposal.

_____
(Company)

_____
(Signature)

_____
(Title)

_____
(Date)

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EXHIBIT IA

JFK FLIGHT CENTER RFP 38826
ELECTRONIC PORTAL ACCESS FORM

THE PORT AUTHORITY
OF NY & NJ

Section A USER INFORMATION (All fields must be filled in)		
Last Name:	First Name:	Middle Initial:
Company Title:	Organization:	Date of Birth (MM/DD):
Street:		
City:	State/Country:	Zip:
Direct Phone Number:	Corporate Phone Number:	
Non-Disclosure Agreement: Y/N	Email:	

Section B AUTHORIZATIONS	
User Name:	User Signature:

EXHIBIT I B

READING ROOM INSTRUCTIONS

REQUEST FOR PROPOSALS FOR PERFORMANCE OF EXPERT SERVICES AS REQUIRED TO DEVELOP, LEASE, OPERATE AND MANAGE A HOTEL, INCORPORATING THE TWA FLIGHT CENTER AT JOHN F. KENNEDY INTERNATIONAL AIRPORT (RFP# 38826)

To all Proposers:

Welcome to the Reading Room.

The documents provided in this Reading Room have been made available for your examination. The Port Authority makes no representation or guarantee, and shall not be responsible for their accuracy, completeness or pertinence, and, in addition, shall not be responsible for the conclusions drawn therefrom. These documents are made available merely for the purpose of making available such information as is in the possession of the Port Authority and which it is able to make available, whether or not such information may be accurate, complete or pertinent or of any value to prospective Proposers.

Please take a moment to read and become familiar with the guidelines that are to be followed while using the Reading Room.

1. Documents provided cannot be removed from the Reading Room.

2. When handling the documents, take the following precautions:

- Do not make any marks on the pages.
- Do not spindle, fold or mutilate any pages.
- Do not trace, alter, tear or bend or handle the pages in such a way as to cause damage to any pages.
- Do not tear out any pages.
- Do not refold pages in a new or different way.
- Use only Post-It notes or slips of paper for marking your place. Remove all page markers before leaving the Reading Room.

3. Reasonable duplication of documents by camera, scanner, photocopier or other means is allowed.

4. Laptop or other device for taking notes is permitted, but the Proposers must supply their own electrical (110v-120v) connections.

5. The Port Authority shall not be held responsible for the loss, damage or theft of any Proposer's electronic equipment or personal items brought into the Reading Room.

6. Access to the documents is by appointment only. If you require further examination of the documents provided, kindly schedule another appointment by contacting Laurie Spencer during the hours of 9:00 AM through 3:00 PM, Monday through Friday at 201-395-3444.

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If you have read and accept the guidelines, please fill out the information requested below. Failure to sign this statement and agree to all the above conditions shall preclude you from having access to the available documents.

Name: _____

Title: _____

Company: _____

Address: _____

Phone/email: _____

Date and Time: _____

EXHIBIT II

CONFLICT OF INTEREST DISCLOSURE STATEMENT (RFP #38826)

Name of Proposer: _____ (the "**Proposer**")

Reference is made to the Request for Proposals for the TWA Flight Center (RFP No.) (the "**RFP**") issued by The Port Authority of New York and New Jersey (the "**Port Authority**"). All capitalized terms used but not defined herein shall have the meanings set forth in the RFP (the "**ITP**").

Proposer's attention is directed to Section 1.7.2 (*Organizational Conflicts of Interest*) of the ITP regarding organizational conflicts of interest and the restrictions applicable to such conflicts. Proposers are advised that certain firms will not be allowed to participate on any Proposer's team for the Project because of their work with the Port Authority in connection with the procurement of the Project or the Supporting Projects.

1. Required Disclosure of Conflicts

In the space provided below, and on supplemental sheets as necessary, identify all relevant facts relating to past, present, or planned interest(s) of the Proposer's team (including the Proposer, and in the case of a joint Proposal each party thereto, proposed subcontractors, and their respective chief executives, directors, and lead personnel for the Project which may result, or could be viewed as, an organizational conflict of interest in connection with the RFP. Proposer should disclose (a) any current contractual relationships with the Port Authority, (b) any past, present, or planned contractual or employment relationships with any officer or employee of the Port Authority, and (c) any other circumstances that might be considered to create a financial interest in the contract by the Port Authority member, officer or employee if the Proposer is selected.. The Proposer should also disclose matters such as ownership of 10% or more of the stock of, or having directors in common with, any of the individuals or entities involved in preparing the RFP. The Proposer should also disclose contractual relationships (*i.e.*, joint ventures) with any of the individuals or entities involved in preparing the RFP, as well as relationships wherein such individual or entity is a contractor or consultant (or subcontractor or subconsultant) to the Proposer or a member of the Proposer's team. The foregoing is provided by way of example, and shall not constitute a limitation on the disclosure obligations.

_____

_____

_____

_____

2. Explanation

In the space provided below, and on supplemental sheets as necessary, identify steps the Proposer or other entities have taken or will take to avoid, neutralize, or mitigate any organizational conflicts of interest described herein.

_____
_____
_____

3. Certification

On behalf of the Proposer, the undersigned hereby certifies on and as of this _____ day of _____, 201[_], to the best of its knowledge, no interest exists that is required to be disclosed in this Conflict of Interest Disclosure Statement, other than as disclosed above.

	[ENTITY NAME]
	By: _____
	Name: _____
	Title: _____

EXHIBIT III

CERTIFICATION OF NO INVESTIGATION (CRIMINAL OR CIVIL ANTI-TRUST), INDICTMENT, CONVICTION, SUSPENSION, DEBARMENT, DISQUALIFICATION, PREQUALIFICATION DENIAL OR TERMINATION; BACKGROUND QUALIFICATIONS QUESTIONNAIRE, AUDIT, INTEGRITY MONITOR (RFP #38826)

By submitting its Proposal, each of the Proposer, and any person signing on behalf of the Proposer, certifies, and in the case of a joint Proposal each party thereto certifies as to its own organization, that it, and each parent and/or affiliate of each of them, has not: (a) been indicted or convicted in any jurisdiction; (b) been suspended, debarred, found not responsible or otherwise disqualified from entering into contracts with any governmental agency or been denied a government contract for failure to meet prequalification standards; (c) had a contract terminated by any governmental agency for breach of contract or for any cause related directly or indirectly to an indictment or conviction; (d) changed its name and/or Employer Identification Number (taxpayer identification number) following its having been indicted, convicted, suspended, debarred or otherwise disqualified, or had a contract terminated as more fully provided in (a), (b) and (c) above; (e) ever used a name, trade name or abbreviated name, or an Employer Identification Number different from those inserted in the Proposal; (f) been denied a contract by any governmental agency for failure to provide the required security, including bid, payment or performance bonds or any alternative security deemed acceptable by the agency letting the contract; (g) failed to file any required tax returns or failed to pay any applicable federal, state or local taxes; (h) had a lien imposed upon its property based on taxes owed and fines and penalties assessed by any agency of the federal, state or local government; (i) been, and is not currently, the subject of a criminal investigation by any federal, state or local prosecuting or investigative agency and/or a civil anti-trust investigation by any federal, state or local prosecuting or investigative agency, including an inspector general of a governmental agency or public authority; and (j) had any sanctions imposed as a result of a judicial or administrative proceeding with respect to any professional license held or with respect to any violation of a federal, state or local environmental law, rule or regulation.

The foregoing certification as to (a) through (j) above shall be deemed to have been made by the Proposer, as follows: if any of them is a corporation, such certification shall be deemed to have been made not only with respect to such Person itself, but also with respect to each director and officer, as well as, to the best of the certifier's knowledge and belief, each stockholder with an ownership interest in excess of 10%; if any of them is a partnership, such certification shall be deemed to have been made not only with respect to such Person itself, but also with respect to each partner. Moreover, the foregoing certification, if made by a corporation, shall be deemed to have been authorized by the Board of Directors of such corporation, and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of such certification as the act and deed of the corporation.

In any case where the Proposer cannot make the foregoing certification, such Person shall so state and shall furnish with the signed bid a signed statement which sets forth in detail the

reasons therefor. If such Person is uncertain as to whether it can make the foregoing certification, it shall so indicate in a signed statement furnished with its Proposal, setting forth an explanation for its uncertainty.

Notwithstanding that the certification may be an accurate representation of the Proposer's status with respect to the enumerated circumstances provided for in the first paragraph as requiring disclosure at the time that the Proposal is submitted, the Proposer agrees to immediately notify the Port Authority in writing of any change in circumstances during the period of irrevocability, or any extension thereof.

The foregoing certification or signed statement shall be deemed to have been made by each of the Proposer with full knowledge that it would become a part of the records of the Port Authority and that the Port Authority will rely on its truth and accuracy in selecting the Proposer. In the event that the Port Authority determines at any time prior or subsequent to award that the Proposer has falsely certified as to any material item in the foregoing certification; willfully or fraudulently submitted any signed statement pursuant to this clause which is false in any material respect; or has not completely and accurately represented its status with respect to the circumstances provided for in this clause as requiring disclosure, the Port Authority may determine that the Proposer is not a responsible proposer with respect to its Proposal for this RFP or with respect to future proposals and may, in addition to exercising any other rights or remedies available to it, exercise any of the rights or remedies set forth in the Lease. In addition, the Proposer is advised that knowingly providing a false certification or statement pursuant hereto may be the basis for prosecution for offering a false instrument for filing (*see e.g.*, New York Penal Law, Section 175.30 et seq.). The Proposer is also advised that the inability to make such certification will not in and of itself disqualify a Proposer, and that in each instance the Port Authority will evaluate the reasons therefor provided by the Proposer.

Background Qualifications Questionnaire; Audit; Integrity Monitor

If selected:

(i) The Proposer (or the Lessee, as applicable) shall be required to comply with, and shall require that its construction subcontractors and subconsultants, comply with, the provisions of the OIG Background Qualifications Questionnaire Package ("**BQQ Package**") available at http://www.panynj.gov/inspector-general/inspector-general-programs.html. The Proposer (or the Lessee, as applicable) shall obtain from each construction subcontractor and subconsultant the necessary certifications and disclosure forms.

(ii) Prospective subcontractors and subconsultants may be required to execute an additional Contractor Certification. The Proposer (or the Lessee, as applicable), or its prospective subcontractors and subconsultants may be required to enter into a Monitoring Agreement under which it will be required to take certain specific actions, including compensating an Integrity Monitor to be selected by the Port Authority. Said Integrity Monitor shall be charged with, among other things, auditing the actions of the Proposer (or the Lessee, as applicable), the subcontractors and/or subconsultants to determine

whether its business practices and relationships indicate a level of integrity sufficient to permit it to continue involvement with the Project.

(iii) Notwithstanding anything to the contrary, the Port Authority, including its Inspector General, Audit Department and Integrity Monitor, each shall have the right to audit all of the records of the Proposer (or the Lessee, as applicable) with respect to the Work and the Project, including, without limitation, records pertaining to any compensation paid, payable, or to be paid under the Lease. The Proposer (or the Lessee, as applicable), shall not be entitled to any reimbursement or other compensation for costs associated with such audit, investigation, or certification. The Proposer (or the Lessee, as applicable) agrees to pay for the cost of any audit or investigation conducted by, or on behalf of the Port Authority, in which any criminal activity, ethics violations, or professional misconduct by the Proposer (or the Lessee, as applicable) or any of its employees are discovered. The Proposer (or the Lessee, as applicable) further agrees that should it fail or refuse to pay for any such audit or investigation, the Port Authority is authorized to deduct from any sum owing the Proposer (or the Lessee, as applicable) an amount equal to the cost of such audit and the damages resulting therefrom. The determination of the value of any such costs and decision to charge for or withhold any such payments are at the sole discretion of the Port Authority (including its Inspector General). This paragraph must be included in any agreement the Proposer (or the Lessee, as applicable) enters into with any contractor or any other entity at any tier with respect to the Work or the Project.

(iv) The Proposer (or the Lessee, as applicable) and any construction subcontractors and subconsultants, shall cooperate fully with the Port Authority's Inspector General. In addition, the Proposer (or the Lessee, as applicable), and all construction subcontractors and subconsultants, shall cooperate fully with its Integrity Monitor. Such cooperation will include, but is not limited to, providing complete access to all personnel and records in any way related to the work performed in connection with the Project. A material failure to cooperate may result in a default and/or removal of the Proposer (or the Lessee, as applicable) subcontractor or subconsultant. This paragraph must be included in any agreement the Proposer (or the Lessee, as applicable) enters into with any contractor or any other entity at any tier with respect to the Work or the Project.

As used in this Exhibit III, the following terms shall mean:

Affiliate - An entity in which the parent of the Proposer owns more than 50% of the voting stock or has the power to direct or cause the direction of the management and policies of such entity by contract or otherwise, or an entity in which a group of principal owners which owns more than 50% of the Proposer also owns more than 50% of the voting stock or has the power to direct or cause the direction of the management and policies of such entity by contract or otherwise.

Agency or Governmental Agency - Any federal, state, city or other local agency, including departments, offices, quasi-public agencies, public authorities and corporations, boards of education and higher education, public development corporations, local development corporations and others.

Employer Identification Number - The tax identification number assigned to firms by the Federal government for tax purposes.

Investigation - Any inquiries made by any federal, state or local criminal prosecuting or investigative agency, including an inspector general of a governmental agency or public authority, and any inquiries concerning civil anti-trust investigations made by any federal, state or local governmental agency. Except for inquiries concerning civil anti-trust investigations, the term does not include inquiries made by any civil government agency concerning compliance with any regulation, the nature of which does not carry criminal penalties, nor does it include any background investigations for employment, or federal, state, and local inquiries into tax returns.

Officer - Any individual who serves as chief executive officer, chief financial officer, or chief operating officer of the Proposer by whatever titles known.

Parent - An individual, partnership, joint venture or corporation which owns more than 50% of the voting stock of the Proposer.

EXHIBIT V

The available documents are as follows:

1. Site Plan
2. Line of Sight Height Restrictions
3. Historic and Non-Historic Area Floor Plans
4. Underlying City Lease between the Port Authority and the City of New York
5. Memorandum of Agreement between the Port Authority, the Federal Aviation Administration, New York State Historic Preservation Office and the Advisory Council on Historic Preservation.
6. Subsurface Environmental Baseline Report - March 2010
7. Electrical System – Stage I Report - March 2009
8. Underground Utility Systems Drawings
9. Reference Drawings – TWA terminal Architectural, Structural, Mechanical, Electrical and Plumbing (RD-1 – RD-34)
10. Restoration and Rehabilitation Guideline Report and drawings – TWA Flight Center - 2006 (2 volumes: 8 ½ x 11 and 11 x 17)
11. Port Authority Tenant Construction Review Manual
12. Port Authority Tenant Alteration procedures and Standards Guide (Aviation Department)
13. Port Authority Building and Sustainability Requirements
14. Port Authority Airport Customer Service Standards
15. Bldg. 60 Adaptive Reuse – Phase I, Curtain Wall and Skylight Repairs Stage I Report Oct. 2009
16. Restoration Contract Drawings and Specifications – JFK-1008, JFK-1009, JFK1015
17. Prioritization Asbestos Assessment Study – Hall Kimbrell – 1989
18. JFK Building Condition Survey – Terminal 5 (TWA) – 2000
19. Terminal 5/6 Redevelopment Project – Environmental Assessment & DOT Section 4(f) Evaluation (EA) – (Volumes 1 and 2) – 2004
20. Terminal 5/6 Redevelopment Project – Environmental Determination – Finding of No Significant Impact (FONSI) and Record of Decision (ROD) – February 2005

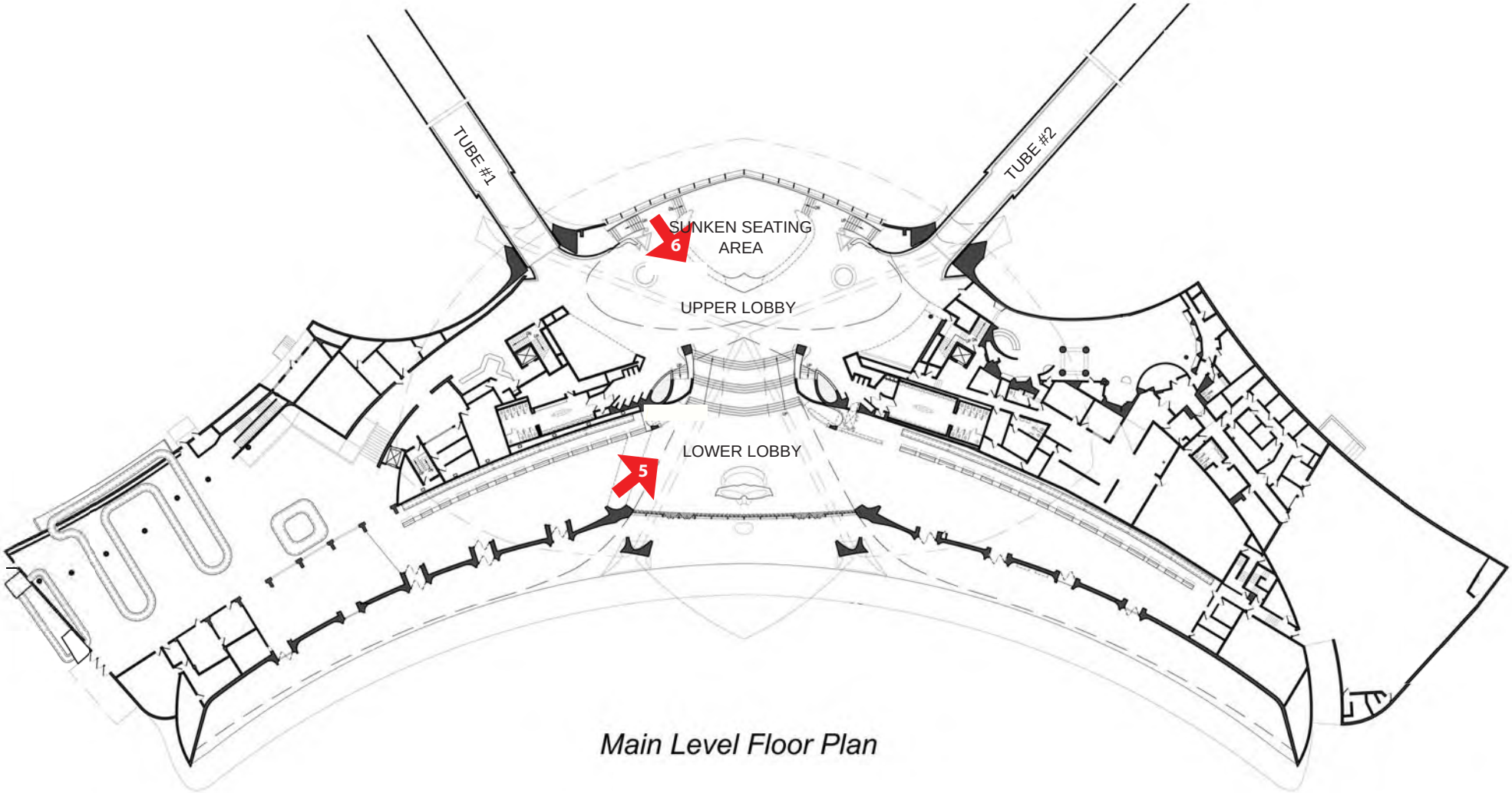
The following document will only be available for review at the Airport Reading Room.

21. Tenant Alteration Applications for Terminal 5, Including the Vicinity of building 60 – Site Preparation (April 2009) and Civil Landside (May 2009)

EXTERIOR RENDERING VIEWPOINT

N

JFK AIRPORT - TWA FLIGHT CENTER

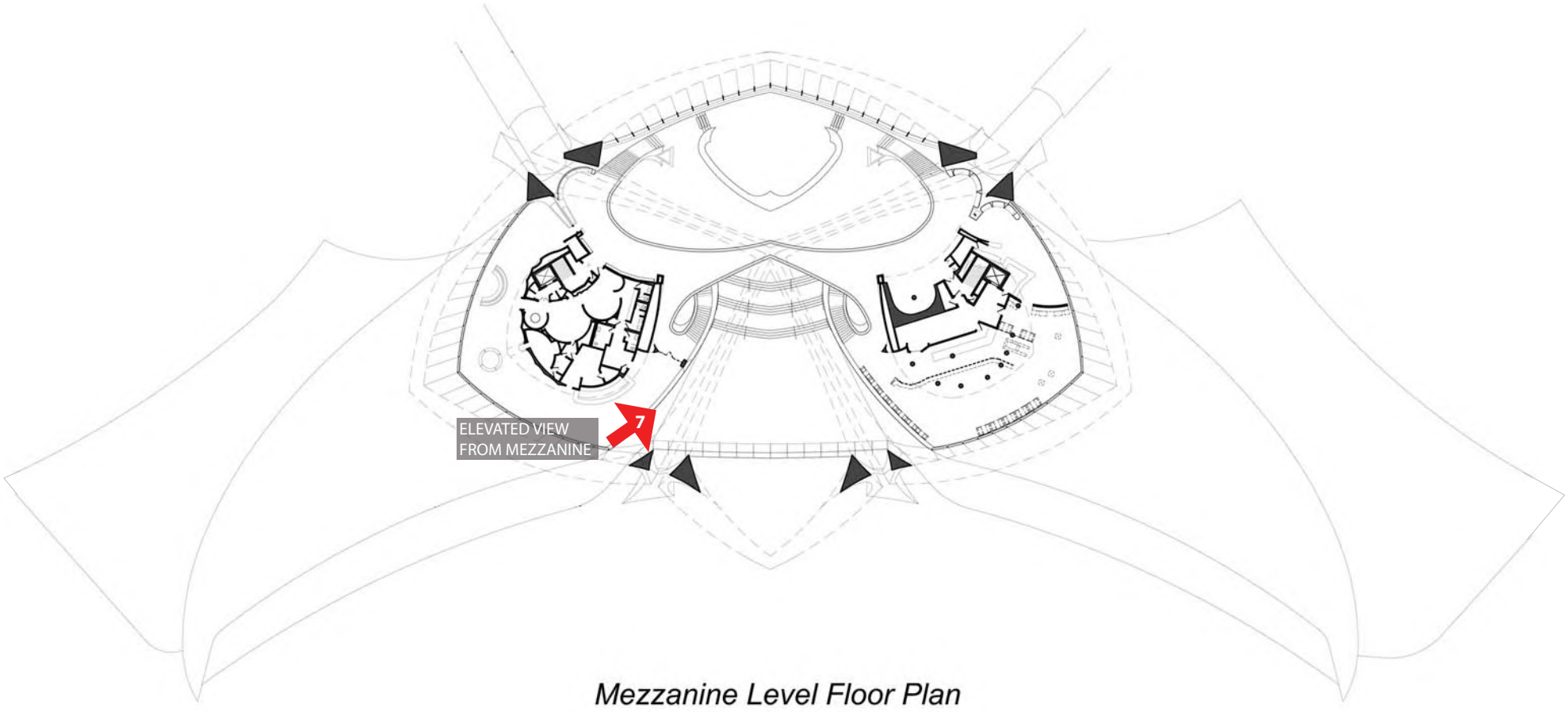


Main Level Floor Plan

INTERIOR RENDERING VIEWPOINT

N

JFK AIRPORT - TWA FLIGHT CENTER



Mezzanine Level Floor Plan

INTERIOR RENDERING VIEWPOINT

←N

JFK AIRPORT - TWA FLIGHT CENTER

View #1

View #2

View #3

View #4

View #5

View #6

View #7

Appendix B: 2004 Memorandum of Agreement

MEMORANDUM OF AGREEMENT
AMONG
THE PORT AUTHORITY OF NEW YORK & NEW JERSEY,
THE NEW YORK STATE HISTORIC PRESERVATION OFFICE,
THE FEDERAL AVIATION ADMINISTRATION, AND
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
FOR THE REHABILITATION, RESTORATION, AND
ADAPTIVE REUSE OF TWA TERMINAL 5 AT
JOHN F. KENNEDY INTERNATIONAL AIRPORT
JAMAICA, NEW YORK

WHEREAS, the proposed redevelopment of the TWA Terminal site at John F. Kennedy International Airport (JFK), as part of the proposed Terminal 5/6 Redevelopment Project, has prompted the Port Authority of New York & New Jersey (Port Authority), as operator of JFK, to request the Federal Aviation Administration (FAA) to consider approving a change to the airport layout plan (ALP); and

WHEREAS, the TWA Terminal site includes the existing TWA Main Terminal Building, the Connecting Flight Tube to the present Flight Wing 1 ("West Tube"), the Connecting Flight Tube to the present Flight Wing 2 ("East Tube"), and "Flight Wings 1 and 2," and

WHEREAS, the existing TWA Main Terminal Building, the East and West Tubes, and Flight Wing 2 have been determined to be eligible for listing on the National and State Registers of Historic Places and

WHEREAS, the existing TWA Terminal was designed in the late 1950's and opened in 1962, and has been determined through an exploration of feasible and prudent alternatives to be inadequate in function and scale for contemporary airport terminal use at JFK; and

WHEREAS, the FAA notified the Advisory Council on Historic Preservation (ACHP) that the proposed redevelopment will have an Adverse Effect on the National and State Register-eligible TWA Terminal, and

WHEREAS, the FAA, the New York State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (ACHP) and the Port Authority, as an invited signatory, have consulted pursuant to 36 C.F.R. Part 800, regulations implementing Section 106 of the National Historic Preservation Act, as amended (16 U.S.C. 470f); and

WHEREAS, The National Trust for Historic Preservation, The Municipal Art Society of New York, the New York City Partnership, Documentation and Conservation of Buildings, Sites and Neighborhoods of the Modern Movement (DOCOMOMO), the Finnish Consulate General, New York Landmarks Conservancy, Jet Blue Airways, the New York Building Congress, and John Cullinane & Associates – as interested parties, have requested and been invited by the FAA to be consulting parties and to participate in the Section 106 process as described at 36 C.F.R. Part 800, and have been invited to concur in this Memorandum of Agreement (MOA), and

WHEREAS, a new terminal will be constructed and the historic TWA Terminal and the East Tube will be restored/rehabilitated and adaptively reused as these projects are reflected herein and described in the "Revised Concept Master Plan" - consisting of the initial Concept Master Plan of July, 2000, as amended as of February 2001, as described in the October 29, 2001 PowerPoint Presentation "JFK Sites 5/6 Redevelopment Including the TWA Landmark" by Robert I. Davidson, FAIA, and as revised on October 10, 2003, as a result of additional consultation with the consulting parties. (See Attachment A – description of project, Attachment B – drawing of Revised Concept Master Plan, and Attachment C - October 10, 2003 Report to FAA on Consultation).

NOW THEREFORE, the FAA, the SHPO, the ACHP, and the Port Authority agree that the project to redevelop the Terminals 5/6 site at JFK shall be implemented in accordance with the following Stipulations in order to take into account the effect of the undertaking on the TWA Terminal site:

STIPULATIONS

If the FAA approves the undertaking, it will ensure that the following measures are carried out:

Planning

1. In December 2001 and January 2002, the Port Authority advertised in 19 local, national, and international publications a Solicitation of Interest (SOI) to identify entities with an interest in undertaking the restoration/rehabilitation and adaptive reuse of the TWA Terminal. As a result, the Port Authority sent a SOI package to 104 entities that responded to the advertisement. In addition, a SOI package was provided to each of the signatories to this MOA and the consulting parties. The Port Authority received 41 expressions of interest, and those entities, and any other interested party, will receive a RFP for the restoration/rehabilitation and adaptive reuse of the TWA Terminal. The Port Authority will seek, through a Request For Proposals (RFP) process, to execute an agreement with an adaptive reuse developer providing for the appropriate design, construction, restoration, rehabilitation, operation and maintenance of the TWA Main Terminal Building and the Connecting Flight Tubes. The Port Authority will use its best efforts to issue the RFP as soon as possible following receipt of FAA approval for the Terminal 5/6 Redevelopment Project and expects to request that proposals be submitted to it no later than four months after issuance. The Port Authority will require that any adaptive reuse developer selected as a result of the RFP or any other process, must agree to adhere to the terms and conditions in this Memorandum of Agreement. The Port Authority shall give each consulting party the opportunity to comment on the Draft RFP documents prior to issuance in order to receive their input on design and preservation issues in those documents, which are within the scope of this MOA. The Port Authority shall also give the consulting parties the opportunity to comment on the proposals received in response to the RFP. The comments of the consulting parties shall be provided to the Selection Committee for their consideration during the selection process.

2. In accordance with the Port Authority's October 10, 2003 report to the FAA on the consultation process, the adaptive reuse will accommodate the provision of, at minimum, two (2) electronic ticketing kiosks in an appropriate setting within the TWA Main Terminal for use by airline passengers with carry-on luggage only. The Port Authority will require that any airline

responsible for the ticketing kiosks will install, operate and maintain the kiosks and monitor their usage.

3. In order to seek input from interested parties, on the implementation of the Revised Concept Master Plan for the Terminal 5/6 site at JFK, in accordance with the Stipulations in this MOA, including the restoration, rehabilitation and reuse of the TWA Terminal Building and efforts to minimize any adverse effects of the site redevelopment on the TWA Terminal Building, a Redevelopment Advisory Committee (RAC) will be formed and will operate in accordance with the Guidelines in Attachment D to this MOA. The RAC will consist of the consulting parties that express an interest in participating, the SHPO and Port Authority.

4. In order to avoid, minimize or mitigate any adverse effect of the new terminal in each development phase on the historic building, the siting and design of a new terminal on the airside of the historic building shall provide an appropriate setting for the TWA Terminal Building. The goal will be to retain the individual identity of the historic building, separate from the new terminal. The new terminal will include improved public access to the TWA Main Terminal through the Connecting Flight Tubes, and will be separated from the TWA Main Terminal by an outdoor plaza and arrivals roadway. As reflected in the Port Authority's October 10, 2003 report to the FAA on the consultation process, and as reflected in the Revised Concept Master Plan, the Port Authority will enhance public access to the TWA Main Terminal by providing enclosed connectors from the light rail station (AirTrain JFK) to the TWA Main Terminal. The connection will contain signage to allow for passage of air terminal passengers, patrons of the adaptive reuse, and the general public to the TWA Main Terminal and its features. In compliance with the July 18, 1997 record of decision on the Environmental Impact Statement for the JFK Light Rail System, this connection shall be constructed in such a way as to minimize physical and visual impacts to the historic resource. Additionally, as more detailed plans for the siting and design of the new terminal are developed, including the connections from the TWA Main Terminal to Air Train JFK and to the new terminal, those plans will be forwarded to the SHPO, and in accordance with RAC Guidelines, to the RAC for review and comment. The roadway system will also allow vehicles to access either the TWA Main Terminal frontage or the arrivals/departures roadways of the new terminal.

5. The final design plans for the restoration, rehabilitation and adaptive reuse of the TWA Main Terminal and the East Tube, and any plans for alteration of the West Tube shall be submitted by the Port Authority to the SHPO for comment as to whether those plans conform to the conditions set forth in Stipulation 12 governing the standards for performance of the restoration and rehabilitation work. Subsequently, the SHPO and the Port Authority shall give the consulting parties, and the RAC, in accordance with the RAC Guidelines, an opportunity to provide comment on those plans, including comment on whether those plans conform to the standards set forth in Stipulation 12. All such comments shall be considered by the Port Authority and the SHPO and the SHPO shall consult with the Port Authority before the Port Authority approves the final TWA Terminal and Connecting Flight Tubes design plans. The Port Authority shall notify all signatories, all consulting parties and all members of RAC of its approval of the final TWA Terminal and Connecting Flight Tubes design plans.

6. As part of its public education effort, the Port Authority shall develop an interpretative display illustrating the history and significance of the TWA Terminal site and its relationship to the overall development of JFK International Airport. The exhibit shall be placed in a prominent location in the TWA Main Terminal Building or in another appropriate setting proximal to that building. The display shall be accessible to the public during normal operating hours after the rehabilitation/restoration is complete.

7. The Port Authority shall have a consultant that meets the professional qualifications established by the U.S. Department of the Interior and set forth in 62 Fed. Reg. 33,707 (June 20, 1997) prepare a National Register of Historic Places nomination for the TWA Main Terminal Building, the Connector Tubes and the Flight Wings prior to demolition of the Flight Wings and shall support such listing on the Register.

8. The Port Authority shall record the TWA Main Terminal Building, Flight Wing 2, and the Connecting Flight Tubes to Level 1 Historical Architectural Building Survey/Historic American Engineering Record (HABS/HAER) standards of the National Park Service. The consultant chosen by the Port Authority to conduct the documentation shall meet the professional qualifications established by the U.S. Department of the Interior and set forth in 36 C.F.R. 61. Copies of the recordation shall be sent to the National Park Service - HABS/HAER Coordinator, the New York State Archives, the Port Authority and the SHPO.

9. As reflected in the Port Authority's October 10, 2003 report to the FAA on the consulting process, the preservation of the East Tube may require structural modifications to the column(s) in order to allow roadways to pass under the existing tube.

10. The Port Authority will not begin to remove the Flight Wings as set forth in Stipulation 14 until a development plan for a new terminal is in place and a lease agreement is reached between the Port Authority and a tenant(s) for the new terminal.

Interim Maintenance

11. The Port Authority shall ensure and commit adequate resources so that the TWA Main Terminal Building, including portions not eligible for listing as historic landmarks, and the Connecting Flight Tubes are properly maintained and cared for from the present until an on-going maintenance obligation for the TWA Main Terminal and Connecting Flight Tubes is undertaken by the adaptive reuse developer consistent with Stipulations 12 and 13. Such interim maintenance shall include, but not be limited to, regularly scheduled inspections of the building (including the roof), cleaning, preventive maintenance routines for HVAC equipment, temperature control, plumbing, and fire systems, and shall be supervised by the Port Authority. Necessary repairs/maintenance identified through the regularly scheduled inspections will be done by the Port Authority in a timely manner. During this interim period, the SHPO shall be given the opportunity by the Port Authority to inspect the building to ensure that it is being properly maintained. The Port Authority shall ensure the maintenance efforts described above are continually undertaken in the event that the adaptive reuse is interrupted or temporarily discontinued at any time.

Restoration and Rehabilitation

12. As a condition of reuse, the Port Authority, through consultation with the SHPO, shall assure that the TWA Main Terminal Building and East Tube are restored and rehabilitated by the adaptive reuse developer in accordance with the Secretary of Interior Standards for the Treatment of Historic Properties ("Secretary's Standards"). The TWA Main Terminal and the East Tube shall, as a whole, be treated in accordance with the Standards for the Treatment of Historic Properties – Rehabilitation. As per Stipulation 9, structural modifications may be required to the column(s) of the East Tube. The existing façade, including the landside entrances and window walls, the airside window walls, the concrete roof shell, the lower and upper main lobby spaces, the interior of the East Flight Tube and the Ambassador Club on the north mezzanine in the Main Terminal interior shall be restored in accordance with the Standards for the Treatment of Historic Properties – Restoration.

13. The plan to be approved by the Port Authority for the restoration, rehabilitation and adaptive reuse of the TWA Main Terminal Building by an adaptive reuse developer will retain the entire visible exterior length of the existing East Tube. As reflected in the Port Authority's October 10, 2003 report to the FAA on the consultation process, the West Tube may be modified. For this connector tube, a hierarchy of options will be investigated, in consultation with RAC, as part of the design for the new terminal. The first option would seek to adapt the existing configuration in a minimally intrusive manner to improve public access. If analysis finds this option to be infeasible, then a design for reconstructing the connecting walkway to incorporate a moving walkway system in a manner consistent with the original design will be undertaken. Should such an effort prove to be inconsistent with the objective of improving public access, after consultation with the RAC, in accordance with RAC Guidelines, the Port Authority shall assure that a contemporary and appropriate design will be constructed to replace the West Tube. Both tubes will provide public access between the rehabilitated/restored TWA Terminal and the newly constructed terminal building.

14. As reflected in the Port Authority's October 10, 2003 report to the FAA on the consultation process, both Flight Wing 1 and Flight Wing 2 will be demolished. Prior to the demolition, reuse of two of the gate lounge "trumpets," as well as other architecturally significant elements, will be investigated as part of the new terminal concourse and/or gate holdroom area. If feasible, the inclusion of all or part of the "trumpets" and their original interiors would be relocated and included as part of the new terminal concourse.

15. The restoration work shall include the removal of non-historic additions to the original TWA Main Terminal Building and Connecting Flight Tubes including, but not limited to, entrance vestibules, security booths, the south baggage facility and the pedestrian canopy. The work on the interior lobby spaces shall include the restoration of the marble tile flooring and wall surfaces, the information desk, the Solari flight information display surround, railings, stairs and ventilation enclosures. Remaining non-historic kiosks, signage and furnishings shall be removed. The Port Authority shall continue to consult with the SHPO on the restoration, rehabilitation and adaptive reuse until the restoration and rehabilitation work is completed by the adaptive reuse developer.

16. After its completion, the rehabilitation/restoration work performed in accordance with Stipulation 12 shall be approved for conformance with the standards set forth in Stipulation 12 by the SHPO. The SHPO, upon being informed by the Port Authority that the rehabilitation/restoration work has been completed, shall notify all consulting parties and the RAC that the SHPO's approval under this Stipulation is being sought. The consulting parties and members of RAC shall have 60 days from such notification to provide the Port Authority and the SHPO with their comments as to whether the rehabilitation/restoration work has been performed in conformance with the standards set forth in Stipulation 12. In order to facilitate their comment, the consulting parties and the members of the RAC during this 60-day period shall be given an opportunity to tour, as a group, the newly renovated and rehabilitated TWA Main Terminal Building and East Tube. After receiving such comments, the SHPO, when it is satisfied that the work has been performed in conformance with the conditions set forth in Stipulation 12, shall approve the rehabilitation/restoration work. The Port Authority shall notify all signatories, all consulting parties and the RAC of the SHPO approval.

Ongoing Maintenance and Preservation

17. The Port Authority shall prepare maintenance and preservation guidelines for the treatment of the TWA Main Terminal Building and East Tube. The guidelines shall address the replacement and repair of historic materials, on-going façade maintenance and cleaning, and the repair of historic and replacement elements such as light fixtures, hardware and entrances. The guidelines shall prescribe periodic inspections and maintenance for systems and assemblies on a five-year cycle. The guidelines shall prescribe that the inspection shall review the condition of the restored historic fabric including but not limited to the concrete roof shell, the glass window walls and entrances, the interior finishes and the railings, stairs and historic furnishings. The guidelines shall be submitted to SHPO for review and approval following completion of the rehabilitation/restoration work referenced in Stipulations 12 -16.

18. After the restoration and rehabilitation work is completed by the adaptive reuse developer, the Port Authority shall perform an inspection of the TWA Main Terminal Building and East Tube every five years in accordance with the maintenance and preservation guidelines referenced in Stipulation 17 and submit a certified copy of the report to the SHPO for approval. A copy of the report approved by the SHPO shall be provided by the Port Authority to the signatories to the MOA. The inspection shall be conducted by an architect or engineer experienced in the restoration of historic structures.

Termination of Memorandum of Agreement

19. The maintenance and inspection obligations referenced in Stipulations 17 and 18 above shall continue as outlined in those Stipulations. This agreement shall expire after the co-Chairs of RAC notify all members of RAC and the FAA that the consultation process for RAC has been completed, and after any objections raised pursuant to the Dispute Resolution process in Stipulation 21 have been considered in accordance with that Stipulation. The FAA shall notify all signatories when this MOA expires.

20. If any signatory determines that the terms of the MOA cannot be or are not being carried out, then this signatory shall give written notice of such determination to all other signatories to

the MOA. If the MOA is not amended by consultation between the signatories within three months after issuance of such notice, then any signatory may terminate the MOA (with the exception of the maintenance and inspection obligations referenced in Stipulations 17 and 18), by providing thirty (30) calendar days written notice to the other signatories. The FAA shall then either execute a new agreement with the signatories pursuant to 36 CFR 800.6 (c)(1), or request and respond to the comments of the Council under 36 CFR 800.7(a). If the Port Authority has not executed an agreement with an adaptive reuse developer for the rehabilitation/restoration work within five (5) years after this agreement has been executed by the signatories, the Port Authority shall notify the signatories of this fact, and the signatories shall reconsider the terms of the agreement, other than the maintenance and inspection obligations referenced in Stipulation 11, and consult among themselves to amend this agreement pursuant to this Stipulation.

21. Should any member of the public or other interested party, including the signatories to this MOA and the members of the RAC, object within the 30 days of the approval, pursuant to Stipulation 5, of the restoration/rehabilitation plans or the approval, pursuant to Stipulation 16 of the restoration/rehabilitation work, or any other action proposed with regard to the restoration/rehabilitation of the TWA Terminal and East Tube, the Port Authority shall consult with the objecting party to resolve the objection. If the Port Authority, after consultation with the SHPO and the objecting party, determines that the objection cannot be resolved, the Port Authority shall request the further comments of the Advisory Council for Historic Preservation. Any Council comment provided in response to such request shall be taken into account by the Port Authority, in further consultation with the SHPO with reference only to the subject of dispute; the Port Authority's responsibility to carry out all actions under this agreement that are not subjects of this dispute shall remain unchanged.

EXECUTION AND AMENDMENT

Execution of this Memorandum by the FAA, the SHPO, the ACHP, and the Port Authority, and implementation of its terms, will be evidence that FAA has afforded consulting parties an opportunity to comment on the undertaking and its effects on the historic property, and that the FAA has taken into account the effect of the undertakings on the historic property, and has completed all processes in accordance with Section 106 of the National Historic Preservation Act.

Until the Port Authority enters into an agreement with an adaptive reuse developer for the rehabilitation/restoration work on the TWA Terminal Building, any signatory to this agreement may propose to the other signatories that this agreement be amended, whereupon the FAA shall consult with the other signatories to this MOA in accordance with 36 C.F.R. 800.6(c)(7), (8) to consider such an amendment.

SIGNATORY PAGES* (PAGE 1 OF 4)

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

BY: _____ DATE: 8/25/04

Print/Type Name: Ernesto L. Butcher

Print/Type Title: Chief Operating Officer

* A separate signature page is being executed by each signatory to this Agreement.

SIGNATORY PAGES* (PAGE 2 OF 4)

FEDERAL AVIATION ADMINISTRATION

By: _____ Date: 9/2/04

Print/Type Name: ARLENE B. FELDMAN

Print/Type Title: REGIONAL ADMINISTRATOR EASTERN REGION
FEDERAL AVIATION ADMINISTRATION

* A separate signature page is being executed by each signatory to this Agreement.

SIGNATORY PAGES* (PAGE 3 OF 4)

NEW YORK STATE HISTORIC PRESERVATION OFFICE

By: _____ Date: 9/22/04

Print/Type Name: Bernadette CASTRO

Print/Type Title: SHPO / Commissioner

* A separate signature page is being executed by each signatory to this Agreement.

SIGNATORY PAGES* (PAGE 4 OF 4)

ADVISORY COUNCIL FOR HISTORIC PRESERVATION

BY: John M. Fowler DATE: 9/16/04

Print/Type Name: JOHN M. FOWLER

Print/Type Title: EXECUTIVE DIRECTOR

* A separate signature page is being executed by each signatory to this Agreement.

CONSULTING PARTIES CONCURRENCE — PAGE 1 OF 3

JETBLUE AIRWAYS CORPORATION

By: _____ Date: 10/15/04

Print/Type Name: Richard Smyth, VP Redevelopment

THE NATIONAL TRUST FOR HISTORIC PRESERVATION

By: _____ Date: _____

Print/Type Name: _____

THE MUNICIPAL ART SOCIETY OF NEW YORK

By: _____ Date: _____

Print/Type Name: _____

CONSULTING PARTIES CONCURRENCE — PAGE 1 OF 3

JETBLUE AIRWAYS CORPORATION

By: _____ Date: _____

Print/Type Name: _____

THE NATIONAL TRUST FOR HISTORIC PRESERVATION

By: Paul W. Edmondson Date: Oct 7, 2004

Print/Type Name: Paul W. Edmondson, General Counsel

THE MUNICIPAL ART SOCIETY OF NEW YORK

By: _____ Date: _____

Print/Type Name: _____

CONSULTING PARTIES CONCURRENCE — PAGE 1 OF 3

JETBLUE AIRWAYS CORPORATION

By: _____ Date: _____

Print/Type Name: _____

THE NATIONAL TRUST FOR HISTORIC PRESERVATION

By: _____ Date: _____

Print/Type Name: _____

THE MUNICIPAL ART SOCIETY OF NEW YORK

By: Frank Sanchis Date: 10/4/04

Print/Type Name: FRANK SANCHIS

CONSULTING PARTIES CONCURRENCE — PAGE 2 OF 3

THE NEW YORK CITY PARTNERSHIP

By: _____ Date: 9-30-2004

Print/Type Name: Kathryn Wylde, President + CEO

DOCUMENTATION AND CONSERVATION OF BUILDINGS, SITES AND NEIGHBORHOODS OF THE MODERN MOVEMENT (DOCOMOMO)

By: _____ Date: _____

Print/Type Name: _____

THE CONSULATE GENERAL OF FINLAND, NEW YORK

By: _____ Date: _____

Print/Type Name: _____

CONSULTING PARTIES CONCURRENCE — PAGE 2 OF 3

THE NEW YORK CITY PARTNERSHIP

By: _____ Date: _____

Print/Type Name: _____

DOCUMENTATION AND CONSERVATION OF BUILDINGS, SITES AND NEIGHBORHOODS OF THE MODERN MOVEMENT (DOCOMOMO)

By: _____ Date: 10.21.04

Print/Type Name: Theodore H.M. Prudon, Ph.D., FAIA

THE CONSULATE GENERAL OF FINLAND, NEW YORK

By: _____ Date: _____

Print/Type Name: _____

CONSULTING PARTIES CONCURRENCE — PAGE 2 OF 3

THE NEW YORK CITY PARTNERSHIP

By: _____ Date: _____

Print/Type Name: _____

DOCUMENTATION AND CONSERVATION OF BUILDINGS, SITES AND NEIGHBORHOODS OF THE MODERN MOVEMENT (DOCOMOMO)

By: _____ Date: _____

Print/Type Name: _____

THE CONSULATE GENERAL OF FINLAND, NEW YORK

By: Osmo Lipponen Date: 4.10.04

Print/Type Name: Osmo Lipponen

CONSUL GENERAL

CONSULTING PARTIES CONCURRENCE — PAGE 3 OF 3

NEW YORK LANDMARKS CONSERVANCY

By: _____ Date: 10/04/04

Print/Type Name: Peg Breen

THE NEW YORK BUILDING CONGRESS

By: _____ Date: _____

Print/Type Name: _____

JOHN CULLINANE & ASSOCIATES

By: _____ Date: _____

Print/Type Name: _____

CONSULTING PARTIES CONCURRENCE — PAGE 3 OF 3

NEW YORK LANDMARKS CONSERVANCY

By: _____ Date: _____

Print/Type Name: _____

THE NEW YORK BUILDING CONGRESS

By: _____ Date: 9/27/04

Print/Type Name: John T. Anderson, President

JOHN CULLINANE & ASSOCIATES

By: _____ Date: _____

Print/Type Name: _____

CONSULTING PARTIES CONCURRENCE --- PAGE 3 OF 3

NEW YORK LANDMARKS CONSERVANCY

By: _____ Date: _____

Print/Type Name: _____

THE NEW YORK BUILDING CONGRESS

By: _____ Date: _____

Print/Type Name: _____

JOHN CULLINANE & ASSOCIATES

By: _____ Date: 10/13/04

Print/Type Name: JOHN CULLINANE

Attachment A

Description of Project

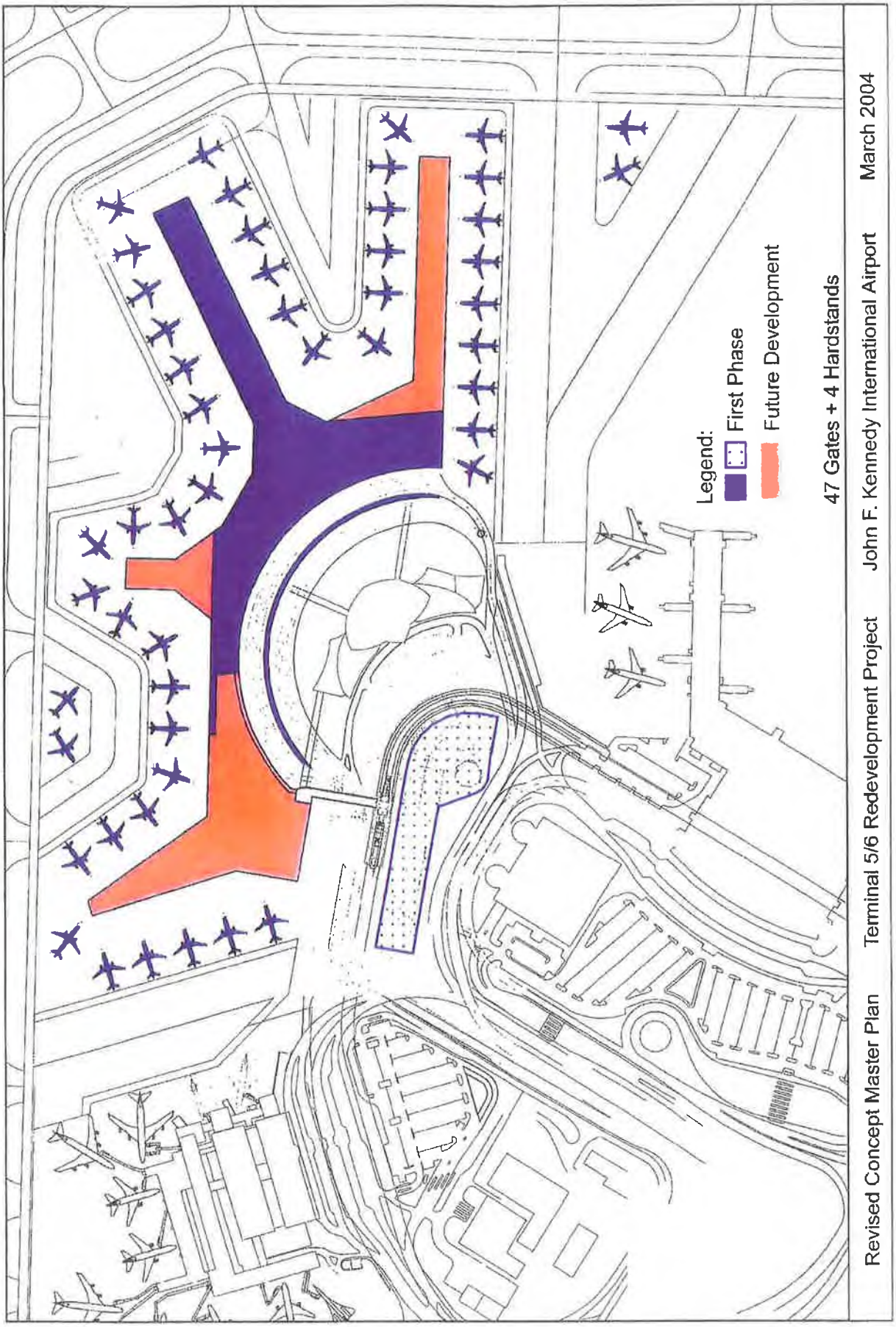
The Port Authority has proposed redevelopment of the entire Terminal 5/6 site at JFK. The Revised Concept Master plan calls for the phased construction of a new terminal complex consisting of a total of 47 contact gates and four (4) hardstand positions.

The existing Flight Wings 1 and 2 of the TWA Terminal would be demolished in order to accommodate the construction of a new terminal for Jet Blue. However, the Flight Wings would not be demolished until a lease agreement is reached between the Port Authority and Jet Blue Airways for the new terminal. Prior to demolition of Flight Wing 2, the feasibility of removing and/or reusing interior elements of gate lounge(s) in the new terminal will be explored by the Port Authority, with input from the Consulting Parties.

The Port Authority will seek to restore/rehabilitate and adaptively reuse the Main TWA Terminal and the East Tube. The adaptive reuse will be determined through a Request for Proposals process to be managed by the Port Authority, with input from the Consulting Parties. The Port Authority will ensure that the adaptive reuse in the TWA Terminal will accommodate electronic ticketing kiosks for airline passengers without the need to check baggage.

Jet Blue's new terminal will have 26 contact gates and be connected to the TWA Terminal through the existing Connector Tubes. Once construction of this phase of the Revised Concept Master plan is completed, Jet Blue would move its operations from Terminal 6 to the new terminal. The next phase of the redevelopment would entail demolition of Terminal 6 to accommodate construction of the next phase of the Revised Concept Master Plan. This phase will proceed as the anticipated need for additional gates at JFK materializes and a lease agreement is reached with an airline (or airlines) for the next phase of the Revised Concept Master Plan. In addition, a new parking garage will be constructed across the roadway and AirTrain guide way from the existing Terminal 6 and be connected to the AirTrain station at the existing Terminal 6. Interested Consulting Parties will have input on these phases of the Concept Master Plan as they relate to the TWA Terminal/historic resource.

The entire TWA Terminal site will be nominated for listing on the State and federal Registers of Historic Places. Public access to the TWA Terminal will be provided via a new direct link from the existing Terminal 6 AirTrain connector and by vehicular access from the airport roadway system.


Legend:
First Phase
Future Development
47 Gates + 4 Hardstands
Revised Concept Master Plan Terminal 5/6 Redevelopment Project John F. Kennedy International Airport March 2004

ATTACHMENT C

Port Authority of New York and New Jersey
October 10, 2003 Report

At the September 18, 2003 meeting of the consulting parties for the Terminal 5 and 6 Redevelopment Project at John F. Kennedy International Airport (JFK) it was agreed that the consulting parties along with the Port Authority of New York and New Jersey (PANYNJ) and the New York State Historic Preservation Office (SHPO) would take the next 15 days to meet and make another effort toward working together in order to reach agreement on issues associated with the proposed concept master plan.

The following represents the results of those most recent meetings (attendance by organization listed below) regarding the concept master plan for the Terminal 5/6 site at JFK Airport. Our discussions resulted in a targeted review of 4 elements of the master plan: the connecting walkways or "tubes" which link the Main Terminal to the flight wings and gate holdrooms; the removal and reuse of Flight Wing II; accessibility to/from the Airtrain and the proposed parking garage to both the landmark structure and the new terminal; and the adaptive reuse of the Main Terminal.

It was agreed that the goal of preserving the Main Terminal through an adaptive reuse program would be enhanced by allowing Jetblue Airways to place self-service ticketing machines within the Main Terminal and by providing easy accessibility between the Main Terminal and the New Terminal. Connections between the new terminal and landmark Main Terminal would be a vital part of realizing a plan that maintains a significant component of the original structure while supporting an adaptive reuse of the landmark Main Terminal. In order to meet that objective we agreed that the original connecting walkway serving Flight Wing II would be preserved in its current configuration. Such preservation may require structural modifications to the column(s) in order to allow roadways to pass under the existing "tube". With regards to the connecting walkway serving Flight Wing I, a hierarchy of options would be investigated as part of the design for the new terminal. The first option would seek to adapt the existing configuration in a minimally intrusive manner to improve such access. If analysis finds this option to be infeasible, then a design for reconstructing the connecting walkway to incorporate a moving walkway system in a manner consistent with the original design will be undertaken. Should such an effort prove to be inconsistent with the objective, and then a contemporary and appropriate design will be constructed.

After considerable review, it was agreed that both Flight Wing I and Flight Wing II would be removed, though reuse of two of the gate lounge "trumpets", as well as other architecturally significant elements as part of the new terminal concourse and gate holdroom area would be investigated. If feasible, the inclusion of all or part of the "trumpets" and their original interiors would be relocated and included as part of the new terminal concourse.

It was agreed that the objective of restoring the Main Terminal for adaptive reuse, including Jetblue's placement of electronic ticketing machines within the Main Terminal and re-establishing uses such as restaurants, would be greatly enhanced by the connectivity of the AirTrain and parking facilities to the Main Terminal and the new terminal. Providing for such direct access via realignment of the enclosed connectors from AirTrain that are included in the concept master plan would be undertaken as part of the new terminal design. As well, it was agreed that efforts will be made to allow vehicular traffic that approach the terminal complex the opportunity to access the original frontage that served the Main Terminal.

As part of the Port Authority's effort to identify a program for restoring and reusing the Main Terminal so it will remain a vital part of the airport and this terminal complex, including using the imagery of the landmark terminal as part of the airport and the Terminal 5 and 6 site, a
working committee consisting of those consulting parties interested, would be formed to assist the Port Authority as part of an ongoing effort to ensure an appropriate process and program is implemented.

I believe that these objectives can be incorporated into the concept master plan as proposed. (see attached drawings)

Attending Organizations: MAS, NYSHPO, PANYNJ, Jetblue Airways, NY Landmarks Conservancy, NY Building Congress

ATTACHMENT D

Redevelopment Advisory Committee Guidelines

1. The consulting parties who voluntarily agree to do so, shall serve as members of the Redevelopment Advisory Committee (RAC). A representative of the Port Authority, the SHPO, and a representative of one of the consulting parties that concur in the MOA, shall serve as Co-Chairs of the RAC. The consulting party members of the RAC shall select the consulting party Co-Chair of the RAC. The Co-Chairs shall be responsible for convening meetings of the RAC, preparing and maintaining a written summary of the comments received at those meetings as well as those comments received after those meetings within the time frame set forth in paragraph 5 below, and for submitting a report of any action taken by the Port Authority or the SHPO on those comments to the members of RAC.

2. Parties agreeing to be voluntary members of the RAC shall, to the best of their ability, fully participate in all the proceedings of the RAC.

3. The RAC will meet on the first Tuesday of every other month, or as needed, at a location(s) to be determined by the Co-Chairs.

4. The RAC shall be given an opportunity at the bi-monthly meetings to provide, at the appropriate time and stage of the development, as determined by a majority of the Co-Chairs, input and comment on the following:

   a. Plans, designs, and submittals to SHPO for the rehabilitation/restoration and adaptive reuse of the TWA Terminal and East Flight Tube. Such comments shall include comment on the final design plans for restoration, rehabilitation and adaptive reuse of the TWA Terminal Building set forth in Stipulation 5 as well as comment after the completion of such work as set forth in Stipulation 16.

   b. A feasibility study and cost analysis for the removal, restoration, and relocation into the new terminal of selected interior elements of Flight Wing 2 prior to its demolition.

   c. Plans and designs for work to implement the removal, restoration and relocation of any selected interior elements of Flight Wing 2 (Stipulation 14).

   d. Plans and designs for the roadway, pedestrian, and light rail access to the TWA Terminal.

   e. Analysis of options for the reconfiguration of the West Flight Tube as specified in Stipulation 13, including the plans and designs for any work to be done in the West Flight Tube to enhance access between the TWA Terminal and the new terminal.

   f. Plans and designs that may be required to structurally modify columns of the East Flight Tube in order to allow roadways to pass under the existing tube (See Stipulation 9).

ATTACHMENT D

Redevelopment Advisory Committee Guidelines

g. Plans and designs for each development phase of the new terminal to be built on the Terminal 5/6 site in order to meet the goal specified in Stipulation 4 of retaining the individual identity of the historic building, separate from the new terminal in order to avoid, minimize or mitigate any adverse effect of the new terminal on the historic building.

h. Plans, designs and content for the interpretative display illustrating the history and significance of the TWA Terminal site and its relationship to the overall development of JFK International Airport set forth in Stipulation 6.

i. Maintenance and preservation guidelines for the treatment of the TWA Main Terminal Building and East Tube (Stipulation 17).

j. The completed restoration and rehabilitation of the TWA Terminal Building in accordance with the Secretary's standards as set forth in Stipulation 16.

5. In order for the RAC to provide meaningful comment and input at the bi-monthly meetings in a timely manner so as to not adversely affect design and construction schedules, any plans/designs or other material relating to specific meeting agenda items shall, to the greatest extent possible, be provided to RAC members ten (10) days prior to the bi-monthly meetings.

6. In addition to any comments submitted or discussed in the meetings, the RAC members may provide written comments to the Co-Chairs within ten (10) days following the meeting.

7. After receipt of all meeting comments, including those received in writing after the meeting, the Co-Chairs shall prepare a written summary of those comments and forward them to all RAC members.

8. The Port Authority shall prepare a report on any action taken by the Port Authority or SHPO on any of the comments summarized in the report prepared in accordance with paragraph 6 above. Such report shall include any recommendations, or actual modifications of the studies, analyses, plans and designs, which were the subject of RAC comment. A copy of the reports shall be forwarded to the FAA and the ACHP.

9. When a Report is submitted by the Co-Chairs on the last item or items to be considered by the RAC in accordance with these Guidelines, the Co-Chairs shall inform the FAA that the consultation process for RAC has been completed.

Appendix B: DRAFT First Amendment to the 2004 Memorandum of Agreement

FIRST AMENDMENT TO THE 2004 MEMORANDUM OF AGREEMENT AMONG THE PORT AUTHORITY OF NEW YORK & NEW JERSEY, THE NEW YORK STATE HISTORIC PRESERVATION OFFICE, THE FEDERAL AVIATION ADMINISTRATION, AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION FOR THE REHABILITATION, RESTORATION, AND ADAPTIVE REUSE OF TWA TERMINAL 5 AT JOHN F. KENNEDY INTERNATIONAL AIRPORT JAMAICA, NEW YORK

THIS FIRST AMENDMENT TO THE 2004 MEMORANDUM OF AGREEMENT FOR THE REHABILITATION, RESTORATION, AND ADAPTIVE REUSE OF TWA TERMINAL 5 AT JOHN F. KENNEDY INTERNATIONAL AIRPORT, JAMAICA, NEW YORK (this "**First Amendment to the 2004 MOA**") is entered into as of __ _____ 2015 by and among the Federal Aviation Administration of the United States of America (the "**FAA**"), the New York State Historic Preservation Office (the "**SHPO**"), the Advisory Council on Historic Preservation (the "**ACHP**"), and the Port Authority of New York and New Jersey (the "**Port Authority**") (collectively, the **Signatories**").

WHEREAS, the Signatories have entered into a certain Memorandum of Agreement [dated August 20, 2004 and transmitted by the FAA on November 1, 2004 to the ACHP] regarding the "Rehabilitation, Restoration, and Adaptive Reuse of TWA Terminal 5" (the "**2004 MOA**"), which sets forth certain agreements and understandings relating to the TWA Terminal (also known as the TWA Flight Center and as Building 60) at John F. Kennedy International Airport (the "**Airport**"); and

WHEREAS, over ten years have elapsed since the date of the 2004 MOA, during which many of the conditions provided therein have been accomplished or are no longer required; and

WHEREAS, at the date of the 2004 MOA, the TWA Terminal site included the TWA Main Terminal Building, the West Tube and the East Tube (both as defined in the 2004 MOA; and defined collectively in the 2004 MOA as the "Connecting Flight Tubes"), and Flight Wings 1 and 2; and

WHEREAS, the requirements set forth in Stipulations 7 & 8 of the 2004 MOA have been completed. Specifically, the TWA building was listed in the National Register of Historic Places in 2005 (#05000994) and a copy of such listing is attached as Attachment E; and the TWA Terminal has been recorded according to HABS/HAER Level 1; and

WHEREAS, the 2004 MOA provided, in Stipulation 1, that the Port Authority would seek, through a Request for Proposals (RFP) process, to execute an agreement with an adaptive reuse developer providing for the appropriate design, construction, restoration, rehabilitation, operation and maintenance of the historic portions of the TWA Terminal; and

WHEREAS, pursuant to Stipulation 11 of the 2004 MOA, the Port Authority has committed over $20 million in resources for a structure needing considerable attention, so that the TWA Main Terminal Building and the Connecting Flight Tubes have been properly maintained and cared for, and necessary repairs/maintenance identified through inspections have been performed, and the Port Authority has continued to make inspections of and perform repairs/maintenance on the TWA Main Terminal Building and Connecting Flight Tubes as needed until these responsibilities are delegated to the adaptive reuse developer; and

WHEREAS, pursuant to Stipulation 12 of the 2004 MOA, the Port Authority, through consultation with the SHPO, has restored and rehabilitated portions of the TWA Main Terminal Building and the East Tube in accordance with the Secretary's Standards (as defined in the 2004 MOA), and all other historic areas not restored or rehabilitated by the Port Authority are intended to be restored or rehabilitated by the adaptive reuse developer in accordance with the Secretary's Standards; and

WHEREAS, as contemplated by the 2004 MOA, a new Terminal 5 has been built, which, along with the surrounding roadway network, now physically separates the TWA Terminal site from the Airport's airside areas; and

WHEREAS, due to construction of the new Terminal 5 and in accordance with Stipulations 13 & 14 of the 2004 MOA, the original satellite Flight Wings 1 and 2 have been removed; and the remaining Connecting Flight Tubes provide direct access to the new Terminal 5 over the surrounding roadway network; and

WHEREAS, the FAA, the SHPO, the ACHP and the Port Authority consulted pursuant to 36 C.F.R. Part 800, regulations implementing Section 106 of the National Historic Preservation Act, as amended (54 U.S.C. 306108) (the "**Section 106 Process**") in connection with the 2004 MOA; and

WHEREAS, certain interested parties were invited by the FAA to participate in the Section 106 Process and to concur in the 2004 MOA (such interested parties, collectively, the "**Consulting Parties**"); and

WHEREAS, the Consulting Parties in 2015 presently consist of The National Trust for Historic Preservation, The Municipal Art Society of New York, the New York City Partnership, Docomomo US/New York Tri-State, the Finnish Consulate General, New York Landmarks Conservancy, and the New York Building Congress, which have been invited to concur on this First Amendment to the 2004 MOA; and

WHEREAS, pursuant to Stipulation 3 of the 2004 MOA, a Redevelopment Advisory Committee, or the RAC (as defined in the 2004 MOA), comprised of the SHPO, the Port Authority and the Consulting Parties, was formed pursuant to the 2004 MOA, and has operated in accordance with the Guidelines set forth in Attachment D to the 2004 MOA, and the RAC has met since August 2004 to review various proposals for the redevelopment of the TWA Terminal; and

WHEREAS, consistent with the 2004 MOA, the Port Authority proposed a plan, put forth by a joint venture of MCR Development LLC and JetBlue Airways Corporation (collectively, the "**Developer**"), whereby in connection with its rehabilitation, the TWA Terminal would be redeveloped as a hotel to serve the needs of the Airport and the traveling public (the "**TWA Flight Center Hotel**"); and the RAC met in May and June 2015 to review and discuss the TWA Flight Center Hotel proposal; and

WHEREAS, the evolving plans for the TWA Flight Center Hotel, as developed and revised by the Developer and reviewed and commented on by the RAC during the RAC meetings in May and June 2015, as further refined, are shown in the "Revised Concept Master Plan" - consisting of the Conceptual Design dated December 1 2015, a copy of which is attached as Attachment F; and

WHEREAS, some of the RAC members do not fully support the proposed design of the TWA Flight Center Hotel, but these RAC members have been actively engaged in consultation to develop this First Amendment and have stated their interest in continuing to be involved in the design review process after this First Amendment has been executed; and

WHEREAS, the plan for the TWA Flight Center Hotel requires a change to the Airport's Airport Layout Plan, which requires the approval of the FAA, and in connection therewith the FAA is required to conduct an environmental review and render a final Federal environmental determination, pursuant to the National Environmental Policy Act (NEPA), as well as other requisite Federal actions and approvals; and

WHEREAS, the 2004 MOA is herein amended to reflect the role of the Developer in the adaptive reuse of the TWA Main Terminal; and

WHEREAS, this First Amendment to the 2004 MOA includes Flight Center Hotel LLC, a joint venture of MCR Development LLC and JetBlue Airways Corporation, which has been invited to concur on this First Amendment to the 2004 MOA.

NOW, THEREFORE, the FAA, the SHPO, the ACHP and the Port Authority agree that the 2004 MOA is hereby amended as follows:

AMENDMENTS TO THE 2004 MOA

1. Amendments to 2004 MOA Stipulations.

(a) There shall be inserted following Stipulation 1 of the 2004 MOA, a new Stipulation 1A as follows:

> "1A. The signatories agree that Flight Center Hotel LLC (the "Developer"), a joint venture of MCR Development LLC and JetBlue Airways, has been selected by the Port Authority through the RFP process as the adaptive reuse developer, and that the Developer has agreed to adhere to the terms and conditions of this MOA, as amended; the Port Authority agrees that such agreement by the Developer shall be contained in the long-term lease to be entered into between the Port Authority and the Developer for the TWA Terminal site, which shall provide for the adaptive reuse of the TWA Terminal as a hotel (the "TWA Flight Center Hotel")."

(b) There shall be inserted in place of Stipulation 5 of the 2004 MOA, new Stipulations 5A, 5B and 5C that address the adaptive reuse as follows:

> "5A. The preliminary and pre-final design plans for the TWA Flight Center Hotel, which shall include the preliminary and pre-final design plans for the restoration, rehabilitation and adaptive reuse of the TWA Main Terminal and the Connecting Flight Tubes, shall be submitted by the Port Authority to the consulting parties and the RAC for comment as to whether those plans conform to the conditions set forth in Stipulation 12 governing the standards for performance of the restoration and rehabilitation work. The preliminary and pre-final design plans (which shall show the entire approximately six-acre site, as shown in Attachment G) will be posted on a web-based FTP site, and the Port Authority will send a

notice to the consulting parties, and the RAC, of the availability of such plans, with instructions as to how to access the web-based FTP site; comments shall be submitted by the consulting parties within 14 calendar days following the date of such notice.

5B. The design plans for the TWA Flight Center Hotel shall provide for the Developer to build two new structures comprising integral components of the hotel; they will contain guest rooms, conference facilities, and other uses located within the existing and proposed structures, as shown conceptually in Attachment F. The TWA Flight Center Hotel will also include, pursuant to Stipulation 6 of this MOA, an interpretative display illustrating the history and significance of the TWA Terminal site and its relationship to the overall development of the Airport (to be provided by the adaptive reuse developer), the information desk and the restored Solari Flight Information Display (as provided in Stipulation 15 below); and, pursuant to Stipulation 4 of this MOA, updated approach roadways and a covered pedestrian walkway and associated improvements from the AirTrain station (to be constructed at the cost of the Port Authority); as well as associated landscaping.

5C. The Port Authority and the SHPO shall notify all signatories, all consulting parties and all members of the RAC of its approval of the final design plans for the restoration, rehabilitation and adaptive reuse of the TWA Terminal and Connecting Flight Tubes. If the final Tenant Construction Application (*i.e.*, the design and construction documents submitted for the Port Authority's review and approval in connection with all construction to be undertaken on property within the jurisdiction of the Port Authority) shows that the TWA Flight Center Hotel design differs substantially from that shown in the pre-final designs referred to in Stipulation 5A above, the consulting parties and the RAC shall be reconvened to review and comment on the design changes. "Differs substantially", as used in the preceding sentence, shall be defined as: Any changes from the pre-final design plans impacting the footprint or height of the proposed new construction; any proposed changes to the historic exterior façade of the TWA building including the concrete shell, window walls, skylights or tubes;

or any interior changes to the Character-Defining Features."

(c) There shall be inserted following Stipulation 15 of the 2004 MOA, new Stipulations 15A, 15B and 15C as follows:

"15A. Unanticipated Discovery Of Archaeological Properties During Rehabilitation Of TWA Terminal.

Should previously unidentified archaeological properties be discovered during the rehabilitation of the TWA Terminal, rehabilitation activities in the area of the previously unidentified archaeological properties shall immediately cease. The person or persons encountering such properties shall immediately notify the Port Authority. The Port Authority shall notify the FAA and the SHPO within 24 hours and provide documentation regarding the discovery and comply with the requirements of 36 CFR Section 800.13(b). Work activities in the immediate area of the discovery(ies) that are not the subject of the review shall resume immediately.

15B. Unanticipated Adverse Effects During Rehabilitation Of TWA Terminal.

Should unanticipated adverse effects occur during the rehabilitation of the TWA Terminal, the person or persons encountering such effects shall immediately notify the Port Authority. The Port Authority shall notify the FAA and the NY SHPO within 24 hours and provide documentation regarding the discovery and comply with the requirements of 36 CFR Section 800.13(b).

15C. Monitoring and Reporting.

The FAA and the Port Authority shall provide a status report to all consulting parties and the RAC 12 months following the execution of the First Amendment to this MOA. Subsequently, annual reports are required by January 30th of each year until this MOA, as amended, expires or is terminated. The reports shall include a summary detailing work undertaken pursuant to the terms of this MOA, as amended; scheduling changes proposed; problems encountered in project implementation and the resolution that was implemented; and any disputes and objections received and the manner in which FAA and the Port Authority resolved them. Should any of the consulting parties or the RAC request a meeting following their review of

the annual report, the party shall submit a written request to the FAA and the Port Authority, and shall provide copies to the other signatories and all the consulting parties. The FAA may arrange a meeting among the consulting parties, the RAC and the signatories, as needed."

(d) There shall be inserted following Stipulation 17 of the 2004 MOA, a new Stipulation 17A as follows:

"17A. The Port Authority shall require the Developer to prepare maintenance and preservation guidelines for the treatment of the TWA Main Terminal Building and East Tube. The guidelines shall be submitted to the Port Authority and the SHPO for review and approval following completion of the TWA Terminal rehabilitation/restoration work."

(e) The following shall be inserted after Stipulation 21 of the 2004 MOA:

"DURATION

This MOA, as amended by the First Amendment hereto, shall remain in effect until (x) the completion of the TWA Terminal rehabilitation/restoration work and the procedures set forth in Stipulation 16 hereof, or (y) January 31, 2023, whichever occurs first.

AMENDMENT

If the TWA Flight Center Hotel has not been fully constructed and completed and the terms of this MOA, as amended by the First Amendment hereto, have not been implemented by January 31, 2023, the signatories shall discuss whether the terms of this MOA, as so amended, need to be extended, amended, or terminated, as appropriate."

2. Addition of New Attachments.

There shall be added to the 2004 MOA a new Attachment E, "National Register of Historic Places Listing", and a new Attachment F, "Revised Concept Master Plan – TWA Flight Center Hotel", both as attached to this First Amendment to the 2004 MOA.

3. Effect of Amendments.

Except as expressly amended by this First Amendment to the 2004 MOA, all of the terms, covenants, provisions, conditions and agreements of the 2004 MOA shall remain in full force and effect.

EXECUTION

Execution of this First Amendment to the 2004 MOA by the FAA, the SHPO, the ACHP, and the Port Authority, and implementation of its terms, will be evidence that the FAA has afforded the Consulting Parties an opportunity to comment on the undertaking and its effects on the historic property, and that the FAA has taken into account the effect of the undertakings on the historic property, and has completed all processes in accordance with Section 106 of the National Historic Preservation Act.

IN WITNESS WHEREOF, the Parties hereby set their hand as of the date set forth above.

SIGNATORY PAGES (PAGE 1 OF 4)

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

BY:_____ DATE:_____

Print/Type Name: _____

Print/Type Title:_____

* A separate signature page is being executed by each signatory to this First Amendment to the 2004 MOA.

SIGNATORY PAGES (PAGE 2 OF 4)

FEDERAL AVIATION ADMINISTRATION

BY:_____ DATE:_____

Print/Type Name: _____

Print/Type Title:_____

* A separate signature page is being executed by each signatory to this First Amendment to the 2004 MOA.

SIGNATORY PAGES (PAGE 3 OF 4)

NEW YORK STATE HISTORIC PRESERVATION OFFICE

BY:_____ DATE:_____

Print/Type Name: _____

Print/Type Title:_____

* A separate signature page is being executed by each signatory to this First Amendment to the 2004 MOA.

SIGNATORY PAGES (PAGE 4 OF 4)

ADVISORY COUNCIL FOR HISTORIC PRESERVATION

BY:_____ DATE:_____

Print/Type Name: _____

Print/Type Title:_____

* A separate signature page is being executed by each signatory to this First Amendment to the 2004 MOA.

CONSULTING PARTIES CONCURRENCE (PAGE 1 of 7)

THE NATIONAL TRUST FOR HISTORIC PRESERVATION

BY:_____ DATE:_____

Print/Type Name: _____

Print/Type Title:_____

* A separate signature page is being offered for execution by each concurring party to this First Amendment to the 2004 MOA.

CONSULTING PARTIES CONCURRENCE (PAGE 2 of 7)

THE MUNICIPAL ART SOCIETY OF NEW YORK

BY:_____ DATE:_____

Print/Type Name: _____

Print/Type Title:_____

* A separate signature page is being offered for execution by each concurring party to this First Amendment to the 2004 MOA.

CONSULTING PARTIES CONCURRENCE (PAGE 3 of 7)

THE NEW YORK CITY PARTNERSHIP

BY:_____ DATE:_____

Print/Type Name: _____

Print/Type Title:_____

* A separate signature page is being offered for execution by each concurring party to this First Amendment to the 2004 MOA.

CONSULTING PARTIES CONCURRENCE (PAGE 4 of 7)

DOCOMOMO US/NEW YORK TRI-STATE

BY:_____ DATE:_____

Print/Type Name: _____

Print/Type Title:_____

* A separate signature page is being offered for execution by each concurring party to this First Amendment to the 2004 MOA.

CONSULTING PARTIES CONCURRENCE (PAGE 5 of 7)

THE CONSULATE GENERAL OF FINLAND, NEW YORK

BY:_____ DATE:_____

Print/Type Name: _____

Print/Type Title:_____

* A separate signature page is being offered for execution by each concurring party to this First Amendment to the 2004 MOA.

CONSULTING PARTIES CONCURRENCE (PAGE 6 of 7)

NEW YORK LANDMARKS CONSERVANCY

BY:_____ DATE:_____

Print/Type Name: _____

Print/Type Title:_____

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CONSULTING PARTIES CONCURRENCE (PAGE 7 of 7)

THE NEW YORK BUILDING CONGRESS

BY:_____ DATE:_____

Print/Type Name: _____

Print/Type Title:_____

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DEVELOPER CONCURRENCE (PAGE 1 of 1)

FLIGHT CENTER HOTEL LLC

BY:_____ DATE:_____

Print/Type Name: _____

Print/Type Title:_____

* A separate signature page is being offered for execution by each concurring party to this First Amendment to the 2004 MOA.

ATTACHMENT E

NATIONAL REGISTER OF HISTORIC PLACES LISTING

NPS Form 10-900
(Oct. 1990)

OMB No. 10024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer to complete all items.

1. Name of Property

1. Name of Property

historic name Trans World Airlines Flight Center

other names/site number TWA Terminal 5

2. Location

street & number John F. Kennedy International Airport [ ] not for publication

city or town Jamaica [ ] vicinity

state New York code NY county Queens code 081 zip code 11430

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this [X] nomination [ ] request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements as set forth in 36 CFR Part 60. In my opinion, the property [X] meets [ ] does not meet the National Register criteria. I recommend that this property be considered significant [X] nationally [ ] statewide [ ] locally. ([ ] see continuation sheet for additional comments.)

Signature of certifying official/Title — Date 6/22/05

New York State Office of Parks, Recreation & Historic Preservation
State or Federal agency and bureau

In my opinion, the property [ ] meets [ ] does not meet the National Register criteria. ([ ] see continuation sheet for additional comments.)

Signature of certifying official/Title — Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

[ ] entered in the National Register
[ ] see continuation sheet
[ ] determined eligible for the National Register
[ ] see continuation sheet
[ ] determined not eligible for the National Register
[ ] removed from the National Register
[ ] other (explain) _____

Signature of the Keeper — date of action

Trans World Airlines Flight Center
Name of Property

Queens County, New York
County and State

5. Classification

Ownership of Property
(check as many boxes as apply)

[ ] private
[ ] public-local
[X] public-State
[ ] public-Federal

Category of Property
(Check only one box)

[X] building(s)
[ ] district
[ ] site
[ ] structure
[ ] object

Number of Resources within Property
(Do not include previously listed resources in the count)

Contributing	Noncontributing	
1	0	buildings
		sites
		structures
		objects
1	0	TOTAL

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing)

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions
(enter categories from instructions)

Transportation: air-related

Current Functions
(Enter categories from instructions)

Vacant/Not in use

7. Description

Architectural Classification
(Enter categories from instructions)

Modern Movement

Other: Expressionistic Architecture

Materials
(Enter categories from instructions)

foundation Concrete
walls Concrete
Cement Plaster
Glass
roof Concrete

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets)

NPS Form 10-900a
(8-86)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 1

Trans World Airlines Flight Center
Name of Property
Queens County, New York
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7. Narrative Description

7. Narrative Description

The Trans World Airlines Flight Center, also known as TWA Terminal 5, is located at John F. Kennedy International Airport, in Queens, New York. It is adjacent to the International Arrivals Building and Airlines Wings, at the midpoint of a curve in the airport service road. It is fronted by two roads and a canopy structure built in 1990 to shelter waiting passengers. The elevated tracks of the recently constructed Air Train wind in front of the Terminal, with the nearest stop to the west at the Jet Blue Terminal 6.

The structure consists of the terminal building —a vaulted reinforced concrete structure of four interlocked shells, bilaterally symmetrical, creating an opened, half-circular fan in plan—and two satellite "flight wings", or departure terminals, connected to the main terminal by "flight tubes". Flight Tube No. 2 and Flight Wing No. 2, to the south of the main terminal, were constructed at the same time as the main terminal in 1962. Flight Tube No. 1 and Flight Wing No. 1 were built a few years later in 1967, designed by Eero Saarinen's successor firm to accommodate the much larger jumbo jets. The two flight wings have been described as being shaped like violins, radiating out towards the airstrip, with their "necks" connected to the main terminal. The terminal structure is two stories in height, with a sunken first floor waiting area and open mezzanines. The signature view is the landside elevation, the principal side of the building facing the airport access road, as seen from ground level. This perspective captures the sweeping and expressive concrete forms conceived by the architect Eero Saarinen.

The building's design breaks from the sleek, orthogonal geometries of the International Style, co-opted as the era's signature corporate style, and with its expressive wing-like forms and swooping, curvilinear lines, it is a compelling visual metaphor for the modern airport terminal. The roof is a system of four independent, balanced segmental concrete shells, with two large upward-slanting side shells resembling wings poised for flight, and two smaller downward-sloped shells at the front and rear of the building. The concrete is up to 19 inches thick in several locations. Each shell is anchored at two points by flowing y-shaped piers, located on either side of the main entrance and flanking the oval window facing the tarmac on the airside elevation. The piers continue the thrust of the valleys in the roof between the shells down into the ground; they are angled in towards the roofline from the ground up, and split into two arms that sweep up into the roof shells in a continuous gesture. The side shells rise up from their structural spine and cantilever over the main terminal building up to 75 feet. The front and rear shells are smaller, and slope down from the roof's center point, where each of the four shells is delicately supported by the other three lobes.[1]

The glazed walls of the main terminal consist of large, vertically oriented panes of glass, laterally reinforced by a lightweight steel bow truss system. Each truss is a different length and angle as it follows the curve and slope of the roof above. In the recent past a dark purple mylar film has been applied to the inside surfaces of the glass in an effort to reduce the amount of solar infiltration, which greatly reduces visibility through the glass and substantially changes the perception from both the exterior and interior sides of the building.

[1] Christopher Hart Leubkeman, "Form Swallows Function," *Progressive Architecture* (May, 1992): 106-108

NPS Form 10-900a
(8-86)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 2

Trans World Airlines Flight Center
Name of Property
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The main entrance to the terminal is on the landside, where the roof is at its lowest point. The rake The main entrance to the terminal is on the landside, where the roof is at its lowest point. The rake of the roof comes together into a sculptural scupper at the center, arching down over the front sidewalk and greeting passengers at the entrance. In the original design, cars would drive up under the slope of the roof, dropping off travelers at the curb. The road has since been replaced with an extension of the original sidewalk, the curb of which can still be seen. The imprint of the formwork boards is visible on the sculptural piers that rise up on either side of the main front doors, adding texture and movement to the concrete roof and piers. The main entrance has been modified by the addition of two pairs of aluminum glazed vestibules. At the center of the entrance is a monumental bowl-shaped bronze light fixture. More recently, miscellaneous identification and directional signage, street furniture, entry vestibules and security devices have also been installed along the perimeter of the building.

Single-story concrete wings extend laterally from the two piers flanking the entrance and follow the curve of the road, terminated at each end by sculptural forms that actually conceal large mechanical exhaust louvers. These wings are an extension of the interior mezzanines; their concave walls extend into curved, sheltering roofs, which connect to the floor of the mezzanines inside. White elastomeric coating was applied to the roof in 1999 to prevent further water penetration through the concrete shell. The bright color of the paint and its thick texture has significantly altered the raw concrete finish of the original design. The original door openings of the wings are framed by rib-like projections. On the east wing, two of the openings have been converted with floor-to-ceiling windows and aluminum glazed vestibules project from the other two openings. On the west wing, the five openings have two projecting aluminum glazed vestibules, two pairs of recessed glazed doors, and a pair of flush glazed doors.

The original view of the airside elevation from the runway has been greatly altered by the addition of miscellaneous baggage handling facilities, and other later improvements. The two piers on this side of the building swoop up into the roofline as do their counterparts on the landside, and then join to frame the oval-shaped window wall facing the tarmac. Through these piers extend elevated tubes which lead to the flight wings. A large red 'TWA' sign is affixed onto the roof above the glazing, from which point the east and west shells jut out to either side of the oval window. The two tubes rise and gently arc to either of their respective flight wings, supported by concrete piers at regular intervals.

The interiors of the TWA Terminal reflect the same swooping forms and feeling of dynamic motion as the exterior. The four shells of the roof arc gracefully overhead, delineated by four skylights forming transparent voids between the segments of concrete structure. A custom designed combination loud-speaker and clock punctuates the point where the roofs and skylights come together. Most of the wall and floor surfaces consist of small (± 1/2") gray–flecked ceramic tiles, in many locations with marble details. This, and the consistently sculptural forms of the signs, information boards, staircases, counters and sculptural HVAC elements help create a unified interior environment.

The sculpted information desk in the main entrance hall springs up from the floor in a single, flowing motion. Solid marble slabs mark the counter-tops. The entry hall accesses the ticketing areas to the east and the ticketing areas (once baggage claim) to the west. New baggage claim and other baggage handling equipment are in a subsequent addition at the far west end of the building. The

lower lobby is connected to the upper lobby and the sunken waiting area by a wide central flight of lower lobby is connected to the upper lobby and the sunken waiting area by a wide central flight of stairs divided by two landings. The sunken waiting area faces the tarmac, and was once filled with benches so that passengers could relax and watch arriving and departing flights as they waited to board. At some point, the original curved marble partition defining the area was demolished and replaced with 16 additional ticket counters. The counters have since been demolished and replaced by a carpeted wall similar to the original one. Auxilliary spaces to the east and west of the sunken waiting area could be accessed through the upper lobby, which included restrooms, snack bars and elevators. Other areas in the east and west wings were for staff and employees, such as offices and a cafeteria. These areas have kept their original function, with some minor alterations. It is also through the upper lobby that the passengers reached the flight wings to board their flights, via the connector tubes.

Flowing staircases and continuous aluminum handrails connect the main level to the east and west mezzanine levels, which contain restaurants, lounges and first–class waiting areas. Original balustrade pickets at the handrails were interspersed with newer, narrower, intermediate pickets to decrease the non-code compliant width of the opening. The two mezzanines are connected at the upper level by a reinforced–concrete bridge. The Ambassador's Lounge on the west mezzanine level was an elegantly designed interior space with a series of cantilevered benches, wall sconces, marble fountains and sculptures, most of which is still intact. The reception and club support layouts and interior detailing have been renovated to accommodate modern club services. The east mezzanine contained the Paris Café and Lisbon Lounge, and it still maintains some of the original kitchen and dining areas. These spaces have been greatly altered over time, however, and do not reflect the original design intent. The original bathrooms were removed to make a seating area, and the original kitchen size was reduced to make room for new tables and seating.

Additional office, service and mechanical spaces occupy a partial basement located under the upper portion of the main level. This level was accessed by various stairs and elevators throughout the building. A new underground passenger access tunnel to Flight Wing 1 was added on this level in 1970.

The connector tubes to the flight wings are constructed of a lightweight steel hoop frame with a cement plaster exterior finish and architectural plaster on the interior. Horizontal ellipses in section, the tubes rise approximately six feet along a slightly bowed arch to the taller flight wing floor level. The tubes are supported on a series of concrete piers. The interiors are finished in a suspended acoustic tile ceiling with concealed light coves and a carpeted floor. The newer, west tube is slightly wider in section and shorter (232 feet), than the east tube (272 feet).

Flight Wing 1, constructed in 1967 with subsequent additions in 1970 and 2000, and Flight Wing 2, built in 1962, were the major gate structures for TWA Airlines. Flight Wing 1 is located to the north of the main terminal and Flight Wing 2 is located to the south. Both flight wing structures have a concrete block and plaster base that curves into the slightly cantilivered floor above. Flight Wing 2, constructed at the same time as the main terminal building, is comprised of a main circular structure with a small flight operations station situated above the main passenger level, and two glass

NPS Form 10-900a
(8-86)

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Trans World Airlines Flight Center
Name of Property
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enclosed bridges on piers that lead to the departure lounges. Each sized for approximately 100 enclosed bridges on piers that lead to the departure lounges. Each sized for approximately 100 persons (or the passenger load of a Boeing 707), these spaces are largely intact, with the original seating, ceramic tile faced curved walls, ceilings and lounge accessories all extant. Virtually the only significant modification is the change of the "TWA Red" carpet to a more neutral gray. The location of these gate lounges affords an excellent vantage point to observe the airfield activities of a large international airport.

While Flight Wing 1 and Flight Tube 1 were part of the original design of the terminal as conceived of by Saarinen, due to financial considerations these were actually constructed in 1967 by Saarinen's partner, Kevin Roche, after Saarinen's death and well after the completion of Flight Tube 2 and Flight Wing 2. Flight Wing 1 was tailored to handle the Boeing 747 jumbo jets that TWA Airlines was starting to use for their flights. Containing passenger amenities, service and inspection spaces, it had the least impressive public spaces of the TWA complex, and alterations over time have only exacerbated this condition. It is much larger then Flight Wing 2 and has three levels of passenger, Federal Inspection Station (FIS), and operations spaces. Many interior and systems modifications have been made over the years to accommodate changing passenger, baggage handling and security needs. Currently only the service cores of this building remain, including shop spaces, offices and bathrooms. All furnishing have been removed.

Trans World Airlines Flight Center
Name of Property

Queens County, New York
County and State

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

[X] **A** Property associated with events that have made a significant contribution to the broad patterns of our history.

[ ] **B** Property is associated with the lives of persons significant in our past.

[X] **C** Property embodies the distinctive characteristics of a type, period, or method of construction or that represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

[ ] **D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all boxes that apply.)

[ ] **A** owned by a religious institution or used for religious purposes.

[ ] **B** removed from its original location

[ ] **C** a birthplace or grave

[ ] **D** a cemetery

[ ] **E** a reconstructed building, object, or structure

[ ] **F** a commemorative property

[X] **G** less than 50 years of age or achieved significance within the past 50 years

Areas of Significance:
(Enter categories from instructions)

Architecture
Engineering
Transportation

Period of Significance:

1962-1970

Significant Dates:

N/A

Significant Person:

N/A

Cultural Affiliation:

N/A

Architect/Builder:

Eero Saarinen and Associates, Architects
Amman and Whitney Structural Engineers
Grove, Shepherd, Wilson & Kruge, Inc.
Contractors

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography
(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

[ ] preliminary determination of individual listing (36 CFR 67) has been requested.
[ ] previously listed in the National Register
[ ] previously determined eligible by the National Register
[ ] designated a National Historic Landmark

[X] recorded by Historic American Building Survey # NY-6371
[ ] recorded by Historic American Engineering Record

Primary location of additional data:

[ ] State Historic Preservation Office
[ ] Other State agency
[ ] Federal Agency
[X] Local Government: NYC LP – 1915 (July 19, 1994)
[X] University: Yale University
[X] Other repository:
Peter Brandt Photography
The Library of Congress

NPS Form 10-900a
(8-86)

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Trans World Airlines Flight Center
Name of Property
Queens County, New York
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8. Narrative Statement of Significance

Summary

The Trans World Airlines Flight Center (also known as TWA Terminal 5) at JFK International Airport in New York, opened in May 1962, is a nationally significant example of mid-20th century modern architecture, engineering and airline terminal planning that meets National Register criteria A and C. A masterpiece of expressionistic architecture, it was designed by Eero Saarinen, one of the preeminent architects of mid–century modernism in America, as a direct rebuttal to the abstracted rectilinear forms of the International Style which dominated corporate American architecture in the 1950s. The Terminal was a carefully considered response to the conditions at New York International Airport (now JFK), specifically the Terminal City master plan adopted by the Port of New York Authority (PA) in 1955. Its use of satellite passenger loading areas was an influential innovation in airport terminal design. Linked to the historical development of JFK Airport, the history of the TWA Company, and airport design, the TWA terminal has made a significant contribution to the history of American air travel.

The period of significance for the TWA Flight Center has been established as 1962-1970, corresponding to the time of initial occupancy through the completion of Flight Wing No.1. This period is characterized as the "Golden Era" of passenger jet travel. The TWA Flight Center was originally planned for the first generation of passenger jet aircraft. The waiting lounges at Flight Wing No. 2 seat approximately 100 persons, equivalent to the passenger load of a Boeing 707 aircraft. By the end of the decade, the Boeing 747 jumbo jet, with over 400 seats, had begun operation. The facilities in Flight Wing No.1 were scaled to accommodate this much larger seating capacity. The period of significance encompasses the maturation of the passenger jet age and concludes at the realization of Saarinen's original master plan for the terminal, that is, the construction of the terminal structure, the two connecting tubes and the two satellite flight wings.

Trans World Airlines was given the opportunity to construct a Flight Center as a result of a bold decision made in 1954 by the Port Authority of New York to develop Idlewild (New York International) Airport with each major American airline providing the design for their individual airline terminals. Trans World Airlines selected Eero Saarinen and Associates (Eero Saarinen and Kevin Roche) to design their showpiece. In addition to wanting a building which would "represent a daring departure from conventional air terminal concepts"[2], the airline wanted to continue its reputation as being on the cutting edge of aviation by incorporating the latest innovations in airport technology. The TWA Terminal is nationally significant in the history of terminal design because it integrated many of these innovations and as a result has greatly influenced contemporary airports. From the very form of the terminal – the now common "satellite" plan where aircraft gates are clustered around structures built on the runway ramps away from the terminal – to equipment such as jetways, baggage carousels, electronically controlled doors, and huge Solari boards that kept flight information up to date, the technology of the TWA Terminal has helped define airline terminals as we know them today.

[2] *The Story of the Trans World Flight Center.* Flyer from the TWA Public Relations Department. May 28, 1962

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(8-86)

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United States Department of the Interior
National Park Service

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Section 8 Page 2

Trans World Airlines Flight Center
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Eero Saarinen (1910–1961) designed a number of important works of the post–World War II modern Eero Saarinen (1910–1961) designed a number of important works of the post–World War II modern era. His most significant projects include: the General Motors Technical Center in Warren, Michigan (1945–56, listed on the National Register of Historic Places since March 2000); the Jefferson National Expansion Memorial in St. Louis, Missouri (a.k.a., the Gateway Arch, 1948–64, listed on the National Register of Historic Places since May 1987); the Kresge Auditorium and Chapel at M.I.T., Cambridge, Massachusetts (1953–56); the Ingalls Hockey Rink at Yale University, New Haven, Connecticut (1956–59); Dulles Airport in Chantilly, Virginia (1958–62); and CBS Headquarters in New York City (1960–64). In addition to Saarinen, associates Kevin Roche and Cesar Pelli also worked on the design and construction of the Terminal. After Saarinen's death, Kevin Roche and John Dinkeloo formed a successor firm which was responsible for several of the later alterations to the Terminal.

The TWA Terminal is nationally significant as a masterpiece of architectural design because it has become Saarinen's most recognized work, resulting from his evolving design philosophy and experiences gained from preceding works. Along with other great architects and designers of the time, including Le Corbusier and Frank Lloyd Wright, Saarinen was dissatisfied with the restrictive minimalism of the International Style, as it had been interpreted in America. He wanted to imbue modern spaces with a monumentalism appropriate to public structures, and make them "dynamic" and "expressive." Initially Saarinen first developed this interest in expressive forms through his furniture designs. Later he experimented with the sculptural properties of concrete on several of his projects, resulting in the Ingalls Hockey Rink at Yale University (1956–59), which he was just finishing when he received the commission from TWA Airlines.

The TWA Terminal was the ultimate expression of Saarinen's facility with concrete design as well as his "systems approach" to design, whereby he carefully analyzed each design problem and tried to find a unique form and structure to express his concept architecturally. The Terminal was meant not only to satisfy the practical programmatic requirements of the clients, but to visually "interpret the sensation of flying" and to "be experienced as a place of movement and transition."[3] Saarinen achieved his goal through a design approach that involved construction documents based on carefully developed models, and the expertise of the famous engineering firm, Amman and Whitney.

The signature view of the landside elevation captures the sweeping and expressive concrete forms Saarinen conceived. The complex and dramatic concrete roof system, with its curving shells, supported by expressively canted piers that swoop up into pointed, wing-like forms symbolizing flight, was unprecedented. The continuous flow of forms from exterior to interior, combined with the glazed wall and wide open views onto the runway inextricably linked the building to its surroundings, and to the experience of air travel. Indeed, the interiors of the TWA Terminal reflect the same swooping forms and feeling of dynamic motion as the exterior, and present a series of subtly changing forms and patterns as the visitor passes through the interior. The four shells of the roof arc gracefully overhead, delineated by four strips of skylights, allowing views to the sky overhead. The low wings that extend from the vaulted portion of the terminal, curved in plan, with their concave walls extending as cantilevered canopies to shelter passengers at curbside, echo the forms of the main portion of the

[3] "Saarinen's Twa Flight Center", *Architectural Record* (July, 1962): 129

terminal and relate to the curving service road. The elevated and gently arched concrete walkways terminal and relate to the curving service road. The elevated and gently arched concrete walkways leading to the flightwing structures are unusual in their windowless tubular form, and served a function not yet widespread but soon typical in airport terminals.

From the moment its design was first presented in 1957, the TWA terminal was hailed by the architectural and popular press as the most important building of JFK's Terminal City complex. The finished project was presented in architectural periodicals in England, France, Germany and Mexico. Even thirty years after its construction, the TWA terminal continued to be praised by the critics. In 1992, *Progressive Architecture*'s Thomas Fisher called the TWA Terminal JFK's "one truly great work of architecture...an inspired work by a brilliant architect for an audacious client."[4] *Progressive Architecture* concluded by saying "whatever the drawbacks in the original design or the limitations in current capacity, the TWA terminal remains one of the best works of architecture." In 1994 *New York Times* architecture critic Herbert Muschamp wrote that "TWA sits aloof amid the architectural hodgepodge of JFK's Terminal City," and called the interior of the terminal "the most dynamically modeled space of its era."[5]

TWA Terminal and its innovations have made a significant contribution to the development of airline terminal design. It is also the culmination of the evolving design philosophy and experience of Eero Saarinen, a master architect of the 20th century. Hailed as a masterpiece by critics and scholars of both the past and present, the TWA Terminal has become an icon of the golden age of air travel. This landmark of the recent past is exceptionally significant and retains a relatively high degree of period integrity.

History of Post WWII Aviation Development

The development of commercial aviation in the United States started off mostly unregulated as both public and private entities engaged in a variety of aeronautical activities. The passage of the Air Commerce Act of 1926 initiated an important formative period in the evolution of public policy, promoting and regulating the development of airports in cities across the country. An important step in the history of aviation, it signified that the United States was beginning to acknowledge the potential of air commerce. The Act created an air transportation network based on the maritime system, whereby it relegated the design of airports largely to local governments, in accordance with Federal Standards.

Initially airport designers borrowed their ideas from engineers and architects of railway terminals. Early airports consisted of a simple one room waiting area, with an attached or detached waiting hangar for the aircraft. Tickets were purchased away from the airport at ticket offices, which were basically storefronts with a counter for a clerk to sell tickets, give information and provide

[4] Thomas Fisher, "Landmarks: TWA Terminal", *Progressive Architecture* (May, 1992): 93
[5] Herbert Muschamp, "Stay of Execution for a Dazzling Airline Terminal," *New York Times* (November 6, 1994): section H, 31.

transportation to the airport. Terminal design evolved as a result of federal efforts between the World transportation to the airport. Terminal design evolved as a result of federal efforts between the World Wars to standardize airport design, with many new terminals starting to have a similar program: passengers boarding planes walked directly through the building entrance, through the waiting room, past a ticket office on the side, and out under a gable-roofed pergola to a telescoping canopy. This canopy, the precursor of the modern "Jet way", extended and retracted to protect and control movements of passengers boarding and deplaning. Later developments of this theme involved the expansion of the waiting area to house restaurants, and providing separate circulation for enplaning and deplaning passengers.

After WWII, changes resulting from the postwar economic boom rippled through every aspect of the air transportation industry, and greatly affected terminal design considerations. One operational change was the use of a "hold area" for processed passengers near the aircraft gate, which became known as the departure gate lounge. The gate lounges eliminated the need for large central waiting rooms, and prompted the relocation of passenger services nearer to aircraft gates. This resulted in various terminal finger and satellite configurations: the finger terminal had one or two-story fingerlike appendages that projected out from a central landside ticketing area; the satellite terminal had aircraft gates that were grouped around a central waiting and service area which was connected to the main terminal by an elevated walkway. Both of these forms became the basis of contemporary terminal design. Separating routes through terminals for arriving and departing passengers, minimizing passenger walking distances, reducing congestion during peak hours of travel, and automating baggage handling were airport planning issues addressed during the period. Air traffic control towers were constructed as separate specialized buildings as opposed to small projections from the roof of the passenger terminal.

Airplane hangars also grew in size. In addition to employing steel truss systems, engineers began to apply previously uneconomical structural methods such as thin-shell concrete, folded-plate concrete, and cantilevers, all with clear-span interiors of unprecedented height and length. At Municipal Airport in Chicago (now Midway Airport), Charles Whitney of Ammann and Whitney (who would later be the structural engineers for Saarinen on the TWA Terminal), designed two such airplane hangars. They were quite innovative in their use of concrete ribs and thin concrete barrel vaults. The use of thin shell concrete became a popular medium for architects in terminal design as well. In Missouri, at the St. Louis Airport, the City Airport Commission employed the young architectural firm of Hellmuth, Yamasaki and Leinweber to design a new terminal at the southeast edge of the airport. The final design, which opened in 1956, was a long series of concrete barrel vaults, which could be extended by the removal of huge windows at the east and west ends of the building (with subsequent additions of barrel vaults). While beautiful, this method of construction and extension proved too expensive; after 1967 thin shells ceased to be economically feasible and were abandoned.

The need to accommodate ever-growing numbers of passengers and larger aircraft since the 1950's has resulted in the construction of many new terminals as well as the expansion of existing ones. Between 1955 and 1962, when the TWA Terminal opened, passenger traffic through New York International Airport, JFK Airport's historical name, more then tripled, rising from 3.65 million to 11.5

million passengers a year. Five years later it was at nearly 20 million.[6] In 2002 the number was at 30 million passengers a year. Five years later it was at nearly 20 million.[6] In 2002 the number was at 30 million per year.[7] Another factor affecting terminal design was the change in aircraft design. Larger aircraft, increased noise levels and jet blasts, and the need to safely convey passengers to and from the planes at an elevated level were all issues that have since made many early airports obsolete. The first commercial aircraft (the Boeing 707 and the Douglas DC-8), for example, were not introduced until 1958 and 1959 respectively, well after the TWA Terminal's design was finished.

Currently, as companies continue to develop bigger and faster aircraft offering greater economies of scale, they are also in the process of developing smaller commuter craft and regional jets, such as the Boeing 727 and 737, the Douglas DC-9 and the Fokker 100. Increased traffic carried by this wider range of aircraft has stimulated airport redevelopment and construction. Many smaller cities and towns now need airport service; and architects, engineers and planners are designing modestly sized terminals for local governments. At the same time, in order to serve larger aircraft of different sizes, architects have had to find ways to divide the airport into separately functioning areas, all easily accessible. At the larger airports, for example, such as Chicago, Seattle, Atlanta and Denver, Washington, D.C. and Tampa, landside and airside terminals are far apart, but are linked by internal transit systems. Since the devastating attacks of September 11th, 2001, when airplanes were hijacked and used as weapons, all airports have to adapt to a vast array of security considerations that has greatly affected both new and existing facilities.

Air travel has become an important and even commonplace part of life in America and around the world. Once a dream, then a luxury, and now a widespread means of transportation for work or pleasure, air travel has grown and adapted to the times. The TWA terminal holds a significant place in the history of air travel and remains a vivid reminder of the dreams and visions associated with an exciting new mode of transport. Even today, when airlines are perhaps trying to reclaim some of the glory of air travel's past, new terminal designs take many cues from Saarinen's TWA Terminal; with the symbolic representation of lightness—in terms of both weight and natural illumination—clear views onto the runway, and radiating boarding gate wings.

Trans World Airlines

Like many other major airlines in the United States, TWA traces its history back to the air-mail delivery companies of the 1920s. The airline grew out of a merger between Transcontinental Air Transport (TAT) and Western Air Express, and was originally called Transcontinental and Western Air, Inc. (TWA). Subsequent mergers occurred with Standard Airlines and Maddux Airlines. Even though its name ultimately changed to Trans World Airlines in 1950, the acronym remained the same.

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[6] *The TWA Terminal: Photographs by Ezra Stoller* (New York: Princeton Architectural Press, 1999) 3.
[7] JFK Facts Page of Web Site: http://www.panynj.gov/aviation/jhisfram.htm

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TWA's history is associated with a number of famous personalities. William John Frye, a former TWA's history is associated with a number of famous personalities. William John Frye, a former Hollywood stunt flier and TWA's first director of operations, was instrumental in the development of the Douglas DC-1 and DC-2 aircraft, the first in a series of aircraft that would revolutionize commercial aviation. In 1934, at the age of 30, Frye became president of TWA. A licensed pilot, he ensured that TWA was at the forefront of modern technological advances, piloting the single DC-1 that Douglas built. He was responsible for convincing Howard Hughes to become financially involved with the airline. Hughes would go on to become the principal stockholder.

During World War II, TWA used its planes in support of the U.S. military, as did many other airlines. After the war, the Civil Aeronautics Board (CAB), the organization that distributed flight routes for U.S. airlines, decided to allow other airlines to share in Pan American's monopoly of international routes. TWA had battled American Airlines and United for the prized transcontinental route for over for a decade, and was one of the airlines granted permission to fly to Europe and India.

TWA had a reputation for its determination to offer the most advanced aircraft available. As United and American began using the DC-6 aircraft, TWA responded by introducing the Lockheed L1049 Super Constellation. The new aircraft had a 35 percent greater passenger carrying capacity than its predecessor. TWA was the first airline to inaugurate regularly scheduled nonstop transcontinental service between Los Angeles and New York on October 19, 1953. Contrary to what its name would suggest, however, the airline was late in introducing jet service internationally, preferring instead to focus on domestic jet services. TWA's first regularly scheduled international jet flight took place on November 23, 1959—a New York-London-Frankfurt flight – a year after its main rivals. It took several years for the airline to regain the competitive advantage it lost because of this delay.

TWA Airlines has had a long association with New York City. It was one of the first carriers to contract for space at LaGuardia Airport, from where it operated the first scheduled flight in 1939. TWA's inaugural flight to Europe was from LaGuardia to Paris in 1946. The carrier was the sixth international airline to sign an agreement with the Port Authority in New York City for use of the Idlewild facility (New York International Airport). TWA and Pan Am were assigned positions at either side of the International Arrivals Building, with TWA receiving the site to the east. The carrier would be the only one to operate both foreign and domestic service from one terminal at the airport. Though the leadership of the airline underwent several changes during the course of the planning and construction of the terminal, including a well-publicized suit against the difficult and eccentric Howard Hughes in 1961, it was during the term of President Ralph S. Damon that the TWA Terminal was conceived.

TWA continued to remain a powerful player, both in the international and national markets, through the 1960s and 1970s. In 1961, it became the first airline to introduce in-flight movies. In 1967, it acquired the entire chain of Hilton Hotels. In July 1969, TWA overtook Pan American as the world's number one transatlantic airline. In February 1970, only one month after Pan Am, TWA began flying the Boeing 747 jumbo jet on the New York to Los Angeles route.

In the 1980s TWA's fortunes began to lessen in the wake of deregulation of the commercial aviation In the 1980s TWA's fortunes began to lessen in the wake of deregulation of the commercial aviation industry. In September 1985, TWA accepted a bid from another corporate raider, Carl Icahn, who bought up most of the TWA stock. The following year, in October 1986, the new TWA acquired Ozark Airlines. Although TWA profited from the demise of Pan Am by acquiring its international routes, the airline eventually filed for bankruptcy in January 1992 after problems with increasing debt. It sold some of its key routes to other airlines at the time. In January 1993, Icahn finally relinquished all control over the company, which was then under the control of a management committee appointed by employees, unions, and creditors. After several reorganizations in the 1990s, TWA's financial outlook seemed to improve by the end of the decade. In December 1998, as part of plans to expand its routes and flights, it announced the order of 125 new aircraft, the largest acquisition in the company's history.

Hopes for a new future were thwarted once again by financial problems and bankruptcy. On April 9, 2001, TWA's 75-year existence as an independent airline came to an end when American Airlines purchased TWA's assets. TWA flew its last official flight on December 1, 2001, ending an era in American commercial aviation. It was at this time that the TWA Terminal at JFK Airport was officially closed.[8]

History and Evolution of JFK International Airport

New York City entered the age of commercial aviation in 1938, when the first passenger flight service was established at North Beach (now LaGuardia) Airport. Only one year after the construction of North Beach was completed in 1940, Mayor Fiorello LaGuardia recognized the need for much greater air travel capacity in the New York City region. Determined to maintain New York's preeminence as a port in the age of aviation, Mayor LaGuardia had the City acquire land on Jamaica Bay in south Queens for a new municipal airport which would eventually become John F. Kennedy International Airport. Formally announced as Idlewild Airport in Mayor LaGuardia's state of the City address in January 1942, the airport was originally slated to occupy 1,600 acres in the area around the former Idlewild Golf Course.[9] By the time the airport opened for service in 1948, the scope of the project had quadrupled in size to 4,900 acres and had undergone at least four master plan designs. Throughout the history of the airport, numerous master plans have been introduced, updated, abandoned or revised as JFK's planners have continually tried to keep pace with technological innovations and the explosive increase in air passenger travel.

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[8] This section is based on Betsy Bradley, *New York City Designation Application for the Trans World Airlines Flight Center*, July 19 1994.
[9] *New York Times* (January 8, 1963): 18.

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Airport Planning
Airport Planning

When first proposed, Idlewild Airport was envisioned as a terminal for the Pan Am Clipper seaplanes which had instituted transatlantic passenger service in 1938.[10] At the end of World War II, a larger land–based airport was proposed. This scheme, which was the first fully–developed master plan for the Airport, had a series of runways laid out in a pinwheel pattern around a central core of hangars, support structures and a single terminal building.[11] The first terminal designs were proposed by the architectural firm of Delano & Aldrich (who were also the designers of LaGuardia Airport) and included semicircular and horseshoe–shaped plans with projecting arms as well as a later proposal for a figure–eight shaped plan. In each of these proposals, the terminal was to have been a two–story structure dominated by a Classical arcade.[12]

In 1945, the cost of the Idlewild project began to exceed the City's ability to fund it. In response, the City began to curtail the scope of planning, as well as to explore the idea of an independent airport authority to operate both Idlewild and LaGuardia Airports. In early 1946, the New York City Airport Authority (NYCAA) was formed and took over planning and construction at Idlewild, and in June of that year declared Delano & Aldrich's figure–eight terminal inadequate.[13] Although the NYCAA had taken over the planning at Idlewild, the Authority was never authorized to receive funding from the City, or to issue the bonds needed to fund planning or construction; thus the City retained control of the project's budget. In August 1946, facing continued budget constraints and concerns over the expandability of the existing terminal proposal, the City terminated its contract with Delano & Aldrich and issued new contracts to three associated firms of architects and engineers. The architectural services were contracted to Harrison & Abramowitz for the design of a new terminal.[14] At the same time, the Port of New York Authority (PA) was preparing its own proposal for taking over operations at the City's airports, and in December 1946 both authorities presented their proposals to the City.[15] In January 1947 the PA completed lease negotiations with the City and took control of Idlewild and LaGuardia airports in New York City and Newark Airport in New Jersey. Planning for Idlewild continued with Harrison & Abramowitz as the lead designers for the project.[16]

New York International Airport, the official name of the Idlewild facility, opened to commercial traffic in July 1948. From the date of its opening until December 1957 all passenger traffic was handled in a temporary terminal of quonset–hut type buildings (between 1948 and 1953, this temporary terminal was expanded five times). While operations continued in the cramped temporary facilities, the PA

[10] "New marine airport for post–war needs," *New York Times* (April 1, 1943): 11
[11] "Final plan for Idlewild Airport," *New York Times* (August 6, 1944): 7; "McKenzie outlines airport programs", *New York Times* (October 5, 1944): 25
[12] Fiorello LaGuardia, "Finest Airport in the World," *New York Times* (January 21, 1945): VI:10
[13] "Legislature Votes Big Housing Fund," *New York Times* (January 29, 1946): 42; John Stuart, "Idlewild's Plans under Revision," *New York Times* (June 14, 1946): 15
[14] Paul Crowell, "Idlewild Plan Cut to Save $25 Million," *New York Times* (August 23, 1946): 21
[15] Paul Crowell, "Experts Submit New Airport Plan," *New York Times* December 23, 1946: 1
[16] *New York Times* (January 11, 1947).

wrestled with a number of master plan concepts for the permanent development of the central
wrestled with a number of master plan concepts for the permanent development of the central
terminal area.

Terminal City

In 1955, facing mounting pressure from the City, the Port Authority presented a new master plan for a Terminal City at New York International. Designed by Wallace K. Harrison with Thomas M. Sullivan, the Terminal City master plan envisioned a central international arrivals terminal with seven smaller unit terminals for American airlines as well as other supporting structures (including the control tower, the only permanent structure that had been erected to date). All of the structures would face a 160–acre plaza with landscaping, reflecting pools, fountains and parking. While airlines would be free to design the interior of their terminals, the exterior architecture was to blend with an "over–all pattern" devised by Harrison.[17] At the time of its introduction, Terminal City was a significant departure from contemporary airport design, which continued to rely on single central terminal structures. Terminal City was also significant for its concept of the airport as a cohesive campus, a design program which was becoming increasingly popular in the post–War development of suburban corporate parks. The campus concept traces its roots back to the White City movement and such projects as the 1893 Columbian Exposition in Chicago and Warren & Wetmore's Terminal City project around New York City's Grand Central Terminal. Beyond these Beaux–Arts–inspired precedents, the more immediate ancestors in terms of cohesively designed campuses included Rockefeller Center in New York City (1932–1940), in which Harrison played a significant role.

With its capacity for handling 140 planes at any given time, the PA praised the Terminal City master plan as "adequate and useful for at least 25 years."[18] In fact, Terminal City in its completed form was barely adequate for five years. Introduced at the beginning of the jet age, it was obsolete by 1967, when the Boeing announced its 747 jumbo jet, which required a rethinking of the overall program, and an expansion of many of the small single–airline terminals.

The first completed building of the Terminal City project was the International Arrivals Building and Airline Wings, designed by Skidmore Owings & Merrill (SOM) and opened in December 1957. The first of the unit terminals to open was the Eastern Airlines terminal (Chester L. Churchill), which opened for service in October 1959. This was quickly followed by the American Airlines Terminal (Kahn & Jacobs), the United/Delta Airlines Terminal (SOM), and the Pan Am Terminal (Tippett-Abbett-McCarthy-Stratton), all of which opened between February and July of 1960. In March 1961, Braniff, Northeast and Northwest Airlines opened a joint terminal (White & Mariani). Other buildings which were part of the original Terminal City plan included the Central Heating & Refrigeration Plant (SOM, 1959), the Gulf gas station (Edward Durell Stone & Associates, 1959) and the chapels which

[17] Joseph C. Ingraham, "Vast Airport City Set for Idlewild within Five Years," *New York Times* (February 21, 1955): 1
[18] Ingraham (February 21, 1955): 1

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opened in 1966 – Our Lady of the Skies Roman Catholic Church (George J. Sole); the Protestant opened in 1966 – Our Lady of the Skies Roman Catholic Church (George J. Sole); the Protestant Chapel (Edgar Tafel & Associates) and the Jewish Synagogue (Bloch & Hesse).

The TWA Terminal, which opened in May 1962, was the last of the unit terminals to be completed, and thus marked the substantial completion of the Terminal City project (although other terminals and structures continued to be planned and constructed). Even before the unveiling of the TWA plans in 1957, it was clear that the PA had abandoned its "overall pattern" for unit terminal design. From the full–façade stained–glass window of the American Terminal, to the overhanging oval roof of the Pan Am Terminal, to the wing–like structure of the TWA Terminal, New York International's Terminal City was a mix of design solutions which reflected not only the diverse tastes of the clients and architects, but also the varying approaches to airport design.

Recent Planning and Development

In December of 1963, the City of New York officially changed the name of New York International to John F. Kennedy International Airport.[19] In September of 1966, the Port Authority announced a new 10–year expansion plan designed to handle both jumbo jets and the much anticipated supersonic airplanes of the 1970s. Under this plan, Terminal City would be expanded from 655 acres to 837 acres through the removal of one runway and some taxiway area.[20] In the intervening years, the PA had largely abandoned the principals underlying the Terminal City master plan, beginning to fill in the reflecting pools to accommodate additional parking and introducing an ever–growing network of roads to the central plaza. In 1967, TWA became the first of individual airlines to expand upon its original unit terminal design when it announced an expansion of its Terminal to accommodate jumbo jets and increased passenger traffic.[21] In 1970, Pan Am opened a second terminal at its site and that same year, BOAC (now British Airways) became the first foreign carrier to open a terminal of its own (Gollins Melvin Ward & Partners). In 1972, the National Airlines Sundome (later TWA Terminal B, then jetBlue Airlines) opened (I. M. Pei & Partners). Since 1972, the original Terminal City plan has been further eroded, most of the unit terminals have been demolished, and new multi–airline mega terminals (now identified by number, not airline) have taken their place. As with the initial construction of Terminal City, much of the current construction program is taking place while the existing buildings continue to operate. The redevelopment of the terminal core at the Airport continues in the same central area which was first set aside for terminal buildings in 1942. The scale of this new development is much larger than its predecessor. In addition to the recently completed Terminal 1, one new terminal (4) is nearing completion, and another is being expanded (7), with further development slated in the areas of Terminals 2 (Delta), 3 (Delta, formerly Pan Am) and 5 (TWA). In addition to the new terminals to be constructed, the PA is also undertaking other infrastructure improvements, most notably the construction of the AirTrain which connects the terminal core to outlying parking lots and existing New York City public transit hubs at Howard Beach

[19] *New York Times* (December 5, 1963): 35.
[20] Joseph C. Ingraham, "*Kennedy Will Expand 25%*," *New York Times* (September 9, 1966): 1.
[21] "*Notes from the Field of Travel: Flight Wing One at Kennedy*," *New York Times* (June 4, 1967): 88

and Jamaica Station. The Pan Am Terminal and the TWA Terminal are the only flight terminals at and Jamaica Station. The Pan Am Terminal and the TWA Terminal are the only flight terminals at John F. Kennedy International Airport that remain from the original Terminal City project.

Eero Saarinen

Eero Saarinen (1910–1961) was born in Finland to textile artist Loja Gesellius Saarinen and the highly regarded international architect Eliel Saarinen. In Finland, Eliel Saarinen was best known for the railway stations of Helsinki and Vyborg, the city halls of Lahti and Joensuu, and the proposal for the Finnish Parliament building. The Saarinen family immigrated to the United States in 1923. Eliel Saarinen contributed significantly to the creation of the Cranbrook School and Academy of Art, a complex of children's schools and an art academy, located north of Detroit. Eliel designed several buildings there, including the Cranbrook School for Boys (1924-1930) and the Kingswood School for Girls (1929-1930). The latter project exemplifies the Arts and Crafts ideal of collaboration between the fine and applied arts. It was a family effort: Eliel oversaw all aspects of the design, Loja designed and wove the fabrics, Eero designed the furniture, and his sister, Eva-Lisa, assisted with selecting the wall and ceiling treatments.

In the early 1920s Eero studied sculpture at the Parisian Academie de la Grand Chaumiere, and received his Bachelor of Fine Arts at Yale University. He later toured Europe and Egypt, and in 1936 joined his father's firm. Together Eliel and Eero Saarinen produced the very well-received Crow Island School (1939-1940) in Winnetka Illinois. Eero entered many design competitions, and won several awards. He collaborated with Charles O. Eames on the scheme for a molded plywood chair which won the Organic Design in home furnishings competition (1940-41), sponsored by the Museum of Modern Art. Saarinen went on to produce many designs for the Knoll furniture company, including the Womb chair (1946-48) and chair series Nos. 71 and 72 (c. 1956).

Eero Saarinen developed a distinct "systems approach" to design. He carefully analyzed each design problem, and tried to find a unique form and structure to express his concept architecturally. As a result, each of his designs has a wholeness and originality. He claimed to be concerned with the "aesthetics of the whole organism" and sought an "expressive architecture, an anti-assembly line architecture", stating that "each building should be as distinctive as each person should."[22] The commission that firmly established his architectural career was the General Motors Technical Center (1945-56, with Smith, Hinchman and Grylls) in Warren, Michigan. Though it was initially designed with his father Eliel, its final scheme is attributed to Eero. The complex is ruled by a strict modular design, with fully integrated structure, partitions and mechanical systems. It featured such technological innovations as neoprene window gaskets and walls of thin insulated panels sheathed in porcelainized sheet metal. Eero Saarinen also added brightly colored brick surfaces and his trademark reflecting pool.

[22] Walter McQuade, "Eero Saarinen, A Complete Architect," *Architectural Forum* 116 (April 1962): 102-107.

An intensely devoted and methodical worker, Eero produced a number of buildings that have become An intensely devoted and methodical worker, Eero produced a number of buildings that have become American landmarks. His most significant projects include: the General Motors Technical Center in Warren, Michigan (1945–56, listed on the National Register of Historic Places since March 2000); the Jefferson National Expansion Memorial in St. Louis, Missouri (a.k.a., the Gateway Arch, 1948–64, listed on the National Register of Historic Places since May 1987); the Kresge Auditorium and Chapel at M.I.T., Cambridge, Massachusetts (1953–56); the Ingalls Hockey Rink at Yale University, New Haven, Connecticut (1956–59); CBS Headquarters in New York City (1960–64); and two soaring reinforced concrete designs associated with flight: the Trans World Airlines Flight Center (1956-62) at JFK International Airport, probably his best-known design, and Dulles Airport (1958-62) in Chantilly, Virginia. The last four commissions were completed after his death in 1961.

While Dulles is much larger then the TWA Terminal, and has a much different design and layout, there is no question that it was a product of Saarinen's experiences with both the Ingalls Hockey Rink and the TWA Terminal. At Dulles Airport, Saarinen was able to take the pragmatism of terminal planning and the beauty of sculptural design and bring them together into a building that is both beautiful and adaptable.[23] Whereas the TWA Terminal became quickly outdated, Dulles Airport was able to remain functional, even with the ever-increasing amounts of travelers and developments in airport and airline technology.

Saarinen's buildings received extensive publicity in the press, and he was given several prestigious awards. Though many architects and architectural writers sympathetic to the International style criticized Saarinen's work as lacking consistency, his works have withstood the test of time. By 1993, six of his designs received the American Institute of Architects' 25 year award for "exemplify[ying] design of enduring significance." After Saarinen's death, associates Kevin Roche and John Dinkeloo formed a successor firm, which was responsible for several of the later alterations to the Terminal. They also became a significant force in American architecture during the second half of the century. Other architects influenced by his design philosophy were Cesar Pelli, Gunnar Birkerts and Robert Venturi.[24]

Ammann and Whitney

The firm of Ammann & Whitney was the structural engineer for the TWA Terminal. Ammann & Whitney was founded in 1946 by Othmar Ammann, a preeminent bridge engineer, and Charles Whitney, a renowned structural engineer. Ammann came to the United States from Switzerland, where he was born in 1879. After graduating from the Swiss Federal Institute of Technology in Zurich with a degree in civil engineering in 1902, he worked on various projects in Europe and, starting in 1904, in the United States, specializing in bridge design. He was associated with the planning, design and construction of many record-breaking and world- recognized long span bridges, including

[23] "Eero Saarinen and His Works: Kevin Roche" [interview]. *Architecture and Urbanism* (April, 1984): 20–24.
[24] Bradley, Betsy "Transworld Airlines Flight Center at New York International Airport," in Application to the New York Landmarks Preservation Commission (July 19, 1994): 5

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the George Washington, Golden Gate, Delaware Memorial, Triborough, Bronx-Whitestone and the George Washington, Golden Gate, Delaware Memorial, Triborough, Bronx-Whitestone and Bayonne Bridges. His son Werner, born in Pennsylvania in 1906, followed him into the field, earning a civil engineering degree from Rensselaer Polytechnical Institute in 1928. Werner gained experience with the McClintic-Marshall Company in Chicago and the Bethlehem Steel Company, Pennsylvania, before serving with the Navy's Civil Engineering Corps during World War II. In 1946 he joined Ammann and Whitney as a assistant engineer, becoming a partner three years later. He oversaw construction of a number of concrete designs including the American Airlines Hangar in Chicago, and was the supervising designer of the Pittsburgh Civic Auditorium roof structure. [25]

Charles Whitney worked for Ammann during summer breaks from the engineering program at Cornell University. After graduating in 1915, Whitney worked on projects in Boston, New York, and Los Angeles, before settling in Wisconsin. In 1924, he became a principal of the Milwaukee engineering firm Hool, Johnson and Whitney. He retained this affiliation and continued to live in Milwaukee after becoming a partner with Ammann in 1946. An expert in reinforced-concrete design, Whitney contributed to the book *Concrete Designer's Manual* and received a number of awards for his work in this area. He was known for the development of plastic theory and ultimate strength methods of reinforced concrete design of long span, thin shell structures.[26]

The combined experience of Ammann and Whitney propelled their firm to prominence in the United States and around the world. Their skills are exemplified by the University of Illinois Assembly Hall in Urbana (1963), done in collaboration with the architectural firm Harrison and Abramovitz. The folded-plate reinforced concrete dome, spanning 400 feet, tapers to a thickness of only 3.5 inches.[27] Other examples of their work with thin-shell concrete construction are the Municipal Airport in Chicago (now Midway Airport) and the Kresge Auditorium at the Massachusetts Institute of Technology (MIT) in Cambridge, Massachusetts.

The unusual form of the TWA Terminal required innovative approaches to structural design. The key to the stability of the structure was a center plate which is the only structural connection between the four shells separated by skylights. The plate receives tensile stress from the outward-leaning field and two side shells, and compressive strength from the forward tilting front shell; the plate was not designed to resist vertical forces, which are transferred through interior edge beams to the piers. Supplementing the piles in resisting the horizontal component of thrust of the piers are three sub-grade post-tensioned ties, and one at the main waiting room level.[28]

Specialists designed concrete mixes to meet the unusual shape of the building; fairly standard concrete was used for the piers, and then blended with a lightweight mix for the roof shells.[29] The

[25] Darl Rastorfer. *Six Bridges: The Legacy of Othmar H. Ammann.* (New Haven, Conn.: Yale University Press, 2000).
[26] Charles S. Whitney. *A Study in their Art.* (New York: W. E. Rudge, 1929).
[27] Charles S. Whitney and E. Cohen. "Guide for Ultimate Strength Design of Reinforced Concrete." *Proceedings of the American Concrete Institute* 53 (1956): 455.
[28] *Engineering News Record* 168 (May 31, 1962): 48-52
[29] Bradley: 7.

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pour, which began on August 31, 1960 took 120 hours in all and was interrupted by hurricane Diane.
pour, which began on August 31, 1960 took 120 hours in all and was interrupted by hurricane Diane.
More then 10,000,000 pounds of concrete was poured just for the roof, which was constructed first along with the columns. The concrete floors were poured next, after which the non-load bearing elements were added.[30]

TWA and Thin-Shell Concrete Design

The TWA Terminal was one of Eero Saarinen's last projects and also one of his most revolutionary and influential designs. It was Saarinen's intention that the TWA Terminal express "the excitement of travel" and "reveal the terminal as a place of movement and transition."[31] Kevin Roche, the design architect on the TWA project, later noted that Saarinen "was interested in pushing the boundaries of architecture out of its Miesian restraints."[32] Saarinen did exactly that, not only at TWA, but in earlier projects such as the Kresge Auditorium and Ingalls Hockey Rink, as well as in the contemporaneous Dulles Airport terminal (which, like TWA, was completed after Saarinen's death).

In its break with the orthodoxy of modern architecture, the TWA Terminal contributed to a revival of architectural expressionism in the 1960s. Together with the Ingalls Hockey Rink, the TWA Terminal was one of the earliest free–form shell–structure buildings. Saarinen's design for TWA was influenced by works such as Le Corbusier's chapel at Ronchamp (1950-55), Minoru Yamasaki's terminal for the St. Louis Airport (1956) and Jørn Utzon's Sydney Opera House (1957–67), the competition for which Saarinen judged in 1956. The German architect Erich Mendelsohn's Einstein Tower (1919-22) in Potsdam and the Russian sculpture Naum Gabo's 1931 proposal for the Palace of the Soviets have also been cited as sources for Saarinen.[33] These early works of organic free–form design (including Dulles Airport Terminal) influenced later expressionist architecture such as the Berlin Philharmonic (Hans Scharoun, 1960–63) and the Fabrikhalle in Ghent (Heinz Isler).[34]

In addition to these architects and engineers, there were many others who were experimenting with the possibilities of thin-shell concrete construction. The structural engineer Anton Tedesko is credited with the introduction of thin-shell concrete roof structures into the United States. His designs include the first major thin shell structure built in 1936, an ice hockey rink for the Hershey Chocolate Company. He later designed the St. Louis Air Terminal and the May D & F Entrance Canopy. Pier Luigi Nervi, born in Italy in 1891, was a civil engineer, whose interest in thin-shell construction focused more on aesthetic rather than theoretical or practical issues. He designed the Agnelli Exhibition Hall in Turin (1948) and three athletic venues for the Olympic Games in Rome in 1960, including small and large sports arenas that displayed his mastery of precast-concrete tracery. Nervi preferred to practice in Italy but did some works abroad including the UNESCO Center in Paris (with

[30] "T.W.A.'s Terminal Standing on Own." *New York Times*. (December 8, 1960): 70.
[31] *Progressive Architecture*, (September, 1961): 162
[32] Christopher Hart Leubkeman, "Form Swallows Function," *Progressive Architecture* (May, 1992): 106.
[33] *The TWA Terminal:Photographs by Ezra Stoller.* (New York: Princeton Architectural Press, 1999): 9.
[34] Leubkeman: 108.

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Marcel Breuer and Bernard Zehrfuss, 1953-1957) and the New York Port Authority bus terminal, Marcel Breuer and Bernard Zehrfuss, 1953-1957) and the New York Port Authority bus terminal, completed in 1962. Another contemporary of Saarinen's who experimented with thin-shell construction was Felix Candela, a Spanish architect who practiced in Mexico City. His first large-scale concrete roof, which tapered to a thickness of only 1.5 inches at the apex of the arches, covered a factory at Valejo (with Carlos Recamier, 1954). He used paraboloid vaults for the Church of Santa Maria Miraculosa in Mexico City (with Enrique de la Mora, 1955) and umbrella shells for industrial buildings at Linda Vista (1954) and Coyoacan (1955). He covered an octagonal-plan restaurant in Xochimilco with a scallop of shell vaults (with Joãquim and Fernando Alvarex Ordoñex, 1958). Among his works outside of Mexico, one of the most interesting was a plan for a presidential palace at Havana, Cuba, in collaboration with Josep Luis Sert (a Spaniard who was dean of the Harvard Graduate School of Design); unfortunately the design, finished in 1957, was never built.

The form of the TWA Terminal roof, engineered by Ammann & Whitney, was largely determined by the architectural design, rather than the design being derived from the structure, as it was at Kresge, for instance. As is evidenced by the preceding examples, the period following World War II was a particularly active time in the construction of reinforced–concrete shell structures, and the TWA Terminal was one of the last of this building type to be built without pre-stressing. From an engineering standpoint, the TWA Terminal roof is unique in that it consists of four segmental domes, each carried on only two supports on the ground, with a third support at the center of the terminal roof.

The design of the TWA Terminal was a specific response to the programmatic requirements of the PA's unit terminal master plan. It called for a discrete terminal with a capacity for 14 early jet planes. During the planning stages of the project, TWA provided the architect with a list of programmatic requirements, and a projection of passenger traffic in 1970. These projections called for 1,000 people within the Terminal at peak hours, and a turnover of 2,000 arriving and departing passengers per hour.[35] Placed on axis with the entrance to Terminal City, the Terminal would also proclaim the airline's corporate identity within the larger collection of single–airline terminals. The result was a highly sculptural and iconic building, which was functional and appropriate only within the parameters to which it was designed.

Design Development and Construction

Of the seven unit terminals proposed for JFK's Terminal City, Saarinen's "bold and futuristic" design for the TWA terminal was the most radical. The design was presented in November of 1957, and ground was broken on June, 1959. Pouring of the concrete began in September 1960, and the building stood on its own when the forms were removed in November, 1960. Saarinen's final design called for a concrete shell of winged vaults embraced on either side by flanking arms. A double–height concourse area with restaurants and waiting lounges was contained within the vaulted structure, while services such as ticketing and baggage claim were concentrated in the flanking arms.

[35] *Dream of Eero Saarinen a Tribute to His Memory. Aviation News.* (May 25, 1962): 2.

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Connected to this central terminal building would be two flight wings, which would accommodate
Connected to this central terminal building would be two flight wings, which would accommodate
seven airplanes each. Utilizing a total design approach to the project, Saarinen sought to create a procession from curb to airplane, including all interior public spaces.[36]

The Port Authority planners had projected that the unit terminals at Idlewild would have finger configurations. The first group of terminals designed for the airport exhibited several solutions providing a large number of aircraft gates. The first project to be completed, the International Arrivals Building, had long wings and perpendicular fingers. The finger plan was adopted by the American Airlines Terminal, which had staggered lounges off of a central corridor, and the United Airlines facility. The terminal of Eastern Air Lines was based on the concept of large, centralized waiting rooms and "loading arcades", Pan American World Airway's "umbrella" terminal was yet another solution: six jets could be nosed in under the roof, which would protect boarding passengers from the weather. TWA was the only airline to adopt the satellite configuration for its terminal. Elevated walkways, variations on early "Jetways", introduced to commercial aviation by United Airlines at Chicago, were used at the United, Pan Am, American and TWA Terminals at Idlewild.[37]

From the beginning of the design process, Saarinen envisioned the TWA Terminal as a collection of sculptural concrete vaults. The earliest concepts for the terminal consisted of various experiments with the concrete shell form, but differed very little from the overall effect seen in the final design. The final design used four separate concrete vaults to form the winged central terminal building, with skylights marking the intersection of each of the vaults. Large flanking arms for ticketing and baggage claims were included on either side of the central structure, while at the rear of the terminal, two glass–roofed tubes, with moving walkways within, were to extend out to the flight wings. Each flight wing would house seven passenger lounges, surrounding a central atrium garden.

As constructed, the TWA Terminal differed from its original design in two significant ways. First, the large flanking arms of the final proposal were scaled back in size, allowing the vaulted central portion of the terminal to stand more on its own as a soaring sculpture. As a result, the original footprint of the main building came to be more embracing of the curve in the road and more wing–like in plan. The second significant change to the original design came in the construction of the flight wings and connecting tubes. When it opened in 1962, TWA included only one flight wing (to the south of the main terminal building), and in a cost–saving move, the connecting tube omitted the glazed roof and the moving walkways. The design of this south wing (later rechristened Flight Wing Two) incorporated two telescoping jet ways as a means of boarding the airplanes – one for first–class passengers and the second for tourist class. Introduction of these jet ways (first proposed at JFK in Kahn & Jacobs 1960 American Airlines terminal) may have resulted in the form of Flight Wing Two – a decentralized plan form, consisting of a central pavilion with two satellite lounge areas attached.

[36] Edward Hudson, *"Bold Design is Set for Airport Terminal," New York Times* (November 13, 1957): 37.
[37] David Brodherson. 2001: *Building for Space Travel.* (New York: Harry N. Abrams, 2001): 84.

At the time of construction, it was reported that TWA intended to erect a second "loading and
At the time of construction, it was reported that TWA intended to erect a second "loading and
unloading building" for seven additional planes once the airline had moved into its new terminal. In March, 1962, TWA opened the south Flight Wing for passenger boarding (even though the terminal itself was still under construction). By the time TWA completed the main terminal, their plans for the second flight wing had changed, and the airline announced that it would construct a temporary wing with only six gates. Flights were conducted out of this temporary wing until the construction of Flight Wing 1 in 1967.

Critical Response to the TWA Terminal

Contemporary Criticism

From the moment its design was first presented in 1957, the TWA terminal was hailed by the architectural and popular press as the most important building of JFK's Terminal City complex. Initial reaction to Saarinen's proposal praised his "bold new design" and "daring architecture." In 1962, *Architectural Forum*, looking at the TWA terminal, called it a "truly fantastic work," and proclaimed, "there can be little doubt about who won" the architectural free–for–all that was Idlewild.[38]

At the end of the 1962, with much of Terminal City completed, *New York Times* architecture critic Ada Louise Huxtable assessed the state of development at Idlewild, and called the TWA terminal "Eero Saarinen's magnificently detailed and executed *tour de force*." Huxtable further described the TWA terminal as "the most dubious idea, which, paradoxically, has produced by far the best building [at NYIA]." Unlike Saarinen's Dulles airport design (1958–62), the TWA terminal represented "no revolutionary breakthrough in airport design," but rather, was a "subjective demonstration of sculptural form; a questionable approach superbly carried through to an exhilarating conclusion." Huxtable was far less impressed with the rest of Terminal City, calling the overall project "standardized mediocrity," and finding fault with all five of the other terminal buildings.[39]

Huxtable also called out the significance of the TWA terminal's interior; she was one of the first critics to note that while the exterior was "heavy" it was the interior which "took flight."[40] This sentiment was echoed by other critics in the 1960s, many of whom were opposed to the "self–conscious" and anti–Modernist design of the terminal's exterior vaulting. Upon the opening of the terminal in 1962, *Architectural Forum* called the view of the terminal from the air "more like a giant horseshoe crab than a bird in flight," but said that "from the ground, and inside, it is a stirring object, its structure swooping in high–speed curves all around, like an oversize Gaudi sculpture of the jet age."[41] Architect Remmert Huygens also found the building itself to "sit low, flat and heavy on the ground."[42]

[38] *Progressive Architecture*. (July, 1962): 72.
[39] Ada Louise Huxtable, "Idlewild: Distressing Monument to Air Age", *New York Times* (November 25, 1962): section 2, 25.
[40] Huxtable: section II, 25
[41] *Progressive Architecture*. (July, 1962): 72.
[42] Remmert W. Huygens, "Coventry and TWA", letter to the editor, *Architectural Forum* (November 1962): 19.

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Edgar Kaufmann, Jr. called TWA "one of the few major works of American architecture in recent
Edgar Kaufmann, Jr. called TWA "one of the few major works of American architecture in recent
years that reaches its full stature *as an interior*."[43] In 1973, John Morris Dixon wrote that, despite a decade of alterations, TWA remained "an interior superbly attuned to the state of mind of the user; it remains the only air terminal I know where the threat of a delay is offset by the prospect of watching the movement of aircraft passengers and ground traffic from a variety of comfortable vantage points."[44]

Retrospective Criticism

Thirty years after its construction, the TWA terminal continued to be praised by the critics. In 1992, the TWA terminal was called JFK's "one truly great work of architecture...an inspired work by a brilliant architect for an audacious client."[45] The article, written for *Progressive Architecture* by Thomas Fisher, compared Saarinen's more adaptable design for Dulles with TWA, and saw the latter as a "Baroque space tightly wrapped, whose "sculptural forms have an integrity and completeness that almost preempt any attempt at altering or adding to the building." Fisher concluded by saying "whatever the drawbacks in the original design or the limitations in current capacity, the TWA terminal remains one of the best works of architecture." In 1994, *New York Times* architecture critic Herbert Muschamp wrote that "TWA sits aloof amid the architectural hodgepodge of JFK's Terminal City," and called the interior of the terminal "the most dynamically modeled space of its era."[46]

In 1994 the New York City Landmarks Preservation Commission designated the interior and exterior of the TWA Terminal as a local landmark (see Additional Documentation section for copies of these reports). The designation report notes that the terminal ". . . is among the chief works of one of the most highly-regarded architectural firms of the modern era. Saarinen's firm revolutionized air terminals through an expressive approach to design that extended to the interior and the incorporation of technological advances, producing a distinctive and highly-acclaimed work of modern interior design . . . ."[47]

When changes were proposed to the TWA Terminal in 2001 to accommodate construction of a new terminal on its air side, the architectural critics and preservationists raised concern about the proposed plans. Suzanne Stephens of *Architectural Record* wrote that "above all, let's remember that the most important part of TWA is the experiential quality of moving through the building – starting with the entrance – as you prepare to fly. Nothing, including a new arrival point, or alternative uses of the structure must change that. It is worth spending this amount of effort on saving a singular temple

[43] Edgar Kaufmann, Jr., "Inside Eero Saarinen's TWA Building", *Interiors* (July 1961): 86.
[44] John Morris Dixon, "Inside Architecture", editorial, *Progressive Architecture* (November 1973): 83.
[45] Thomas Fisher, "Landmarks: TWA Terminal," *Progressive Architecture* (May, 1992): 93.
[46] Herbert Muschamp, "Stay of Execution for a Dazzling Airline Terminal," *New York Times* (November 6, 1994): section H, 31.
[47] Betsy Bradley, *Trans World Airlines Flight Center (now TWA Terminal A) at New York International Airport*, NYC Landmarks Preservation Commission Designation Report (interior designation). July 19, 1994: 2.

of flight."[48] Stephanie Stubbs, managing editor of *AIA Architect* wrote that "the great, swooping of flight."[48] Stephanie Stubbs, managing editor of *AIA Architect* wrote that "the great, swooping concrete bird - captured the essence of flight poised on the threshold of the Jet Age. It is fitting that all efforts be made to preserve its beauty for us, and for future generations."[49] Marilyn Fenollosa of the National Trust for Historic Preservation recently noted that " . . . the terminal is the mid-20th-century counterpart of earlier transportation landmarks such as Grand Central Station."[50]

Alterations

While the TWA Terminal is regarded as one of the icons of modern American architecture, its design resulted in a building with significant functional limitations. During the 1960s, jets increased in size and capacity, and passenger traffic continued to outpace projections, resulting in the need for airports to have larger loading areas and the ability to handle greater and greater numbers of passengers. Increased security at airports also changed the layout of terminals and the flow of passengers through them, as well as requiring inspection facilities for screening passengers and baggage. Changes in the airline industry, brought on, in part, by deregulation, also resulted in a general trend towards large mega terminal buildings, within which large numbers of passengers could easily make connections between airlines. Saarinen's design for the TWA Terminal could not be readily altered, inside or out. As a result, changes at TWA have been somewhat ad hoc, and yet still insufficient for current use requirements. In contrast to TWA, at Dulles Airport Saarinen was asked to design a central terminal building for multiple airlines, and its modular design was much more amenable to expansion. In this regard, Saarinen's two airport projects represent a master architect's very different responses to two distinctly different sets of program requirements.

Perhaps as early as 1965,[51] TWA recognized several needs for expansion: among them were insufficient terminal capacity to accommodate the new Boeing 747 jumbo jets; the desire to accommodate international arrivals and its attendant Federal Inspection Station (FIS) within its own terminal; and inadequate operations and baggage handling capability. A zig-zag-shaped wing had been constructed in the location of the originally intended Flight Wing[52], probably as a temporary measure to provide access to additional planes. This structure, completed sometime after the 1962 opening of the terminal, was not adequate, nor was it aesthetically consistent with the rest of the terminal. In addition, all international arrivals to JFK were routed through the International Arrivals Building, making access to connecting domestic flights difficult as passengers were required to leave the International Arrivals Building to go to other terminals. With the construction of a substantial

[48] Suzanne Stephens, "TWA's Fight for Flight: what preserves a landmark most?" *Architectural Record* (November, 2001): 63.
[49] Stephanie Stubbs, "Saarinen's TWA Terminal and the Moment of Truth."
[50] Marilyn M. Fenollosa, National Trust for Historic Preservation, letter to Ruth Pierpont, May 24, 2005.
[51] Existing architectural drawings (on file at Avery Library, Columbia University) suggest that planning may have begun for a new Flight Wing as early as 1965.
[52] *New York Times.* (December 15, 1968): 24.

addition to its terminal, TWA would be the first airline terminal "tailored to handle" jumbo jets, as well addition to its terminal, TWA would be the first airline terminal "tailored to handle" jumbo jets, as well as the first airline–owned terminal with its own Federal health and customs inspection facilities.[53]

TWA erected a second permanent flight wing beginning in 1968 and completed in 1970. The design for Flight Wing One, as the new flight wing would be called, was provided by Saarinen's successor firm, Kevin Roche John Dinkeloo and Associates. It followed Saarinen's original concept for the Flight Wings; however, its size, scale and detailing, particularly on the interior, were different. While the original (1957) Flight Wings were "violin–shaped," Flight Wing One was shaped like a "bass viol."[54] Flight Wing One provided gates for 10 jets, versus 7 gates at Flight Wing Two, and was set at a slightly higher elevation to accommodate the larger 747 jumbo jets. The new Flight Wing was connected to the main terminal structure by a much longer (220') tube walkway. The interior finishes of the new wing were not consistent with those in the rest of the terminal. Flight Wing One, which finally opened in 1970, was larger in floor area than the entire original TWA terminal, in part because it contained four levels within.

Other additions were also completed during the early years of the Terminal. Like Flight Wing One, they were not executed with the same level of design and detail as the original construction, but in plan they reflect some of the original design intent. As constructed, the baggage handling area had been accommodated within the concrete shell structure of the terminal; however, it did not prove to be adequate. Additional space was also required for ticketing and general operations. Consequently, one addition for baggage claim carousels was constructed in 1970 to expand the baggage handling function; this was connected to Flight Wing One via an underground people-mover. Ticketing counters expanded into the area originally designated for baggage handling. On the other side of the terminal, behind the original ticketing area, another addition was constructed at the same time to accommodate offices and other back-of-house functions. A further large–scale expansion behind the Terminal near Flight Wing Two was completed in early 2000 to house the baggage makeup operation. These additions are tucked in behind the wings of the original terminal building and have little impact from the landside view; however, they certainly changed the footprint of the original construction and their installation altered or obscured the facade on the airside of the building.

Other, later, alterations at the TWA Terminal have further eroded the visual quality of the original Saarinen design. A glazed canopy was added to the front of the building in 1990, "appearing to cut it off at its knees."[55] Aluminum and glass curb–side baggage–handling enclosures have been added to the front of the building at the ticketing area, breaking up the clean lines of the front facade. Recent additions, completed in the year 2000 include additional baggage handling facilities adjacent to Flight Wing Two, and a small addition to Flight Wing One.

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[53] Edward Hudson, "T.W.A. Dedicates Huge Terminal at Kennedy," *New York Times* (March 20, 1970): 93.
[54] Edward Hudson, *"Mishap on T.W.A. Inaugural: Film Projector Fails," New York Times* (February 26, 1970): 78.
[55] Fisher: 96.

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The Departure of Trans World Airlines

On April 9, 2001, TWA's 75-year existence as an independent airline came to an end when American Airlines purchased TWA's assets. TWA flew its last official flight on December 1, 2001, ending an era in American commercial aviation. In January 2002, TWA's lease on the structure, assumed by American Airlines, expired. It was at this time that the TWA Terminal at JFK Airport was officially closed. Efforts are currently underway to support the preservation and re-use of this icon of modern architecture.

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Trans World Airlines Flight Center
Name of Property

Queens County, New York
County and State

10. Geographical Data

Acreage of Property approx. 17.6 acres

UTM References
(Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing
1	18	603350	4505050
2			
3			
4			

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By (**See Continuation Sheet for Author**)

name/title Contact: Kathy Howe, Historic Preservation Specialist
organization New York State Office of Parks, Recreation and Historic Preservation Bureau of Historic Preservation date 4/13/05

street & number Peebles Island, P.O. Box 189 telephone 518-237-8643, ext.3266

city or town Waterford state NY zip code 12188-0189

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location
A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional Items
(Check with SHPO or FPO for any additional items)

Property Owner (Complete this item at the request of the SHPO or FPO)

name Port Authority of New York and New Jersey

street & number 225 Park Avenue South telephone 212-435-7000

city or town New York state NY zip code 10003

NPS Form 10-900a
(8-86)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 10 Page 1

Trans World Airlines Flight Center
Name of Property
Queens County, New York
County and State

10. Geographical Data

Verbal Boundary Description

The nomination boundary is indicated on the attached Site Plan (April 2005).

Boundary Justification

The boundary is defined by an irregular polygon surrounding the main terminal structure and the two flightwings, and is at no less than approximately twenty feet from the building, except at the land side entrance, where it follows the curb of the median on the east side, as to exclude the non-contributing canopy and signage. The boundary has been established to include all of the components of the existing terminal complex, and the immediate setting. The exterior spaces formed by the connecting tubes, flightwings and terminal structure are incorporated into the boundary. The boundaries are drawn to incorporate the viewer's experience of this sculptural building in its airport setting including the curving roadside approach at the land side as well as the space surrounding the flightwings on the air side.

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(8-86)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 11 Page 1

Trans World Airlines Flight Center
Name of Property
Queens County, New York
County and State

Form Prepared By:
Form Prepared By:
Maya Foty
Beyer Blinder Belle Architects & Planners LLP
41 East 11th Street, 2nd Floor
New York, New York 10003
212-777-7800, ext. 290

NPS Form 10-900a
(8-86)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 11 Page 2

Trans World Airlines Flight Center
Name of Property
Queens County, New York
County and State

Additional Documentation
Additional Documentation

Drawings (Source: Beyer Blinder Belle Architects, April 2005)

- Site Plan showing nomination boundary
- TWA Terminal Morphology diagrams
- Site plan – key to photographs
- Main floor plan – key to photographs
- Mezzanine plan – key to photographs
- Basement plan – key to photographs
- Flight tube and wing no. 1, main floor plan – key to photographs
- Flight tube and wing. No. 2, main floor plan – key to photographs

Black and White Photographs
TWA Terminal 5
Queens County, NY

Photographer: Peter Brandt
Dates: Photos taken on several days between January – April 2005
Negatives on file: HABS #NY-6371, Library of Congress, Washington, D.C.

1. North and west elevations of main terminal. Looking southeast from Airtrain lobby.
2. North and west elevations (land side) of main terminal. Looking southeast from airport road.
3. West elevation of main terminal. Looking north from airport road.
4. East elevation (air side) of main terminal, flight tubes and flight wings. Looking west from tarmac.
5. South elevation of flight wing 1, looking north.
6. North elevation of flight wing 2, looking southeast.
7. South elevation of flight wing 2, looking northwest.
8. View of reception desk/Solari board, looking west.
9. View of sunken lobby, looking east.
10. View of stair connecting lower lobby to upper lobby, looking northeast.
11. View of ticketing lobby in south wing, looking south.
12. Detail of built-in seating at northeast corner of south mezzanine, looking south.
13. View looking toward south mezzanine and upper lobby from top of staircase at north mezzanine. Looking southeast.
14. View looking down toward reception desk and lower lobby taken from southwest corner of north mezzanine. Looking south.
15. Detail of fountain at lounge area of north mezzanine, looking southeast.
16. View of flight wing 1 from waiting area, looking north.
17. Flight tube 2, looking southeast from main terminal towards flight wing 2.

NPS Form 10-900a
(8-86)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

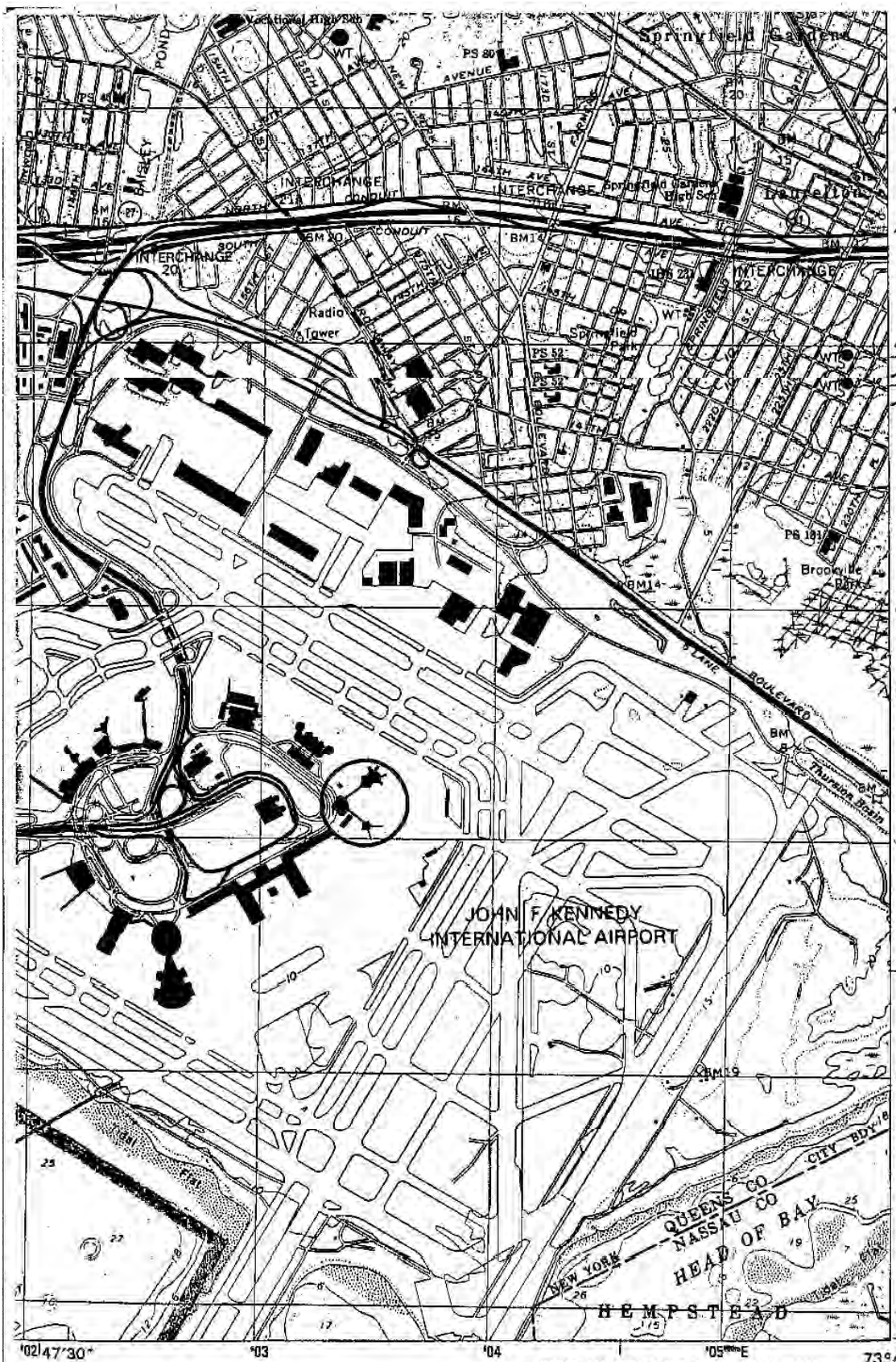
National Register of Historic Places
Continuation Sheet

Section 11 Page 3

Trans World Airlines Flight Center
Name of Property
Queens County, New York
County and State

18. Flight wing 2, view of entry to glazed corridor leading to departure lounge. Looking east.
18. Flight wing 2, view of entry to glazed corridor leading to departure lounge. Looking east.
19. Departure lounge in flight wing 2, looking east.
20. Departure lounge in flight wing 2, looking northwest.

Additional Items
Designation reports TWA Flight Center (interior and exterior reports), NYC Landmarks Preservation Commission, 1994.



INTERIOR - GEOLOGICAL SURVEY, RESTON, VIRGINIA - 2000

ROAD CLASSIFICATION

Primary highway hard surface
Secondary highway hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route
U.S. Route
State Route

QUADRANGLE LOCATION

10000

1 Central Park
2 Flushing

Trans World Airlines Flight Center
Queens County, NY

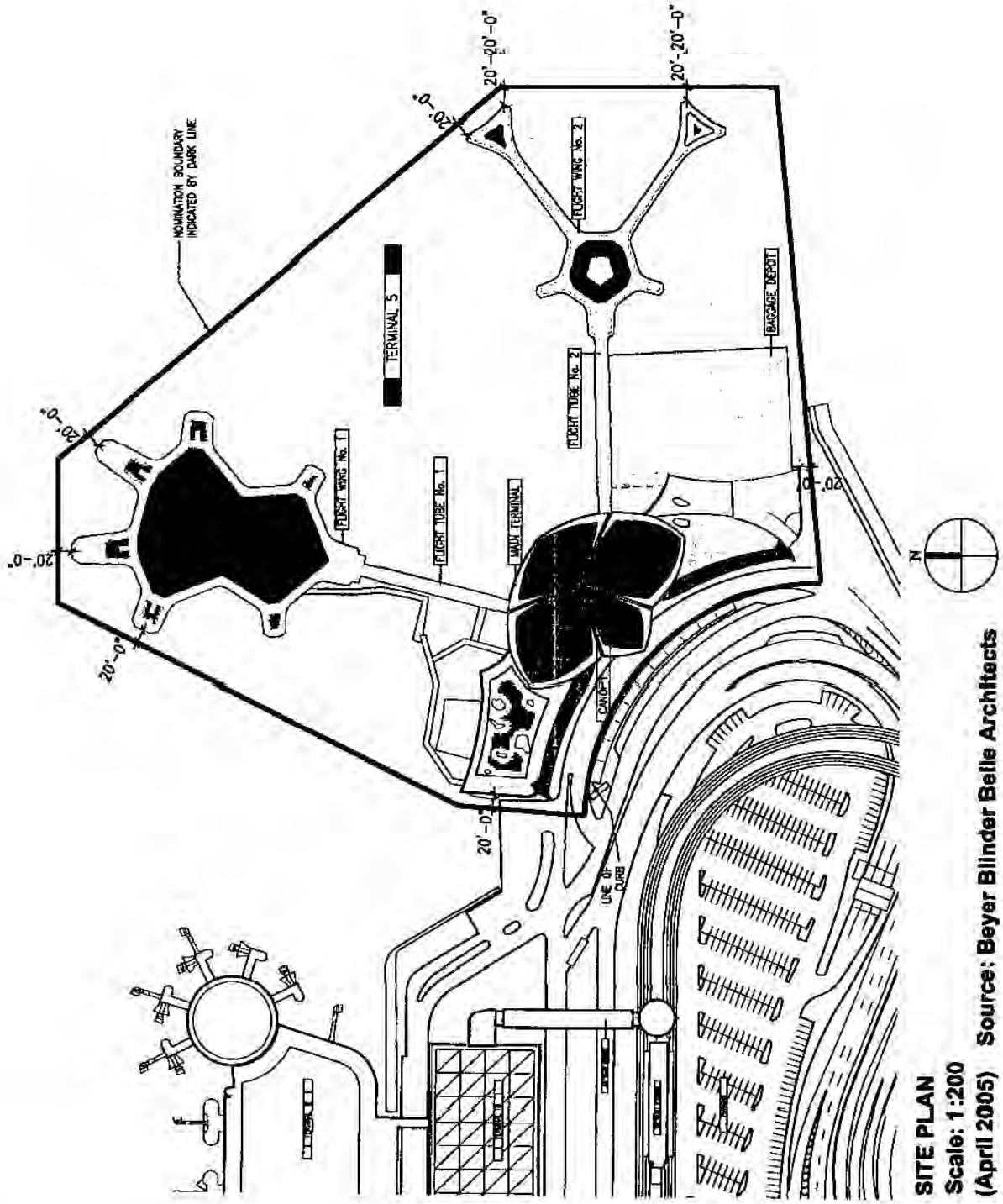
Zone 18
Easting 603350
Northing 450050

USGS Topo
Jamaica Quad
1:24000

UNITED STATES DEPARTMENT of the INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES

TRANS WORLD AIRLINES FLIGHT CENTER
(TWA Terminal 5)
QUEENS COUNTY, NEW YORK



SITE PLAN
Scale: 1:200
(April 2005) Source: Beyer Blinder Belle Architects

UNITED STATES DEPARTMENT of the INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES

TRANS WORLD AIRLINES FLIGHT CENTER
(TWA Terminal 5)
QUEENS, NEW YORK

MORPHOLOGY DIAGRAMS

TWA TERMINAL MORPHOLOGY:

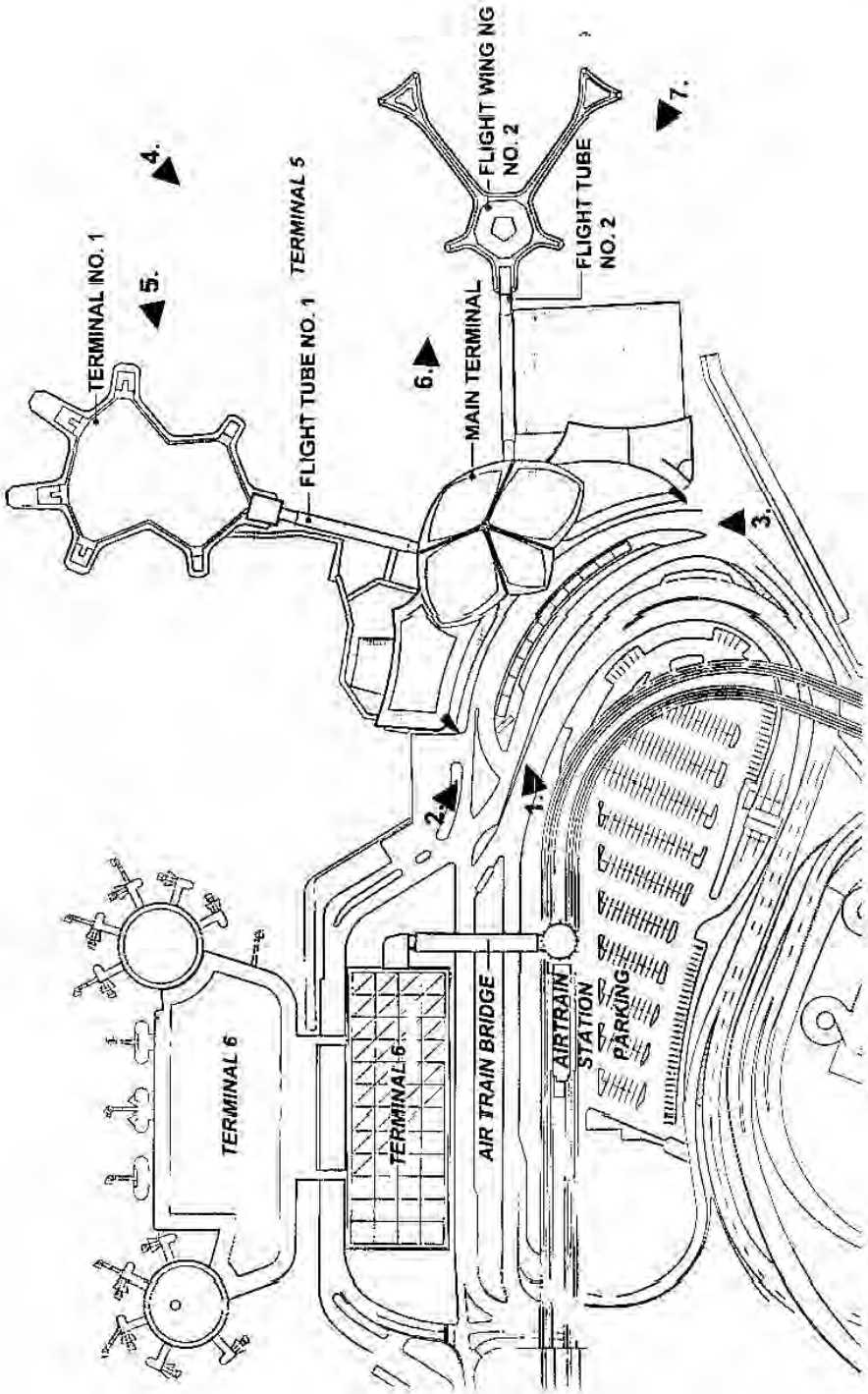
SITE PLAN
(APRIL 2005) Source: Beyer Blinder Belle Architects

UNITED STATES DEPARTMENT of the INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES

TRANS WORLD AIRLINES FLIGHT CENTER
(TWA Terminal 5)
QUEENS, NEW YORK

Key to Photographs
(Page 1 OF 6)



SITE PLAN
(APRIL 2005) Source: Beyer Blinder Belle Architects

UNITED STATES DEPARTMENT of the INTERIOR
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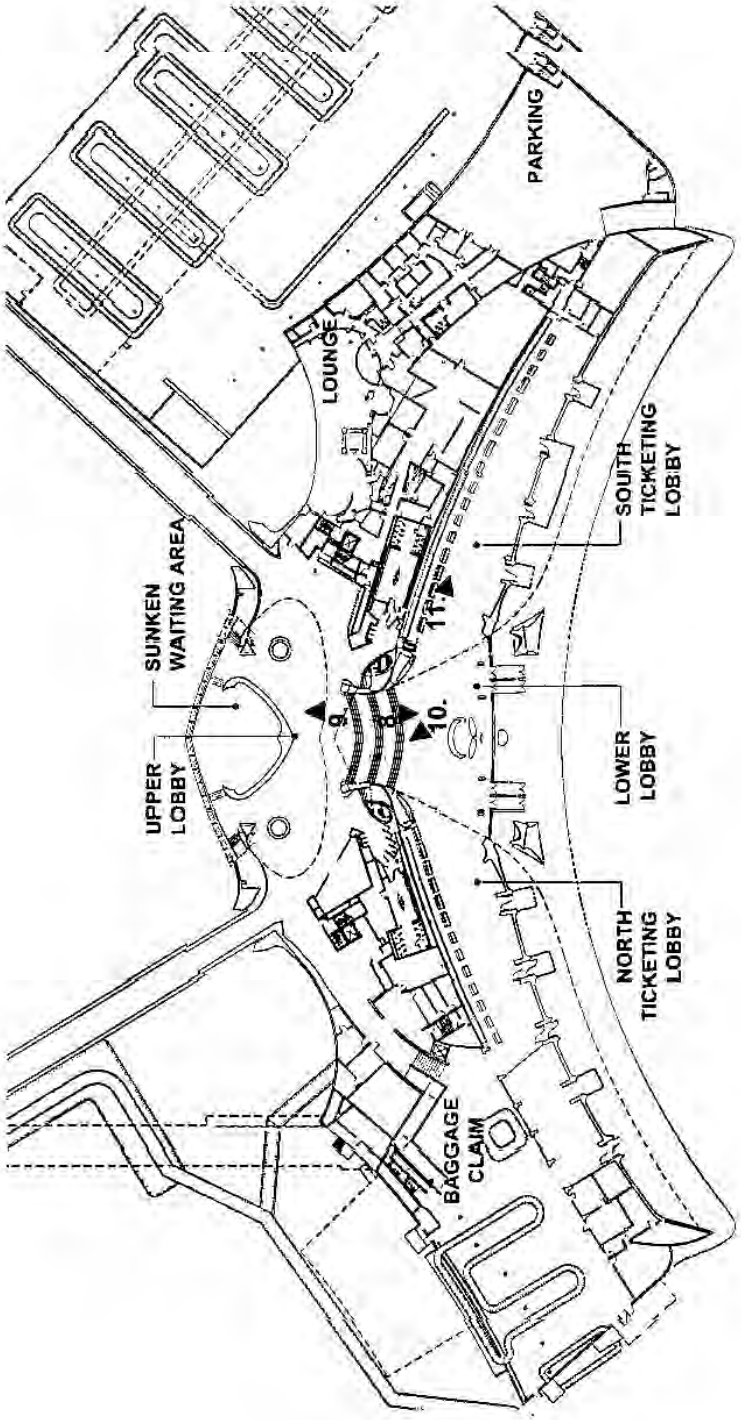
NATIONAL REGISTER OF HISTORIC PLACES

TRANS WORLD AIRLINES FLIGHT CENTER
(TWA Terminal 5)
QUEENS, NEW YORK

Key to Photographs
(Page 2 OF 6)



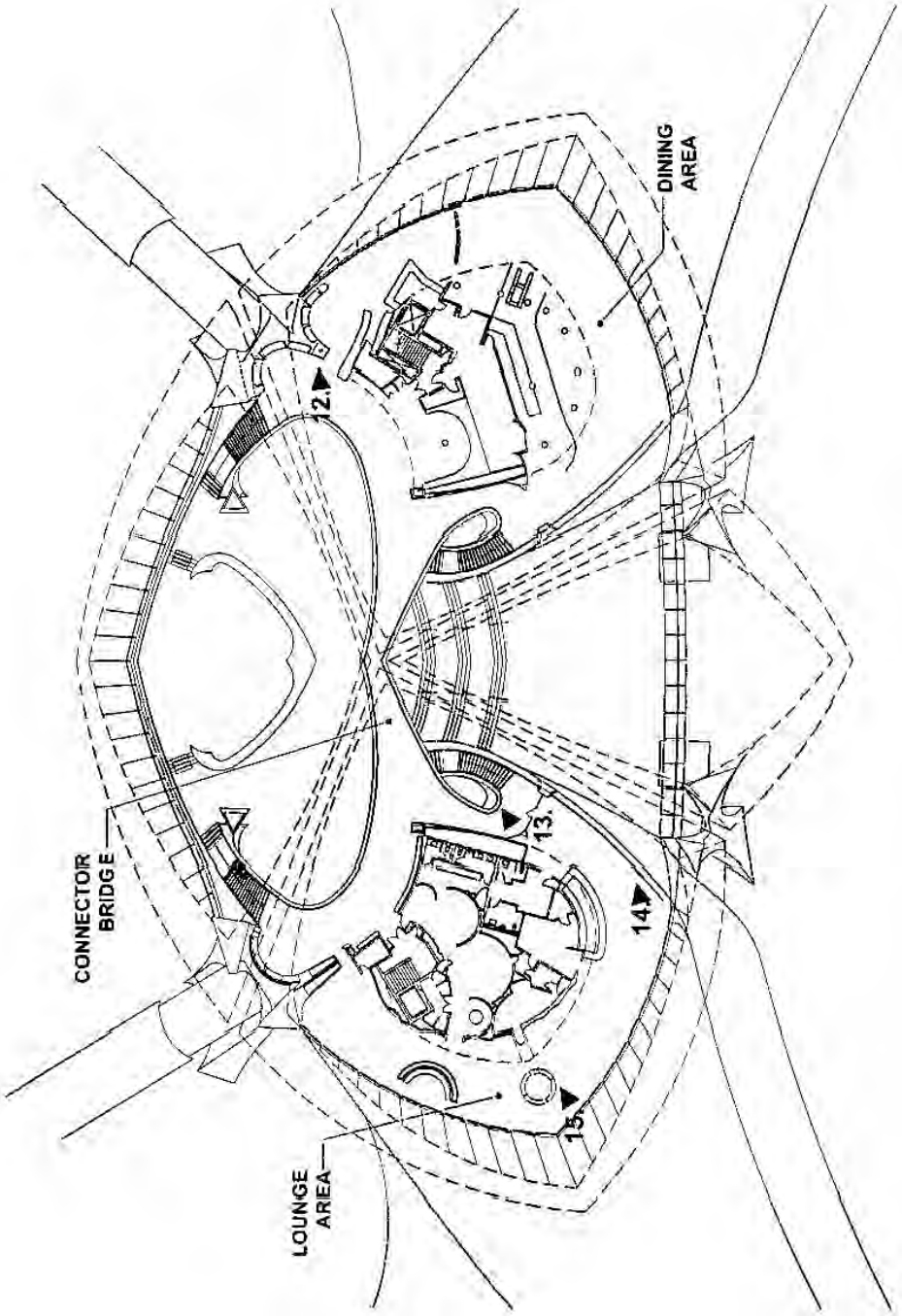
MAIN FLOOR PLAN
(April 2005) Source: Beyer Blinder Belle Architects

UNITED STATES DEPARTMENT of the INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES

TRANS WORLD AIRLINES FLIGHT CENTER
(TWA Terminal 5)
QUEENS, NEW YORK

Key to Photographs
(Page 3 OF 6)



MEZZANINE PLAN
(April 2005) Source: Beyer Blinder Belle Architects

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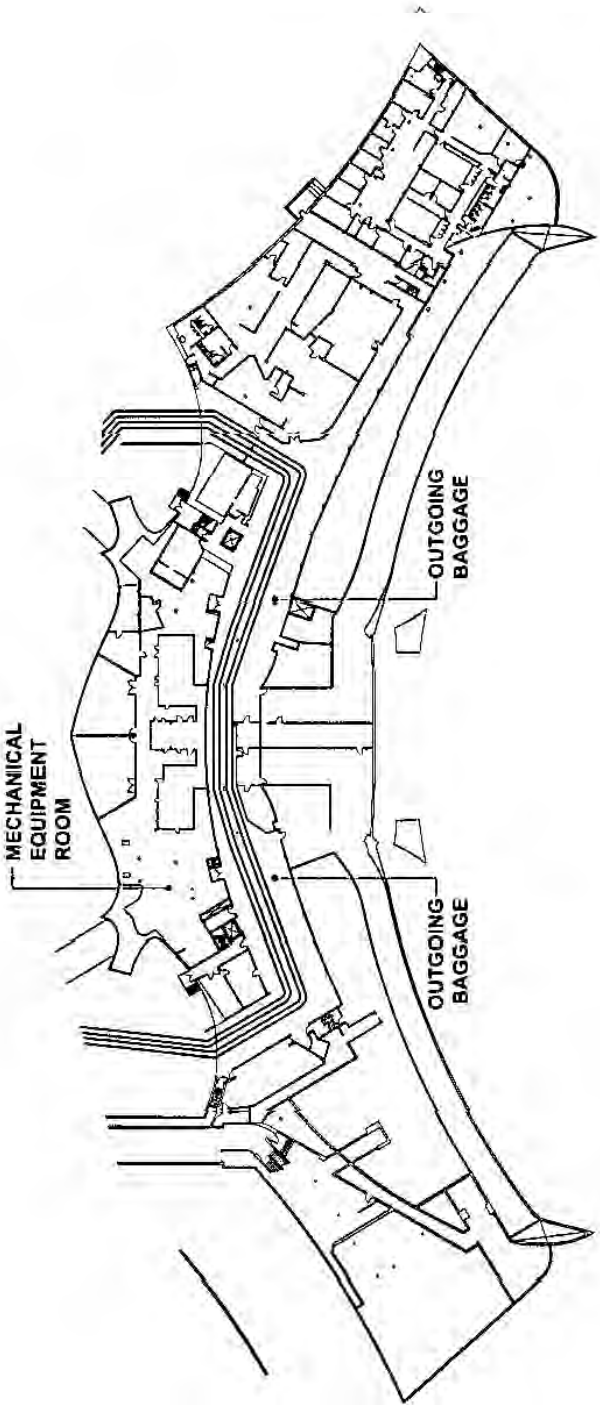
TRANS WORLD AIRLINES FLIGHT CENTER
(TWA Terminal 5)
QUEENS, NEW YORK

Key to Photographs
(Page 4 OF 6)



BASEMENT PLAN
(April 2005) Source: Beyer Blinder Belle Architects

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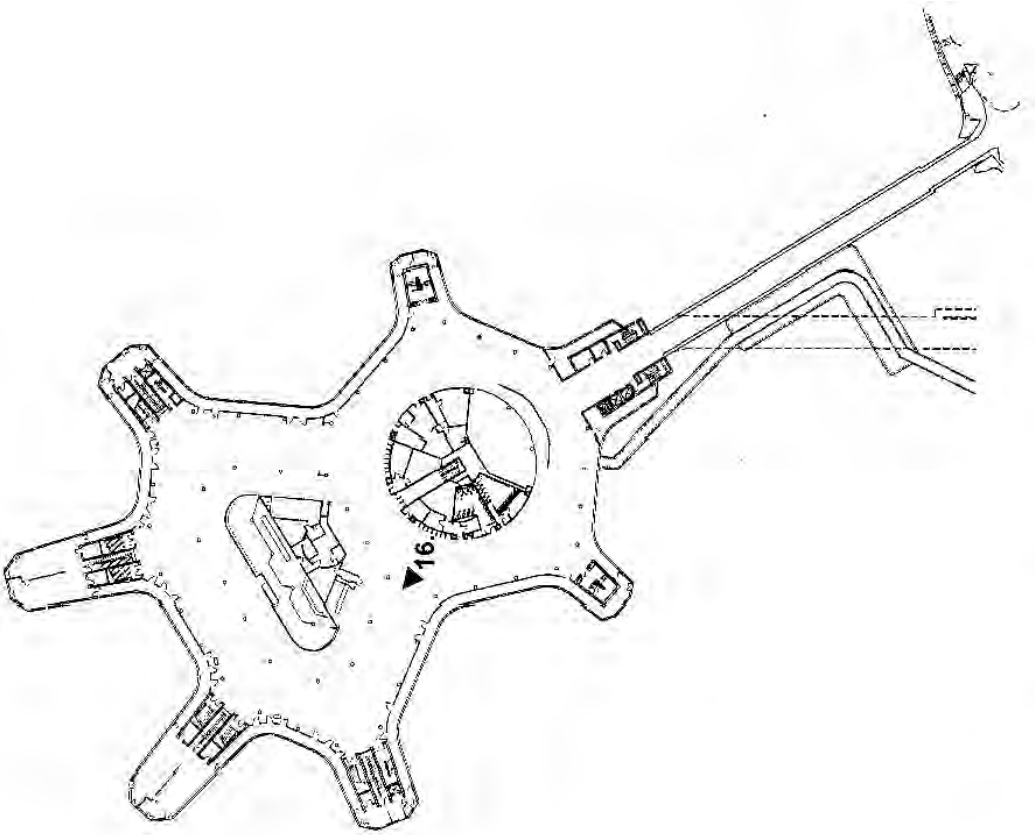
TRANS WORLD AIRLINES FLIGHT CENTER
(TWA Terminal 5)
QUEENS, NEW YORK

Key to Photographs
(Page 5 OF 6)



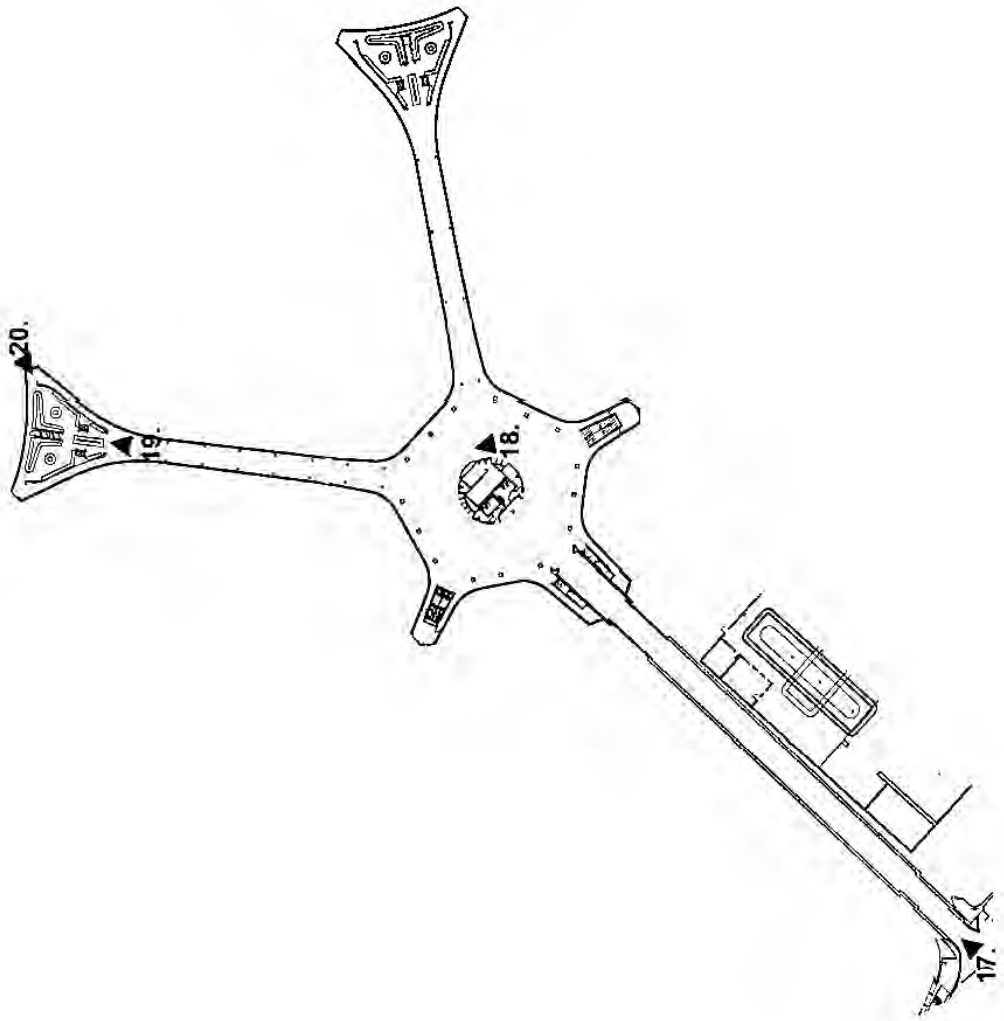
FLIGHT TUBE AND WING No. 1 MAIN FLOOR PLAN
(April 2005) Source: Beyer Blinder Belle Architects

UNITED STATES DEPARTMENT of the INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES

TRANS WORLD AIRLINES FLIGHT CENTER
(TWA Terminal 5)
QUEENS, NEW YORK

Key to Photographs
(Page 6 OF 6)



FLIGHT TUBE AND WING No. 2 MAIN FLOOR PLAN
(April 2005) Source: Beyer Blinder Belle Architects

Landmarks Preservation Commission
July 19, 1994; Designation List 259
LP-1915

TRANS WORLD AIRLINES FLIGHT CENTER
(now TWA Terminal A) AT NEW YORK INTERNATIONAL AIRPORT,
John F. Kennedy International Airport, Queens.
John F. Kennedy International Airport, Queens.
Built 1956-62; Architects, Eero Saarinen & Associates (Eero Saarinen and Kevin Roche).

Landmark Site: Borough of Queens Tax Map Block 14260, Lot 1 in part, consisting of a site encompassed by a continuous line beginning at a point at the southernmost end of the terminal building, extending northeasterly and northerly along the outermost edge of the terminal building, easterly along the southernmost edge of the elevated walkway between the terminal building and the southern gate structure, extending around the outermost contours of the southern gate structure, westerly along the northernmost edge of the elevated walkway between the terminal building and the southern gate structure, northerly and northwesterly along the outermost edge of the terminal building between the elevated walkways, northerly along the easternmost edge of the elevated walkway between the terminal building and the northern gate structure, westerly along the line of connection between the elevated walkway and the northern gate structure, southerly along the westernmost edge of the elevated walkway between the terminal building and the northern gate structure, westerly and southwesterly along the outermost edges of the terminal building to its westernmost end, southerly from the western end of the terminal building to the curbline of the service road, southeasterly along the western edge of the curbline of the service road, southerly and easterly along a line corresponding to the outermost edge of the overhanging canopy of the terminal building, southerly along the western edge of the curbline of the service road to a point opposite the southernmost end of the terminal building and easterly to the point of beginning.

On June 15, 1993, the Landmarks Preservation Commission held a public hearing on the proposed designation as a Landmark of the Trans World Airlines Flight Center at New York International (Idlewild) Airport (now TWA Terminal A), John F. Kennedy International Airport, and the proposed designation of the related Landmark Site (Item No. 11). Two persons testified in favor of designation and both Trans World Airlines and the Port Authority of New York and New Jersey expressed uncertainty about the proposed action. A representative of TWA requested that the hearing be continued. On September 21, 1993, the Commission continued the public hearing (Item No. 10). Both hearings had been duly advertised in accordance with provisions of law. At the continued hearing, time, similar reservations concerning designation were expressed by TWA and the Port Authority. A representative of Queens Borough President Claire Shulman expressed delight at the consideration of the TWA terminal for designation, and also expressed concern about the continued use of the facility by the airline and the airport. The Commission has received three letters in support of the proposed designation. The Commission has since met with the Port Authority to discuss its plans for the terminal.

DESCRIPTION AND ANALYSIS

Summary

The TWA Flight Center, designed by Eero Saarinen & Associates (Eero Saarinen and Kevin Roche), is among the chief works of one of the most highly-regarded architectural firms of the modern era. Saarinen's firm revolutionized air terminal design through its use of daring concrete and glass forms and technological advances, producing a distinctive and highly-acclaimed work of expressionistic architecture with the TWA Terminal (1956-62). Trans World Airlines was provided with the opportunity
architecture with the TWA Terminal (1956-62). Trans World Airlines was provided with the opportunity
to erect its Flight Center by the bold decision made in 1954 by the Port of New York Authority to develop Idlewild (New York International) Airport with individual airline terminals. The Flight Center incorporates airport technology adopted at the beginning of the jet aircraft era, ranging from the very form of the terminal – the now-common "satellite" plan where aircraft gates are clustered around structures built on the runway ramp away from the main terminal – to equipment such as jetways and baggage carousels. Taking advantage of the highly-visible site assigned to TWA at the apex, or far end, of the curving service road, Saarinen designed a very distinctive and memorable building while still adhering to the master plan of the airport. The design of the building expressed Saarinen's intention "to interpret the sensation of flying" and "be experienced as a place of movement and transition." The main portion of the terminal – created by four intersecting vaults separated by narrow bands of skylights and supported on four Y-shaped piers – has an upward soaring quality. The broad expanses of window-walls create a transparent quality for the terminal, in strong contrast with the concrete structural elements. The low wings that extend from the vaulted portion of the terminal, with their concave walls which extend as cantilevered canopies to shelter passengers at curbside and curved plan, echo the forms of the main portion of the terminal and relate to the curving service road while the elevated concrete walkways leading to gate structures on the ramp, are unusual in their windowless tube form. The satellite gate structure – a form that has remained a standard in airport design – with its projections for jetway access and its remote gates, one with the airline's control tower on the roof, incorporates some of the first solutions for such facilities. The concrete structure, which required special engineering and construction methods, illustrates the collaboration necessary between the architects, engineers, and construction workers to realize this unusual and significant design.

New York City's International Airport[1]

The development of New York's international airport was the result of Mayor Fiorello H. LaGuardia's interest in aviation and his long-range planning for New York City airports. Due to its remoteness from Manhattan, the city's first airport, Floyd Bennett Field on Jamaica Bay, had limited appeal both for mail delivery and passenger service. LaGuardia did not consider the Newark (N.J.) Airport, which had opened in 1928 and rapidly became the major airport on the eastern seaboard, a proper substitute. His first remedy was the construction of the New York City Municipal Airport, LaGuardia Field, commonly known as LaGuardia Airport. Commercial air service at LaGuardia soon surpassed that of Newark, and LaGuardia began planning for a much larger airport, since he was convinced that after the war the city would need another field to accommodate increased demands for domestic and transatlantic passenger traffic and air freight service.

During the fall of 1941, Mayor LaGuardia announced plans for an additional airport to be constructed on a large area of marshlands on the south side of Long Island. The land purchased for the air field included the Idlewild golf course, an old summer hotel, and the Jamaica Sea-Airport landing strip. Although never officially a part of the name of the airport, the facility was known during its early years as Idlewild, later as New York International Airport, and since late 1963 as John F. Kennedy International Airport.[2] The initial planning for the large airport, undertaken by the City Department of Marine and Aviation, was based on the concept of one large terminal building and proceeded slowly because of a disagreement over the layout of the runways and the negotiation of leases with each airline. While the final layout of the airport remained

Owings and Merrill). The terminal of Eastern Air Lines (designed by Chester L. Churchill) was based on the concept of large, centralized waiting rooms and "loading arcades." Pan American World Airway's "umbrella" terminal (designed by Tippetts-Abbett-McCarthy-Stratton) was yet another solution: six jets could be nosed in under the roof which would protect boarding passengers from the weather. TWA was the only airline to adopt the satellite configuration for its terminal. Elevated walkways, variations on early "Jetways" introduced to commercial aviation by United Airlines at Chicago, were used at the United, Pan Am, American, and TWA terminals at Idlewild.[6] The airline terminals also demonstrated various approaches to passenger service and technological advances in information presentation (electronic signage and closed-circuit television monitors) and baggage handling.

Trans World Airlines

Trans World Airlines[7] has played a major role in the history of commercial aviation in the United States; the carrier was, for many years, the only airline with both domestic and transatlantic routes and the second-largest one in the country. At the time the terminal at New York International Airport was under construction, TWA linked sixty-five American cities with twenty-three points abroad. A series of mergers, involving portions of several parent airlines, including Western Air Express, Standard Air Lines, Maddux Air Lines, and Trans-Continental Air Transport produced Transcontinental & Western Air, Inc. (TWA); the name Trans World Airlines was adopted in 1950. The history of TWA is dominated by aviation advances, financial reorganizations, and the controversial role of the long-term principal stockholder Howard Hughes. The airline has a long association with aviation in New York City as one of the first carriers to contract for space at the LaGuardia airport; the airline operated the first scheduled flight into that field in 1939. TWA operated a domestic freight and passenger service prior to World War II and expanded to overseas service via southern routes to Europe and the Mid- and Far East, which was inaugurated early in 1946 with a flight from LaGuardia to Paris; weekly transatlantic air-cargo service was established in 1947. TWA competed with Pan Am, the nation's other transatlantic carrier, for passengers by introducing tourist-class transatlantic flights in 1952, switching to jet aircraft for transatlantic passenger service, and by offering an appealing and efficient new terminal at New York International Airport.

TWA was the sixth international airline to sign an agreement with the Port of New York Authority in 1949 for use of the Idlewild facility, and when the locations of the individual airline terminals at New York International Airport were announced, TWA was not especially pleased. TWA and Pan Am, as overseas carriers, were assigned positions on either side of the International Arrivals Building, but TWA would have preferred the opposite side, which was nearer to its new hanger. The carrier would be the only one to operate both foreign and domestic service from one terminal at the airport. Though the leadership of the airline underwent several changes during the course of the planning and construction of the terminal, it was during Ralph S. Damon's term as president that the TWA terminal was conceived. George Scullin reports that Damon was advised by TWA's real estate board and construction engineers to commission the firm of Eero Saarinen & Associates (which was completing the General Motors Technical Center) to design the terminal, and attributes to Damon the vision of the terminal as "a building that starts your flight with your first glimpse of it and increases your anticipation after you arrive," and the statement, "the spirit of flight, inside and out, and nothing less will do." The airline was regarded as a "client with vision and confidence."[8]

Eero Saarinen[9]

A master architect of the mid-twentieth century, Finnish-born Eero Saarinen (1910-1961) was groomed from childhood to be a successful designer by his parents, textile artist Loja Gesellius Saarinen, and highly regarded international architect (Gottlieb) Eliel Saarinen (1873-1950). Eliel's early career is best remembered for his Helsinki Railroad Station (1904-c. 1913, with Herman Gesellius) which successfully demonstrates his sympathies with the Arts and Crafts movement. The Saarinen family immigrated to the United States in 1923, yet visited Finland annually. Eliel contributed significantly to the creation of the Cranbrook School and Academy of Art, a complex of children's schools and an advanced-level art academy, located at Bloomfield Hills, north of Detroit. Cranbrook was devoted to every field of design – textiles, metalwork, architecture, and city planning. Eliel designed several buildings there, including the Cranbrook School for Boys (1924-30) and the Kingswood School for Girls (1929-30). The latter project exemplifies the Arts and Crafts ideal of collaboration between the fine and applied arts: while Eliel oversaw all aspects of design, Loja designed and

in dispute, construction began in 1942. Commercial flights began to use the airport on July 1, 1948, making use of the first terminal facilities – a small cinder block building and a control tower. Even before the construction of the present terminals began, nearly three million passengers and hundreds of millions of pounds of airmail and air cargo had passed through Idlewild airport; by 1954 the facility passed through Idlewild airport; by 1954 the facility had the highest volume of international traffic of the world's airports.[3]

In 1947, the Port of New York Authority (now known as the Port Authority of New York and New Jersey) and the City of New York signed a leasehold agreement for fifty years under which the Port Authority would finance, develop, and operate the airports in New York City.[4] The Authority began work on a new master plan for the Idlewild field because after the Second World War air travel had increased more rapidly than first projected. During the late 1940s, thirty to forty percent of all U.S. airline passengers passed through New York City in the course of their air travels, and the city had earned the position of "air capital" of the world. By 1953 it became apparent that the new airport would require more aircraft gates, and that the centralized terminal scheme had serious defects. Consequently, the use of unit terminals – separate terminals for each airline – was considered to avoid the projected two-mile-long centralized terminal, as well as to minimize passenger walking distances, reduce congestion, and provide maximum flexibility. In 1954, the decision was made to use unit terminals in order to eventually provide 140 aircraft loading gates, and in February 1955, the Port Authority and the airlines reached an agreement on a revised master plan.

The plan adopted for New York International Airport – envisioned as the largest and most efficient airport in the world, where there would be "no confusion and no congestion"[5] – was developed under the direction of Thomas M. Sullivan, deputy director of the Aviation Department for the Port of New York Authority, and Wallace K. Harrison, who served as design consultant and coordinator. The airport's "Terminal City" would consist of the International Arrival Building with flanking Airline Wing Buildings (to be built by the Port Authority); an eleven-story control tower; seven airline terminal buildings; a network of roadways, parking lots, taxiways; and a central plaza with reflecting lagoon (now replaced by parking facilities). The allocation of sites for the airline terminals was based on carriers' traffic, seniority at the Idlewild facility, and relationship to overseas traffic. Each airline would have the freedom to erect a terminal designed by the architect of its choice to meet individual operational needs.

The New York International Airport, strongly identified with the "Jet Age," incorporates some of the first solutions for accommodating jet aircraft and is a contemporary of facilities built in Los Angeles, San Francisco, and Chicago. Terminals built before San Francisco, and Chicago. Terminals built before the Second World War had been enlarged by the use of "fingers" or covered piers, which led to boarding areas on the ramp for the increasing number of aircraft; the piers – enclosed and enlarged to two-story structures – evolved into the familiar concourses of a later generation of airports. An operational change that had a great impact on airport design was the use of a "hold area" for processed passengers near the aircraft gate, which became known as the gate departure lounge. The gate lounges eliminated the need for large central waiting rooms, and prompted the relocation of passenger services nearer to aircraft gates. During the post-war airport construction boom, engineers and planners analyzed airport design and function, diagraming variations of terminal finger configurations – where aircraft were typically parked on both sides of a concourse that contained walkways, services, and gate departure lounges – and the alternative satellite form, where aircraft gates were grouped around a central waiting and service area which was connected to the main terminal by an elevated walkway. Separating routes through terminals for arriving and departing passengers, minimizing passenger walking distances, reducing congestion during peak hours of travel, and automating baggage handling were airport planning issues addressed during the period. The more widespread use of jet aircraft during the years that the Idlewild was under construction introduced yet another set of concerns: how to deal with larger sizes of aircraft, increased noise levels, and jet blasts, and how to protect passengers boarding planes at an elevated level.

Port Authority planners projected that the unit terminals at Idlewild would have finger configurations. The first group of terminals designed for the airport exhibited several solutions to providing a large number of aircraft gates. The first project to be completed was the International Arrivals Building (designed by Skidmore, Owings, & Merrill), which had long wings and perpendicular fingers. The finger plan was adopted for the American Airlines terminal (designed by Kahn & Jacobs), which had staggered lounges off a central corridor, and the United Air Lines facility (designed by Skidmore,

wove fabrics (in association with the Cranbrook Looms), Eero designed furniture, and his sister, Eva-Lisa, assisted with selecting wall and ceiling treatments.

During the early 1930s Eero studied sculpture at the Parisian Académie de la Grand Chaumière, completed a Bachelor of Fine Arts in the Beaux-Arts-oriented architecture program at Yale University, oriented architecture program at Yale University, toured Europe and Egypt on a travel fellowship, during which time he was influenced by the architecture of Erich Mendelsohn and Alvar Aalto – before joining his father's firm in 1936. Together, the Saarinens produced the much-praised Crow Island School (1939-40, with Perkins, Wheeler & Will) in Winnetka, Illinois. Eero entered many design competitions, and won several prizes. He collaborated with designer Charles O. Eames on the scheme for a molded plywood chair which won the Organic Design in Home Furnishings competition (1940-41), sponsored by the Museum of Modern Art. Recognized from that point on as an important furniture designer, Saarinen produced many designs for the Knoll furniture company, best represented by his Womb chair (1946-48) and Nos. 71 and 72 chair series (c.1956).

Saarinen has been credited with developing the innovative "systems approach" to design; he carefully analyzed each problem, and usually relied on modern technology, in order to find a unique form and structure to express a concept architecturally. As a result, each of his designs has a certain wholeness about it; he claimed to be concerned with the "esthetics of the whole organism" and sought an "expressive architecture, an antiassembly-line architecture," stating "each building should be as distinctive as each person should."[10] The commission which firmly established his architectural career was the General Motors Technical Center (1945-56, with Smith, Hinchman & Grylls) in Warren, Michigan. Though its initial designs were begun in association with his father, the final scheme was largely due to Eero. The complex is ruled by its strictly modular design (structure, partitions, and mechanical systems are fully integrated) and features such technological innovations as neoprene window gaskets and walls of thin insulated panels sheathed in porcelainized sheet metal; yet the architect also added brightly colored brick surfaces and his signature element, a reflecting pool. During the GM project, the elder Saarinen died and Eero formed a successor firm, Eero Saarinen & Associates. An intensely devoted and methodical worker – he worked 365 days a year, according to his chief of design, Kevin Roche – Eero produced a number of buildings which have become American landmarks. These include his Jefferson National Expansion Memorial (designed 1948, completed 1964), the famous parabolic arch in St. Louis, Missouri; the Kresge Auditorium and Chapel (1953-56, with Anderson & Beckwith), geometrically-derived enclosures highlighting different materials, at the Massachusetts Institute of Technology in the Massachusetts Institute of Technology in Cambridge; the David S. Ingalls Hockey Rink (1956-59), the undulating concrete roof of which expresses the exhilaration of a hockey game, at Yale University in New Haven; and two soaring reinforced concrete masterpieces associated with flight: the Trans World Airlines Flight Center (1956-62) at New York (now J.F.K.) International Airport – probably his most renowned design – and Dulles Airport (1958-62, with Ammann & Whitney) in Chantilly, Virginia. The last three commissions were completed after Saarinen's death in 1961 as was his other prominent New York project, the somber granite-clad Columbia Broadcasting System (CBS) Headquarters (1960-64) on Sixth Avenue between West 52nd and 53rd streets.

Saarinen's buildings received extensive publicity in the press, and he was given several prestigious awards. Though many architects and architectural writers sympathetic to the International style criticized Saarinen's work as lacking consistency (a necessary by-product of his design method), his *oeuvre* has withstood the test of time: by 1993 six of his designs had received the American Institute of Architects' 25-Year Award for "exemplif[ying] design of enduring significance." These include the Crow Island School, GM Technical Center, and Dulles Airport.[11] Saarinen's successor firm, Kevin Roche and John Dinkeloo, founded by his colleagues, has been a significant force in American architecture during the second half of this century. Other architects influenced by his design philosophy are Cesar Pelli, Gunnar Birkerts, and Robert Venturi.

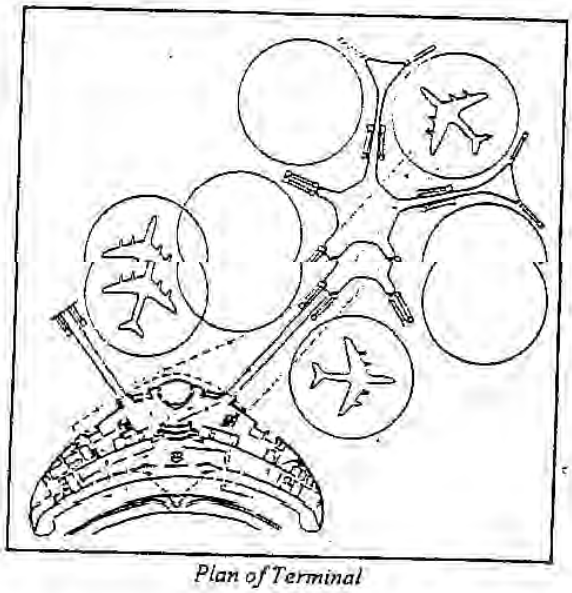
Design and Construction

TWA provided the architectural firm with a catalogue of needs, and its projection of passenger traffic in 1970: 1000 people within the building at peak hours, and a turnover in arriving and departing passengers at the rate of 2000 per hour. Aline Saarinen described her husband as an ardent and incessant air traveler who had deplored the ugliness, shoddiness, and inconvenience of most air terminals.[12] In accordance with his firm's usual approach to a design problem, the staff made a programmatic analysis of airport functions, collected

data on planes and passengers, and toured existing terminals. The architects took advantage of the less convenient terminal site assigned to TWA by capitalizing on its high visibility at the apex or far end, of the curving service road, and designed a distinctive and memorable building while still adhering to the master plan of the airport. The architects were determined that the building would relate to the tight, wedge-shaped site and it does so relate to the tight, wedge-shaped site and it does so with the configuration of the main terminal, walkways extending at angles, and gate structures; the low side wings of the terminal conform to curve of the service road.

According to co-designer Kevin Roche, the first design for the terminal was an oval shell resting on four points with an edge beam, a form that Saarinen found awkward.[13] A series of clay models, and then larger cardboard forms were used in the three-dimensional design process, especially to refine the forms of the shell and the ridges which emphasize their separation. The complex forms of the supporting piers were first shaped in wire to form the area needed for concrete and steel reinforcing; then a skin of light cardboard converted the shape to a solid volume. The forms that enclose the terminal appear to some as eccentric shells, and to others as intersecting barrel vaults; a recent analysis suggests that the forms are four lobes, or segmental domes, each of which stands alone, resting on two buttress supports. The architects took shell design into a more free-form arena, and made expressive innovations rather than technological ones.[14]

When Saarinen's design for the terminal was presented to the public in November 1957, the shape of the structure was described as bold and futuristic. Edward Hudson, aviation columnist for the *New York Times*, assuming that the airline had some misgivings about spending a projected $12 million on such an unusual plan, thought that TWA was counting on winning public acceptance for the terminal.[15] Attention was focused on the functional aspects of the terminal, both when the design was presented and upon its completion. It would be the airline's solution to three problems of air travel: quick and efficient service at check-in; up-to-the-minute information on arrivals and departures; and rapid baggage delivery. The placement of the long ticketing counter and the baggage claim area in the two low wings, at street level opposite curb areas protected by the projecting roof, was an attempt to increase passenger convenience. Recent advances in technology were employed in the electronically-controlled doors at the drop-off and pick-up points, large electronic signs –



Plan of Terminal

huge Solari (the Swiss watch manufacturer) Datavision boards where flight information could be kept up-to-date – and the transfer of that information throughout the terminal via closed-circuit television monitors. Originally, it was thought that passengers would have to walk to aircraft parked around a one-story structure on the ramp, the "Flight Wing." The use of "Jetways" was under study by late 1957, and the delay in the beginning of construction of the terminal allowed for the evaluation and adoption of this newly-available equipment. The use of jetways raised the height of the ramp structure to two stories, and determined its final form – a more compact "star-shaped" variation of the violin-shaped structure that appears in early images of the design. The projections from the main volume of the building are connections for the jetways, one at the front and one near the rear of each aircraft (for the segregation of first class and coach passengers).[16] The structure has two remote gate lounges in order to accommodate seven aircraft; perched on the roof of the gate near the center of TWA's ramp area is the carrier's control tower, from which personnel direct ground traffic and control the flight information system. The use of baggage carousels in the main terminal area was an addition to the original plan for baggage-handling automation.[17]

The unusual form of the terminal required innovative approaches to structural design, engineering, and construction, and it was considered a monument to concrete as a building material and the architects, engineers, and construction workers who created it.[18] Kenneth P. Morris, as project

engineer for contractors Grove Shepherd Wilson & Kruge; and Ralph Yeakel, Saarinen's second in command and resident architect for the project; a staff of fourteen engineers; and 150 craftsmen were responsible for the construction of the terminal.[19] The architects supplied numerous architectural and structural drawings, many of which were of a new type that provided dimensional information; for type that provided dimensional information; for example, contour lines that indicated the progressive shape of the buttress at one-foot intervals were added to section drawings. Grove Shepherd Wilson & Kruge produced working drawings and developed the techniques by which the structure could be built. For the concrete formwork, steel-pipe scaffolding was erected on a grid, with each vertical accurately placed to support the underside of the form at the proper elevation and position.[20] Specialists designed concrete mixes to meet the unusual conditions of the building; a fairly standard concrete was used for the piers and then blended with a lightweight mix for the roof shells.[21] The pouring of the concrete structure, which is one monolithic form without control joints above the ground, was a carefully-orchestrated event. Once all the forms were removed, the *New York Times* could report: "TWA's Terminal Standing on Own."[22] Nearly a year later, the one-quarter-inch-thick tinted glass window walls were installed. Construction, which began in June 1959, was complete enough in May 1962 to allow the terminal to be officially opened as the TWA Flight Center at New York International Airport.[23]

A Terminal To Catch the Excitement of the Trip[24]

Saarinen's design for the TWA Flight Center is the exemplar of expressionistic architectural trends of the late 1950s and 1960s. Saarinen and his like-minded peers expressed their dissatisfaction with the restrictive minimalism of the International Style, as it had been interpreted in America, through attempts to imbue modern architecture with a monumentalism appropriate to public structures.

To paraphrase Saarinen, the design intent of the Trans World Airlines terminal was to create, within the complex of terminals that makes up Idlewild, a building for TWA which would be distinctive and memorable, in which the architecture itself would express the drama, specialness, and excitement of travel, and which would be experienced as a place of movement and of transition. From the time the design was presented, the similarity between the form of a building and a bird was often remarked upon, with critics stating that the "structure is symbolically designed to appear like some huge bird with wings spread in flight." Saarinen played down that analogy:

> *The fact that to some people it looked like a bird in flight was really coincidental. That was the last thing we ever thought about. Now, that doesn't mean that one doesn't have the right to see it that way, or to explain it to laymen in those terms, especially because laymen are usually more literally than visually inclined.*[25]

Saarinen interpreted the role airport terminal design played in satisfying emotional needs associated with jet travel – security and drama – with a baroque-like use of symbolic forms. The extent to which the terminal was successful in combining the functional realities of the jet age with the aesthetic drama of flight would be its real test in the public's mind. Saarinen's phrase "To Express the Excitement of Travel" appeared in the carrier's print ads in 1962, which noted that "the soaring roof and sweep of glass enclosed a hundred new ideas to speed departure and arrival."[26]

Saarinen was emphatic that architecture had to be of its own time, and sought to interpret his era in a dynamic, expressive manner. Saarinen's approach to design and his reluctance to embrace fully any one theoretical camp left him free to explore the flowing, irregular forms that were appearing in art, furniture design, and in buildings. Saarinen took the shell, a form much in favor during the 1950s, and made it uniquely his own by exploring new shapes rather than devoting attention to shell dynamics; in a similar manner, he used large expanses of glazed walls, characteristic of airport terminal design, in an unusual manner.

The design of the terminal engendered much interest, and was not without its critics.[27] One contemporary writer noted that the building had been received with a great amount of skepticism, but was widely accepted as appropriate architecture for the jet age.[28] The *New York Times'* architectural critic, Ada Louise Huxtable, noted that the most dubious idea for a terminal, paradoxically, had produced by far the best building – Eero Saarinen's magnificently detailed and executed *tour de force* for TWA. Her admiration for the TWA terminal was underscored by her disappointment with the airport in general.[29] The project was presented in architectural periodicals in England, France, Germany, and Mexico; in 1963 the TWA terminal received an Award of Merit from the American Institute of Architects.[30]

Description*

The exterior of the TWA terminal is composed of remarkably few elements, and its simplicity is furthered by the two building materials: concrete buttresses and roof, and green-tinted glass walls. The wing-like roof of the central portion rises above low wings that extend on the east and west, and follow the curve of the airport service road. Extending from the main terminal are two raised walkways that connect

main terminal are two raised walkways that connect

with gate structures on the aircraft ramp; the two-story eastern gate structure has a pair of remote gate lounges (the western gate structure, built later, is not included in this designation). The exterior concrete areas of terminal are painted in a range of cream shades.

Four complexly-massed piers support the roof over the central portion of the terminal. The four segments of the roof, separated by narrow skylights, meet at the central roof plate. The outward-canting side walls, and smaller front and ramp-facing walls have fixed sash held in an aluminum framework. The piers on the ramp side of the terminal, through which the concrete tube walkways extend, frame a large oval window above a concrete bulkhead. The letters "TWA" are mounted on the edge of the roof. The two front piers support the projecting front roof shell that extends to shelter the main entrances and terminates in a spoon-like scupper. The imprint of the formwork boards that remain visible as the concrete finish on the front piers and on the underside of the overhanging shell express the structural quality of raw concrete. Two glazed vestibules project from the central wall area, flanking an iron bowl-like light fixture attached to the window framing. Several canister spotlights hang at the upper edge of the wall and two spherical spotlights are mounted in front of the windows in the piers.

The curved walls of the flat-roofed side wings rise from a low curb and extend as a roof overhanging the sidewalk; the ends of these wings are terminated with taller, modeled parapet-like forms. There are two rows of recessed spotlights in the soffit of the overhang. The original door openings are framed by rib-like projections. On the east wing, two of the openings have been converted to floor-to-ceiling windows and glazed vestibules project from the other two openings. On the west wing, the five openings have two projecting glazed vestibules, two pairs of recessed glazed doors, and a pair of flush glazed doors.[31] The west end of the wing is obscured by a low, one-story enclosed walkway. The sidewalk

glazed doors. The west end of the wing is obscured by a low, one-story enclosed walkway. The sidewalk

has been widened, although the original curb line is visible. The aircraft ramp side of the wings is shielded from view by an addition north of the east wing and by baggage-handling equipment on the west wing.

The enclosed concrete walkways, painted white, are tubes with an oval cross-section, modeled on the exterior with curved forms near the main terminal ends. They rise in the center portion in a shallow arc and are supported by battered piers at several points.

The three main sections of the east gate structure have concrete ground stories (painted a light neutral color and coved at the upper edge), and fully-glazed second stories. The main structure is star-shaped with rectangular projections (onto which jetways are attached); it is extended by two glass-enclosed walkways, supported by a solid base and battered piers, to remote triangular gate lounges (Gates 39 and 42). The glazed windows of the operational control tower rise above the roof of Gate 39. The structures have nearly flat concrete roofs.

Subsequent History

In 1972, the west satellite gate structure was built. TWA, which also uses the adjacent terminal to the west, currently shares the Flight Center with America West. Alterations to the exterior of the terminal are limited to signage, the addition of the temporary enclosed walkway to Terminal B, and the placement of baggage-handling equipment on the ramp side.

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*For the sake of convenience, north is used in the description rather than northeast, and so on.

NOTES

1. This section is based on George Scullin, *International Airport* (Boston & Toronto: Little, Brown & Co., 1968); Thomas M. Sullivan, "Planning Airport Terminal buildings," *Civil Engineering* 29 (May 1959), 334-38; Dudley Hunt, Jr., "How Idlewild Was Planned for the Jet Age," *Architectural Record* 130 (Sept. 1961), 152-154 and Arnold W. Thompson, "Evolution and Future of Airport Passenger Terminals," *Journal of the Aero-Space Transport Division, Proceedings of the American Society of Civil Engineers*, 90 (Oct. 1964), 127-134.

127-134.

2. In 1943 the airfield was named Major General Alexander E. Anderson Airport, in honor of a decorated veteran of two world wars. In March 1948, the City Council changed the name of the facility to New York International Airport, Anderson Field. In December 1963, during the month following the president's assassination, the airport was named the John F. Kennedy International Airport.

3. Edward Hudson, "New Structures Rise at Idlewild," *NYT*, Dec. 6, 1955, p. 39.

4. All structures at the airport are on property that belongs to the City of New York, which was leased to the Port of New York Authority for fifty years; the Authority subleases terminal sites to various occupants. The construction bills for the terminals and other structures were largely the responsibility of the Port Authority which has been repaid through the subleases.

5. Howard S. Cullman, "Tomorrow's Airport -- A World Fair," *NYT*, June 8, 1947, VI, p. 12.

6. United Airlines tested an "Aero-Gangplank" during the summer of 1958; by 1959 United had ordered "Jetways" for use at its terminals at New York International, LaGuardia, and several other major airports. "Jetway" appears to have been a proprietary name that has become a generic term. *Airports and Airport Engineering* 12 (July-August, 1958), 75 and 13 (May-June 1959), 42-43.

7. Information on TWA was compiled from Geoffrey Arend, *Air World's Great Airports, LaGuardia* (New York: Air Cargo News, Inc., 1979), 84-91; Arch Whitehouse, *The Sky's the Limit* (New York: Macmillan Co., 1971); and Robert J. Serling, *Howard Hughes' Airline: an informal history of TWA* (New York: St. Martin's Press, 1983).

8. Scullin, 154. Ralph S. Damon, the airline's long-term leader during the post-war rebuilding period for the carrier, assumed the presidency of TWA in 1949 and remained in that position until his death in January 1956. Damon was succeeded as president by Carter L. Burgess, who served a brief term of only eleven months. Charles S. Thomas' two-year term as president, from July 1958 to July 1960, preceded that of Charles C. Tillinghast, Jr., who assumed the position in March 1961, presided at the opening of the TWA Flight Center, and continued to lead the airline for a number of years. Edgar Kaufmann, Jr., noted in "Inside Eero Saarinen's TWA Building," *Interiors* 121 (July 1962), 87 the vision and confidence of the airline as a client and the turnover of responsible officials at TWA after 1956; he cited George Clay (an attorney from Missouri who held several positions at TWA prior to becoming a Vice-President for Administration in 1954 and a Director in 1956) and later Byron Rathbun (about whom little is known) as two men played leading roles in the terminal project. Donald Keogh was the TWA project engineer at the time the terminal was nearing completion, according to the *NYT*, April 22, 1962, p. 14.

9. This section is based on: Alan Temko, *Eero Saarinen* (New York: George Braziller, 1962); Walter McQuade, "Eero Saarinen, A Complete Architect," *Architectural Forum* 116 (April 1962), 102-107; Rupert Spade, introduction to *Eero Saarinen*, Library of Contemporary Architects (New York: Simon & Schuster, 1971); "Slouching towards Barcelona," *Progressive Architecture* 56 (Feb. 1975), 78-85; Andrea O. Dean, "Eero Saarinen in Perspective," *A.I.A. Journal* 70 (Nov. 1981), 36-[51]; R. Craig Miller, "Saarinen, Eliel, and Saarinen, Eero," *Macmillan Encyclopedia of Architects* (New York: Macmillan-The Free Press, 1982), vol. 3, 625-633; *Design in America. The Cranbrook Vision, 1925-1950* (New York: Harry N. Abrams, 1983); "Eero Saarinen," *Architecture and Urbanism* extra edition (1984); and Peter Papademetriou, "Coming of Age. Eero Saarinen and Modern American Architecture," *Perspecta* 21 (1984), 116-141.

10. Quoted in McQuade, 107.

11. "Saarinen's GM Technical Center Receives AIA's 25-Year Award," *Architecture: the AIA Journal* 74 (Apr. 1985), 11, 15; "Eero Saarinen's Dulles Airport Wins AIA 25-Year Award," *Architecture: the AIA Journal* 77 (May 1988), 38, 43; "Deere HQ Wins Saarinen a Sixth 25-Year Award," *Progressive Architecture* 74 (Feb. 1993), 18.

12. "Dream of Eero Saarinen a Tribute to His Memory," *Aviation News* 4 (May 25, 1962), 2.

13. Roche's description appeared in "TWA's Graceful New Terminal," *Architectural Forum* 108 (Jan. 1958), 79-83. The descriptions of the TWA terminal design process include graphic scenes such as Saarinen taking a knife to a grapefruit half and pushing on the end to create the bulges in the shell forms, as well as Roche sawing a model in half to make an intermediate design conform to the curve in the service road.

14. The shell forms are discussed in Christopher Hart Leubkeman, "Form Swallows Function," *Progressive Architecture* 73 (May 1992), 106-108. The *Engineering News-Record* reported that the key to the stability of the structure was a center plate which is the only structural connection between the four shells separated by three-foot-wide skylights. The plate receives tensile stress from the outward-leaning field and two side shells, and compressive stress from the forward-tilting front shell; the plate was not designed to resist vertical forces, which are transferred through interior edge beams to the piers. Supplementing the piles in resisting the horizontal component of thrusts of the piers are three subgrade post-tensioned ties (concrete-encased high-strength bars) and one at the main waiting-room level.

15. *NYT*, Edward Hudson, "Aviation: Unusual Terminal for Idlewild," Nov. 17, 1957, p. 37. The *NYT*, Oct., 11, 1958, p. 45, reported that engineers were reworking the plans for the terminal because it was too costly to build as originally designed; what changes were made as a result of this study are undetermined.

16. Several airlines at Idlewild used two jetways to access aircraft parked parallel to terminal structures, but the use of the nose-in parking position and one jetway became favored for economic reasons. According to Glenn Garrison, "TWA Picks Futuristic Terminal Design," *Aviation Week* 67 (Nov. 18, 1957), 40-41, the traveler would have a choice of using a moving sidewalk or walking through the long passageway linking the main terminal with the ramp gate structures. The design of these walkways changed from glass-enclosed structures with moving sidewalks to the enclosed tunnels and the use of the moving sidewalks was abandoned. The functional aspects of the TWA terminal were described in "TWA: Wing-Like Roof, Theater-Type Lounge," *Airlift* (Sept. 1959), New York City Airports Clipping file, Municipal Reference Library and "Newest Terminal Spreads its Wing," *Aviation News* 4 (May 25, 1962), 2.

17. According to Bruno H. Hake, "Baggage Handling: Passenger and Baggage Processing at Air Terminals," in *Journal of the Aero-Space Transport Division, Proceedings of the American Society of Civil Engineers* 39 (Oct. 1963), 42, baggage carousels had been in operation for some time at terminals in Montreal and San Francisco. TWA may have been the first airline to install carousels at New York International Airport; they were located in the ground level of the west wing, not in their present location (neither space is included in this designation).

18. "Architect's Dream Makes Contractor's Nightmare," *Public Works* 92 (Sept. 1961), 204-206; "TWA's Concrete, Wing-roofed Terminal Ready for Flight," *Engineering News-Record* 168 (May 31, 1962), 48-50; "Shaping a two-acre sculpture," *Architectural Forum* 113 (August 1960), 118-123; and Scullin related the construction of the terminal.

19. The firm of Ammann & Whitney were the engineers for the project.

20. The contractor engaged Computer Usage Company of New York City to calculate 400 key elevation points.

21. Pozzolith and other additives were used as water-reducing and plasticizing agents and to control the setting time of the mixes which were purposely varied in order to allow the removal of the upper forms and finishing of the surface of the concrete. Two types of aggregate of the same color – a coarse stone for the normal weight concrete used for the piers and a lightweight shale aggregate for the shells – were used to produce an overall uniform appearance. Three truck cranes with 180-foot booms lifted one-cubic-yard buckets to the deck for the pours; each bucket was coded for its exact placement. The pour, which began on August 31, 1960, took 120 hours in all and was interrupted by Hurricane Diane. The center plate of the concrete dome was poured first, followed by the ramp-facing and front shells, and finally the larger side shells. The roof of the terminal was left with a wood-float finish while the piers, edge beams, and other members with formed surfaces received a rubbed finish (*Public Works* suggested that some areas were bush-hammered to produce a surface texture desired by the architect).

22. *NYT*, Dec. 8, 1960, p. 70.

23. The opening of the terminal was reported in the *NYT*, May 18, 1962, p. 33, and May 29, 1962, p. 61; and in *Aviation News* 4 (May 25, 1962), 2.

24. This section draws upon criticism of the TWA terminal in Peter Papademetriou, "TWA's Influence," *Progressive Architecture* 73 (May 1992), 102-104; *Eero Saarinen on His Work*, ed. Aline B. Saarinen (New Haven & London: Yale University Pres, 1962); "TWA's Graceful New Terminal," *Architectural Forum* 108 (Jan. 1958), 78-85; Michael Brawne, "Airport Passenger Buildings," *Architectural Review* 132 (Nov. 1962), 341-348; Ken Macrorie, "Arriving and Departing," *The Reporter* 27 (Sept. 13, 1962), 52-55; "Recent Work of Eero Saarinen," *Zodiac* 4 (1959), 54-57; Bill Ballantine, "Idlewild Gateway to the World," *Cosmopolitan* (May 1960), "Trans World Airlines," *Architectural Record* 130 (Sept. 1961), 162-162; "TWA Flight Center, Idlewild," *Architectural Record* 132 (July 1962), 129-130; "I Want to Catch the Excitement of the Trip," *Architectural Forum* 117 (July 1962), 72-75; and other sources individually cited.

25. *Eero Saarinen on His Work*, 60 (from a *Horizon* interview, June 19, 1959).

26. For instance, an advertisement in *Aviation Week and Space Technology*, June 11, 1962, p. 46.

27. Gillo Dorfles in "Eero Saarinen: The TWA Terminal, and the Embassy," *Zodiac* 8 (1962), 85-89 wondered if the symbolic quality of the design "rather smack[ed] of an enormous publicity stunt."

28. James Baker, "Architecture," *The New International Year Book 1962* (New York: Funk & Wagnalls Co., 1963) 32.

29. Ada Louise Huxtable, "Idlewild: Distressing Monument to Air Age," *NYT*, Nov. 25, 1962, II, p. 25.

30. *American Institute of Architects Journal*, 39 (May, 1963), 40-41.

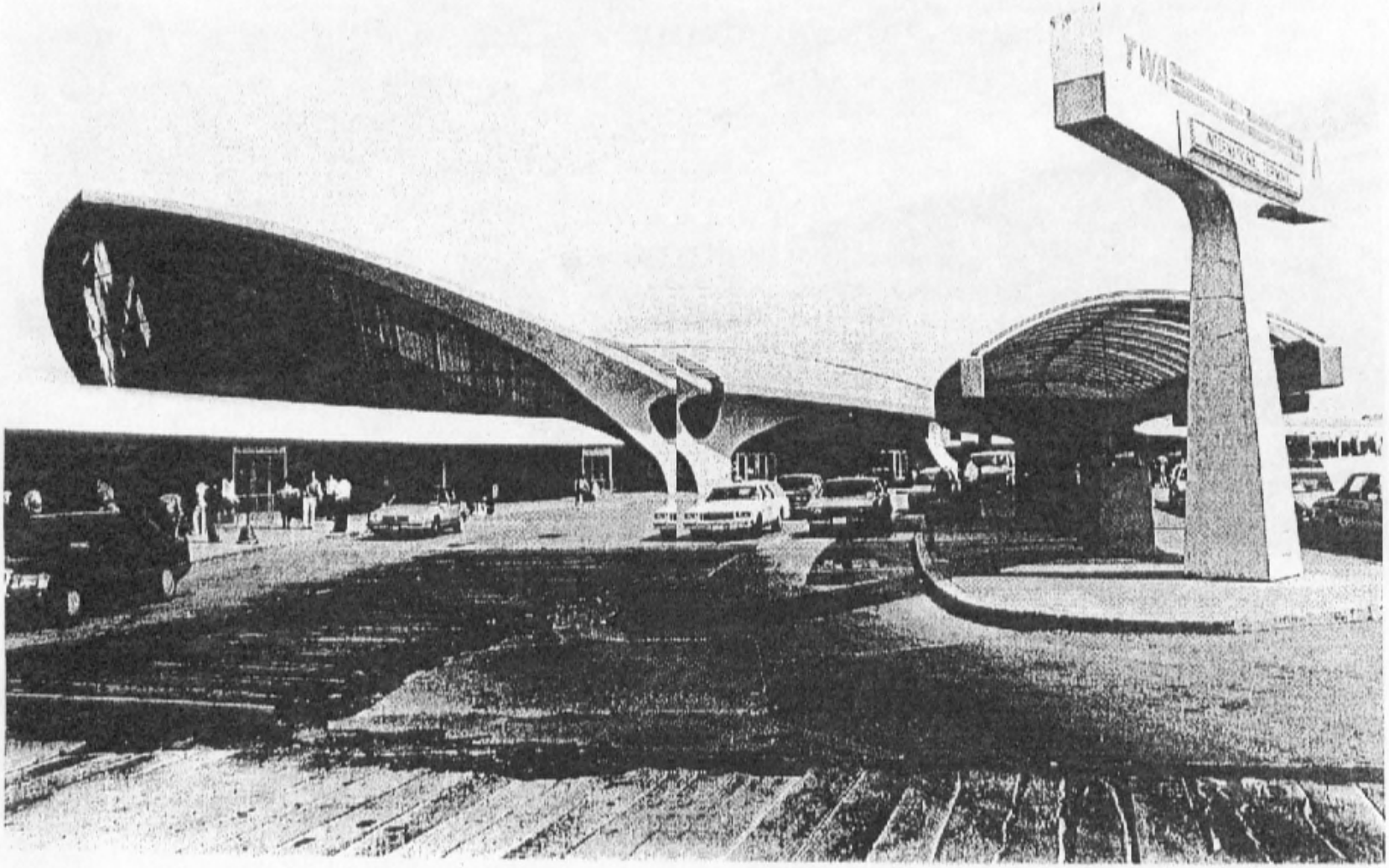
31. As-built plans of the terminal indicate of the four openings on the east (ticket counter) wing, the two west ones contained pairs of doors, and the eastern ones contained fixed glass; on the western (baggage claim) wing, the openings contained alternately doors and fixed glass, with a door located in the opening closest to the main portion of the terminal. Currently, three open box-awning-like signs, black with red and white lettering, hang from the overhanging ceiling on the west wing.

FINDINGS

On the basis of a careful consideration of the history, the architecture, and other features of this building, the Landmarks Preservation Commission finds that the Trans World Airlines Flight Center (now TWA Terminal A) at New York International Airport has a special character, special historical and aesthetic interest and value as part of the development, heritage and cultural characteristics of New York City.

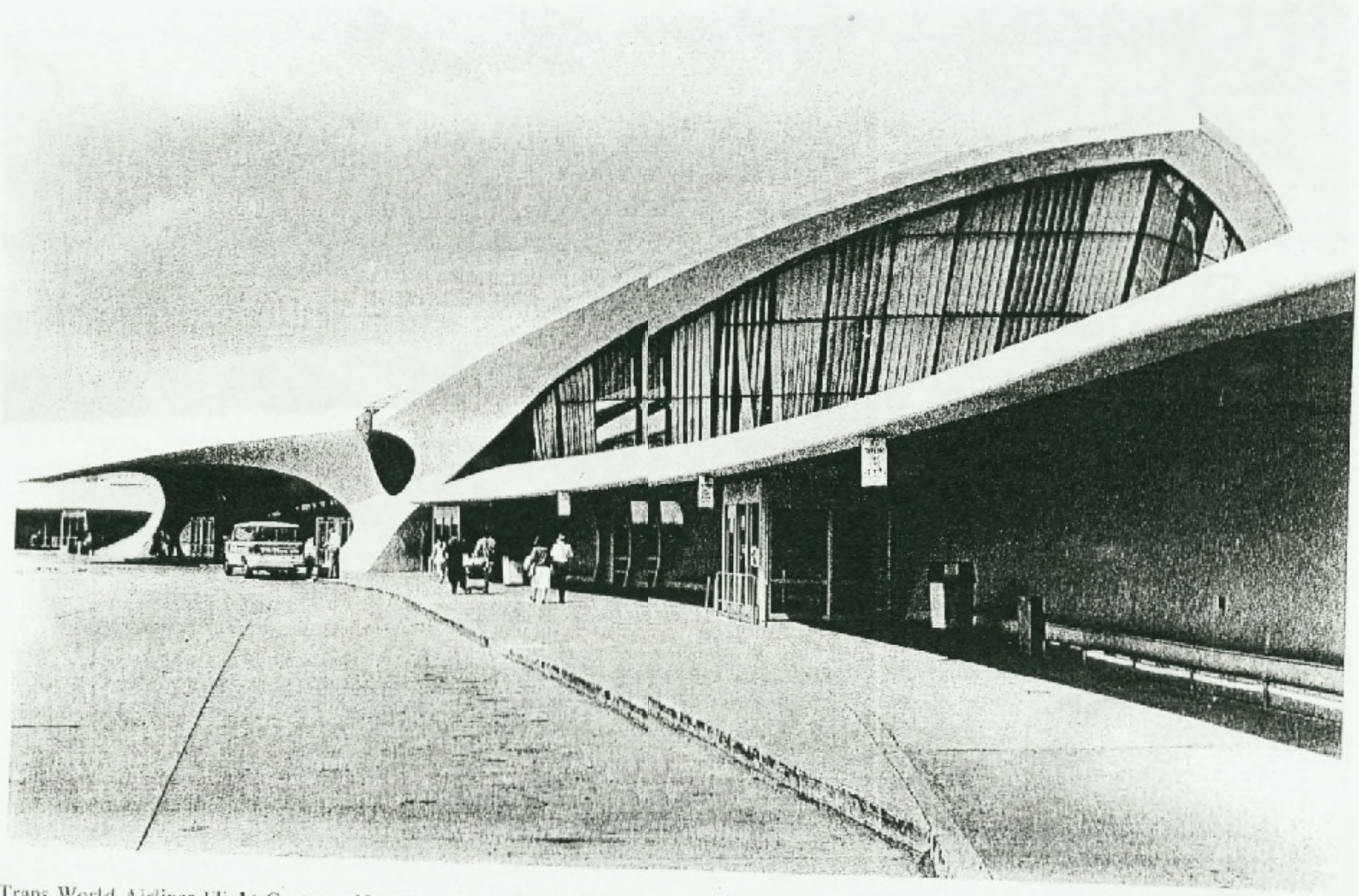
The Commission further finds that, among its important qualities, the TWA Flight Center, designed by Eero Saarinen & Associates (Eero Saarinen and Kevin Roche), is among the chief works of one of the most highly-regarded architectural firms of the modern era; that Saarinen's firm revolutionized air terminal design through its use of daring concrete and glass forms and technological advances, producing a distinctive and highly-acclaimed work of expressionistic architecture with the TWA Terminal (1956-62); that Trans World Airlines was provided with the opportunity to erect its Flight Center by the bold decision made in 1954 by the Port of New York Authority to develop Idlewild (New York International) Airport with individual airline terminals; that the TWA terminal incorporates airport technology adopted at the beginning of the jet aircraft era; ranging from the very form of the terminal – the now-common "satellite" plan where aircraft gates are clustered around structures built on the runway ramps away from the main terminal – to equipment such as jetways and baggage carousels; that, taking advantage of the highly-visible site assigned to TWA at the apex, or far end, of the curving service road, Saarinen designed a very distinctive and memorable building while still adhering to the master plan of the airport; that the design of the building expressed Saarinen's intention "to interpret the sensation of flying" and "be experienced as a place of movement and transition;" that the main portion of the terminal – created by four intersecting vaults separated by narrow bands of skylights and supported on four Y-shaped piers – has an upward soaring quality; that the broad expanses of window-walls create a transparent quality for the terminal, in strong contrast with the concrete structural elements; that the low wings that extend from the vaulted portion of the terminal, with their concave walls which extend as cantilevered canopies to shelter passengers at curbside and curved plan, echo the forms of the main portion of the terminal and relate to the curving service road; that the elevated concrete walkways leading to gate structures on the ramp, are unusual in their windowless tube form; that the satellite gate structure – a form that has remained a standard in airport design – with its projections for jetway access and its remote gates, one with the airline's control tower on the roof, incorporates some of the first solutions for such structures to service jet aircraft; that the concrete structure, which required special engineering and construction methods, illustrates the collaboration between the architects, engineers, and construction workers to realize this unusual and significant design.

Accordingly, pursuant to the provisions of Chapter 74, Section 3020 of the Charter of the City of New York and Chapter 3 of Title 25 of the Administrative Code of the City of New York, the Landmarks Preservation Commission designates as a Landmark the Trans World Airlines Flight Center (now TWA Terminal A) at New York International Airport, John F. Kennedy International Airport, Queens and designates Borough of Queens, Tax Map Block 14260, Lot 1 in part, consisting of a site encompassed by a continuous line beginning at a point at the southernmost end of the terminal building, extending northeasterly and northerly along the outermost edge of the terminal building, easterly along the southernmost edge of the elevated walkway between the terminal building and the southern gate structure, extending around the outermost contours of the southern gate structure, westerly along the northernmost edge of the elevated walkway between the terminal building and the southern gate structure, northerly and northwesterly along the outermost edge of the terminal building between the elevated walkways, northerly along the easternmost edge of the elevated walkway between the terminal building and the northern gate structure, westerly along the line of connection between the elevated walkway and the northern gate structure, southerly along the westernmost edge of the elevated walkway between the terminal building and the northern gate structure, westerly and southwesterly along the outermost edges of the terminal building to its westernmost end, southerly from the western end of the terminal building to the curbline of the service road, southeasterly along the western edge of the curbline of the service road, southerly and easterly along a line corresponding to the outermost edge of the overhanging canopy of the terminal building, southerly along the western edge of the curbline of the service road to a point opposite the southernmost end of the terminal building and easterly to the point of beginning, as its Landmark Site.



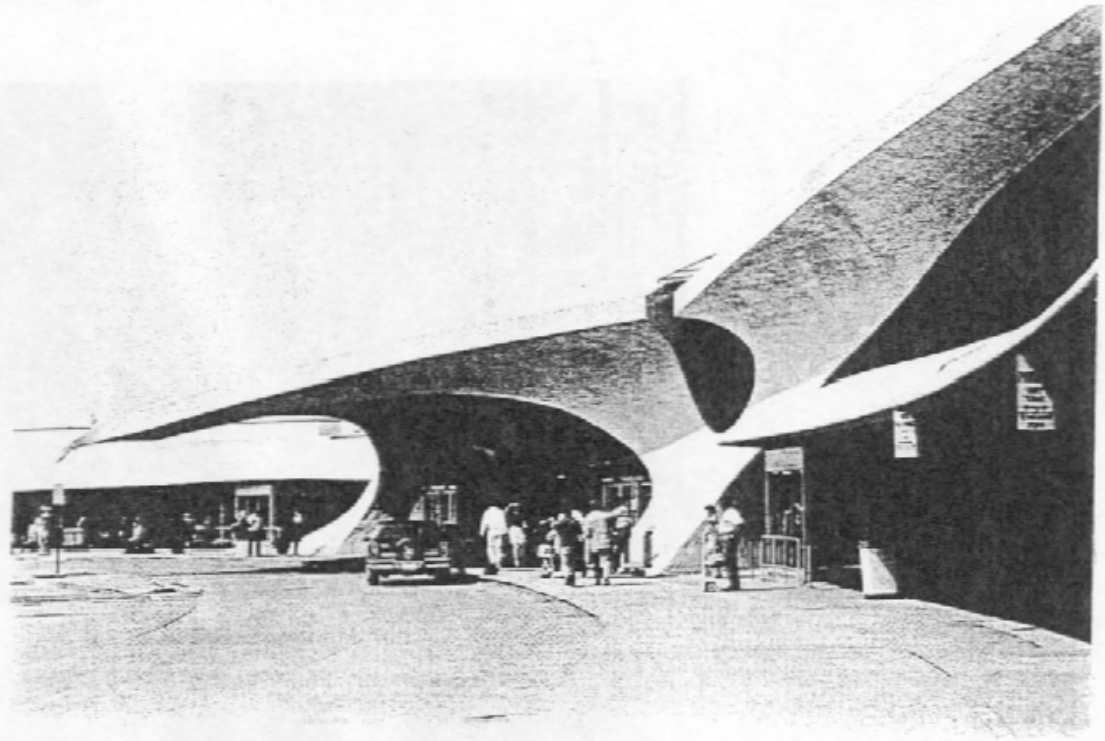
Trans World Airlines Flight Center at New York International Airport, rt. John F. Kennedy International Airport, Queens.
Main facade.

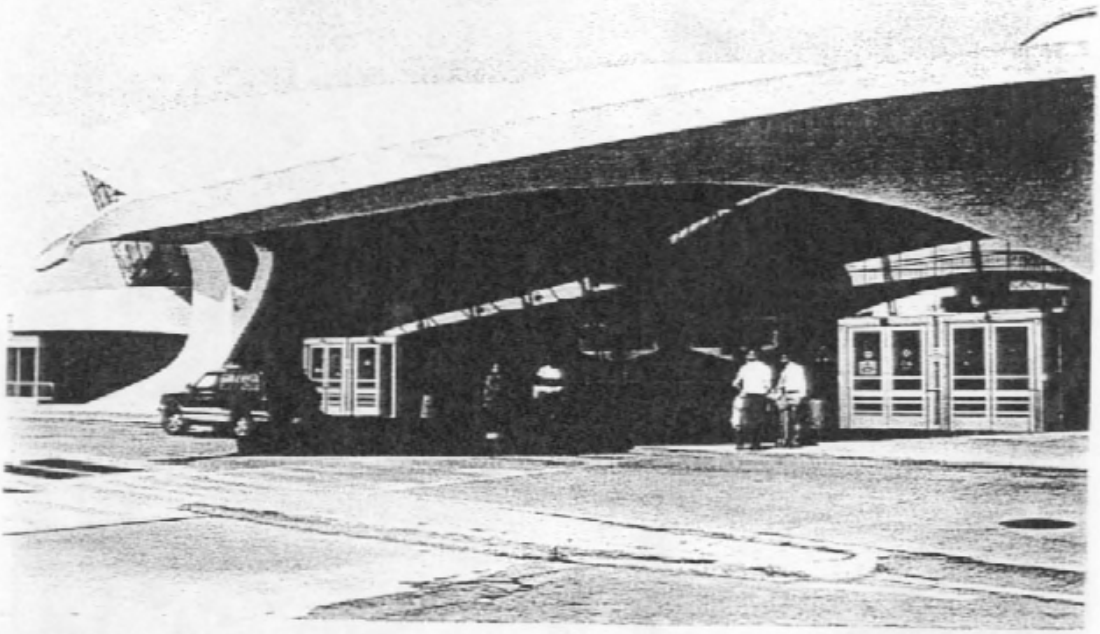
Photo credit: Carl Forster



Trans World Airlines Flight Center at New York International Airport.ort.
John F. Kennedy International Airport, Queens.
Main facade.

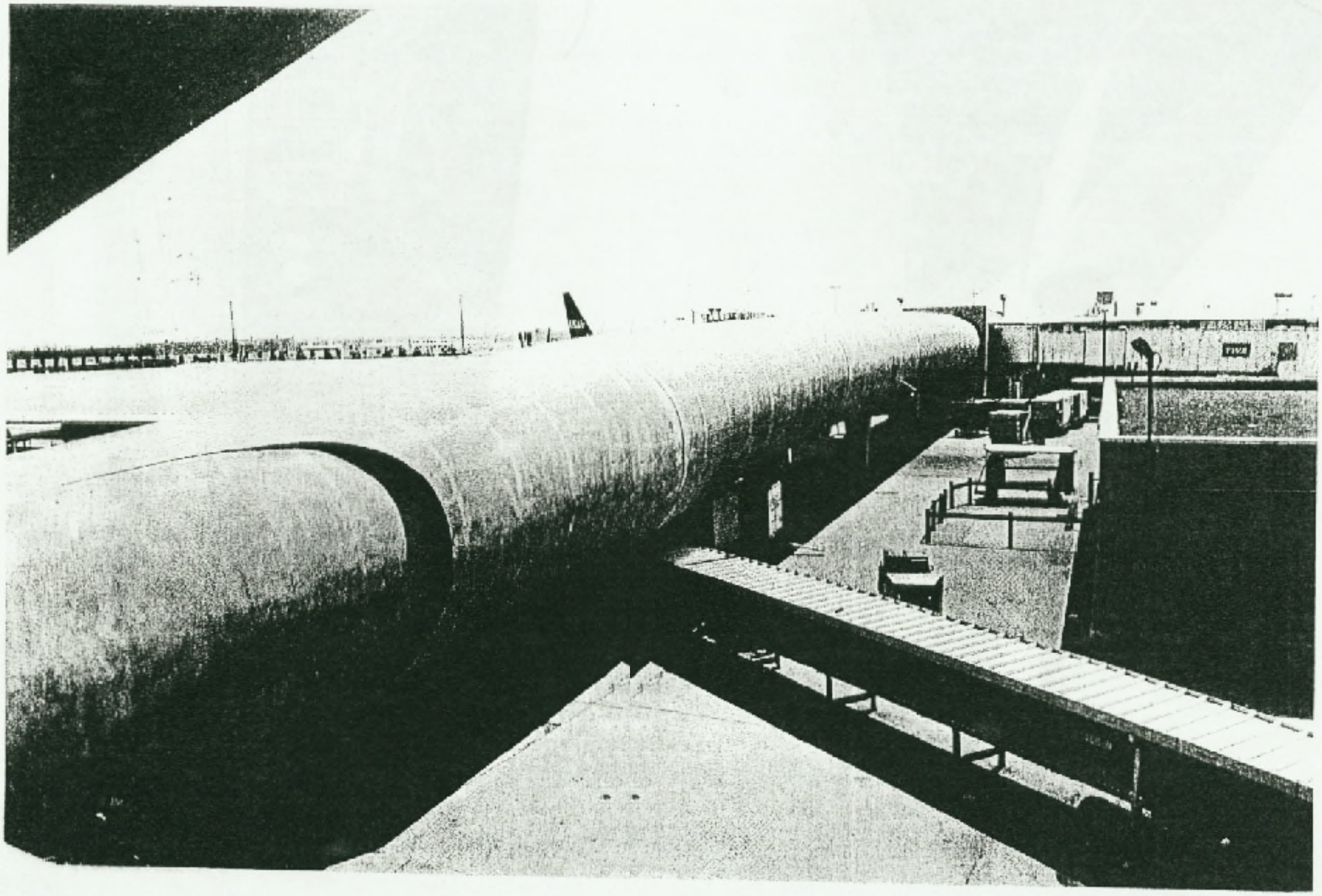
Photo credit: Carl Forster





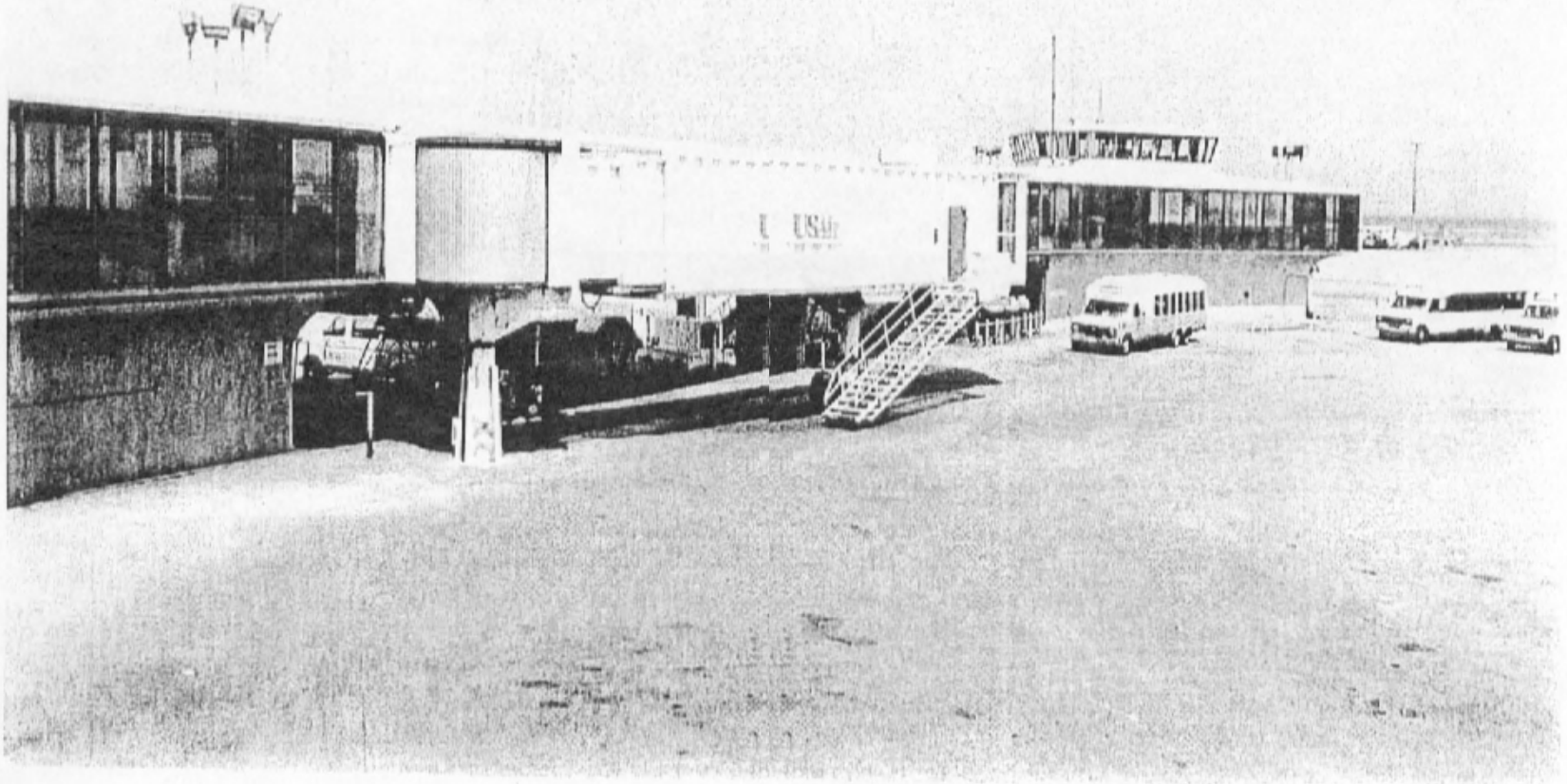
Trans World Airlines Flight Center at New York International Airport.
John F. Kennedy International Airport, Queens.
Two views of the main entrance.

Photo credit: Carl Forster



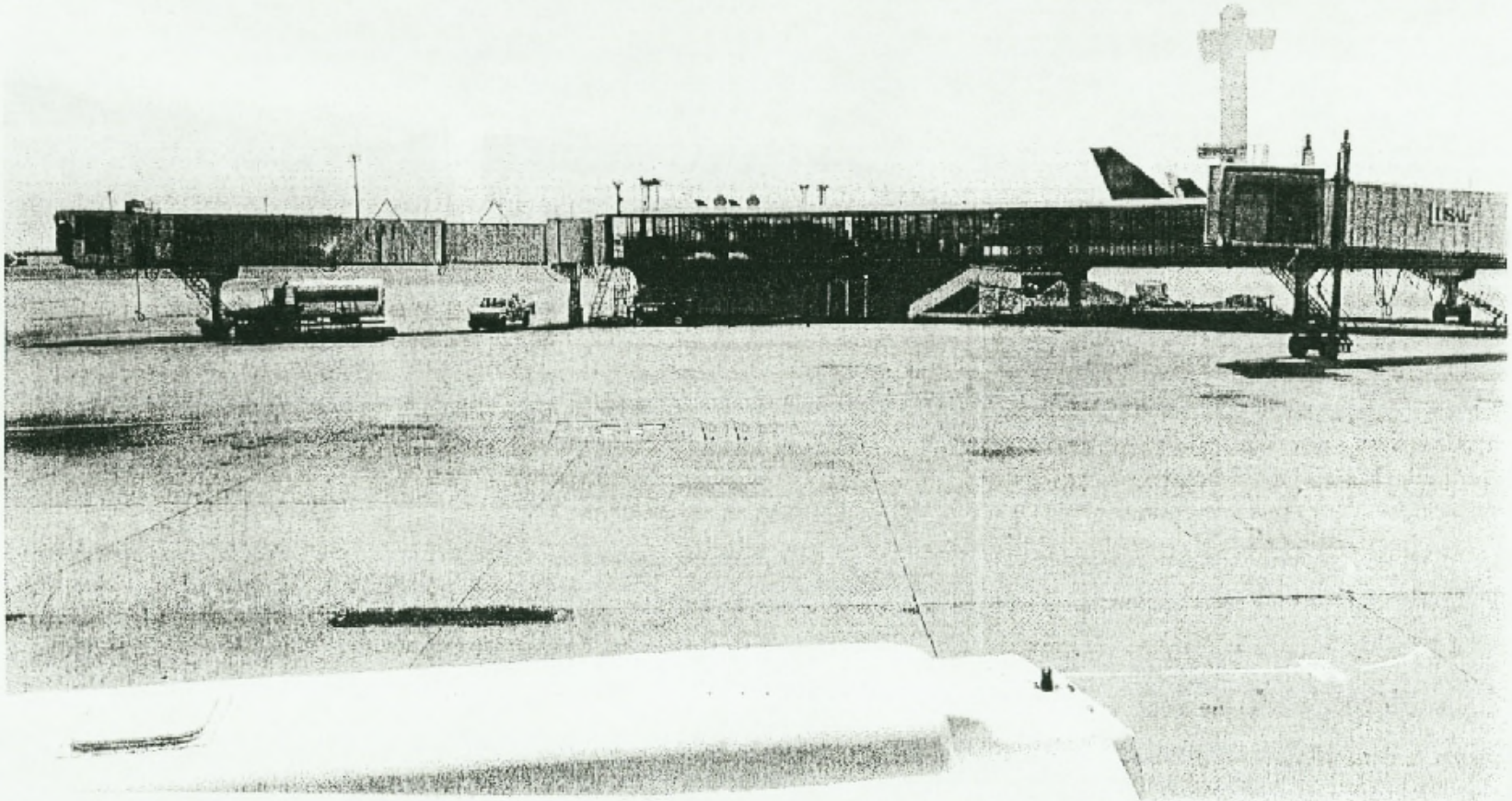
Trans World Airlines Flight Center at New York International Airportport.
John F. Kennedy International Airport, Queens.
Walkways to gate structures.

Photo credit: Carl Forster



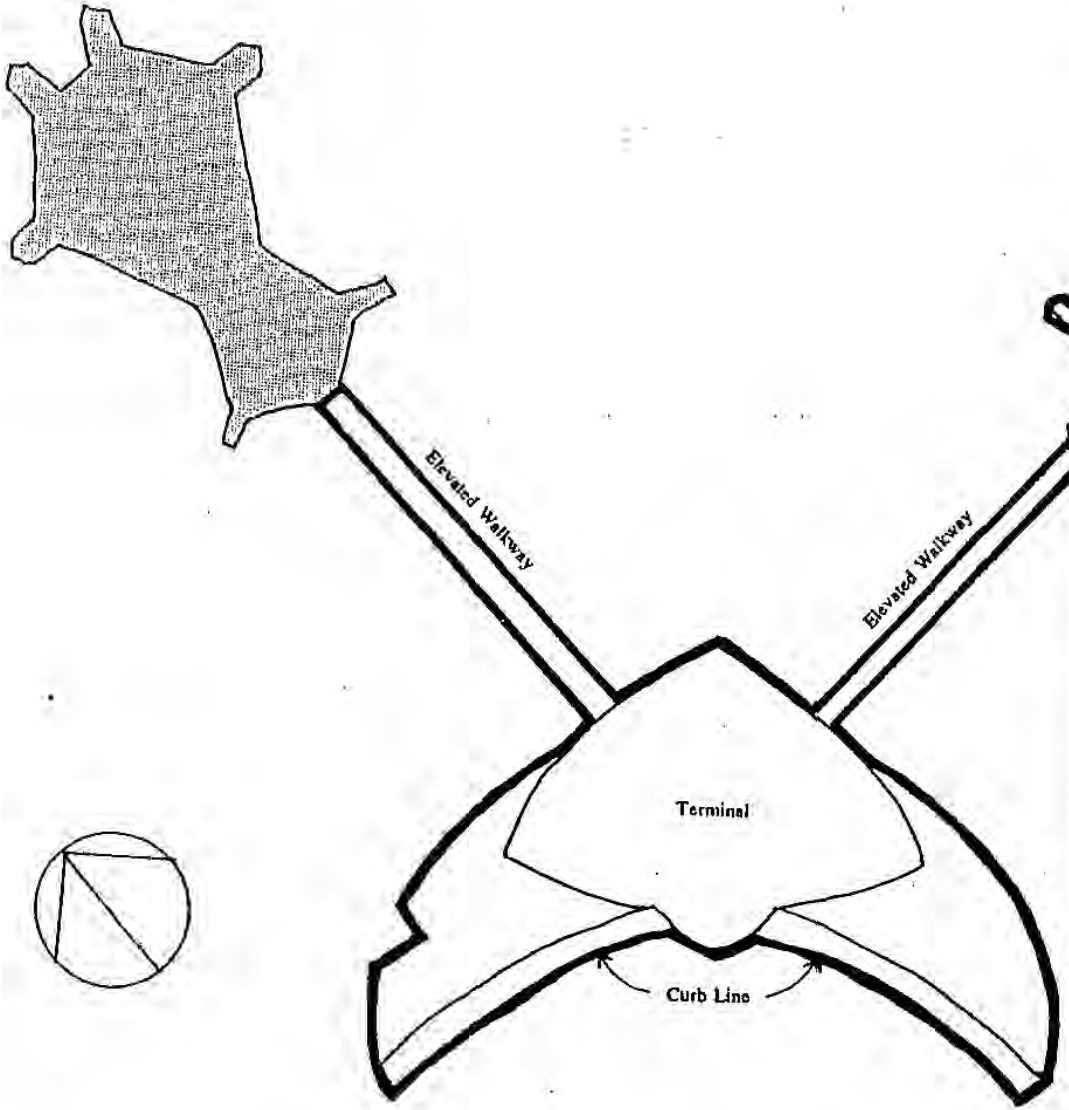
Trans World Airlines Flight Center at New York International Airport, rt.
John F. Kennedy International Airport, Queens.
East gate structure and Gate 39.

Photo credit: Carl Forster



Trans World Airlines Flight Center at New York International Airport ort.
John F. Kennedy International Airport, Queens.
Gate 42, east gate structure.

Photo credit: Carl Forster



TRANS WORLD AIRLINLINES FLIGHT CENTER
(now TWA TA Terminal A)
AT AT
NEW YORK INTERNANATIONAL AIRPORT
John F. Kennedy Int International Airport
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DESIGNATED LALANDMARK SITE

Designated: Ju: July 19, 1994
Landmarks Preserværvation Commission

NOT DESIGNATEC'ED

OUTLINE OF LANDMARMARK SITE

NOTE: THIS DRAWING IS NOT OT TO SCALE

Landmarks Preservation Commission
July 19, 1994; Designation List 259
LP-1916

TRANS WORLD AIRLINES FLIGHT CENTER
(now TWA Terminal A) AT NEW YORK INTERNATIONAL AIRPORT
(now TWA Terminal A) at New York International Airport

GROUND LEVEL INTERIOR, consisting of the entrance lobby, the information desk, the sculpted piers and archways at the juncture of the side wings, and the stairway leading to the main level; the MAIN LEVEL INTERIOR, consisting of the ticketing area, telephone alcoves, the stairways leading to the balcony level and the adjacent "air fountains" (sculptural ventilation ducts), the elevated walkways leading to the gate structures, and the southern gate structure interior, including the central area, glazed walkways, and two triangular gate areas; and the BALCONY LEVEL INTERIOR, consisting of the balconies and bridge between the balconies, the restaurant and club areas and their sculpted central service cores (excluding the interiors of the service areas), window seats, and the upper portion of the balcony area; and the fixtures and interior components of these spaces, including but not limited to, wall and ceiling surfaces; floor surfaces; windows; skylights; vertical window blinds; doors; balustrades; stairway railings; piers; water fountains; telephone booth dividers; lighting fixtures; signage, including the TWA sign mounted on the window-wall facing the runway; ventilation elements; built-in seating and counter units; and attached decorative and sculptural elements, John F. Kennedy International Airport, Queens.
Built 1956-1962; Architects, Eero Saarinen & Associates (Eero Saarinen and Kevin Roche).

Landmark Site: Borough of Queens, Tax Map Block 14260, Lot 1 in part, consisting of a site encompassed by a continuous line beginning at a point at the southernmost end of the terminal building, extending northeasterly and northerly along the outermost edge of the terminal building, easterly along the southernmost edge of the elevated walkway between the terminal building and the southern gate structure, extending around the outermost contours of the southern gate structure, westerly along the northernmost edge of the elevated walkway between the terminal building and the southern gate structure, northerly and northwesterly along the outermost edge of the terminal building between the elevated walkways, northerly along the easternmost edge of the elevated walkway between the terminal building and the northern gate structure, westerly along the line of connection between the elevated walkway and the northern gate structure, southerly along the westernmost edge of the elevated walkway between the terminal building and the northern gate structure, westerly and southwesterly along the outermost edges of the terminal building to its westernmost end, southerly from the western end of the terminal building to the curbline of the service road, southeasterly along the western edge of the curbline of the service road, southerly and easterly along a line corresponding to the outermost edge of the overhanging canopy of the terminal building, southerly along the western edge of the curbline of the service road to a point opposite the southernmost end of the terminal building and easterly to the point of beginning.

On June 15, 1993, the Landmarks Preservation Commission held a public hearing on the proposed designation as an Interior Landmark of the Trans World Airlines Flight Center at New York International (Idlewild) Airport (now TWA Terminal A), John F. Kennedy International Airport, and the proposed designation of the related Landmark Site (Item No. 11). Two persons testified in favor of designation and both Trans World Airlines and the Port Authority of New York and New Jersey expressed uncertainty about the proposed action. A representative of TWA requested that the hearing be continued. On September 21, 1993, the Commission continued the public hearing (Item No. 10). Both hearings had been duly advertised in accordance with provisions of law. At the continued hearing, similar reservations concerning designation were expressed by TWA and the Port Authority. A representative of Queens Borough President Claire Shulman expressed delight at the consideration of representative of Queens Borough President Claire Shulman expressed delight at the consideration of the TWA terminal for designation, and also expressed concern about the continued use of the facility by the airline and the airport. The Commission has received three letters in support of the proposed designation. Since that time, the Commission has met with the Port Authority to discuss its plans for the terminal.

DESCRIPTION AND ANALYSIS

Summary

The interior of the TWA Flight Center, designed by Eero Saarinen & Associates (Eero Saarinen and Kevin Roche), is among the chief works of one of the most highly-regarded architectural firms of the modern era. Saarinen's firm revolutionized air terminals through an expressive approach to design that extended to the interior and the incorporation of technological advances, producing a distinctive and highly-acclaimed work of modern interior design with the TWA Terminal (1956-62). The design of the building interior expressed Saarinen's intentions "to interpret the sensation of flying" and "be experienced as a place of movement and transition." The design concept was carried throughout the entire building with a "family of forms," so that "all the curvatures, all the spaces, and all the elements — down to the shapes of signs, railings, counters, and other elements — ... have one consistent character." The expressive interior, which remains largely intact, was modeled to provide a succession of differentiated spaces in which all elements are integral to the building. Among the elements integrating and articulating the spaces are the circular white marble tile cladding the floor and most of the vertical surfaces which accentuates the monolithic quality of the smaller elements as well as spatial volumes; window walls, narrow skylights, and fixtures which provide striking and controlled lighting in the main portion of the terminal; and a variety of unconventional forms, including walls, piers, and smaller elements such as the information desk. The open central space, enclosed by roof vaults, is divided into three levels and joined by curving staircases and functions as a modern crossroads below the aerie-like balcony space open to the enclosing roof forms and the lower levels. The design of the enclosed walkways to the gate structures creates a feeling of expectancy and transition which is heightened by the rise of the floor surface and the indirect lighting on the upper portion of the concave walls. The main gate structure, with services grouped in a central core and projecting jetway access arms, incorporates some of the first solutions for satellite gate structures for jet aircraft and its interior elements relate to the aesthetic and materials of the main terminal area.

New York City's International Airport[1]

The development of New York's international airport was the result of Mayor Fiorello H. LaGuardia's interest in aviation and his long-range planning for New York City airports. Due to its remoteness from Manhattan, the city's first airport, Floyd Bennett Field on Jamaica Bay, had limited appeal both for mail delivery and passenger service. LaGuardia did not consider the Newark (N.J.) Airport, which had opened in 1928 and rapidly became the major airport on the eastern seaboard, a proper substitute. His first remedy was the construction of the New York City Municipal Airport, LaGuardia Field, commonly known as LaGuardia Airport. Commercial air service at LaGuardia soon surpassed that of Newark, and LaGuardia began planning for a much larger airport, since he was convinced that after the war the city would need another field to accommodate increased demands for domestic and transatlantic passenger traffic and air freight service.

During the fall of 1941, Mayor LaGuardia announced plans for an additional airport to be constructed on a large area of marshlands on the south side of Long Island. The land purchased for the air field included the Idlewild golf course, an old summer hotel, and the Jamaica Sea-Airport landing strip. Although never officially a part of the name of the airport, the facility was known during its early years as Idlewild, later as New York International Airport, and since late 1963 as John F. Kennedy International Airport.[2] The initial planning for the large airport, undertaken by the City Department of Marine and Aviation, was based on the concept of one large terminal building and proceeded slowly because of a disagreement over the layout of the runways and the negotiation of leases with each airline. While the final layout of the airport remained in dispute, construction began in 1942. Commercial flights began to use the airport on July 1, 1948, making use of the first terminal facilities – a small cinder block building and a control tower. Even before the construction of the present terminals began, nearly three million passengers and hundreds of millions of pounds of airmail and air cargo had passed through Idlewild airport in 1954; by that time the facility had the highest volume of international traffic of the world's airports.[3]

In 1947, the Port of New York Authority (now known as the Port Authority of New York and New Jersey) and the City of New York signed a leasehold agreement for fifty years under which the Port Authority would finance, develop, and operate the airports in New York City.[4] The Authority began work on a new master plan for the Idlewild field because after the Second World War air travel had increased more rapidly than first projected. During the late 1940s, thirty to forty percent of all U.S. airline passengers passed through New York City in the course of their air travels, and the city had earned the position of "air capital" of the world. By 1953 it became apparent that the new airport would require more aircraft gates, and that the centralized terminal scheme had serious defects. Consequently, the use of unit terminals – separate terminals for each airline – was considered to avoid the projected two-mile-long centralized terminal, as well as to minimize passenger walking distances, reduce congestion, and provide maximum flexibility. In 1954, the decision was made to use unit terminals in order to eventually provide 140 aircraft loading gates, and in February 1955, the Port Authority and the airlines reached an agreement on a revised master plan.

The plan adopted for New York International Airport – envisioned as the largest and most efficient airport in the world, where there would be "no confusion and no congestion"[5] – was developed under the direction of Thomas M. Sullivan, deputy director of the Aviation Department for the Port of New York Authority, and Wallace K. Harrison, who served as design consultant and coordinator. The airport's "Terminal City" would consist of the International Arrival Building with flanking Airline Wing Buildings (to be built by the Port Authority); an eleven-story control tower; seven airline terminal buildings; a network of roadways, parking lots, taxiways; and a central plaza with reflecting lagoon (now replaced by parking facilities). The allocation of sites for the airline terminals was based on carriers' traffic, seniority at the Idlewild facility, and relationship to overseas traffic. Each airline would have the freedom to erect a terminal designed by the architect of its choice to meet individual operational needs.

The New York International Airport, strongly identified with the "Jet Age," incorporates some of the first solutions for accommodating jet aircraft and is a contemporary of facilities built in Los Angeles, San Francisco, and Chicago. Terminals built before the Second World War had been enlarged by the use of "fingers" or covered piers, which led to boarding areas on the ramp for the increasing number of aircraft; the piers – enclosed and enlarged to two-story structures – evolved into the familiar concourses of a later generation of airports. An operational change that had a great impact on airport

design was the use of a "hold area" for processed passengers near the aircraft gate, which became known as the gate departure lounge. The gate lounges eliminated the need for large central waiting rooms, and prompted the relocation of passenger services nearer to aircraft gates. During the post-war airport construction boom, engineers and planners analyzed airport design and function, diagraming variations of terminal finger configurations – where aircraft were typically parked on both sides of a concourse that contained walkways, services, and gate departure lounges – and the alternative satellite form, where aircraft gates were grouped around a central waiting and service area which was connected to the main terminal by an elevated walkway. Separating routes through terminals for arriving and departing passengers, minimizing passenger walking distances, reducing congestion during peak hours of travel, and automating baggage handling were airport planning issues addressed during the period. The more widespread use of jet aircraft during the years that the Idlewild was under construction introduced yet another set of concerns: how to deal with larger sizes of aircraft, increased noise levels, and jet blasts, and how to protect passengers boarding planes at an elevated level.

Port Authority planners projected that the unit terminals at Idlewild would have finger configurations. The first group of terminals designed for the airport exhibited several solutions to providing a large number of aircraft gates. The first project to be completed was the International Arrivals Building (designed by Skidmore, Owings, & Merrill), which had long wings and perpendicular fingers. The finger plan was adopted for the American Airlines terminal (designed by Kahn & Jacobs), which had staggered lounges off a central corridor, and the United Air Lines facility (designed by Skidmore, Owings and Merrill). The terminal of Eastern Air Lines (designed by Chester L. Churchill) was based on the concept of large, centralized waiting rooms and "loading arcades." Pan American World Airway's "umbrella" terminal (designed by Tippetts-Abbett-McCarthy-Stratton) was yet another solution: six jets could be nosed in under the roof which would protect boarding passengers from the weather. TWA was the only airline to adopt the satellite configuration for its terminal. Elevated walkways, variations on early "Jetways" introduced to commercial aviation by United Airlines at Chicago, were used at the United, Pan Am, American, and TWA terminals at Idlewild.[6] The airline terminals also demonstrated various approaches to passenger service and technological advances in information presentation (electronic signage and closed-circuit television monitors) and baggage handling.

Trans World Airlines

Trans World Airlines[7] has played a major role in the history of commercial aviation in the United States; the carrier was, for many years, the only airline with both domestic and transatlantic routes and the second-largest one in the country. At the time the terminal at New York International Airport was under construction, TWA linked sixty-five American cities with twenty-three points abroad. A series of mergers, involving portions of several parent airlines, including Western Air Express, Standard Air Lines, Maddux Air Lines, and Trans-Continental Air Transport produced Transcontinental & Western Air, Inc. (TWA); the name Trans World Airlines was adopted in 1950. The history of TWA is dominated by aviation advances, financial reorganizations, and the controversial role of the long-term principal stockholder Howard Hughes. The airline has a long association with aviation in New York City as one of the first carriers to contract for space at the LaGuardia airport; the airline operated the first scheduled flight into that field in 1939. TWA operated a domestic freight and passenger service prior to World War II and expanded to overseas service via southern routes to Europe and the Mid- and Far East, which was inaugurated early in 1946 with a flight from LaGuardia to Paris; weekly transatlantic air-cargo service was established in 1947. TWA competed with Pan Am, the nation's other transatlantic carrier, for passengers by introducing tourist-class transatlantic flights in 1952, switching to jet aircraft for transatlantic passenger service, and by offering an appealing and efficient new terminal at New York International Airport.

TWA was the sixth international airline to sign an agreement with the Port of New York Authority in 1949 for use of the Idlewild facility, and when the locations of the individual airline terminals at New York International Airport were announced, TWA was not especially pleased. TWA and Pan Am, as overseas carriers, were assigned positions on either side of the International Arrivals Building, but TWA would have preferred the opposite side, which was nearer to its new hanger. The carrier would be the only one to operate both foreign and domestic service from one terminal at the airport. Though the leadership of the airline underwent several changes during the course of the planning and construction of the terminal, it was during Ralph S. Damon's term as

president that the TWA terminal was conceived. Scullin reports that Damon was advised by TWA's real estate board and construction engineers to commission the firm of Eero Saarinen & Associates (which was completing the General Motors Technical Center) to design the terminal, and attributes to Damon the vision of the terminal as "a building that starts your flight with your first glimpse of it and increases your anticipation after you arrive," and the statement, "the spirit of flight, inside and out, and nothing less will do." The airline was regarded as a "client with vision and confidence."[8]

Eero Saarinen[9]

A master architect of the mid-twentieth century, Finnish-born Eero Saarinen (1910-1961) was groomed from childhood to be a successful designer by his parents, textile artist Loja Gesellius Saarinen, and highly regarded international architect (Gottlieb) Eliel Saarinen (1873-1950). Eliel's early career is best remembered for his Helsinki Railroad Station (1904-c. 1913, with Herman Gesellius) which successfully demonstrates his sympathies with the Arts and Crafts movement. The Saarinen family immigrated to the United States in 1923, yet visited Finland annually. Eliel contributed significantly to the creation of the Cranbrook School and Academy of Art, a complex of children's schools and an advanced-level art academy, located at Bloomfield Hills, north of Detroit. Cranbrook was devoted to every field of design – textiles, metalwork, architecture, and city planning. Eliel designed several buildings there, including the Cranbrook School for Boys (1924-30) and the Kingswood School for Girls (1929-30). The latter project exemplifies the Arts and Crafts ideal of collaboration between the fine and applied arts: while Eliel oversaw all aspects of design, Loja designed and wove fabrics (in association with the Cranbrook Looms), Eero designed furniture, and his sister, Eva-Lisa, assisted with selecting wall and ceiling treatments.

During the early 1930s Eero studied sculpture at the Parisian Académie de la Grand Chaumière, completed a Bachelor of Fine Arts in the Beaux-Arts-oriented architecture program at Yale University, toured Europe and Egypt on a travel fellowship, during which time he was influenced by the architecture of Erich Mendelsohn and Alvar Aalto – before joining his father's firm in 1936. Together, the Saarinens produced the much-praised Crow Island School (1939-40, with Perkins, Wheeler & Will) in Winnetka, Illinois. Eero entered many design competitions, and won several prizes. He collaborated with designer Charles O. Eames on the scheme for a molded plywood chair which won the Organic Design in Home Furnishings competition (1940-41), sponsored by the Museum of Modern Art. Recognized from that point on as an important furniture designer, Saarinen produced many designs for the Knoll furniture company, best represented by his Womb chair (1946-48) and Nos. 71 and 72 chair series (c.1956).

series (c.1956).

Saarinen has been credited with developing the innovative "systems approach" to design: he carefully analyzed each problem, and usually relied on modern technology, in order to find a unique form and structure to express a concept architecturally. As a result, each of his designs has a certain wholeness about it: he claimed to be concerned with the "esthetics of the whole organism" and sought an "expressive architecture, an antiassembly-line architecture," stating "each building should be as distinctive as each person should."[10] The commission which firmly established his architectural career was the General Motors Technical Center (1945-56, with Smith, Hinchman & Grylls) in Warren, Michigan. Though its initial designs were begun in association with his father, the final scheme was largely due to Eero. The complex is ruled by its strictly modular design (structure, partitions, and mechanical systems are fully integrated) and features such technological innovations as neoprene window gaskets and walls of thin insulated panels sheathed in porcelainized sheet metal; yet the architect also added brightly colored brick surfaces and his signature element, a reflecting pool. During the GM project, the elder Saarinen died and Eero formed a successor firm, Eero Saarinen & Associates. An intensely devoted and methodical worker – he worked 365 days a year, according to his chief of design, Kevin Roche – Eero produced a number of buildings which have become American landmarks. Aside from his Jefferson National Expansion Memorial (designed 1948, completed 1964) – the famous parabolic arch in St. Louis, Missouri, in which the interior is of little relevance – each of his most famous designs is defined by its unusually configured envelope which characterizes both exterior and interior and unites them as complementary parts of a whole. These projects include the Kresge Auditorium and Chapel (1953-56, with Anderson & Beckwith) at the Massachusetts Institute of Technology in Cambridge, the David S. Ingalls Hockey Rink (1956-59) at Yale University in New Haven, and two soaring reinforced concrete masterpieces associated with flight: the Trans World Airlines Flight Center (1956-62) at New York (now

J.F.K.) International Airport – probably his most renowned design – and Dulles Airport (1958-62, with Ammann & Whitney) in Chantilly, Virginia. The last three commissions were completed after Saarinen's death in 1961 as was his other prominent New York project, the somber granite-clad Columbia Broadcasting System (CBS) Headquarters (1960-64) on Sixth Avenue between West 52nd and 53rd streets.

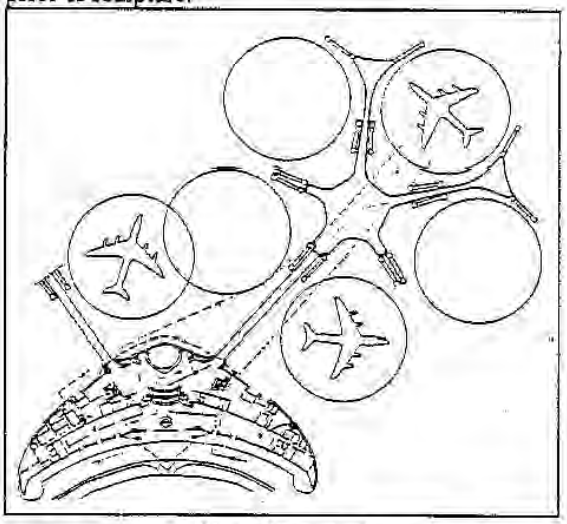
Saarinen's buildings received extensive publicity in the press, and he was given several prestigious awards. Though many architects and architectural writers sympathetic to the International style criticized Saarinen's work as lacking consistency (a necessary by-product of his design method), his *oeuvre* has withstood the test of time: by 1993 six of his designs had received the American Institute of Architects' 25-Year Award for "exemplif[ying] design of enduring significance." These include the Crow Island School, GM Technical Center, and Dulles Airport.[11] Saarinen's successor firm, Kevin Roche and John Dinkeloo, founded by his colleagues, has been a significant force in American architecture during the second half of this century. Other architects influenced by his design philosophy are Cesar Pelli, Gunnar Birkerts, and Robert Venturi.

A Terminal To Catch the Excitement of the Trip[12]

Saarinen's design for the TWA Flight Center is the exemplar of expressionistic architectural trends of the late 1950s and 1960s. Saarinen and his like-minded peers expressed their dissatisfaction with the restrictive minimalism of the International Style, as it had been interpreted in America, through attempts to imbue modern architecture with a monumentalism appropriate to public structures.

To paraphrase Saarinen, the design intent of the Trans World Airlines terminal was to create, within the complex of terminals that makes up Idlewild, a building for TWA which would be distinctive and memorable, in which the architecture itself would express the drama, specialness, and excitement of travel, and which would be experienced as a place of movement and of transition. Saarinen, particularly when discussing the interior of the terminal, placed great emphasis on his total approach to design, noting that the architectural team members had committed themselves to a "family of forms" that they felt had to be used throughout the entire building; the goal was that "all the curvatures, all the spaces and elements, down to the shapes of signs, information boards, railing, counters, would have to have one consistent character."[13] Only through such consistency and consequent development could the building make its fullest impact and achieve its highest expression, as Saarinen put it, "Wherever you are, inside or outside, the building sings with the same message."[14]

According to co-designer Kevin Roche, the first design for the terminal was an oval shell resting on four points, a form that Saarinen found awkward, but which incorporated an interior layout that remained largely set and only refined during the design revision process. Obviously, the practical issues of the terminal design were dealt with early: one observer has described the interior as a "built circulation diagram."[15] A series of clay models and then larger cardboard forms were used in a three-dimensional design process, especially to perfect the exterior forms that enclose the terminal as both roof and ceiling. The interior was similarly designed through a series of models and the area around the central stairway was remodeled numerous times as the architects developed a more flowing line for the bridge connecting the balconies. All parts of the building were studied like parts of a giant, unified piece of sculpture.[16]



Plan of Terminal

When Saarinen's design for the terminal was presented to the public in November 1957, the shape of the structure was described as bold and futuristic. Edward Hudson, aviation columnist for the *New York Times*, assuming that the airline had some misgivings about spending a projected $12 million on such an unusual plan, thought that TWA was counting on winning public acceptance for the terminal.[17] Attention was focused on the functional aspects of the terminal, both when the design was presented and

upon its completion. It would be the airline's solution to three problems of air travel: quick and efficient service at check-in; up-to-the-minute information on arrivals and departures; and rapid baggage delivery. The placement of the long ticketing counter and the baggage claim area in the two low wings, at street level opposite curb areas protected by the projecting roof, was an attempt to increase passenger convenience. Recent advances in technology were employed in the electronically-controlled doors at the drop-off and pick-up points, large electronic signs – huge Solari (the Swiss watch manufacturer) Datavision boards where flight information could be kept up-to-date – and the transfer of that information throughout the terminal via closed-circuit television monitors. Originally, it was thought that passengers would have to walk to aircraft parked around a one-story structure on the ramp, the "Flight Wing." The use of "Jetways" was under study by late 1957, and the delay in the beginning of construction of the terminal allowed for the evaluation and adoption of this newly-available equipment. The use of jetways raised the height of the ramp structure to two stories, and determined its final form – a more compact "star-shaped" variation of the violin-shaped structure that appears in early images of the design. The projections from the main volume of the building are connections for the jetways, one at the front and one near the rear of each aircraft (for the segregation of first class and coach passengers).[18] The structure has two remote gate lounges in order to accommodate seven aircraft; perched on the roof of the gate near the center of TWA's ramp area is the carrier's control tower, from which personnel direct ground traffic and control the flight information system. The use of baggage carousels in the main terminal area was an addition to the original plan for baggage-handling automation.[19]

The architectural critic Edgar Kaufmann, Jr., described Saarinen's interior as "one of the few major works of American architecture in recent years that reaches its full stature as an interior." He praised the vaulted forms with their leaping, glass-linked curves, and the freely imaginative sculptural play of surfaces and details that were gracefully and firmly coordinated in a unified total impact.[20] The vaults, four sections of the roof shell, meet to enclose an open central space, – a modern crossroads – divided into three levels and joined by a prominent central staircase at the lower two levels, and, at the upper levels, by pairs of more staircases placed at the perimeter of the central space. The continuous curve of the balustrade at the stairs to the main and balcony levels and edging the balcony echoes the forms of the enveloping ceiling vaults. The levels are linked by the interpenetration of modeled piers that frame the space under the balconies and extend through the balcony floors to articulate the forms of service core areas at the upper level. Monolithic sculpted forms such as the arched entryways to the ticketing and baggage areas of the lower level, the piers and walls of the service areas for the restaurants at the balcony level, and smaller elements, such as the main information desk, piers supporting the balcony, and ventilation ducts (called "air fountains" by Saarinen) articulate the space. The uniformity and small-scale pattern of the circular, gray-flecked "oyster" marble tiles on most of the vertical surfaces, as well as the floors, accentuate the terminal's spatial volumes. Light floods into the interior through window-walls, bands of narrow skylights, and the odd-shaped windows in the piers; lighting fixtures provide continuity between daytime and after-dark illumination.

The balcony areas of the terminal – a partial third floor – provide an open, outdoor-like setting for restaurants and clubs that are, in effect, turned inside-out with unenclosed seating areas arranged around small service cores that rise like sculpted mesas under the roof vaults. The introduction of small-scale elements in these areas presented a challenge in interior design. Saarinen's firm was responsible the TWA's private Ambassador Club on the west half of the balcony (closed off from general view and access). The office of Raymond Loewy/William Snaith, Inc. provided furnishing schemes for the other three establishments on the balcony: the Lisbon Lounge, the Paris Cafe, and the London Club. Designers attempted to subordinate the decor to the architecture and the view, but critics found the original schemes only somewhat successful.[21] Though the furnishings of these areas have been replaced, patrons continue to occupy the elevated spaces framed by the canted window walls, ceiling vaults, and balcony railings – aeries from which to watch the activity on the aircraft ramps and passenger traffic in the "main crossroads" of the terminal.

The walkways to the gate structures are dramatic and unexpected elements of the terminal. Instead of the more usual glazed airport concourses, Saarinen's team chose to use tunnels that provide an enclosed environment quite different from the lofty grandeur of the main terminal and the transparent upper level of the gate structure. The gentle rise of the tunnel floors, noted Ken Macrorie, writing for *The Reporter*, draws one into what are really elongated caves that

beckon to the wondering child in all of us. The concave walls rise to meet a broad, flat ceiling that emphasizes the low height of the walkways; the walls are washed from above by indirect lighting in a *chiaroscuro* manner.[22]

The interior of the east gate structure is related to that of the main terminal with its glazed walls, and curved and irregular forms, though it is obviously a separate space where the need for efficient passenger service dominates. Service functions are grouped in service dominates. Service functions are grouped in a central core, a plan that has remained in use in modern airport satellite boarding areas. The glazed passageways to two remote lounge areas are more characteristic of airport concourses than the solid tunnels that provide access to the structure itself. The aesthetic and the materials used in the main terminal appear in the two separate triangular gate lounges (now Gates 39 and 42), where the original tile surfaces, built-in seating, and the red- and oyster-color scheme remain. The interior elements of the gate areas and glazed walkways were multi-purpose, establishing traffic patterns, defining waiting areas, and providing seating; originally, the open space of the main gate had built-in elements similar to those that remain in the remote gate lounges.

Aline Saarinen noted her husband's familiarity with the acclaimed Helsinki Railroad Station and his interest in providing terminals "as great and appropriate" for the age of air travel.[23] The grandeur of older railroad terminals is recalled in the TWA Flight Center with the procession through a series of spaces that is reminiscent of the movement through passageways and large ticketing and waiting rooms. The unusual waiting area in the main level of the terminal (no longer extant), which had built-in seating in a depressed area in a theater-like setting facing the aircraft ramp, was a modern re-interpretation of the main railroad station waiting room that celebrated the act of waiting. Ken Macrorie noted the similarities between the building types and suggested that 1962 may be remembered as the year New York City lost Pennsylvania Station and gained the TWA terminal. To him, these two buildings, with their different ways of enclosing space for waiting and departing, were both exceptional achievements in architecture.[24]

The interior of the Flight Center engendered much discussion and was not without its critics. Ada Louise Huxtable praised the notably successful interior of "Eero Saarinen's magnificently detailed and executed *tour de force*" for TWA as the part of the structure that took flight with its stunning manipulation of reinforced concrete into unconventional forms of arbitrary but dazzling grace. She found that the carefully engineered forms of the interior produced a gem where every line and finish was carried out with a fine consistency and consummate elegance.[25]

Description*

The Main Terminal. Four sections of the roof shells (painted light brown), which are separated by narrow bands of skylights, meet at the solid central narrow bands of skylights, meet at the solid central plate to enclose the open central space of the terminal. The interior is divided into three levels, where different functions are located, joined by staircases. At the ground level, a wedge-shaped entry area open to the vaults above is dominated by the sculpted information desk. The desk, which faces the central space rather than the doors, is sheathed with tiles and has a marble counter surface; the unusually-shaped sign above and behind the counter is currently not in use. The desk is now flanked by security equipment related to two entrance vestibules that extend into the space. The entrances to the flanking wings of the terminal are framed by irregular modeled archways that are tile-clad as they terminate at the ceiling and piers, and extend as low walls, above which counters have been installed. The wide central flight of stairs (joining the ground and main levels) is divided by two landings and separated into thirds by freestanding curved aluminum pipe railings. On the main level, the stairs are flanked by flights of stairs to the balcony which curve around low horizontal openings for the air circulation system covered by aluminum grilles. Adjacent to the stairs to the balcony are service areas which include telephone alcoves: open, staggered booths have shallow dividing walls (perforated sheet metal), which have been extended with solid wall sections. The telephones are wall-mounted on panels of polished aluminum and a canister light-fixture hangs in each booth. Aluminum drinking fountains, framed by recessed rectangular surrounds, are set in walls near both telephone alcoves and also in a pier opposite the entrance to the west walkway. The central portion of the main level was the location, originally, of the theater-like waiting area; the floor level has been raised and a low, arrow-head-shaped bench (that was part of the wall enclosing the seating area) and carpeting indicate the original extent of the area.[26] Low, sculpted walls (with a textured stucco

*For the sake of convenience, north is used in the description rather than northeast, and so on.

finish) now enclose the area behind a ticketing counter which stands in front of the window wall. A second pair of stairs near the window wall join the main and balcony levels; attached to the bases of these stairs are built-in marble bench seats and nearby stand tall, flaring ventilation ducts with sheet-metal flared top elements (like overscaled newel posts).

A bridge links the two halves of the balcony and separates the entrance lobby from the waiting room on the ramp side. The curving balustrade railing continues in long, unbroken expanses along the stairs and edges of the balcony; the railings have alternating large and small diameter verticals (which appear to be replacement elements). The restaurant areas on the balcony surround central service cores which are sculpted shapes with tile-clad and smooth wall surfaces. The east half of the balcony area is fully accessible to the public. The modeled form of the central core, upholstered curved bench seats in front of the windows, and the pedestal of a "finial" sign remain in their original form. On the south side (now a cafeteria), a tile-clad pier defines a corner of the service core near the top of the stairs; the central area is open on this side and the ceiling is supported by columns. On the west side of the balcony, the central service core appears little altered, although walls extend from it to enclose the Ambassador Club. On the side above the entry area, a wall at the height of the tile-clad pier near the top of the stairs encloses the space, while on the ramp side, a translucent screen spans the opening behind a tile-clad planter adjacent to the low seat in front of the window in the buttress.[27] The window walls at the east and west ends of the balcony have two tiers of light-gray perforated plastic vertical blinds which appear similar to the original ones.

Originally, the interior reflected TWA's color scheme of red and oyster (gray-white). In addition to the gray-flecked tiled surfaces, white was used as the background of oval signs (now removed). A carmine red was used sparingly for carpeting and other accent elements. This scheme, with the addition of gray, remains with the extensive marble tile and elements such as the TWA sign now mounted in the ramp-facing window wall (where originally Solari Datavision boards with flight information were mounted). Closed-circuit television monitors were relatively new at the time the terminal was under construction and were set at various locations (including on ledges in the restaurant and bar areas). Monitors are now hung in a row from a red structure above the bench at the main level. The aluminum "enclosure of futuristic design" hanging from the apex of the ceiling was a public address system speaker; a clock with three faces now hangs from it.[28]

The lighting of the central portion of the terminal is striking and controlled. Daylight enters the central portion through the window walls (with braced vertical muntins), narrow skylights, and windows in the Y-shaped piers. Canister lighting fixtures hanging from the skylights provide a continuity between daytime and after-dark illumination. Fluorescent fixtures aimed upward that lie between daytime and after-dark illumination. Fluorescent fixtures, aimed upward, that lie concealed on the tops of the service areas of the balcony provide a general ceiling-wash. Grouped spherical spotlights, hung close to the ceiling, direct light on signage, while recessed spotlights are used under the edges of the balcony and service core soffits.[29]

Walkways to the Gate Structures. The tunnels leading to the gate structures are windowless concrete tubes with carpeted floors (dark gray and red) and light-colored walls. Modeled edges mark the slight widening at the central portion. The concave walls rise from a low curb to meet the broad, flat acoustical-tile-clad ceiling; side openings are fitted with diffusers in front of the fluorescent light fixtures.

The East Gate Structure. In the main area of the gate structure, the central service core is organized by the segments of a many-sided polygon. The sheet-metal-clad segments serve as doors, telephone alcoves, a fountain alcove, and vents; an aluminum letter box is mounted in one of the segments. The central space has an open plan, interrupted only by a small number of square white piers which are also used in the concourses and triangular lounges. Tiles (into which vents are set) mark the perimeter of the spaces. The floor-to-ceiling window walls have dark gray aluminum-framed sash with waist-high horizontal muntins. Light fixtures with glazed diffusers are recessed in the acoustical-tile-clad ceiling. Projections from the central space have stairs descending to the ramp flanked by approaches to jetway entrances. Glazed concourses lead to triangular departure lounges (Gates 39 and 42); white square piers rise from the red carpeted floor to support flat ceilings which have two rows of recessed light fixtures. Adjacent to the main gate structure, tile-clad waist-high walls (in two straight sections and a curved one near the jetway door) divide the walkway into thirds. At the gate lounges, walkways at the perimeter of the space are set off by chest-high, tile-clad walls to which seating is attached; these walls connect with counters (above baggage conveyors) and walls flanking stairs to the

ramp (and to the control tower above Gate 39). The upholstery for built-in rectangular and circular bench seating and the seats attached to the perimeter wall, and the carpeting, are carmine red.

Subsequent History

The interior of the Flight Center – now shared with America West – remains essentially intact, except for the replacement of the depressed waiting area on the main level with ticket counters. Currently, security equipment is located near entrance vestibules that have been added to the entry area.

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NOTES

NOTES

1. This section is based on George Scullin, *International Airport* (Boston & Toronto: Little, Brown & Co., 1968); Thomas M. Sullivan, "Planning Airport Terminal buildings," *Civil Engineering* 29 (May 1959), 334-38; Dudley Hunt, Jr., "How Idlewild Was Planned for the Jet Age," *Architectural Record* 130 (Sept. 1961), 152-154 and Arnold W. Thompson, "Evolution and Future of Airport Passenger Terminals," Journal of the Aero-Space Transport Division, Proceedings of the American Society of Civil Engineers 90 (Oct. 1964), 127-134.

2. In 1943 the airfield was named Major General Alexander E. Anderson Airport, in honor of a decorated veteran of two world wars. In March 1948, the City Council changed the name of the facility to New York International Airport, Anderson Field. In December 1963, during the month following the president's assassination, the airport was named the John F. Kennedy International Airport.

3. Edward Hudson, "New Structures Rise at Idlewild," *NYT*, Dec. 6, 1955, p. 39.

4. All structures at the airport are on property that belongs to the City of New York, which was leased to the Port of New York Authority for fifty years; the Authority subleases terminal sites to various occupants. The construction bills for the terminals and other structures were largely the responsibility of the Port Authority which has been repaid through the subleases.

5. Howard S. Cullman, "Tomorrow's Airport -- A World Fair," *NYT*, June 8, 1947, VI, p. 12.

6. United Airlines tested an "Aero-Gangplank" during the summer of 1958; by 1959 United had ordered "Jetways" for use at its terminals at New York International, LaGuardia, and several other major airports. "Jetway" appears to have been a proprietary name that has become a generic term. *Airports and Airport Engineering* 12 (July-August 1958), 75 and 13 (May-June 1959), 42-43.

7. Information on TWA was compiled from Geoffrey Arend, *Air World's Great Airports, LaGuardia* (New York: Air Cargo News, Inc., 1979), 84-91; Arch Whitehouse, *The Sky's the Limit* (New York: Macmillan Co., 1971); and Robert J. Serling, *Howard Hughes' Airline: an informal history of TWA* (New York: St. Martin's Press, 1983).

8. Scullin, 154. Ralph S. Damon, the airline's long-term leader during the post-war rebuilding period for the carrier, assumed the presidency of TWA in 1949 and remained in that position until his death in January 1956. Damon was succeeded as president by Carter L. Burgess, who served a brief term of only eleven months. Charles S. Thomas' two-year term as president, from July 1958 to July 1960, preceded that of Charles C. Tillinghast, Jr., who assumed the position in March 1961, presided at the opening of the TWA Flight Center, and continued to lead the airline for a number of years. Edgar Kaufmann, Jr., noted in "Inside Eero Saarinen's TWA Building," *Interiors* 121 (July 1962), 87 the vision and confidence of the airline as a client and the turnover of responsible officials at TWA after 1956; he cited George Clay (an attorney from Missouri who held several positions at TWA prior to becoming a Vice-President for Administration in 1954 and a Director in 1956) and later Byron Rathbun (about whom little is known) as two men played leading roles in the terminal project. Donald Keogh was the TWA project engineer at the

time the terminal was nearing completion, according to the *NYT*, April 22, 1962, p. 14.

9. This section is based on: Alan Temko, *Eero Saarinen* (New York: George Braziller, 1962); Walter McQuade, "Eero Saarinen, A Complete Architect," *Architectural Forum* 116 (April 1962), 102-107; Rupert Spade, introduction to *Eero Saarinen*, Library of Contemporary Architects (New York: Simon & Schuster, 1971); "Slouching towards Barcelona," *Progressive Architecture* 56 (Feb. 1975), 78-85; Andrea O. Dean, "Eero Saarinen in Perspective," *A.I.A. Journal* 70 (Nov. 1981), 36-[51]; R. Craig Miller, "Saarinen, Eliel, and Saarinen, Eero," *Macmillan Encyclopedia of Architects* (New York: Macmillan-The Free Press, 1982), vol. 3, 625-633; *Design in America. The Cranbrook Vision, 1925-1950* (New York: Harry N. Abrams, 1983); "Eero Saarinen," *Architecture and Urbanism* extra edition (1984); and Peter Papademetriou, "Coming of Age. Eero Saarinen and Modern American Architecture," *Perspecta* 21 (1984), 116-141.

10. Quoted in McQuade, 107.

11. "Saarinen's GM Technical Center Receives AIA's 25-Year Award," *Architecture: the AIA Journal* 74 (Apr. 1985), 11, 15; "Eero Saarinen's Dulles Airport Wins AIA 25-Year Award," *Architecture: the AIA Journal* 77 (May 1988), 38, 43; "Deere HQ Wins Saarinen a Sixth 25-Year Award," *Progressive Architecture* 74 (Feb. 1993), 18.

12. This section draws upon criticism of the TWA terminal in Peter Papademetriou and Thomas Fisher, "TWA's Influence," *Progressive Architecture* 73 (May 1992), 102-104; *Eero Saarinen on His Work*, ed. Aline B. Saarinen (New Haven & London: Yale University Pres, 1962); Michael Brawne, Airport Passenger Buildings," *Architectural Review* 132 (Nov. 1962), 341-348; "Dream of Eero Saarinen a Tribute to His Memory" *Aviation News* 4 (May 25, 1962), 2; "One Family of Forms," *Progressive Architecture* 43 (Oct. 1962), 158-165; "Air Terminal Design," *Industrial Design* 10 ( ), 68-70; "Recent Work of Eero Saarinen," *Zodiac* 4 (1959), 54-57; and "Saarinen's TWA Center," *Industrial Design* 9 (Sept. 1962), 14; "Trans World Airlines," *Architectural Record* 130 (Sept. 1961), 162-162; "TWA Flight Center, Idlewild," *Architectural Record* 132 (July 1962), 129-130; "I Want to Catch the Excitement of the Trip," *Architectural Forum* 117 (July, 1962), 72-75; and other sources individually cited.

13. *Eero Saarinen on his Work*, 60 (from a *Horizon* interview, June 19, 1959). Kaufmann suggested that Saarinen's use of unusual forms may have been influenced by the work of Antonio Gaudí and by Erich Mendelsohn's Einstein Tower, "Inside Eero Saarinen's TWA Building," 92.

14. Quoted in Papademetriou, "Coming of Age," 134.

15. Roche's description appeared in "TWA's Graceful New Terminal," *Architectural Forum* 108 (Jan. 1958), 79-83; Thomas Fisher's comment appeared in "TWA's Influence," 103.

16. "TWA's Graceful New Terminal," 79-83 and "Saarinen's TWA Center," *Industrial Design* 9 (Sept. 1962), 14.

17. *NYT*, Edward Hudson, "Aviation: Unusual Terminal for Idlewild," Nov. 17, 1957, p. 37. The *NYT*, Oct., 11, 1958, p. 45, reported that engineers were reworking the plans for the terminal because it was too costly to build as originally designed; what changes were made as a result of this study are undetermined.

18. Several airlines at Idlewild used two jetways to access aircraft parked parallel to terminal structures, but the use of the nose-in parking position and one jetway became favored for economic reasons. According to Glenn Garrison, "TWA Picks Futuristic Terminal Design," *Aviation Week* 67 (Nov. 18, 1957), 40-41, the traveler would have a choice of using a moving sidewalk or walking through the long passageway linking the main terminal with the ramp gate structures. The design of these walkways changed from glass-enclosed structures with moving sidewalks to the enclosed tunnels and the use of the moving sidewalks was abandoned. The functional aspects of the TWA terminal were described in "TWA: Wing-Like Roof, Theater-Type Lounge," *Airlift* (Sept. 1959), New York City Airports Clipping file, Municipal Reference Library.

19. According to Bruno H. Hake, "Baggage Handling: Passenger and Baggage Processing at Air Terminals," in *Journal of the Aero-Space Transport Division, Proceedings of the American Society of Civil Engineers* 39 (Oct. 1963), 42, baggage carousels had been in operation for some time at terminals in Montreal and San Francisco. TWA may have been the first airline to install carousels at New York International Airport; they were located in the ground level of the west wing, not in their present location (neither space is included in this designation).

20. "Inside Eero Saarinen's TWA Building," 86-93.

21. "A Problem in Adaptation at Saarinen's TWA Terminal," *Interiors* 122 (Nov. 1962), 128-133 and "Inside the Bird," *Architectural Review* 132 (Mar 1963), 160.

21. "A Problem in Adaptation at Saarinen's TWA Terminal," *Interiors* 122 (Nov. 1962), 128-133 and "Inside the Bird," *Architectural Review* 132 (Mar 1963), 160.

22. "Arriving and Departing," *The Reporter* 27 (Sept. 13, 1962), 52-55.

23. "Dream of Eero Saarinen a Tribute to His Memory" *Aviation News* 4 (May 25, 1962), 2.

24. "Arriving and Departing," 52-55.

25. Ada Louise Huxtable, "Idlewild: Distressing Monument to Air Age," *NYT*, Nov. 25, 1962, II, p. 25. "Forget the Bird," *Architectural Review* 132 (Nov. 1962), 306-07. acknowledged the artistry of the space-modelling and the magisterial clarity of the composition, but noted that some observers would not agree that the detailing was either "vigorous or inevitable," and that the scale of some elements was "toy-like." "TWA Spreads Its Wings," *Progressive Architecture* 43 (July 1962), 68-69 presented the full spectrum of comments, including a description of the space as a "powerful spatial symphony played without compromise, a sequence of spaces within spaces." It reported that others found the curved bridge balcony, winding stairs, the upturning volutes at the bases of the stairs, the sculptured eyes that tell flight times (the Solari boards above the information desk), the bracketed ceilings leading to the ticketing and baggage-receiving areas – the elements usually considered so successful – as obscuring Saarinen's bold, poised space conception, and that the strongly sinuous elements, the dark-ceilinged tunnels, and even the delicately small-scaled tile floor material, gave a surrealist impression.

26. An oval dedication plaque is set into the bench is inscribed: "Trans World Flight Center – Dedicated May the twenty-eighth, 1962 – Eero Saarinen, Architect." The circular marble seats that surround pedestal signs are additions to this space.

27. It appears that the planter was created from bench seating. Currently, show-cases for the duty-free shop are mounted on the main balcony side of the service core.

28. A triangular sign has been hung under the center of the balcony bridge.

29. Spotlights aimed at the ceiling are located at the top of the two "air-fountains" on the main level and the top of the sign behind the information desk. The lighting for the terminal was designed by Jaras, Baume, & Bolles, Engineers, New York, with Frink Corp., Brooklyn, according to "TWA's Lighting Technique," *Illuminating Engineering* 59 (June 1964), 422-424; Stanley McCandless served as a lighting consultant, and Bolt, Beranek & Newman, were acoustical consultants.

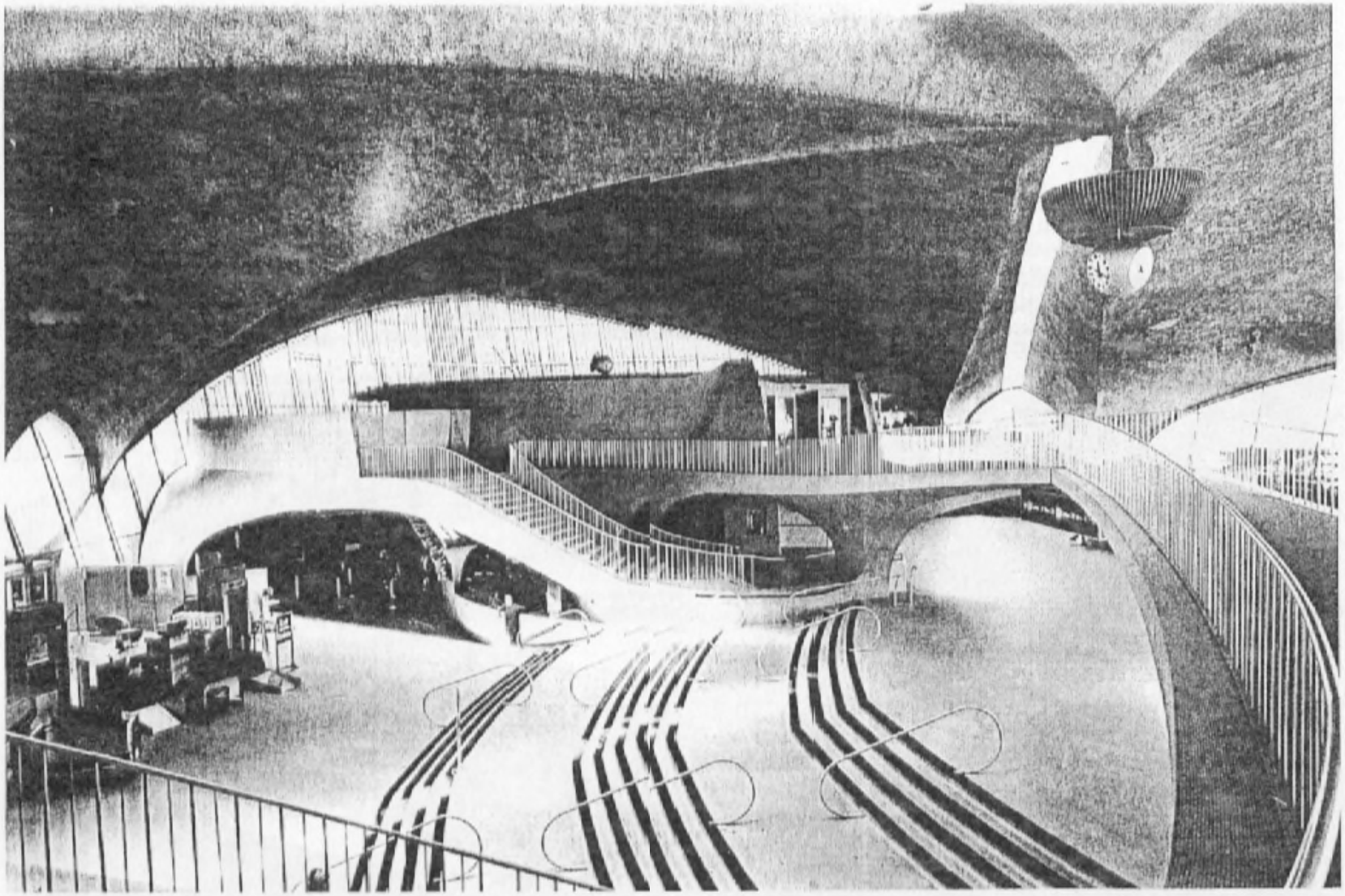
FINDINGS

On the basis of a careful consideration of the history, the architecture, and other features of this building, the Landmarks Preservation Commission finds that the Trans World Airlines Flight Center (now TWA Terminal A) at New York International Airport ground level interior, consisting of the entrance lobby, the information desk, the sculpted piers and archways at the juncture of the side wings, and the stairway leading to the main level; the main level interior, consisting of the ticketing area, telephone alcoves, the stairways leading to the balcony level and the adjacent "air fountains" (sculptural ventilation ducts), the elevated walkways leading to the gate structures, and the southern gate structure ventilation ducts), the elevated walkways leading to the gate structures, and the southern gate structure interior, including the central area, glazed walkways, and two triangular lounge areas; and the balcony level interior, consisting of the balconies and bridge between the balconies, the restaurant and club areas and their sculpted central service cores (excluding the interiors of the service areas), window seats, and the upper portion of the balcony area; and the fixtures and interior components of these spaces, including but not limited to, wall and ceiling surfaces; floor surfaces; windows; skylights; vertical window blinds; doors; balustrades; stairway railings; piers; water fountains; telephone booth dividers; lighting fixtures; signage, including the TWA sign mounted on the window-wall facing the runway; ventilation elements; built-in seating and counter units; and attached decorative and sculptural elements, has a special character, special historical and aesthetic interest and value as part of the development, heritage and cultural characteristics of New York City, and the Interior is one which is customarily open and accessible to the public, and to which the public is customarily invited.

The Commission further finds that, among its important qualities, the interior of the TWA Flight Center, designed by Eero Saarinen & Associates (Eero Saarinen and Kevin Roche), is among the chief works of one of the most highly-regarded architectural firms of the modern era; that Saarinen's firm revolutionized air terminals through an expressive approach to design that extended to the interior and the incorporation of technological advances, producing a distinctive and highly-acclaimed work of modern interior design with the TWA Terminal (1956-62); that the design of the building interior expressed Saarinen's intentions "to interpret the sensation of flying" and "be experienced as a place of movement and transition;" that the design concept was carried throughout the entire building with a "family of forms," so that "all the curvatures, all the spaces, and all the elements – down to the shapes of signs, railings, counters, and other elements – ... have one consistent character;" that the expressive interior, which remains largely intact, was modeled to provide a succession of differentiated spaces in which all elements are integral to the building; that among the elements integrating and articulating the spaces are the circular white marble tile cladding the floor and most of the vertical surfaces, which accentuates the monolithic quality of the smaller elements as well as spatial volumes; window walls, narrow skylights, and fixtures which provide striking and controlled lighting in the main portion of the terminal; and a variety of unconventional forms including walls, piers, and smaller elements such as the information desk; that the open central space, enclosed by roof vaults and divided into three levels and joined by curving staircases functions as a modern crossroads below the aerie-like balcony space open to the enclosing roof forms and the lower levels; that the design of the enclosed walkways to the gate structures creates a feeling of expectancy and transition which is heightened by the rise of the floor surface and the indirect lighting on the upper portion of the concave walls; and that the main gate structure, with services grouped in a central core and projecting jetway access arms, incorporates some of the first solutions for satellite gate structures for jet aircraft and its interior elements relate to the aesthetic and materials of the main terminal area.

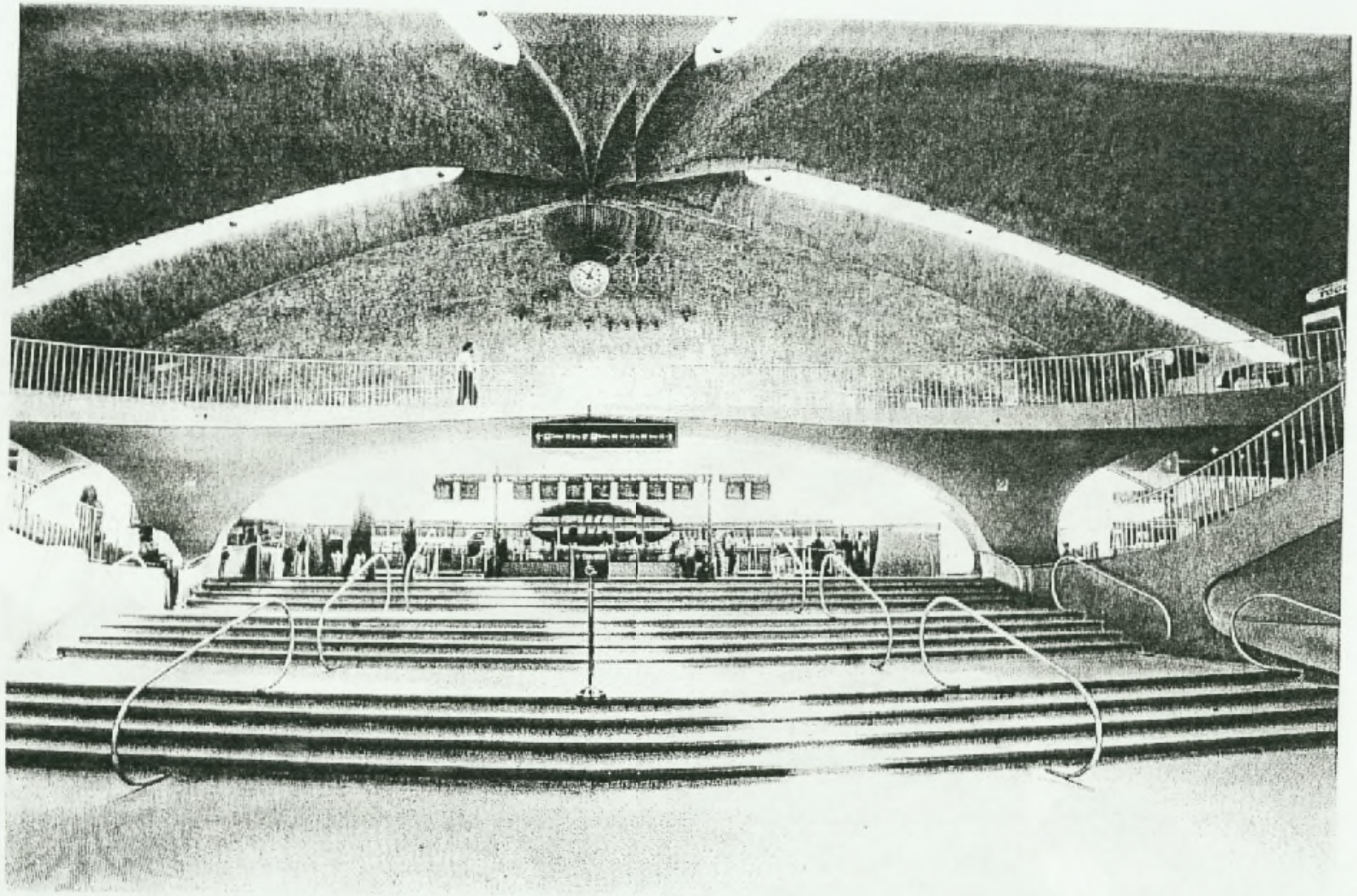
Accordingly, pursuant to the provisions of Chapter 74, Section 3020 of the Charter of the City of New York and Chapter 3 of Title 25 of the Administrative Code of the City of New York, the Landmarks Preservation Commission designates as an Interior Landmark the Trans World Airlines Flight Center (now TWA Terminal A) at New York International Airport ground level interior, consisting of

the entrance lobby, the information desk, the sculpted piers and archways at the juncture of the side wings, and the stairway leading to the main level; the main level interior, consisting of the ticketing area, telephone alcoves, the stairways leading to the balcony level and the adjacent "air fountains" (sculptural ventilation ducts), the elevated walkways leading to the gate structures, and the southern gate structure interior, including the central area, glazed walkways, and two triangular lounge areas; and the balcony level interior, consisting of the balconies and bridge between the balconies, the restaurant and club areas and their sculpted central service cores (excluding the interiors of the service areas), window seats, and the upper portion of the balcony area; and the fixtures and interior components of these spaces, including but not limited to, wall and ceiling surfaces; floor surfaces; windows; skylights; vertical window blinds; but not limited to, wall and ceiling surfaces; floor surfaces; windows; skylights; vertical window blinds, doors; balustrades; stairway railings; piers; water fountains; telephone booth dividers; lighting fixtures; signage, including the TWA sign mounted on the window-wall facing the runway; ventilation elements; built-in seating and counter units; and attached decorative and sculptural elements, John F. Kennedy International Airport, Queens and designates Borough of Queens, Tax Map Block 14260, Lot 1 in part, consisting of a site encompassed by a continuous line beginning at a point at the southernmost end of the terminal building, extending northeasterly and northerly along the outermost edge of the terminal building, easterly along the southernmost edge of the elevated walkway between the terminal building and the southern gate structure, extending around the outermost contours of the southern gate structure, westerly along the northernmost edge of the elevated walkway between the terminal building and the southern gate structure, northerly and northwesterly along the outermost edge of the terminal building between the elevated walkways, northerly along the easternmost edge of the elevated walkway between the terminal building and the northern gate structure, westerly along the line of connection between the elevated walkway and the northern gate structure, southerly along the westernmost edge of the elevated walkway between the terminal building and the northern gate structure, westerly and southwesterly along the outermost edges of the terminal building to its westernmost end, southerly from the western end of the terminal building to the curbline of the service road, southeasterly along the western edge of the curbline of the service road, southerly and easterly along a line corresponding to the outermost edge of the overhanging canopy of the terminal building, southerly along the western edge of the curbline of the service road to a point opposite the southernmost end of the terminal building and easterly to the point of beginning, as its Landmark Site.



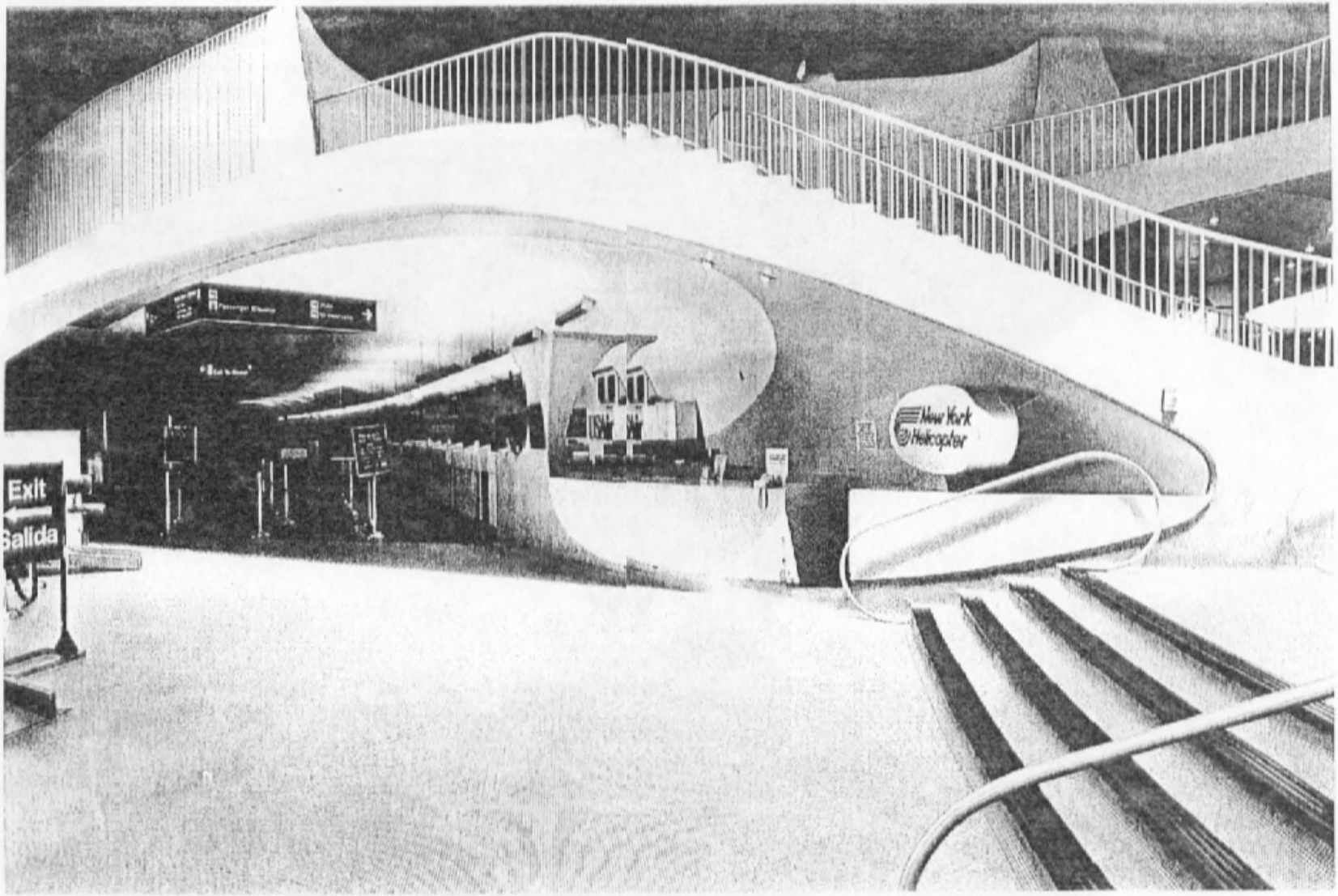
Trans World Airlines Flight Center at New York International Airport art Interior.
John F. Kennedy International Airport Queens.
Central area of main terminal.

Photo credit: Carl Forster



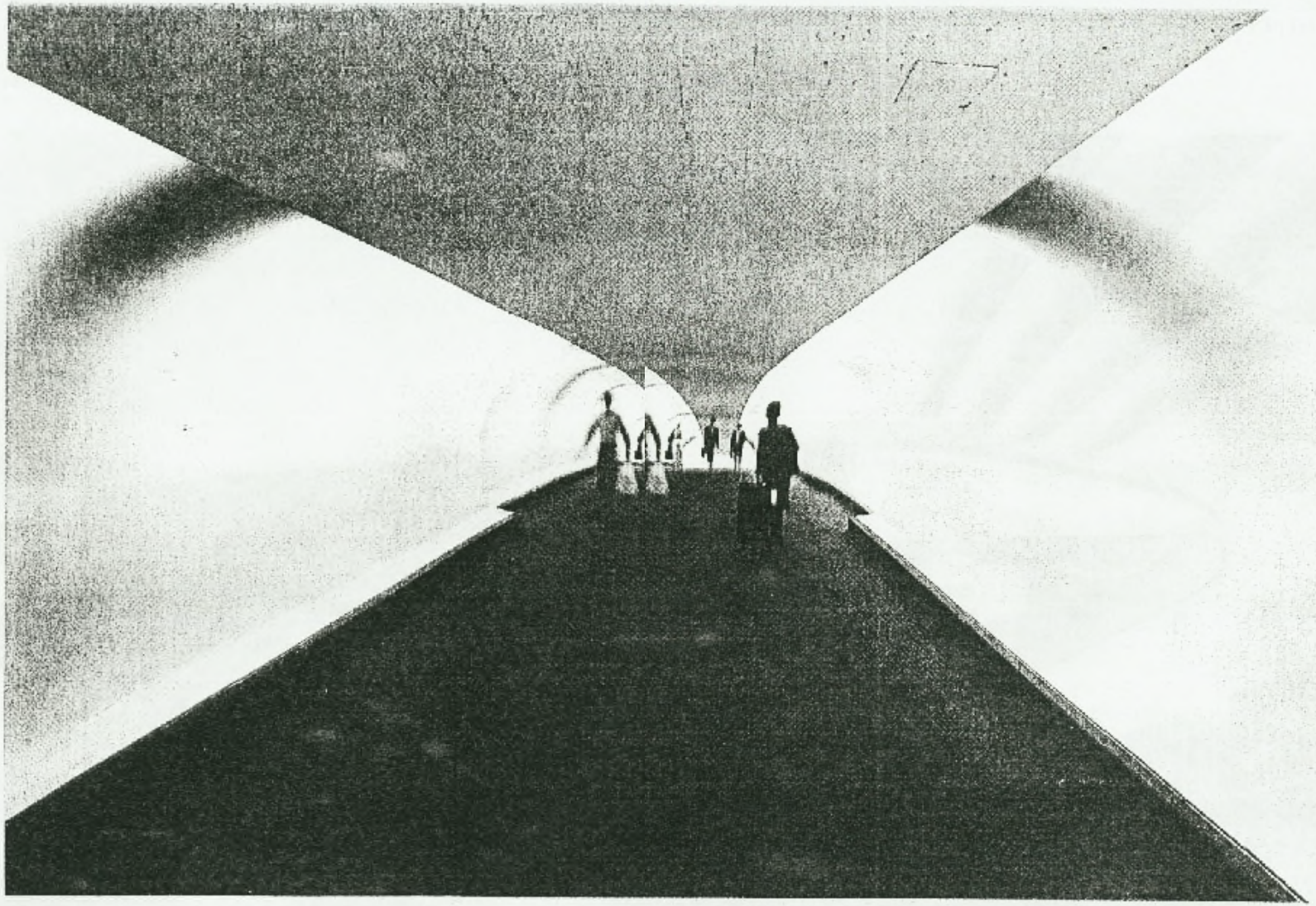
Trans World Airlines Flight Center at New York International Airportport Interior.
TWA Flight Center Interior, John F. Kennedy International Airport, Q. Queens
Central area of main terminal.

Photo credit: Carl Forster



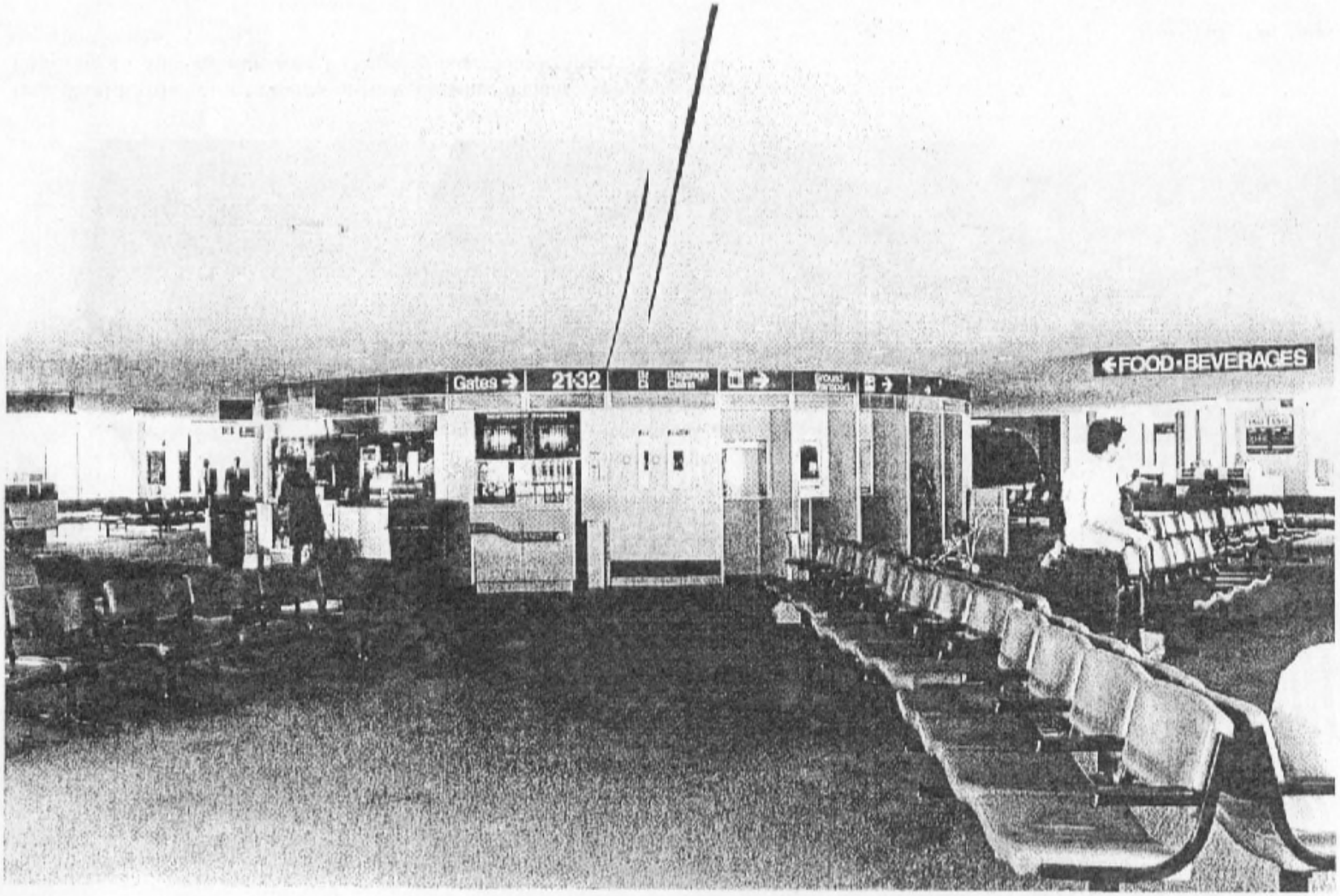
Trans World Airlines Flight Center at New York International Airporport Interior.
TWA Flight Center Interior, John F. Kennedy International Airport, Jamaica, Queens.
Entry area, archway framing side wings.

Photo credit: Carl Forster



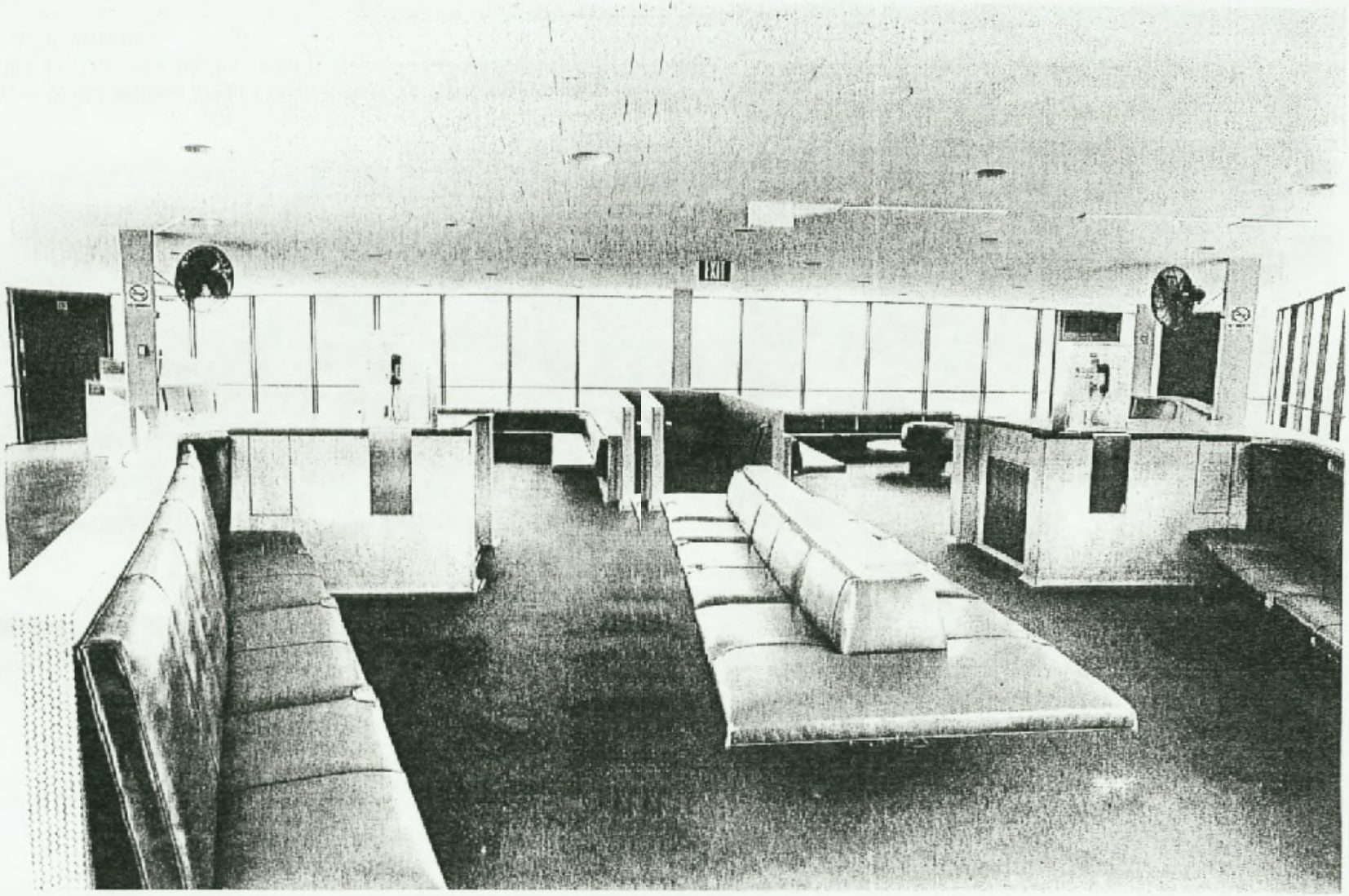
Trans World Airlines Flight Center at New York International Airporbort Interior.
TWA Flight Center Interior, John F. Kennedy International Airport. Qt. Queens.
Walkway to gate structure.

Photo credit: Carl Forster



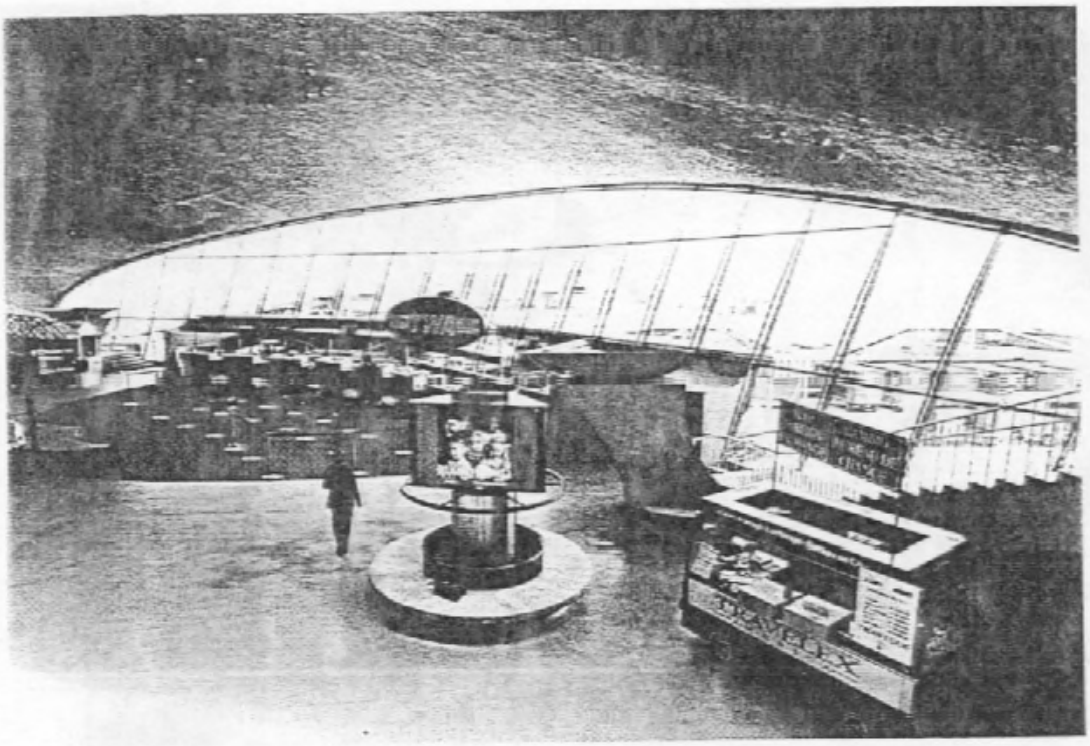
Trans World Airlines Flight Center at New York International Airport ort Interior.
TWA Flight Center Interior, John F. Kennedy International Airport, Q, Queens.
East gate structure.

Photo credit: Carl Forster



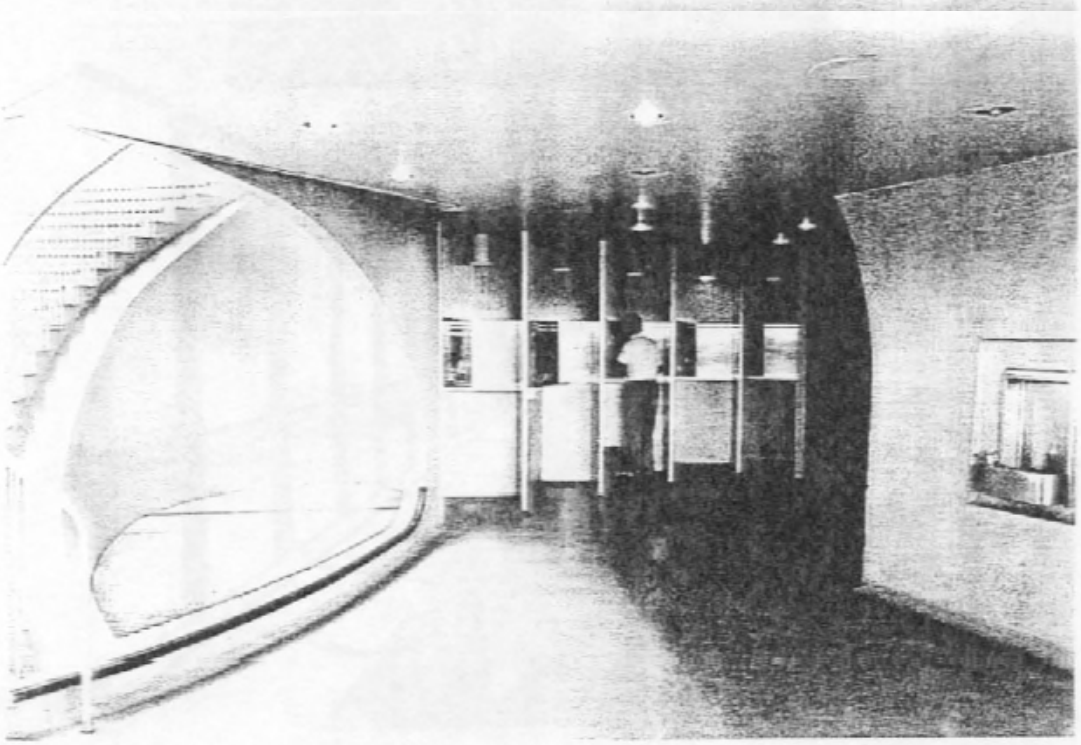
Trans World Airlines Flight Center at New York International Airportbort Interior.
TWA Flight Center Interior, John F. Kennedy International Airport, Q, Queens.
Departure Lounge, Gate 42.

Photo credit: Carl Forster



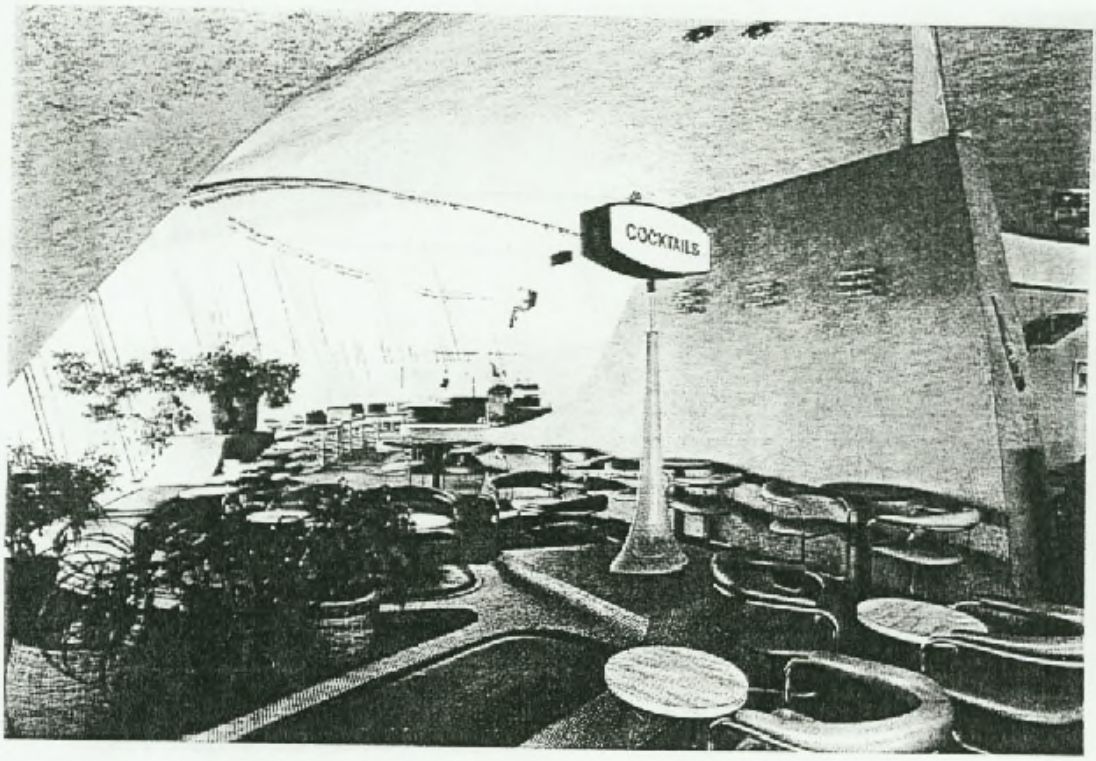
Trans World Airlines Flight Center at New York International Airport Interior.
John F. Kennedy International Airport, Queens.
Main level of the terminal.

Photo credit: Carl Forster



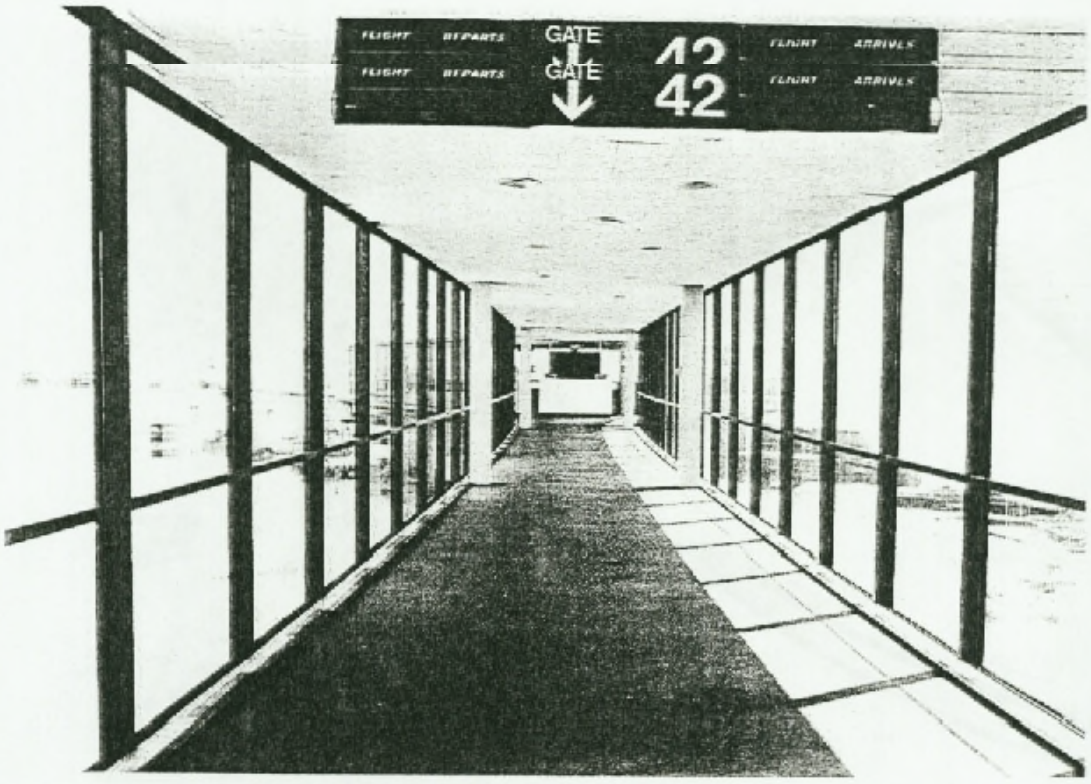
Trans World Airlines Flight Center at New York International Airport Interior.
John F. Kennedy International Airport, Queens.
Telephone alcove, main level.

Photo credit: Carl Forster



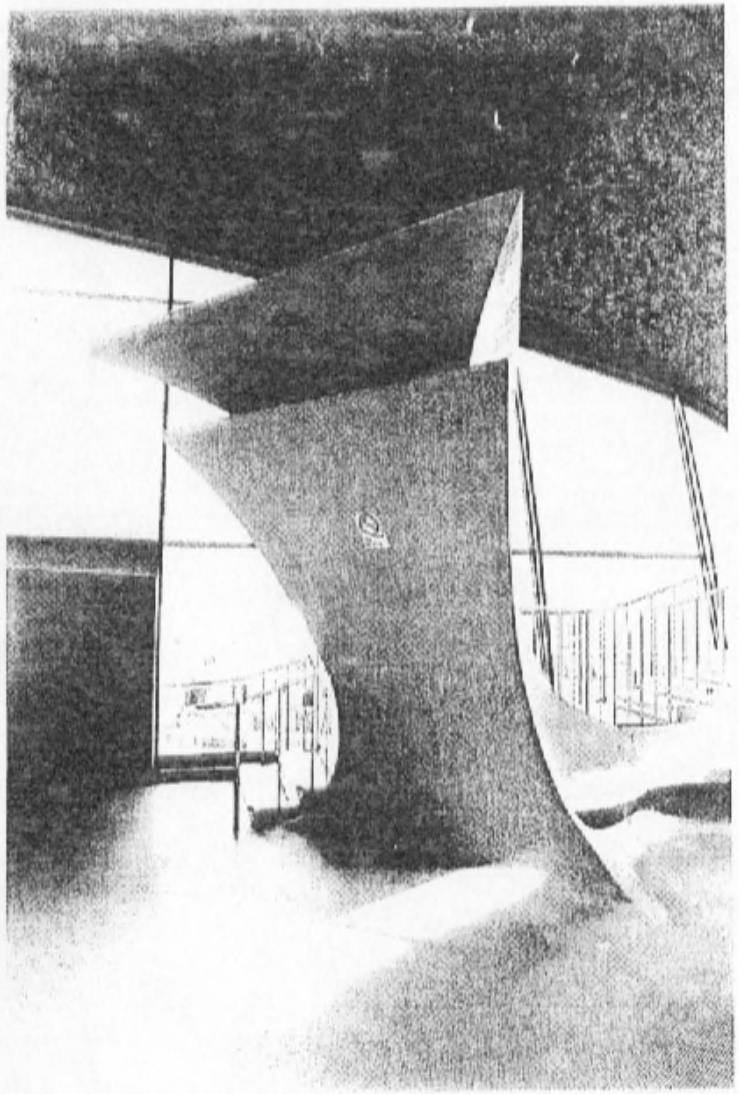
Trans World Airlines Flight Center at New York International Airport Interior.
John F. Kennedy International Airport, Queens.
Balcony level of the terminal.

Photo credit: Carl Forster

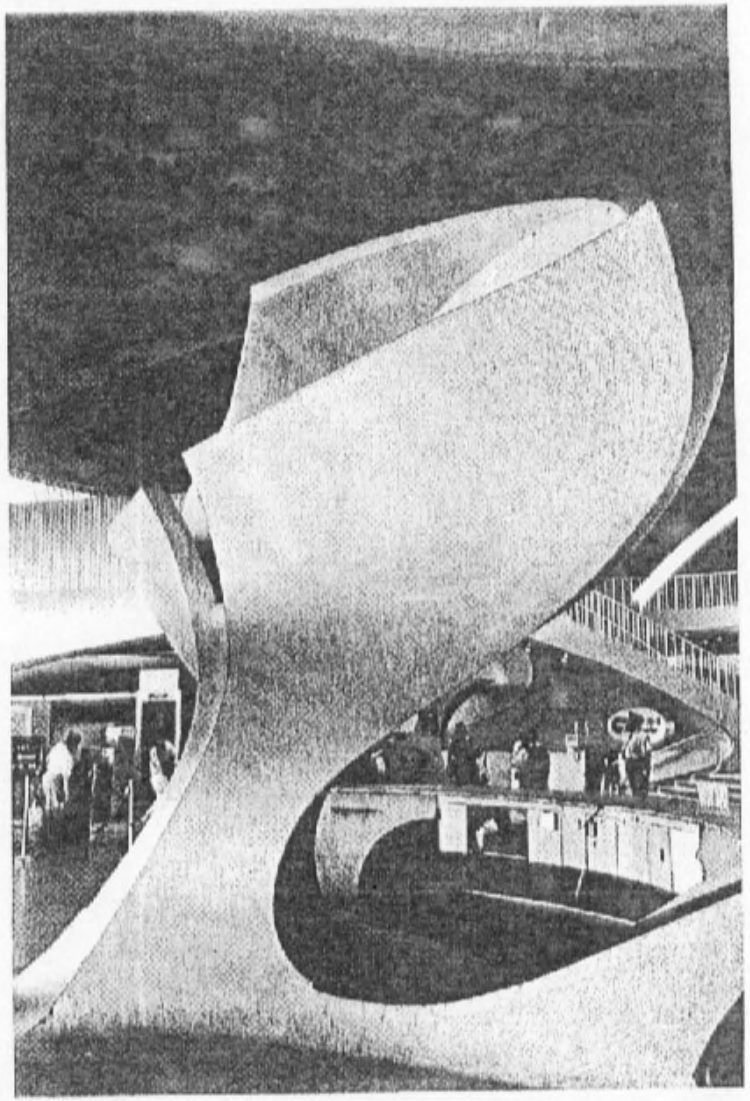


Trans World Airlines Flight Center at New York International Airport Interior.
John F. Kennedy International Airport, Queens.
Walkway to Gate 42.

Photo credit: Carl Forster



"Air Fountain" ventilation duct.
Trans World Airlines Flight Center at New York International Airport Interior.
TWA Flight Center Interior, John F. Kennedy International Airport, rt, Queens.



Information desk.

Photo credit: Carl Forster

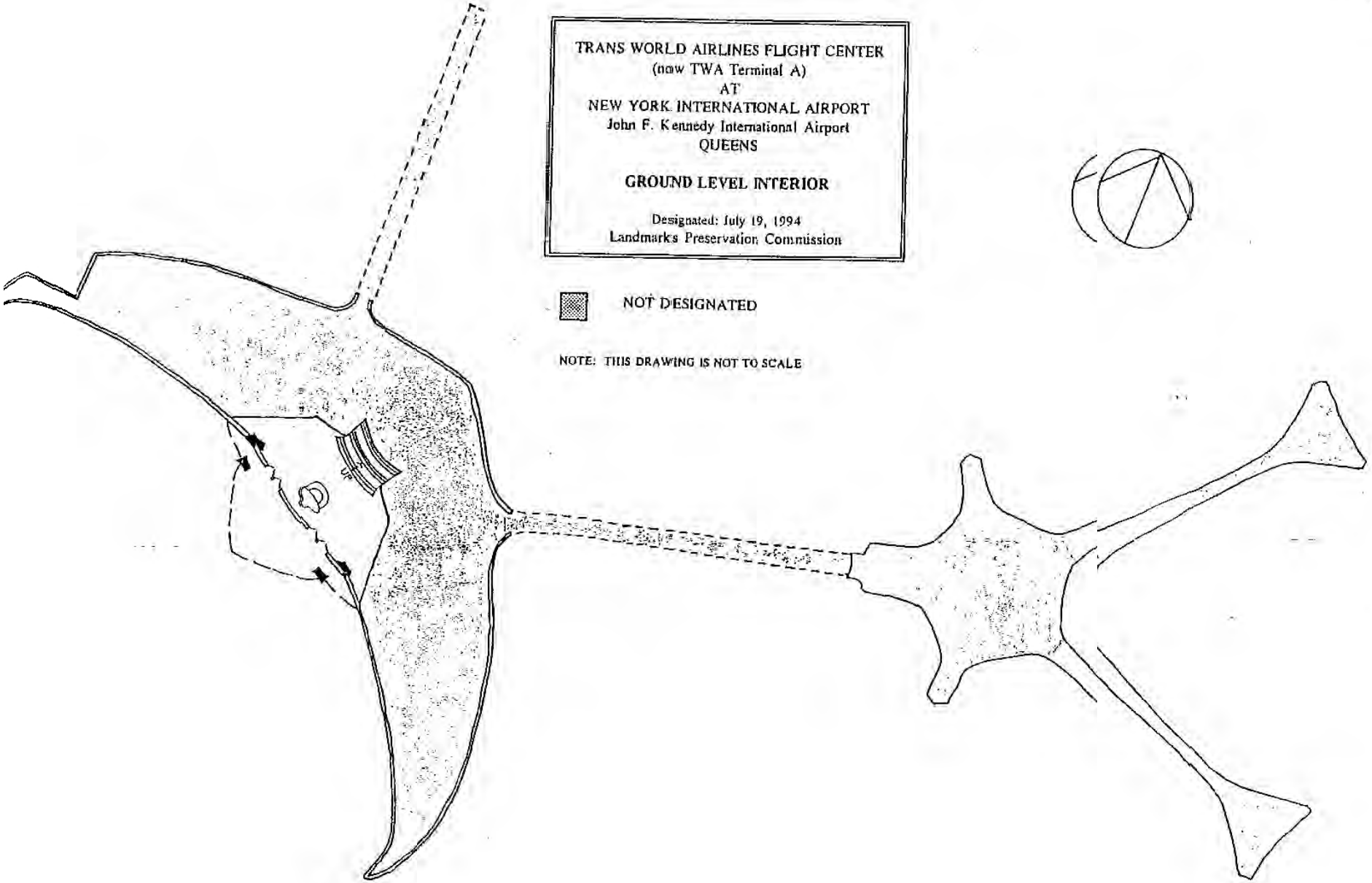
TRANS WORLD AIRLINES FLIGHT CENTER
(now TWA Terminal A)
AT
NEW YORK INTERNATIONAL AIRPORT
John F. Kennedy International Airport
QUEENS

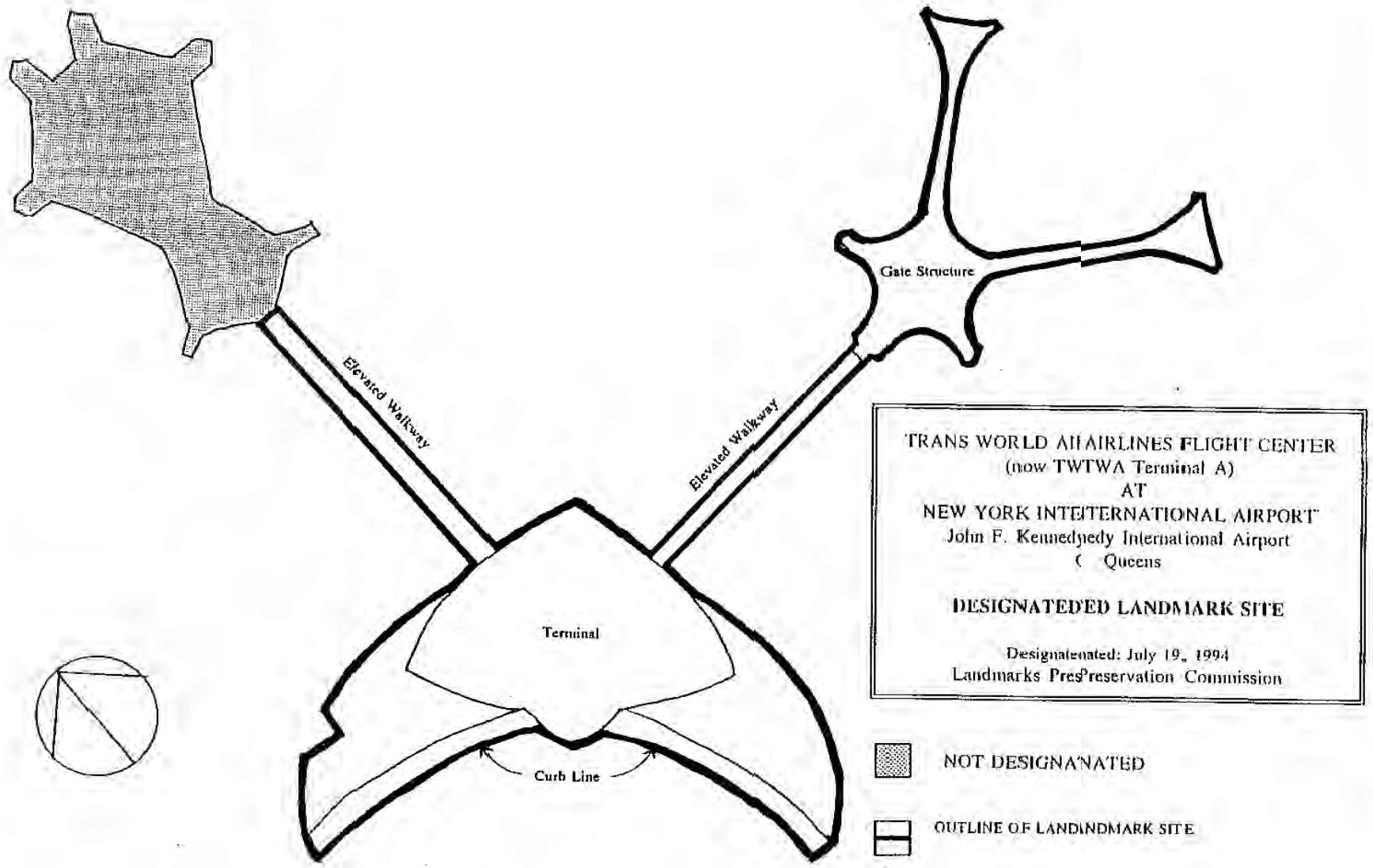
GROUND LEVEL INTERIOR

Designated: July 19, 1994
Landmarks Preservation Commission

NOT DESIGNATED

NOTE: THIS DRAWING IS NOT TO SCALE





TRANS WORLD AIRLINES FLIGHT CENTER
(now TWTWA Terminal A)
AT
NEW YORK INTEITERNATIONAL AIRPORT
John F. Kennedyedy International Airport
(Queens

DESIGNATEDED LANDMARK SITE

Designatenated: July 19,, 1994
Landmarks PresPreservation Commission

NOT DESIGNANATED

OUTLINE OF LANDLNDMARK SITE

NOTE: THIS DRAWING IS NOT TO SCALE

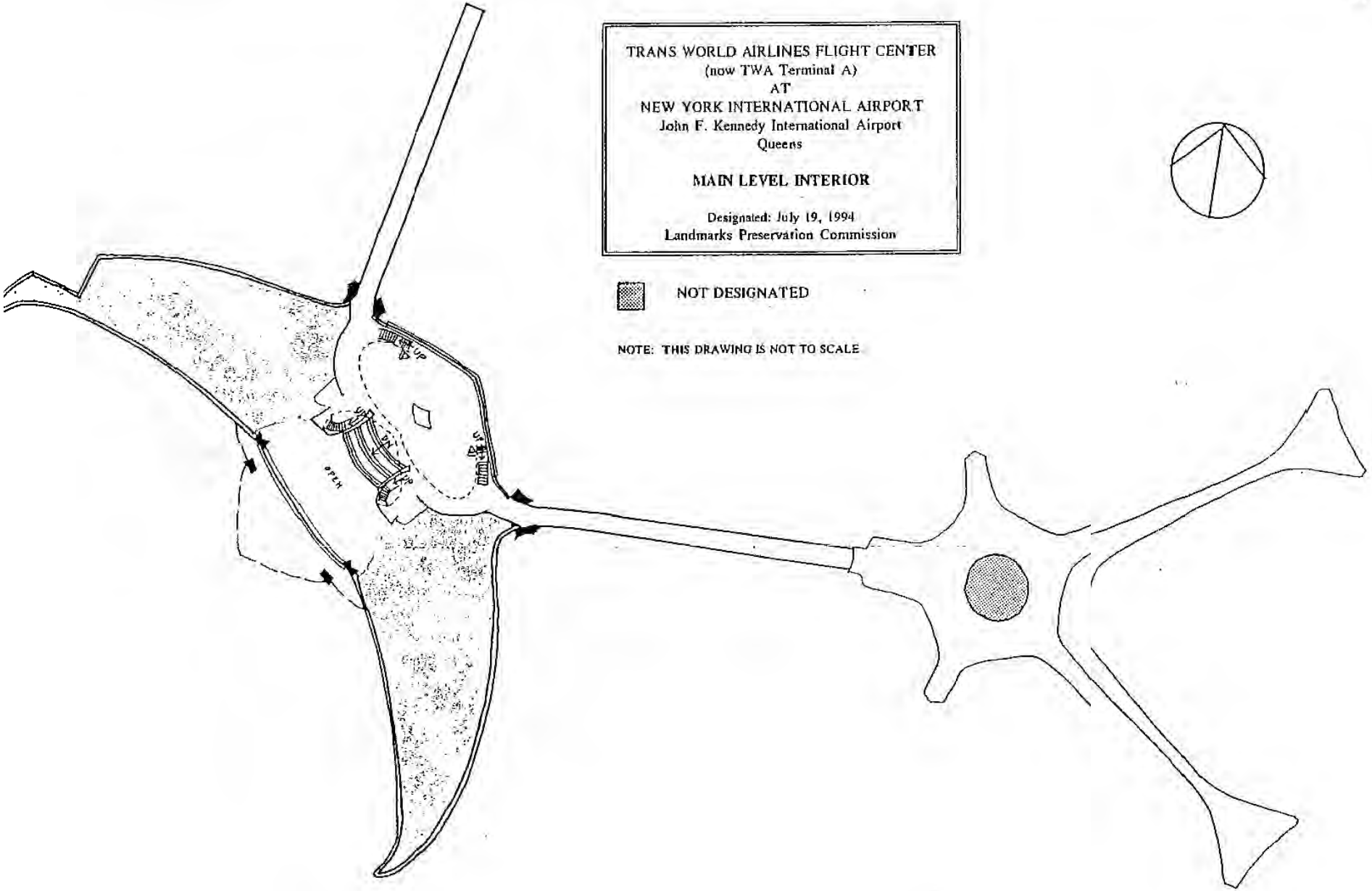
TRANS WORLD AIRLINES FLIGHT CENTER
(now TWA Terminal A)
AT
NEW YORK INTERNATIONAL AIRPORT
John F. Kennedy International Airport
Queens

MAIN LEVEL INTERIOR

Designated: July 19, 1994
Landmarks Preservation Commission

NOT DESIGNATED

NOTE: THIS DRAWING IS NOT TO SCALE



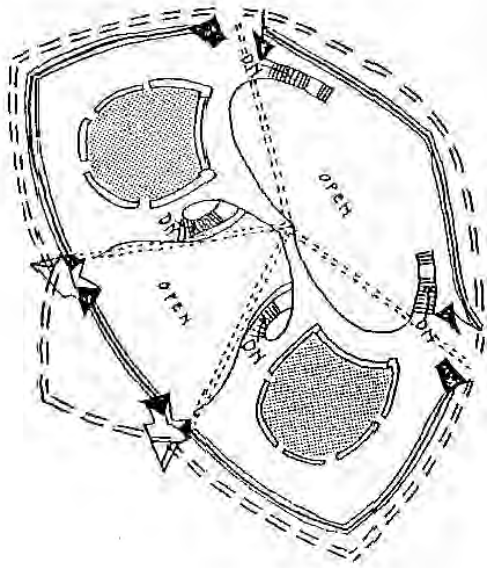
TRANS WORLD AIRLINENES FLIGHT CENTER
(now TWA TerTerminal A)
AT T
NEW YORK INTERNATIATIONAL AIRPORT
John F. Kennedy Interinternational Airport
QUEENENS

BALCONY LEVEL/EL INTERIOR

Designated: July uly 19, 1994
Landmarks Preservatioation Commission

NOT DESIGNANATED

NOTE: THIS DRAWING IS NO NOT TO SCALE



The New York City Landmarks Preservation Commission
1 Centre Street, 9th Floor North, New York NY 10007 TEL: 212-669-7922 FAX: 212-669-7797
http://nyc.gov/landmarks/

RONDA WIST
EXECUTIVE DIRECTOR
rwist@lpc.nyc.gov

RECEIVED
JUN 13 2005
HISTORIC PRESERVATION
FIELD SERVICES BUREAU

June 9, 2005

Ms. Ruth Pierpont, Director
New York State Office of Parks Recreation
and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island
P.O. Box 189
Waterford, New York 12188-0189

Re: Trans World Airlines Flight Center, John F. Kennedy International Airport, Queens, New York

Dear Ms. Pierpont:

I write on behalf of Chair Robert B. Tierney in response to your request for comment on the eligibility of the Trans World Airlines Flight Center at John F. Kennedy International Airport in Queens for the State and National Registers of Historic Places.

The Commission supports the nomination of the Trans World Airlines Flight Center. In 1994, the New York City Landmarks Preservation Commission voted to designate the Trans World Airlines Flight Center an interior and exterior New York City landmark. The Trans World Airlines Flight Center is one of the great masterpieces of expressionistic modern design and is a major work by Eero Saarinen (with codesigner Kevin Roche), one of the leading modern architects in the United States.

Based on the Commission's review of the property and the materials submitted by the Historic Preservation Field Services Bureau, the Commission has determined that the Trans World Airlines Flight Center appears to meet the criteria for inclusion on the State and National Registers of Historic Places.

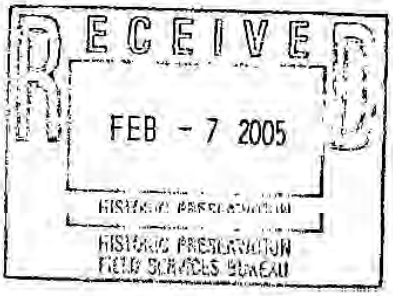
Sincerely yours,

Ronda Wist

Ronda Wist

cc: Robert B. Tierney, Chair
Mary Beth Betts

KEVIN ROCHE JOHN DINKELOO AND ASSOCIATES LLC
P.O. BOX 6127 20 DAVIS STREET HAMDEN, CT 06517-0127



February 2, 2005

Ms. Ruth Pierpont
Director of Historic Preservation Field Services Bureau
NYS Office of Park, Recreation and Historic Preservation
P. O. Box 189
Peebles Island
Waterford, NY 12188-0189

Re: TWA Terminal at JFK International Airport

Dear Ms. Pierpont:

As Eero Saarinen's principal design associate, I was deeply involved in the design of the TWA Terminal at JFK. After his untimely death in 1961, I oversaw its completion. This seminal building is one of Mr. Saarinen's major works and is the subject of many ongoing scholarly studies, both here and abroad. Several books are underway which feature the building. The Finnish Cultural Institute in New York, Museum of Finnish Architecture, and Yale University are preparing a traveling exhibit schedule to debut in 2006 which will highlight the TWA building. A major Japanese magazine is currently devoting an entire issue to Eero Saarinen with an emphasis on the TWA Terminal.

Given all of this interest combined with the fact that the TWA Terminal is one of the most significant buildings in 20th century modern architecture, I believe it well warrants being included in the National Register of Historic Places; and I enthusiastically support the nomination of this building to the National Register of Historic Places.

Sincerely,

Kevin Roche

KR:chc

cc Richard W. Southwick, Beyer Blinder Belle

NORTHEAST
OFFICE

NATIONAL TRUST
for HISTORIC PRESERVATION

May 24, 2005

Ms. Ruth L. Pierpont
Director
Historic Preservation Field Services Bureau
Historic Preservation Field Services Bureau
Peebles Island
PO Box 189
Waterford, NY 10580

Re: Trans World Airlines Flight Center
John F. Kennedy International Airport
Queens, Queens County, NY

Dear Ms. Pierpont:

On behalf of the National Trust for Historic Preservation, I am writing to add our support for the proposed listing on the National Register of Historic Places of the Trans World Airlines Flight Center at JFK International Airport in Queens.

The National Trust for Historic Preservation, a recipient of the National Humanities Medal, is a private, nonprofit membership organization dedicated to protecting the irreplaceable historic and cultural resources of the United States. With over 270,000 members nationwide, including almost 19,000 in the State of New York, the Trust provides leadership, education, advocacy and resources to save America's diverse historic places and revitalize communities.

Since its completion in 1962, Eero Saarinen's curvilinear TWA Terminal has been hailed as an icon of modern design. Its soaring, graceful form was meant to evoke the romance and excitement of flight, and even the smallest interior details – ticket counters, chairs, signs and telephone booths – were designed to complement the gull-winged shell. The terminal is recognized and cherished by millions of travelers and architecture buffs alike. In a sense, the terminal is the mid-20th-century counterpart of earlier transportation landmarks such as Grand Central Station. And as one of Saarinen's last works, it is a fitting memorial to the memory of this great 20th century architect.

We highly recommend the TWA Terminal for National Register listing, and thank you for giving us this opportunity to comment.

Very truly yours,

Marilyn M. Fenollosa
Senior Program Officer and Regional Attorney

Protecting the Irreplaceable

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THE PORT AUTHORITY OF NY & NJ

WILLIAM R. DECOTA
DIRECTOR
AVIATION DEPARTMENT
225 PARK AVENUE SOUTH, 9TH FLOOR
NEW YORK, NY 10003
(212) 435-3703
(212) 435-3833 FAX

February 25, 2005

RECEIVED
MAR - 2 2005
HISTORIC PRESERVATION
FIELD SERVICES BUREAU

Ms. Ruth Pierpont
Director of Historic Preservation Field Services Bureau
NYS Office of Parks, Recreation and Historic Preservation
P.O. Box 189
Peebles Island
Waterford, NY 12188-0189

Dear Ms. Pierpont:

The TWA Terminal at John F. Kennedy International Airport is currently in the process of being nominated for listing on the National Register of Historic Places. Designed by Eero Saarinen, and constructed between 1959 and 1962, the building is one of the most highly acclaimed examples of expressionistic modern architecture. In addition to its unique form, the terminal was innovative in its use of specific aviation technology suited for the beginning of the jet age: baggage carousels, jetway access from the terminal to the planes and even its satellite or flightwing configuration, remote from the main terminal structure and connected via distinctive, elevated pedestrian tubes.

The thin-shell concrete structural form, configured into four intersecting vaults, is supported in total on four large sculptural piers. Contrasted with large window walls affording views out to the airfield, this unique design was revolutionary for its time and captured the excitement of flight at the dawn of the jet age.

The Port Authority of New York and New Jersey is very proud of the TWA Terminal and its significant place in aviation and architectural history. We strongly support the nomination of this building and look forward to its listing on the National Register of Historic Places.

Sincerely,

William R. DeCota
Director
Aviation Department

ATTACHMENT F

REVISED CONCEPT MASTER PLAN

TWA FLIGHT CENTER HOTEL

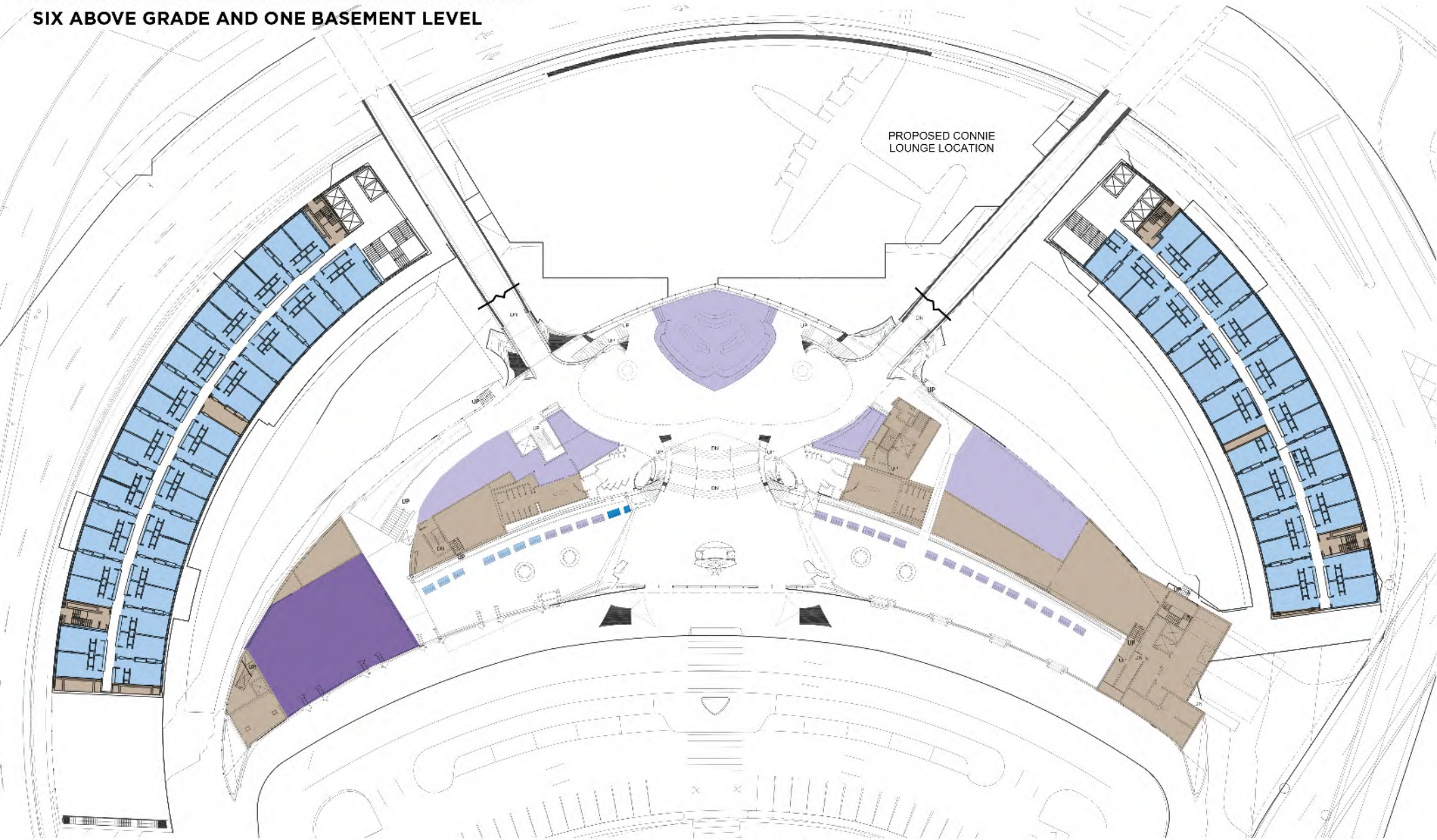
MCR DEVELOPMENT jetBlue HOTEL BEYER BLINDER BELLE LUBRANO CIAVARRA

N

KEY

GUEST ROOM		BALLROOM	
JETBLUE		SPA	
CIRCULATION		CONFERENCE	
MECHANICAL/ BACK OF HOUSE		RETAIL & RESTAURANT	
		MUSEUM	

APPROXIMATELY 505 HOTEL GUEST ROOMS TOTAL
SIX ABOVE GRADE AND ONE BASEMENT LEVEL



CONCEPT 1ST FLOOR PLAN

NOTE: INTERNAL FUNCTIONS AND LOCATIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY.

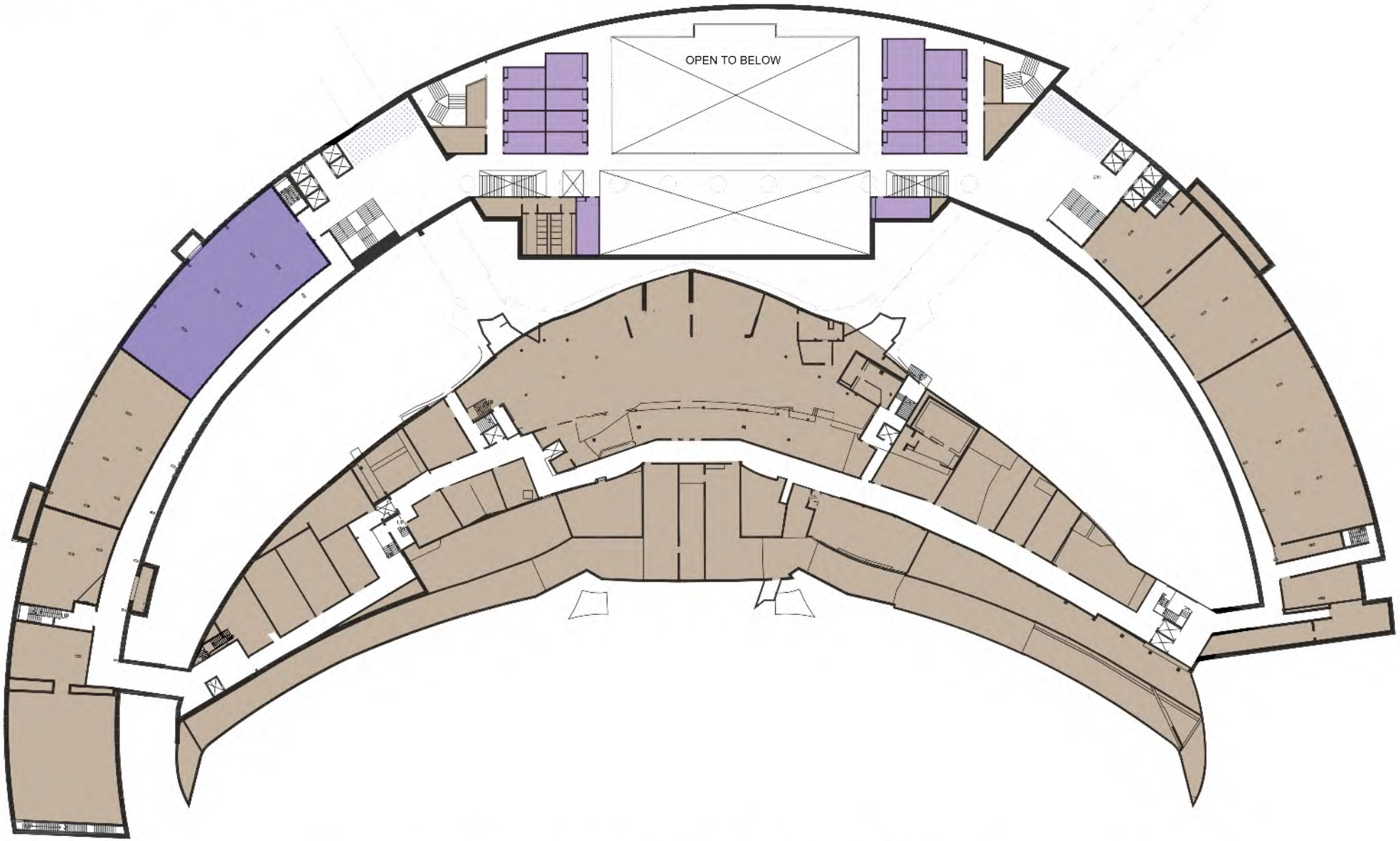
MCR DEVELOPMENT jetBlue HOTEL BEYER BLINDER BELLE LUBRANO CIAVARRA

N

KEY

GUEST ROOM		BALLROOM	
JETBLUE		SPA	
CIRCULATION		CONFERENCE	
MECHANICAL/ BACK OF HOUSE		RETAIL & RESTAURANT	
		MUSEUM	

APPROXIMATELY 505 HOTEL GUEST ROOMS TOTAL



CONCEPT BELOW GRADE LEVEL 1 AND BELOW GRADE LEVEL 2 PLAN

NOTE: ① INTERNAL FUNCTIONS AND LOCATIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY. ② LOCATION OF EXTERIOR WALLS APPROXIMATE; FEASIBILITY WILL BE EVALUATED.

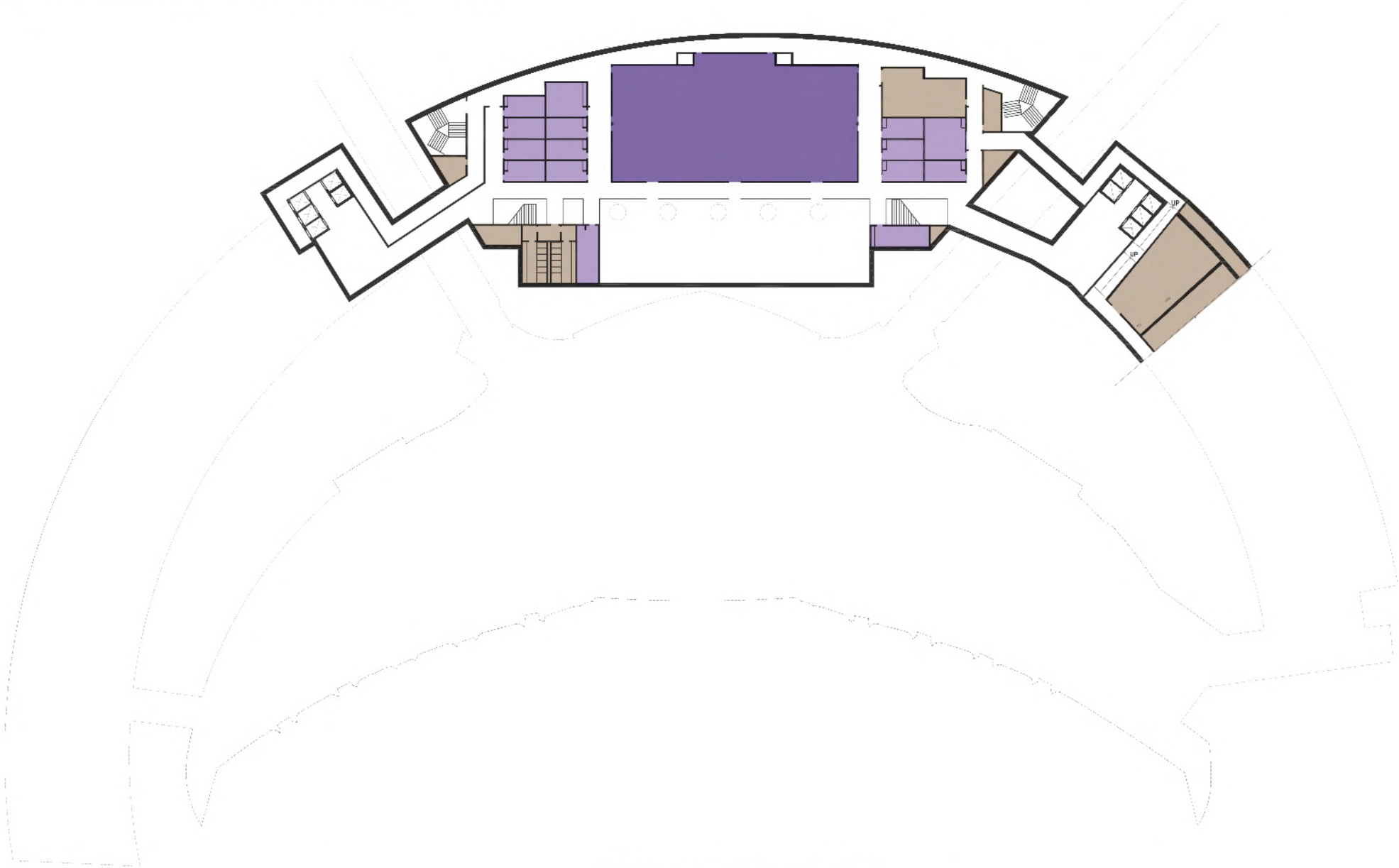
MCR DEVELOPMENT jetBlue HOTEL BEYER BLINDER BELLE LUBRANO CIAVARRA

N

KEY

GUEST ROOM		BALLROOM	
JETBLUE		SPA	
CIRCULATION		CONFERENCE	
MECHANICAL/ BACK OF HOUSE		RETAIL & RESTAURANT	
		MUSEUM	

APPROXIMATELY 505 HOTEL GUEST ROOMS TOTAL



CONCEPT BELOW GRADE LEVEL 3 PLAN

NOTE: ① INTERNAL FUNCTIONS AND LOCATIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY. ② LOCATION OF EXTERIOR WALLS APPROXIMATE; FEASIBILITY WILL BE EVALUATED.

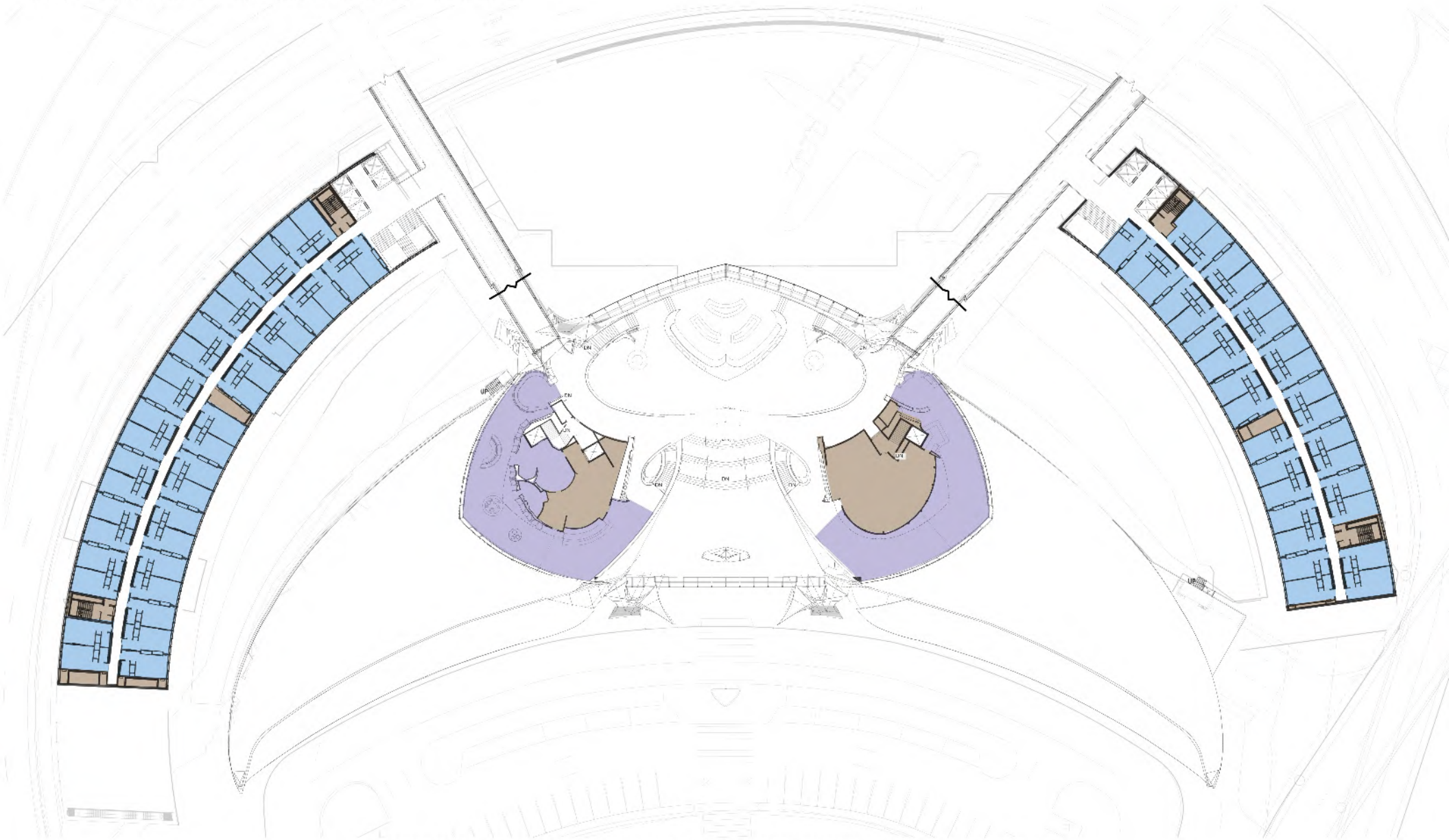
MCR DEVELOPMENT jetBlue HOTEL BEYER BLINDER BELLE LUBRANO CIAVARRA

N

KEY

GUEST ROOM		BALLROOM	
JETBLUE		SPA	
CIRCULATION		CONFERENCE	
MECHANICAL/ BACK OF HOUSE		RETAIL & RESTAURANT	
		MUSEUM	

APPROXIMATELY 505 HOTEL GUEST ROOMS TOTAL



CONCEPT FLIGHT CENTER MEZZANINE AND TYPICAL HOTEL GUESTROOM BUILDING FLOOR PLAN

NOTE: INTERNAL FUNCTIONS AND LOCATIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY.

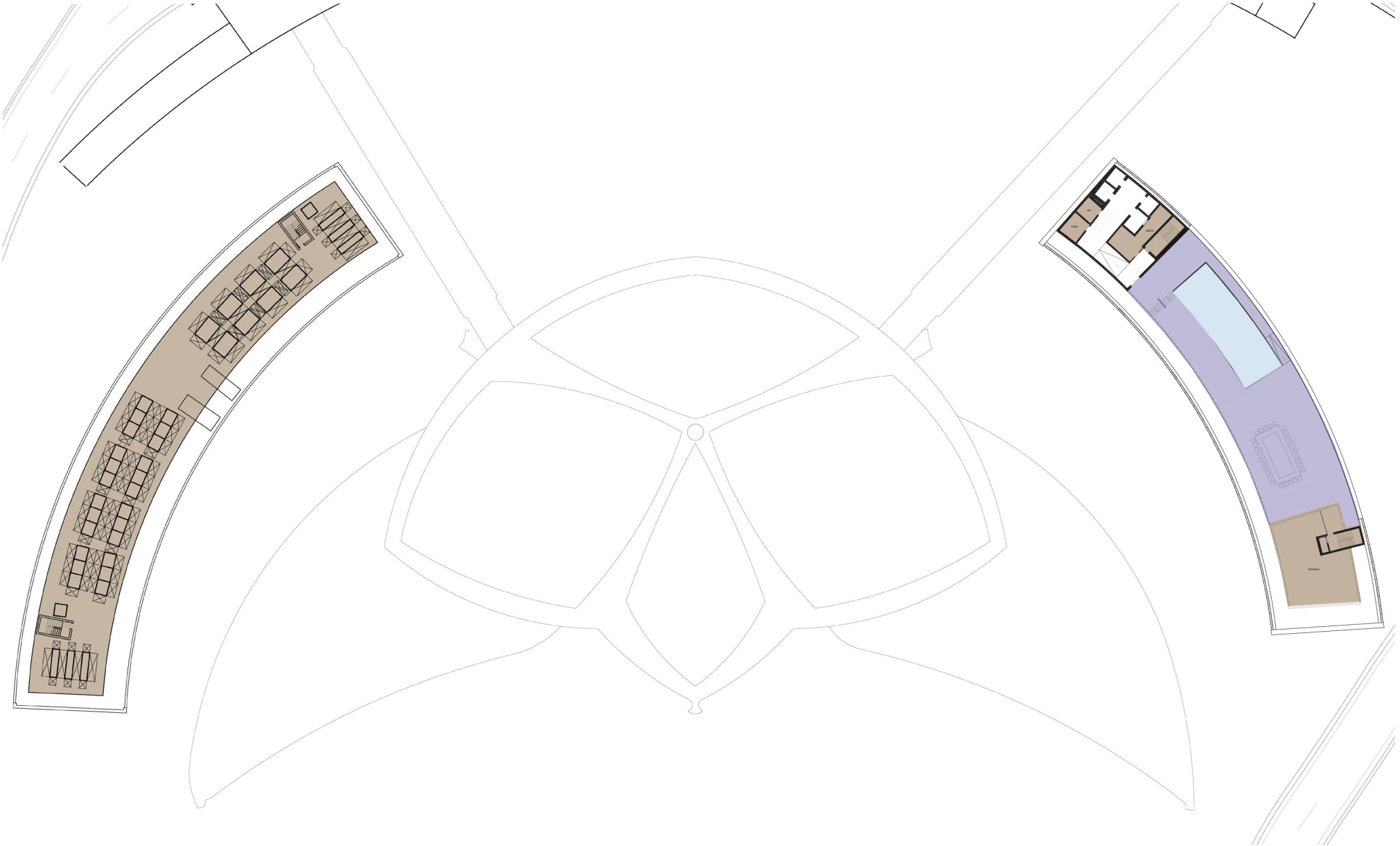
MCR DEVELOPMENT jetBlue HOTEL BEYER BLINDER BELLE LUBRANO CIAVARRA

N

KEY

GUEST ROOM		BALLROOM	
JETBLUE		SPA	
CIRCULATION		CONFERENCE	
MECHANICAL/ BACK OF HOUSE		RETAIL & RESTAURANT	
		MUSEUM	

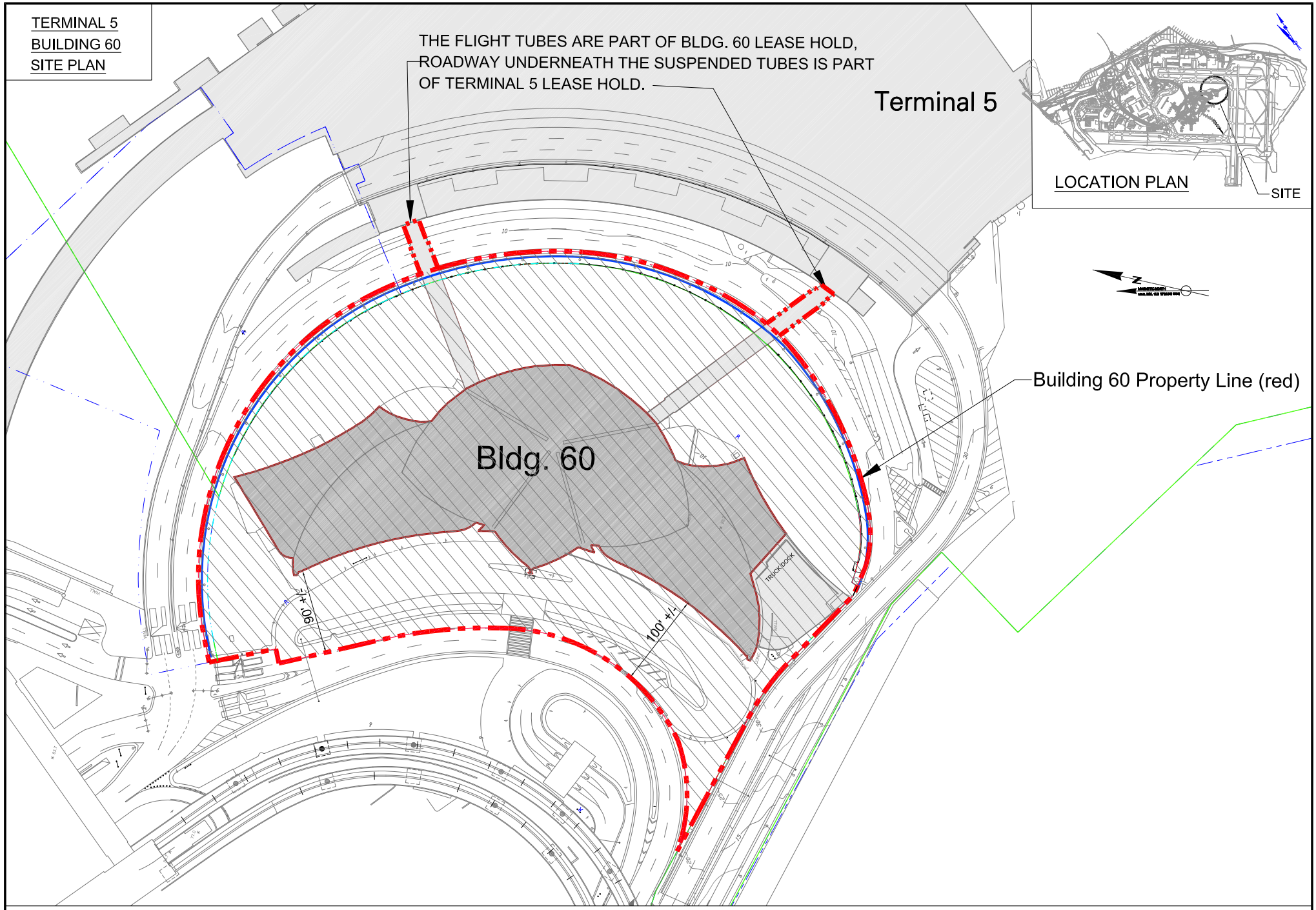
APPROXIMATELY 505 HOTEL GUEST ROOMS TOTAL



CONCEPT ROOF PLAN

NOTE: INTERNAL FUNCTIONS AND LOCATIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY.

TERMINAL 5
BUILDING 60
SITE PLAN



ATTACHMENT G

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY
JOHN F. KENNEDY
INTERNATIONAL AIRPORT

Appendix C: RAC Meeting Minutes and ACHP Correspondence

THE PORT AUTHORITY OF NY & NJ
Kennedy · Newark Liberty · LaGuardia
Teterboro · Downtown Manhattan Heliport

MEMORANDUM

Meeting Minutes *RAC Meeting #29*

Meeting Date: December 14, 2012
Subject: JFK T5/6 Redevelopment Advisory Committee Meeting #29
Location: JFK Airport - Building 60 – Flight Center
Attendees: See attached sign-in sheet

Introduction

The twenty-ninth meeting of the Redevelopment Advisory Committee (RAC) to discuss the progress of the Terminal 5/6 Redevelopment Project at John F. Kennedy International Airport was held on December 14, 2012 at JFK Airport Flight Center, and chaired by the Port Authority of New York and New Jersey (PA).

Discussion

Jim Steven (PA) opened the meeting and provided an overview of the agenda for the meeting, including construction progress to date, update to the Memorandum of Agreement (MOA) and a presentation of the concept for adaptive reuse of the Flight Center as a hotel in response to the PA's Request for Proposals. He noted that the PA has held several events in the Flight Center in recent months to allow various groups to see the restoration work.

Item 1. TWA Flight Center Construction Update

J. Steven advised that the interior contract work was completed, including some additional life safety, lighting and signage work. He noted the extensive work that was performed and reminded the RAC members that additional tile was available for restoration of the remaining areas by the developer. The restoration of the skylights was completed and the Flight Information board is in service. He expected final permits to be issued soon.

Item 2: Memorandum Of Agreement – Status Update

J. Steven advised the Status Update to the Memorandum of Agreement was issued with the invitation for this RAC meeting (#29). The Status Update reflected the PA assessment of all of the Stipulations and he requested that the parties confirm the update or provide any additional clarifications or information as soon as possible. He said some planning work had progressed on the interpretive display required by the MOA. This was done internally within the PA with input

from Beyer Blinder Belle (BBB), the PA historical consultant. The current plan is to work with the developer to define the display as it fits into the overall development plan.

Item 3: JFK Flight Center RFP (Hotel)

J. Steven summarized the events of the previous year and a half including that the PA had prepared and issued the Request For Proposals (RFP) for adaptive reuse of the Flight Center. He said that the proposals submitted were reviewed by members of the RAC who had signed the Non-Disclosure Agreement (offered to all Signatories and Consulting Parties). The PA is in discussions with one of the developer teams and the information remained confidential - emphasizing that no agreement has been made yet. No announcement has been made by either party. Discussions are ongoing to resolve open issues.

Beth Cumming (SHPO) asked about a rough timeframe for resolution and was advised that there were a few issues remaining, including the PA lease with the City of NY, set to expire in 2050. Executive level discussions are ongoing to extend the lease, but no agreement has been reached. D. Free (PA) added that the PA was working toward a lease extension with NYC, or perhaps a non-disturbance clause, but needed to have a draft lease with the developer to advance an ATEIL, which would be followed by the ULURP process. J. Steven noted that developers typically want very long leases for favorable project economics, and amortization would also be considered. I. Gonzalez (PA) added that it was important to settle on a design as a first step.

The lead architect for the developer team (Todd Schlieman of Ennead), presented the concept for adaptive reuse as a hotel, starting with some background and his and the firm's extensive work on historic properties. He noted many examples, highlighting his appreciation of the quality of modern landmarks. He began with the restoration of the interior. Based on research of the Yale archives, including photos of the Flight Center design process itself, the intention was to capture the atmosphere of the time and continue that era. He said that some of the furniture was still available and would be used in the restoration. The concept is to recreate the lifestyle and the flight experience – the spaces remain and would be redone very much as before. Samples of the materials Saarinen used are available and would be the inspiration for the restoration. Even the typography used for the terminal graphics, invented for TWA, would be reused.

The restoration would put back elements from earlier times. The upper lobby would have a newsstand and coffee bar – and additional detail would be added. The historic views of the Flight Center would be preserved, both between the pedestrian bridges and the front of the building. He noted that some additional area would be needed in accordance with the business plan for a hotel. New wings were proposed – they were placed as far away as possible and have minimum contact with the Flight Center. J. Steven noted that through the RFP process, a minimum of 275 – 300 rooms were needed for a hotel project to work financially.

He continued with the description of the plans for the lower lobby, wings and the Kevin Roche additions. The functions for these areas included ticketing kiosks (as an airline function), hotel check-in, museum and conference center. The Constellation Lounge would be redone and some of the original back of house areas would be repurposed. The new buildings were placed on either side of the pedestrian bridges. Access from the Flight Center would be down to a connector partially below grade. Garden areas would fill-in between the Flight Center and wings. Two airplanes are proposed for the restored tarmac area – a 707 and a Constellation, which was

the first type of plane used at the TWA terminal – the idea is to connect the airplanes to the architecture.

The lower level would contain the mechanical rooms; the baggage spaces would be repurposed. The second level would have the Lisbon Lounge and the Paris Café which would remain and be renewed – little change was anticipated. The Ambassador Lounge would be restored. The developer is proposing a green roof on the wings – the area of the original Saarinen designed building would be mapped. Access to the east and west decks would be through new doors toward the north – with the design modeled after the most recent restoration work – they would not be seen in the historic views being preserved.

The hotel wings (new construction) were described using cross sections and showing their relationship to the Flight Center and other airport buildings to illustrate their size. The impression of the Flight Center is much larger than it actually is. The wings were pushed down as low as possible – the water table and site utilities constrained the lower floor elevation. J. Steven recalled that the Terminal 5 project installed drainage utilities on this site in response to design constraints for that portion of the project.

A detail cross section of the wings was described showing the first floor room in relation to the existing T5 arrivals road, and intermediate wall with plantings. The five floors above were also described, noting that the curtain wall design was kept simple to respect the Saarinen design. Triple glazed windows may be required for acoustic needs at the rooms and the gaskets in the upper curtain wall of the Flight Center would be replaced. The placement of the wings carefully considered their proximity to the pedestrian bridges (flight tubes). They are designed not to compete and have sculpted ends. The concavity of the wings faces the Flight Center; new fenestration is proposed for the Kevin Roche additions and landscaping between the wings and Flight Center.

Views of the project were shown, including the perspectives of how it would be perceived on arrival at JetBlue Terminal 5 – both on the upper departure roadway and lower arrival roadway. The reflective glass would make the wings lighter. Views of the Flight Center from the center of the roadway, between the flight tubes were also shown. These views would illustrate the relationship of the airplanes to the Flight Center.

Also presented was an interior view analysis based on the Ezra Stoller photographs. They used the original Stoller views looking out of the terminal from several locations and added the new wings to assess the effect. The views included looking east and west toward Terminal 5 from the upper lobby, looking west and north from the Lisbon Lounge and looking north from the Ambassador club. They also showed the front of the building both with and without the wings.

T. Schlieman introduced Ray Pepe from Building Conservation Associates (BCA), the Historic Preservation Consultant for the developer team. R. Pepe described BCA experience in historic preservation, noting that they recently did work on modernism including the GM Tech Center in Michigan. He described his personal experience years ago at the Flight Center as a travel in time – to experience the future - and indicated that this project would re-people the Flight Center. He talked about the "Saarinen experience" of passing through the Flight Center. He said the project would comply with the Secretary of the Interior Standards as implemented by the State Historic Preservation Office, however, it may or may not pursue the historic tax credit,. He noted that the

Standards themselves were not specific in all regards, but were subject to consultation for ultimate agreement.

Emphasizing that the project complied with the Standards, it was important to recognize and acknowledge the beauty of the Flight Center – nothing would be sacrificed – it would be restored. In preserving the interior, the developer would reintroduce previous functionality such as restaurants. It would retain a flight function with the information boards, ticketing kiosks and connection to air travel – occupants would still see the passenger bridges and airplanes.

The circulation within the building would be maintained, including entries, stairs, etc. The additions would reflect contemporary standards, yet be removed as far as possible from the Flight Center to minimize its presence. The additions were pushed down below grade, the curved shape genuflects to the landmark and is intended to be complimentary. Maximum separation is a fantastic approach.

T. Schlieman added that they tried to keep the building as thin as possible. They turned the orientation of the rooms to minimize the section. It appears to approximate a ¾ scale of the Flight Center. R. Pepe stated that consideration was given to the height – it is lower than the Flight Center. He said it still needs to be a great work of architecture and needed to acknowledge a connection and relationship to the Flight Center. The concept presented would need additional detail and he expressed confidence that it would get better.

The historic views have been preserved. The illustrated views included looking at the front, and looking from the lounge area out – with the connection to air travel. The curtain wall on the wings was not intended to replicate the Flight Center, but to get the conversation going. He noted that Saarinen pioneered gasketing for curtain wall systems working with GM automotive engineers and evolving to suit buildings. He noted that some curtain wall had already been restored – the design not compromised – and future work would be similar. Hal Hayes (H3 Architecture) commented on the gasketing and the stiffener. T. Schlieman said they intended to keep the single pane glass. R. Pepe said that the restored front entrance doors provided a good model for the new penetrations on the second level.

The RFP required the proposers to address maintenance of the Flight Center as a landmark. BCA developed software specifically for historic buildings – it is schedule based. The software can incorporate photos and specifications for individual items. It can also generate and issue Work Orders and track costs. BCA will license the application to the developer. J. Steven mentioned that sustainability was a PA goal. The commissioning and ongoing O&M for the building was a component of the RFP. He noted that the PA looked closely at the developer teams regarding their attention to detail and dedication exhibited in their submissions and presentations.

The floor was opened to questions and comments. Frank Sanchis, representing Municipal Art Society (MAS), asked about the participants in the RFP process. J. Steven advised that SHPO, NY Landmarks Conservancy and JetBlue signed the Non-Disclosure Agreement; no other Consulting Parties signed. F. Sanchis advised that he wanted to review his thoughts with the MAS before commenting. J. Steven acknowledged his position and noted that the plan shown represented the most recent iteration of the concept that evolved based on feedback from the NDA participants of the RAC and the PA's historic consultant. B. Cumming added that the developer has expressed a commitment to restoring the atmosphere of the Flight Center through a quality restoration.

The brand for the hotel and the content planned for a young, more sophisticated clientele in an affordable hotel was described by the developer. The project will bring attention to detail, restoring the interior to a mid-century look with furniture and fixtures. The guest experience is important – it will be a privilege to restore the Robert Lowey interior and bring a depth to the experience. Back of house spaces will be adapted as needed. The new rooms will be in a curved structure that looks at the historic building and will recreate the view of the tarmac – it will make the era come alive. The developers hotels apply best practices based on worldwide studies of amenities and guest experience.

They plan to make the Flight Center an entryway to the airport - a unique feeling and experience to attract people and restore it as a portal to JFK. The developer will look to improve the passenger experience as well, and will explore options to improve the check-in and security clearance process. Following the original intent of Saarinen's TWA Flight Center fits the hotel's business model and the brand will help make it successful.

J. Steven said that the input from Ennead and BCA showed a respect for the property – shared by the PA – and their plans would not make changes to the landmark, but adapt it and make it successful.

B. Cumming offered that she preferred the additions to be smaller, but understands the need for the construction. The hyphenated composition, set away from the Flight Center was good. The sightlines are respected. Although it is difficult to accept the additions, she can't come up with anything better. A-B said care had been taken with the design of the wings – height and width. They rearranged the rooms and the current plan is dramatically more elegant. As a comparison the Standard High Line fits the surrounding environment well. B. Cumming noted that the current design resulted from several iterations – it is now much lighter, thinner and agreed, more elegant. R. Pepe said that the use of two additions vs a single larger one would cost more – both to construct and operate, but it resulted in a better product – more light, air, space and better views.

Rich Smyth (JetBlue) said that the JetBlue reaction was similar to that of B. Cumming, although he would prefer that it be closer to the Flight Center to allow more room adjacent to the JetBlue Arrivals road. He liked the sleekness of the design and understood the need to compromise. He added that the design does work and looks forward to the opening and synergy expected from the project. He liked the Constellation airplane. He concluded by saying that the reuse was the best for the overall terminal development program.

H. Hayes said that from his perspective, it was a good plan – thoughtful, appropriate and reasonable – there was a lot to like. He offered a few thoughts/questions: where would the JetBlue check-in kiosks be located; the passenger experience would be different – originally not a hotel; he worked on the curtain wall of the GM building and would like to discuss further; Beyer Blinder Belle looked at glazing, but he understood the need for multiple panes, especially for the guest rooms; and how would the guests get into the airplanes.

The developer responded that the hotel would be two operations – much more than a lobby – and loved the idea that it could be an entrance to Terminal 5. They would like it to be an entrance to the entire airport with check-in for all airlines – and potentially provide expedited access to secure areas and check bags for all airlines. Amenities would include a conference center, retail,

food and beverage and events – more traffic would be better. They expected it would become a destination – both during the day and at night. The airplanes could be refitted (interiors) and used for private parties – handicap access would be by lift; others would use staircases. The large windows in the Flight Center would allow the guests to participate in the travel experience.

T. Schlieman said that Ennead would look at the mullions – and discussed the new additions – profile and vertical elements to accent the curve. He said window gaskets would be replaced on the upper level and suggested that additional reinforcement might not be needed.

F. Sanchis returned to the overall plan and how the pieces come together. He felt it was an opportunity for all parties to come together and move forward to preserve the landmark building. He said the PA effort to preserve the Flight Center was laudable. He recapped the journey of the Flight Center efforts from the earliest plans to the revised plans to minimize the visual impact of the new construction and the PA decision to take on the restoration itself. He would like to work as a group to make it happen – and likes the idea to use it for more than JetBlue alone. He asked to discuss the expansion of Terminal 5 with respect to the road plan as it relates to the overall site plan. He expressed a desire for all to participate in the discussion and would present his thoughts to the president of the MAS.

J. Steven summed up the presentation by noting that this discussion of the development plans could not have happed without a developer and conceptual plan. He added that although discussions were in progress, no firm commitment had been made.

Marie Jenet (FAA) mentioned that the FAA would like to review the process as it relates to the new construction and modifications to the Airport Layout Plan. J. Steven noted that the T5/6 Mater Plan contemplated the development of the entire Terminal 5/6 site. M. Jenet will look at the Memorandum Of Agreement regarding adaptive reuse and Part 106 compliance to see if any additional action might be required. The FAA, PA and SHPO will consult on next steps.

The presentation portion of the meeting was adjourned.

Item 4: Flight Center Visit

Attendees were invited to tour the TWA Flight Center, to observe the work performed and enjoy the views.

Next Meeting – TBD

The above represents our understanding of the topics discussed and decisions reached. Any comments or corrections regarding the above items should be sent to Jim Steven with a copy to Beth Cumming in writing within 10 business days of receipt.

JFK FLIGHT CENTER

Memorandum of Agreement – August 20, 2004
Status Update of MOA Stipulations – October 5, 2012

Status update for each of the stipulations of the Memorandum Of Agreement to reflect progress to date, items completed or no longer needed and future items.

Planning

1. The Port Authority (PA) sought, through a Request for Proposal (RFP) process in December 2006, to execute an agreement with an adaptive reuse developer providing for the design, construction, restoration, rehabilitation operation and maintenance of the TWA Main Terminal Building and Connecting Flight Tubes. The PA RFP required that any adaptive reuse developer selected as a result of the RFP, must agree to adhere to the terms of this Memorandum of Agreement (MOA). The PA gave the members of the Redevelopment Advisory Committee (RAC) an opportunity to comment on the design and preservation portions of the Draft RFP. Only one response was tendered to the RFP and after review, the PA determined that it was non-responsive and cancelled the RFP.
The PA undertook a revised approach for more specific adaptive reuse as a hotel in 2010. The PA gave the members of the RAC, subject to a confidentiality agreement, the opportunity to comment on the design and preservation portions of the Draft RFQ/RFP. The RFQ was issued in February 2011. Following an evaluation of submissions, an RFP was issued to a number of qualified firms in May 2011. The PA received proposals in July 2011 and the proposals were evaluated. The proposals were provided to the participating RAC members (those who signed the Non-Disclosure Agreement - NDA) for comments and those comments were provided to the Selection Committee for their consideration during the evaluation process. Questions relating to the concepts and historic preservation aspects of the project for each developer were submitted to the developers and they responded. A meeting including members of the Selection Committee, the NDA RAC members and developers was held in September 2011 to further discuss the questions and responses. Subsequently, the Evaluation Committee identified a preferred developer for further discussions and negotiations. ***Status: Ongoing – The PA and developer have entered into negotiations regarding the lease and adaptive reuse. The developer is preparing revised conceptual plans to reflect the feedback from the NDA RAC members and the PA. The developer will present their plans in the fall of 2012. SHPO, RAC and PA concurrence on conceptual plans are a pre-requisite for the lease agreement for adaptive reuse. SHPO approvals are required on more specific plans for construction as details are developed in accordance with the Secretary of the Interior Standards for Treatment of Historic Properties . Presentation of the conceptual plans to the RAC will also be scheduled in the fall of 2012.***

2. In accordance with the Port Authority's October 10, 2003 report to the FAA on the consultation process, the adaptive reuse will accommodate the provision of, at minimum, two (2) electronic ticketing kiosks in an appropriate setting within the TWA Main Terminal for use by airline passengers with carry-on luggage only. The Port Authority will require that any airline responsible for the ticketing kiosks will install, operate and maintain the kiosks and monitor their usage. ***Status: Ongoing – jetBlue Airways has installed two electronic ticketing kiosks, including power and communication lines to a location in the lower lobby of the TWA Main Terminal. PA will keep SHPO and RAC advised of progress regarding activation.***

3. A Redevelopment Advisory Committee (RAC) was formed and functioned in accordance with the Guidelines in Attachment D to the MOA. ***Status: Formation of the Redevelopment Advisory Committee (RAC) completed – RAC will continue to meet throughout the adaptive reuse process and until all stipulations under the MOA have been concluded.***

4. In order to minimize or mitigate any adverse effect of the new terminal on the historic building, the siting and design of the new terminal was discussed at numerous RAC meetings. The discussions resulted in adjustments to the siting and design to minimize any adverse effect and provide an appropriate setting for the TWA Terminal Building. The new terminal provides improved public access to the TWA Main Terminal through the connecting flight tubes and is separated from the TWA Main Terminal by an outdoor plaza area and arrivals roadway. Public access to the TWA Main Terminal is provided through an enclosed connector from the light rail system (JFK AirTrain). The connector was constructed to minimize the physical and visual impacts to the TWA Main Terminal. The plans for the new terminal and connector were provided to the SHPO and the RAC for review. The roadway system allows access to either the TWA Main Terminal frontage or the arrivals/departures roadway for the new terminal, as required by the MOA. ***Status: Siting and design of Terminal 5 has been completed in consultation with the RAC. jetBlue is planning for expansion in accordance with the master plan for the site.***


5. The final design plans for the restoration and rehabilitation of the TWA Main Terminal and the East Tube under PA contract, and plans for alteration of the West Tube, under JetBlue contract, were submitted by the Port Authority to the SHPO for comment as to whether those plans conform to the conditions set forth in Stipulation 12 governing the standards for performance of the restoration and rehabilitation work. The SHPO and the Port Authority gave the consulting parties and the RAC an opportunity to provide comment on those plans. All comments were considered by the Port Authority and the SHPO and following consultation, the Port Authority approved the TWA Terminal and Connecting Flight Tubes design plans. ***Status: Ongoing – The design plans for the East and West tubes and large portions of the Main Terminal were reviewed by the RAC and approved by SHPO and work on the East and West Tubes has been completed. A large portion of historic areas of the terminal including upper and lower lobby areas, façade, frontage and interim outdoor plaza has been substantially completed. PA will keep SHPO and RAC advised of progress of associated work, expected to be completed late in 2012, and for work on the remaining historic areas to be performed by the adaptive reuse developer.***

6. As part of its public education effort, the Port Authority commenced development of an interpretive display illustrating the history and significance of the TWA Terminal site and its relationship to the overall development of JFK International Airport. The exhibit will be placed in a prominent location in the TWA Main Terminal Building or in another appropriate setting proximal to that building. The display will be accessible to the public during normal operating hours after rehabilitation/restoration is complete. ***Status: Ongoing – The adaptive reuse developer has indicated they will satisfy this requirement in their development plans. PA will collect additional information regarding display, location and content from the developer and keep SHPO and RAC advised.***

7. The PA had Beyer Blinder Belle, a consultant meeting the professional qualifications established by the U.S. Department of Interior, prepare a National Register of Historic Places Nomination for the TWA Main Terminal Building, the Connector Tubes and Flight Wings prior to the demolition of the Fight Wings. The PA supported the listing on the Register as documented in the PA letter to SHPO dated February 25, 2005. The nomination was accepted and SHPO notified the PA that the TWA Flight Center was listed on the National Register of Historic Places in a letter dated October 31, 2005. ***Status: Completed. The nomination was made, the PA supported and the TWA Flight Center was listed on the National Register of Historic Places as confirmed in a letter dated October 31, 2005.***

8. The PA had a consultant, Beyer Blinder Belle, record the TWA Main Terminal, Flight Wing 2 and the Connecting Flight Tubes to Level 1 Historic Architectural Building Survey/Historic American Engineering Record (HABS/HAER) standards of the National Park Service. Copies of the recordation were sent to the National Park Service – HABS/HAER Coordinator, the New York State Archives, the PA and SHPO. ***Status: Completed – HABS/HAER was performed and recorded.***

9. The PA October 10, 2003 report to the FAA stated that the East Tube may require modifications to the columns to allow roadways to pass underneath. The design and construction of the roadways was accommodated without any changes to the columns. ***Status: Completed – Design and construction in the area of the East Tube has been completed.***

10. The Flight Wings could not be removed until the development plan for the new terminal was in place and a lease agreement was reached between the PA and JetBlue Airways. The lease was executed on November 22, 2005. ***Status: Completed – A lease agreement between the PA and JetBlue was executed on November 22, 2005; removal work followed.***

Interim Maintenance

11. The PA committed resources so that the TWA Main Terminal Building, including portions not eligible for listing as historic landmarks, and the Connecting Flight Tubes were properly maintained and cared for. Necessary repairs/maintenance identified through inspections have been performed. The SHPO has been given several opportunities to inspect the building and has done so. ***Status: Ongoing – PA will make inspections of and perform repairs/maintenance on the TWA Main Terminal and Connecting Flight Tubes as needed until these responsibilities are delegated to the adaptive reuse developer. The SHPO may inspect the facilities at any time.***

Restoration & Rehabilitation

12. The PA, through consultation with the SHPO, is restoring and rehabilitating large portions of the TWA Main Terminal Building and East Tube in accordance with the Secretary of Interior Standards for the Treatment of Historic Properties ("Secretary's Standards"). The TWA Main Terminal and the East Tube were, as a whole, treated in accordance with the Standards for Treatment of Historic properties – Rehabilitation. The PA will assure that the remaining portions of the historic spaces will be restored and rehabilitated by the adaptive reuse developer. As per Stipulation 9, structural modifications to the columns of the East Tube were not required. ***Status: Ongoing – The lower and upper main lobby spaces, the interior of the East Flight Tube, existing façade, including most landside entrances and front window wall and skylights, have been restored and rehabilitated under PA contracts. The Ambassador Club on the north mezzanine in the Main Terminal interior and all other historic areas not restored by the PA will be restored by the adaptive reuse developer in accordance with the Standards for Treatment of Historic Properties. The PA will keep SHPO and the RAC advised of progress.***

13. The entire visible exterior length of the existing East Tube was retained. A hierarchy of options for treatment of the West Tube was explored in consultation with the SHPO and the RAC. It was determined that a partial replacement of the West Tube was the best solution. The West Tube design was provided to the SHPO and the RAC for concurrence and construction work was performed under a JetBlue contract. Both the East and West Tubes provide public access between the TWA Terminal and the new terminal building. ***Status: Completed - The entire visible exterior length of the existing East Tube was retained.***

14. Flight Wing 1 and Flight Wing 2 were removed. Prior to removal, reuse of the gate lounge "trumpets" and other significant architecturally significant elements were investigated for inclusion as part of the new terminal concourse or gate hold area. After consultation with the SHPO and the RAC, the trumpets were not incorporated into the new terminal. ***Status: Completed - After consultation with the SHPO and the RAC, the trumpets were not incorporated into the new terminal.***

15. The restoration work included the removal of non-historic additions to the TWA Main Terminal Building and Connecting Flight Tubes, including the entrance vestibules, security booths, south baggage facility and the pedestrian canopy. The work on the interior lobby spaces includes the restoration of the marble tile flooring and all surfaces, the information desk, Solari flight information display surround, railings, stairs and ventilation enclosures. Other non-historic kiosks, signage and furnishings were removed. ***Status: Ongoing – Much restoration and rehabilitation work has been performed by PA; some work remains in progress; remaining work will be performed by adaptive reuse developer. The PA continues to consult with the SHPO on the restoration and rehabilitation work.***

16. After its completion, the rehabilitation/restoration work performed in accordance with Stipulation 12 will be approved by the SHPO. The SHPO will notify the consulting parties and the RAC that the SHPO's approval is being sought. The consulting parties will be given the opportunity to tour, as a group, the renovated and rehabilitated TWA Main Terminal Building and East Tube and the members of RAC will provide the Port Authority and the SHPO with their comments. The SHPO will approve the rehabilitation/restoration work when satisfied the work is properly completed. The Port Authority shall notify the signatories, the consulting parties and the RAC of SHPO approval. ***Status: Restoration and rehabilitation work for large portions of the TWA Terminal and East Tube are substantially complete. The consulting parties and members of the RAC have been given an opportunity to tour the TWA Terminal and East Tube and may visit at any time. The PA will seek SHPO approval for remaining work to be performed by the adaptive reuse developer.***

Ongoing Maintenance and Preservation

17. The PA will prepare maintenance and preservation guidelines for the treatment of the TWA Main Terminal and the East Tube. The guidelines will be submitted to SHPO for review and approval following completion of the restorations/rehabilitation work in Stipulations 12-16. ***Status: The adaptive reuse developer will prepare maintenance and preservation guidelines for all work***.

18. After the restoration and rehabilitation work is completed by the adaptive reuse developer, the PA will perform an inspection of the TWA Main Terminal Building and East Tube every five years in accordance with the maintenance and preservation guidelines in Stipulation 17 and submit a certified copy of the report to the SHPO for approval. A copy of the report approved by the SHPO will be provided to the signatories to the MOA. ***Status: Guidelines will be prepared by the developer for review as the restoration/rehabilitation work is performed. Formal approval will follow completion of the restoration rehabilitation work. The 5 year inspection requirement will be included in the agreement between the PA and the adaptive reuse developer***.

Termination of Memorandum Of Agreement

19. This agreement shall expire after the co-Chairs of RAC notify all members of the RAC and FAA that the consultation process for RAC has been completed, and after any objections raised pursuant to the Dispute Resolution process in Stipulation 21 have been considered in accordance with that Stipulation. The FAA shall notify all signatories when this MOA expires. ***Status: Future – The consultation process will continue throughout the adaptive reuse developer work. FAA needs to notify all signatories.***

20. If any signatory determines the terms of the MOA cannot or are not being carried out, then this signatory shall give written notice and the MOA may be amended, with provisions if not amended. If the Port Authority has not executed an agreement with an adaptive reuse developer for the rehabilitation/restoration work, the signatories shall consult among themselves to amend this agreement. ***Status: No signatory has given notice that the terms of the MOA are not being carried out. No action***.

21. If any member of the public or interested party, including the signatories to the MOA object within 30 days of approval of the restoration/rehabilitation work or other action with regard to the restoration/rehabilitation of the TWA Terminal and East Tube, the PA will consult with the objecting party to resolve the objection. ***Status: Future - The restoration/rehabilitation work is not fully complete. No action***.

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MEMORANDUM

Meeting Minutes *RAC Meeting #30*

Meeting Date: March 5, 2013
Subject: JFK T5/6 Redevelopment Advisory Committee Meeting #30
Location: 225 Park Ave South – Room 930
Attendees: See attached sign-in sheet

Introduction

The thirtieth meeting of the Redevelopment Advisory Committee (RAC) to discuss the progress of the Terminal 5/6 Redevelopment Project at John F. Kennedy International Airport was held on March 5, 2013 at Port Authority Offices at 225 Park Avenue South – Room 930, and chaired by the Port Authority of New York and New Jersey (PA).

Discussion

Jim Steven (PA) opened the meeting and provided a brief overview of the project including the Memorandum Of Agreement, Request for Proposals (RFP) issued by the Authority and receipt of proposals for adaptive reuse of the Flight Center as a hotel in response to the PA's RFP for the new participants. He referenced the Non-Disclosure Agreement signed by several members of the RAC and noted the presentation to the RAC at the December 14, 2012 meeting of the proposed Hotel development. He asked if there were any comments on the RAC #29 meeting minutes. None were offered.

Item 1: JFK Flight Center RFP (Hotel)

Jim Steven expanded on the history of the project, giving additional background on the MOA and JetBlue Terminal 5 development project. He noted that the Authority has invested $20 million in the restoration of significant areas for the building and elaborated on the RFP for adaptive reuse as a hotel, indicating that the proposals received had similar concepts. Discussions with a developer are in progress and some "tweaking" of the design may still be needed. Business terms for the Lease agreement are still to be worked out.

J. Steven summarized the obligations of the MOA, noting that many of the stipulations had been completed. He suggested that although the RAC would officially come to an end once the stipulations had been met, an informal meeting / gathering of former RAC signatories and consulting parties could be convened periodically to observe the developer's custodianship of the historical maintenance requirements. F. Sanchis (MAS) stated that he had not signed the NDA

and felt free to speak on the concept. N. Rappaport (DOCOMOMO) expressed that she was in a similar position. J. Steven reminded the participants that the information was not to be shared in public at this time.

F,. Sanchis asked whether the Landmarks Preservation Commission (LPC) needed to weigh in on the design of this project. B. Cumming advised that NY City owned the property and believed it was not necessary to go to the LPC. F. Sanchis made reference to an earlier concept for development of the site, suggesting that LPC was briefed on that plan. J. Steven said he would check internally on the need to go to the LPC.

F. Sanchis reminded the attendees of several initial points made earlier in the development process and noted that the working sessions with the Authority and the RAC had successfully reduced the impact of the development on the Flight Center. He noted that the connectivity to integrate the JetBlue Terminal into the site, including the introduction of ticketing kiosks and the opportunity for some portion of 1+ million passengers to experience the building was a great benefit.

F. Sanchis advised that he had discussed the concept with the MAS committee and offered feedback. The adaptive reuse of the headhouse interior (Flight Center) as a hotel was a great idea. The proposal by a high end developer was good and the additions for hotel rooms has merit. The restoration of the remaining areas for a complete facility was a great idea. J. Steven added that the developer expressed passion for the facility and I. Gonzales added that they intended to restore and recreate the interiors.
F. Sanchis provided feedback received from MAS: he complimented the high quality of the new hotel addition design work, noting the use of a top architecture firm. He added that the approach was good, especially looking to Saarinen's other designs. The hotelier's vision for connectivity and use by the entire airport, as well as Terminal 5 and parking, illustrated good thinking and was viewed positively by MAS.

Some additional MAS thoughts for consideration: the height of the hotel room buildings are a concern – explore reducing height; the right side building (looking at the front) impedes the view of the tarmac; the additions to the original (low) wings are not protected, they could be removed; symmetry of the buildings is not necessary, given that Terminal 5 will be expanded to the west in the future; removing a portion of the later addition to the existing (low) wing and lengthening the new hotel room building could reduce the height; connectivity could be improved with high speed connector to Terminal 5 with the addition of moving walkways in the connectors and escalators at Terminal 5; construction of a covered sidewalk at grade and clear directional signage from parking and AirTrain to the Flight Center.

J. Steven acknowledged the input and said that the developer planned to use the wing additions for back of house functions. The room count was needed for a financially successful operation. He noted that several other RAC members had concerns regarding the height of the new structures and modifications had been made to minimize their height and massing.

Following up on MAS thoughts, N. Rappaport asked whether one of the annex buildings could be higher than the other. J. Steven noted that renderings prepared by the developer showed the views from the Flight Center with the new hotel room buildings in place. I. Gonzales added that tarmac-like views would be recreated with planes visible from the Flight Center. J. Steven said that he would share these ideas with the developer.

F. Sanchis recalled that H. Hayes (H3Architecture) had proposed some concepts early in the review process that included building below ground in the courtyard area for additional program space with views up to the Flight Center. R. Smyth stated that he recalled PA Engineering looked at it and was determined to be too costly.

Further discussion on the suggestions to modify the hotel room buildings followed. F. Sanchis suggested the west hotel room building could be extended and encroach on the low addition portion of the Flight Center wing. A lower, longer building could retain the key count. B. Cumming expressed some reservation about removing any portion of the building, which could affect the eligibility for tax credits by the National Park Service. She noted that the addition has gained importance over time. B. Cumming also was not in favor of abandoning symmetry.

F. Sanchis noted that the material selection reflected other Saarinen work and was a good premise for the design. He expressed an interest in wanting to see the plans work.

J. Steven said that the authority would discuss the ideas with the developer, especially regarding the massing to explore the potential to make further changes.

N. Rappaport said she would like to present the conceptual plan to DOCOMOMO on April 3. There was some discussion regarding whether the architect could make the presentation, with the permission of the developer. As a follow up, N Rappaport made a presentation to DOCOMOMO. Attached to these minutes please find N. Rappaport's e-mail summary of the DOCOMOMO's observations.

R. Smyth expressed concern regarding parking, noting that there were times when the Yellow garage was full. He said there was potential to expand the garage above the toll plaza area. D. Free (PA) noted that the times when the garage was full were rare, e.g. President's Day. R. Smyth advised that with the addition of their business partners Aer Lingus and Hawaiian, it would be better to plan for additional demand. J. Steven said that there was ample parking in the CTA for the foreseeable future, which would not warrant the expansion of the Yellow garage. Connectivity via at grade vehicle connector or AirTrain was available. R. Smyth added that the addition of all JetBlue international arrival in 2015 should be taken into account.

Discussion of business related issues included the lease term and relationship to Authority lease with NYC. J. Steven said that the ULURP process would be needed for the ATEIL because the proposed Flight Center lease term would continue beyond the present Authority lease with NY City.

N. Rappaport asked whether a phased opening was possible. I. Gonzales said it was under discussion. R. Smyth also requested exploring and early opening. J. Steven said that significant staffing and expense would be required if the Authority were to open it.

M. Jenet (FAA) provided guidance on the process required from a regulatory perspective. After the development footprint and massing is determined, the NEPA process would need to follow, showing the specific development proposed. She advised the project was not likely to qualify for a Categorical Exclusion, which is for passenger processing facilities. She added that with the

change to the site footprint and construction activity, an environmental Assessment (EA) is required.
The exploration of the alternatives suggested today need to be considered prior to the EA. The EA would be used to make changes to the Airport Layout Plan (ALP). If needed, parking changes/requirements could be part of the same submission. Additional information is needed to document the environmental impact. The EA will also look at other airport work and the cumulative effects on air quality, etc.
Following initial preparation of the EA, 30 days is required for FAA review, followed by a 30 day public comment period and a public hearing. Approximately 6 months should be allowed for the EA process.

J. Steven noted that a proposal would be developed, Category X – or EA – and the rationale.

M. Jenet also referenced Stipulation 20 (Termination of the Memorandum of Agreement) of the MOA regarding notices and whether any amendment would be required. The PA , FAA and SHPO will review the stipulation and confirm the approach to closing it out, however
J. Steven indicated he planned to continue with the RAC throughout the hotel development process.

Next Meeting – TBD (tentatively May 2013)

Meeting Organizer: Jim Steven
Date: May 12, 2015
Location: JFK Building 14 – Room 3E

RAC # 32 Notes and Follow Up:

MCR Development and their team spent about an hour presenting their design for the Flight Center Hotel to the RAC.

Significant take a ways:

- Eric Kuchar (NYSHPO) indicated that on the surface, it did not appear as though there were any "fatal flaws" with regard to the Secretary of the Interiors or NYS Historic Preservation office guidelines. In addition, that the "bat wings" were not included in the historic fabric of the building.
- With regard to RAC member regrets with regard to the scale of the adaptive re-use ("500 rooms", "conference center", "6 stories" vs. initial expectations of a "boutique hotel"), Eric Kuchar summed up feelings "it is hard for preservationists to say that this is the appropriate solution".
- Alex Herrera (NY Landmarks Conservancy) echoed those concerns stating that "we (the RAC) were going in the wrong direction" and that "perhaps the building should be shuttered for 5 years and try again" and that he believed he may have difficulty in getting his Board to fully support the program.
- Frank Sanchez (World Monuments) and Alex Herrera both commented on the significantly high costs associated with simply brining the building up to code and a base from which the adaptive re-development could continue … the $65M on top of the $20M invested by the PA was quite an eye opener.
- Marie Jenet (FAA) indicated that because the development will be materially effecting the landmark structure (removal of the "bat wings"), an EA vs. a CatX would be required. Nate Kimball reinforced that we would assist MCR-jetBlue in the development of the EA and that it should be relatively simple since the elements are already well defined.

With regard to the actual structure and architectural elements:

- The RAC was generally pleased with the program and its attention to preservation.
- The annex hotel structures come across as "monumental" (Hal Hayes, H3 Architecture) and too "mono tone" (Nina Rappaport, DOCOMOMO). More focus and thought should be given to "sculpting the massing of the exterior walls" (a nod to the façade step backs rendered in the last round of Andres Balasz The Standard, proposals)
- Nina Rappaport further stated that "it's not about what Saarinen did somewhere else (IBM, Yale, etc)is as what he did here, but was lost (reference to the "trumpets" and gate buildings)". Ennaed, the Standards architect had adapted their curtain wall design from the curtain wall on the trumpet)
- Frank Sanchez asked that MRC-jetBlue undertake a quick "massing study" that would better represent material selection and views (T5i + the future final T5 expansion should be rendered; more street views that better reflect vehicle and pedestrian approaches to the Flight Center)

- The collective RAC also asked that additional consideration be given to removing the 6th floor …. Even suggesting that the symmetry of the annex structures could be altered to allow the “north” hotel annex to be longer to accommodate the 6th floor rooms. It was also asked that they look at more partially below grade “garden rooms”.
- I asked for an expect to receive written comments from the members so that I can send them on to the developer.

Meeting Organizer: Jim Steven
Date: June 16, 2015
Location: Highline Hotel - 180 Tenth Ave

RAC # 32.1 Notes and Follow Up:

I opened the meeting with a brief recap of the previous RAC meeting # 32 that took place on May 12, 2015 and I also thanked everyone who provided me with recent letters and comments.

Based on letters and comments I received from RAC consulting parties, there appears to be a general consensus that although the developers proposal is very encouraging, the size of the hotel wings are a concern.

The developer demonstrated to the RAC consulting parties that the hotel wings are absolutely necessary to support the restoration and ongoing maintenance of the historical Flight Center.

The RAC consulting parties had also suggested that in addition to the $20M the Port Authority has already spent on restoring certain public areas, curtain wall and portions of the roof of the Flight Center, that they also pay another $65M (estimate) to complete the Flight Center restoration in-turn allowing for a smaller hotel. It was explained that the Port Authority is capital constrained and investing an addition $65M plus into the Flight Center is not possible. We have requested our financial team to show in a general way that the economics of a sustainable hotel business is driven by the number of hotel rooms and that even if the developer reduced the hotel by 84 rooms (i.e. two floors on each wing) the hotel would still not be financially viable.

Another suggestion made by the consulting parties was to relocate some of the hotel rooms to jetBlue's T5i and also reduce the size of the conference space to make room for more hotel rooms within the Flight Center itself. It was explained to the RAC that conference room space is a necessary amenity to the hotel especially being at the airport to accommodate business meetings, banquet events, weddings, etc. Moving hotel rooms off-site to T5i is not a realistic option from a hotel management and operations perspective.

I cannot overstate both the PA and Developers commitments to working with the RAC with regard to material selections and other tweaks to the current plan that would reduce the perception of the massing issues, but hotel rooms are the drivers to a sustainable development.

Steven, Jim

From: Kate Slevin [kslevin@mas.org]
Sent: Tuesday, July 14, 2015 4:50 PM
To: Steven, Jim
Cc: Margaret Newman; Sami Naim
Subject: TWA Flight Center
Attachments: TWA Flight Center letter to Port Authority.doc

Jim,

Please find the attached letter from the Municipal Art Society regarding the TWA Flight Center. Thanks for the opportunity to submit comments.

We hope you and MCR will come present to our Preservation Committee this fall so we ca have a more detailed comments on the proposal.

Thanks.

Kate

Kate Slevin
Vice President, Planning and Policy
Municipal Art Society of New York
@masnyc | MAS.org | 212.935.3960 x1286

The Municipal Art Society of New York
MAS NYC

James Steven, P.E.
Manager JFK Physical Plant and Redevelopment
Port Authority of NY and NJ
JFK

RE: TWA Hotel Redevelopment Proposal, John F. Kennedy International Airport

Dear Mr. Steven:

Thank you for the opportunity to submit comments on the TWA Flight Center Redevelopment Proposal. The Municipal Art Society (MAS) is a private, non-profit membership organization that advocates for intelligent urban planning, design, and preservation through education, dialogue and advocacy.

MAS has long admired the Flight Center, designed by Eero Saarinen and completed in 1962, as an architectural gem. We were a consulting party in the Section 106 Review and a member of the TWA Flight Center Redevelopment Advisory Committee.

When MAS first became involved with the project in 2000, plans materialized to take Saarinen's masterpiece out of airport service and surround it with a new terminal building. MAS opposed the plan at that time, and believed it would overwhelm the architectural treasure and doom it to an uncertain future without a maintenance plan. Working with H3 Architecture, MAS put forth viable alternatives that would have preserved the airport use and preserved the various historic elements of the site. In 2013, MAS and other consulting parties supported a proposal by Andre Balasz to construct a 300-room hotel, but the proposal was ultimately withdrawn by the developer.

At this point, given the long history of the TWA Flight Center and the importance of preserving and reusing the site, MAS supports advancing the MCR proposal into the ULURP process, to embark on a more public conversation about the future of the TWA Flight Center. We are encouraged by the initial renderings of this adaptive reuse project, the construction of a new museum and public observation deck, and connections to the JetBlue Terminal.

However, we still have outstanding questions about the size of the 500-room hotel, and hope the Port Authority and MCR will release more detailed numbers to further explain why it believes this size hotel is appropriate and necessary, and to clarify to the consulting parties why it believes the project cannot be financed through its own budget.

We understand that circumstances have changed since we became involved in 2000. 9/11 has increased airport security and intensified pressure on the Port Authority's budget, and infrastructure maintenance needs throughout the region have grown. We understand that the Port Authority's primary mission remains operating critical transportation in the New York and New Jersey region. Still, we need more information before we can unequivocally support this project. We hope this information will be released

THE MUNICIPAL ART SOCIETY OF NEW YORK
488 MADISON AVE
SUITE 1900
NEW YORK, NY 10022

T 212 935 3960

MAS.org

as the ULURP process proceeds. We also urge the PANYNJ and developer to continue working with the NYC Landmarks Preservation Commission to ensure they are supportive of the final proposal.

In conclusion, MAS is supportive of an adaptive reuse proposal which preserves and restores the existing structure of the TWA Flight Center. In order to fully support the proposed development project, it will be critical to have the underlying financial data for the project, especially at it relates to the 500-room hotel.

Sincerely,
Margaret Newman
Executive Director

RAC #32.1
PFNYC
July 2015

Steven, Jim

From: Merrill Pond [mpond@pfnyc.org]
Sent: Tuesday, June 30, 2015 12:48 PM
To: Steven, Jim
Subject: PFNYC Comments on TWA Flight Center
Attachments: TWA_06.30.15.pdf

Hi Jim,

Please see the attached letter of support for the MCR Development's proposed plan for the TWA Flight Center. A hard copy is in the mail as well. Please do let me know if you need anything else from the Partnership on this.

Kind regards,
Merrill

Merrill Pond
Senior Vice President, Research
PARTNERSHIP *for* New York City
One Battery Park Plaza | New York, NY 10004
212.493.7515 (Direct) | 917.538.8336 (Mobile)
www.pfnyc.org | mpond@pfnyc.org

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PARTNERSHIP
for New York City

June 30, 2015

James Steven, P.E.
Manager, JFK Physical Plant & Redevelopment
The Port Authority of New York and New Jersey
JFK Building 14, 3rd Floor
Jamaica, NY 11430

Re: Support for the Restoration, Adaptive Re-Use and Development Plan Submitted by MCR Development

Dear Mr. Steven,

The Partnership for New York City represents the city's largest private sector employers, investors and leading entrepreneurs. We work with government, labor and the non-profit sector to build the economy of New York.

The Partnership fully supports the Restoration, Adaptive Re-Use and Development plan for the TWA Flight Center submitted by the team led by MCR Development. Global cities are only as great as their basic infrastructure, and airport capacity and condition are among the most important infrastructure facilities. Our airports serve over 117 million passengers, with 42 million coming from overseas. This plan preserves the historic nature if an iconic terminal, creates a new destination within the airport, and provides critically needed hotel capacity within the airport.

The TWA Flight Center, designated by the National Registry of Historic Places, helped define the "jet age." This is memorialized in the MCR plan, which keeps the Flight Center Head House open to the public as a prominent visitor attraction. Preservation of the Flight Center required the development of a major hotel to both offset the significant costs associated with bringing the full site into viable re-use and serving traveler needs. Without an income-generating hotel and retail space, the Port Authority would have been forced to close the building permanently.

The proposal will not only enhance JFK as a destination but will result in 509 permanent jobs, 600 construction and restoration jobs and 700 jobs in related industries. These will largely be union jobs filled by New Yorkers from the city's five boroughs.

The Partnership for New York City, as a member of the RAC, fully supports the project proposal put forth by MCR Development. Not only does the project help bolster New York's position as a global gateway, it also promotes economic activity, is fiscally sound and is committed to preserving the original design elements of the terminal. MCR Development has proven its capacity to achieve these objectives with development of the High Line Hotel.

We look forward to working with the Port Authority, the FAA, the State Historic Preservation Office and the Advisory Council to permanently open the TWA Flight Center to the public.

Sincerely,

Kathryn S. Wylde
President & CEO

Steven, Jim

From:	Betsy Merritt [emerritt@savingplaces.org]
Sent:	Wednesday, July 08, 2015 12:30 PM
To:	Steven, Jim
Cc:	Charlene Vaughn; rnelson@achp.gov; ngabriel@achp.gov; mjenet@faa.gov; kandrus@faa.gov; beth.cumming@parks.ny.gov; eric.kuchar@parks.ny.gov; Alex Herrera; pegbreen@nylandmarks.org; kati.laakso@formin.fi; mnewman@mas.org; Alicia Leuba; seri.worden@gmail.com
Subject:	National Trust comments on TWA Terminal
Attachments:	National Trust comments to Port Authority re Hotel July 8 2015.pdf

Please see the attached comment letter from the National Trust for Historic Preservation regarding the proposed hotel development at the site of the TWA Flight Center at JFK International Airport.

Thank you for considering the National Trust's comments.

Sincerely,
Elizabeth Merritt

Elizabeth S. Merritt, Deputy General Counsel
National Trust for Historic Preservation
2600 Virginia Ave. NW, Suite 1100
Washington, DC 20037
(202) 588-6026 | (202) 297-4133 (mobile)

Note my new e-mail address:
emerritt@skanavingplaces.org

National Trust *for*
Historic Preservation
Save the past. Enrich the future.

July 8, 2015

To: James Steven
Manager JFK Physical Plant & Redevelopment
Port Authority of New York and New Jersey

via email: jsteven@panynj.gov

Re: The TWA Flight Center

The National Trust for Historic Preservation appreciates the opportunity to comment on the proposed redevelopment of Eero Saarinen's TWA Flight Center at John F. Kennedy Airport as part of a hotel and conference center. We have been involved with the Section 106 process as a formal "consulting party" since 2001.[1] During this time many compromises and concessions have been made regarding the future of this iconic building.

The current proposal by MCR Development in partnership with Jet Blue Airlines would include a $65 million restoration of the historic TWA Flight Center, in the context of a total project budget that would approach one billion dollars. Much of this estimated cost would be to finish basic work that in our view should be the responsibility of the Port Authority, and not a financial burden driving the increased size and scope of the hotel project. Other components of the proposed restoration package could potentially be deferred.

The National Trust is pleased that the proposal includes a plan to adaptively reuse the iconic TWA Flight Center, and to bring the public back to this Modern masterpiece. However, the National Trust has serious objections to the scale of the proposed hotel construction within the narrow area between the historic building and the Jet Blue terminal. An earlier proposal, which all parties supported, would have included a hotel with approximately 300 rooms. The new proposal, by contrast, is hugely disproportionate, and would dramatically increase the number of rooms to more than 500, and increase the height to six stories, without any corresponding increase in preservation or other benefits.

Although we could support the adaptive reuse of the Flight Center as part of a hotel complex to ensure its ongoing use, the current proposal is simply too massive and monolithic, and would completely overwhelm the historic TWA terminal. We would also

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[1] The National Trust for Historic Preservation is a private, non-profit organization chartered by Congress in 1949 to lead the private historic preservation movement in this country, to promote public participation in the preservation of our nation's heritage, and to further the historic preservation policy of the United States. The National Trust has been designated by Congress as a member of the Advisory Council on Historic Preservation, which is responsible for overseeing the implementation of Section 106 of the National Historic Preservation Act.

like to see more careful consideration of the connectivity between the historic TWA Flight Center and the new Jet Blue Terminal.

In addition to our objections to the disproportionate size of the proposed hotel building, we also have serious procedural concerns about the conduct of the Section 106 consultation process. In response to the parties' criticism and concerns about the size of the hotel, the Port Authority has essentially threatened the consulting parties, rather than engaging in consultation. The Section 106 regulations define "consultation" as "the process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the section 106 process." 36 C.F.R. § 800.16(f). Unfortunately, that is not the dynamic underway in this case. Furthermore, no effort has been made to seek alternatives or modifications to the project that would minimize the degree of harm to the historic TWA terminal, also in violation of the Section 106 regulations. *Id.* §§ 800.1(a), 800.6(a).

In sum, we continue to be concerned about the future of the historic TWA headhouse, and we would welcome the opportunity to further engage in dialogue and consultation regarding the existing proposal.

Sincerely,

Elizabeth S. Merritt

Elizabeth S. Merritt
Deputy General Counsel

cc: Charlene Vaughn, Najah Gabriel, and Reid Nelson, ACHP
Katherine Andrus, Federal Preservation Officer, FAA
Marie Jenet, FAA
Beth Cumming and Eric Kuchar, NY State Historic Preservation Office
Alex Herrera, N.Y. Landmarks Conservancy
Frank Sanchis, World Monuments Fund
Margaret Newman, Municipal Art Society
Kati Laakso, Finnish Consul General
Alicia Leuba and Seri Worden, National Trust for Historic Preservation

RAC #32.1
NY Landmarks Conservancy
July 2015

Steven, Jim

From: Alex Herrera [alexherrera@nylandmarks.org]
Sent: Wednesday, July 01, 2015 4:11 PM
To: Steven, Jim
Cc: Marie C. Jenet; Kuchar, Eric (PARKS) (Eric.Kuchar@parks.ny.gov); 'Beth.Cumming@parks.ny.gov'; Frank E. Sanchis (fsanchis@wmf.org); 'Seri Worden (seri.worden@gmail.com)'; kati.laakso@formin.fi; Margaret Newman (mnewman@mas.org); 'nina@ninarappaport.com'
Subject: RAC Comments, Former TWA Flight Center Redevelopment Proposal
Attachments: TWA RAC Jul 1 NYLC.pdf

Jim, Attached are the New York Landmarks Conservancy's findings on the latest TWA redevelopment proposal. Thank you for arranging the recent RAC meetings and for affording the Landmarks Conservancy the opportunity to comment.
Alex Herrera

Alex Herrera
Director of Technical Services
The New York Landmarks Conservancy
1 Whitehall Street, 21st Floor
New York, NY 10004
212-995-5260

THE NEW YORK
LANDMARKS
CONSERVANCY

July 1, 2015

James Steven, P.E.
Manager JFK Physical Plant & Redevelopment
Port Authority of NY & NJ
JFK International Airport

Re: TWA Redevelopment Proposal

Dear Mr. Steven:

Thank you for inviting the New York Landmarks Conservancy to view and comment on the latest proposal to adapt and reuse the former TWA Flight Center at JFK International Airport. The project calls for completing restoration and upgrades to the Saarinen terminal and the construction of two new hotel additions and a subterranean conference center in the area between the landmark and the Jet Blue terminal.

The Landmarks Conservancy has been involved in the review of major changes at this site for many years both as a consulting party in the Section 106 Review and then as a member of the Redevelopment Advisory Committee (RAC). The Conservancy has from the beginning, supported the adaptive reuse of the landmark because it was clear to us that without a great many damaging alterations, it was no longer suited for its original use. Furthermore we supported the earlier scheme to add hotel wings on the site that would connect with the terminal. That scheme involved the introduction of approximately 300 hotel rooms. The latest scheme we saw is very similar except that the hotel would contain approximately 500 rooms housed in taller additions.

The TWA Flight Center is not a large building. We believe that hotel additions of the size and height most recently proposed would overwhelm the landmark and loom over and around it. We hoped that the additions could be downsized somewhat to bring them more into conformance with the height and scale of the landmark but were informed that due to the cost of the outstanding restoration work on the landmark, which is to be borne by the developer, the extra rooms are necessary. It is important to note that the amount needed to finish the restoration of the landmark is a modest fraction of the overall cost of the project, which including the Jet Blue terminal, comes to about a billion dollars. The outstanding work to the terminal is estimated at about 65 million. About half of that amount, $33 million, includes coating removal, new window walls, asbestos abatement and fees. We believe that this work at least should be the responsibility of the Port Authority. It amounts to about 3.3% of the overall cost of the project.

The Conservancy wishes to see a project happen here and to see the terminal revitalized and reused. It is a shame that after so many years and so much effort, the Port Authority cannot find the relatively modest additional funds to finish the job and thereby reduce the number of rooms that the developer's math dictates. It was always our understanding throughout the review process, that the Port Authority would restore the building's envelope and landmark interiors.

One Whitehall Street, New York NY 10004
tel 212.995.5260 fax 212.995.5268 nylandmarks.org

The building would be brought to a state of excellent repair so as to not put the financial burden entirely on the RFP responder. We are disappointed that the Port Authority cannot complete the restoration of its famous landmark because if they did so, the proposed additions could shrink in height making the project far better.

We therefore believe that it is in the best interests of the landmark to wait until such time as the Port Authority can contribute further funds to finish the building restoration.

It should be noted that although not 100% restored, the building is in better condition today than it has been in decades. The restoration work done to date is first rate and in fact won our Lucy G. Moses Award for excellence. The exterior is freshly painted, the windows that were damaged have been replaced, and all the skylights have been replaced. We believe that the building is in no danger of significant deterioration should it become necessary to close it for a time in order to achieve a better proposal in the future

The Conservancy has supported the Port Authority and its consultants throughout the lengthy review process. We are disappointed that we cannot recommend that the project be approved as is.

In summation, the most recent proposal has many excellent aspects that the Conservancy could support, just as we supported the prior proposal. However we understand that math, not appropriateness, is driving the number of rooms, and therefore the size of the proposed additions. We believe that these additions are too large and will, when built, overwhelm and subsume the delicate former flight center. We strongly urge the Port Authority to at least share the cost of the outstanding restoration items with the developer with the hope of downsizing the physical size of the additions. We commend the developer, MCR Development LLC, for stepping up to the plate and committing the necessary funds to complete the restoration and upgrading of the landmark. We understand that this financial commitment means that more rooms need to be added to the hotel in order to make it viable as a business. Nevertheless, we cannot approve a scheme that we believe attempts to fit too much program in too small a site. We urge the Port Authority and MCR to find a way to make the additions less tall. Until that occurs, the New York Landmarks Conservancy cannot recommend approval of the proposal.

Sincerely,

Alex Herrera
Director of Technical Services

cc: consulting party colleagues

RAC #32.1
DOCOMOMO
July 2015

Steven, Jim

From: Nina Rappaport [rappaporthall@sprintmail.com]
Sent: Thursday, July 09, 2015 4:31 AM
To: Steven, Jim
Cc: Nina Rappaport
Subject: TWA Flight Center letter
Attachments: Docomomo NY Tri TWA letter.pdf

Dear Jim,

I am so sorry for our delay with our Docomomo NY/Tri-State letter concerning the new proposal for the TWA Flight Center. It is attached here.

Best Regards,
Nina

Documentation and Conservation of buildings,
sites and neighborhoods of the Modern Movement

docomomo_US
NEW YORK|TRI-STATE

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info@docomomo-nytri.org
www.docomomo-nytri.org

July 7, 2015

James Steven
Manager JFK Physical Plant
Port Authority of NY & NJ
JFK International Airport

Dear Mr. Steven,

DOCOMOMO New York/Tri-State, as a member of the Redevelopment Advisory Committee, is pleased that the Port Authority remains committed to seeing the TWA Flight Center project through redevelopment and that a developer who recognizes the significance and potential of this Modern architecture heritage site has submitted a proposal.

DOCOMOMO New York/Tri-State would like to commend MCR Development for being committed to the restoration of the TWA Flight Center and to a project that allows public access to the building. Overall we think the proposed design is appropriate and exciting. Yet after careful consideration our Executive Committee believes the proposal's significant shortcoming in terms of protecting and celebrating the Flight Center is the height of the two proposed hotel blocks combined with their proximity to the historic structure.

We urge the Port Authority to work with MCR Development to reduce the overall height of the hotel wings by one-story.

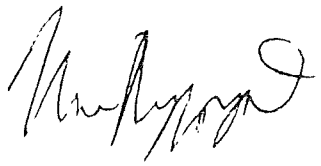
DOCOMOMO New York/Tri-State supported the previous proposal for a slightly lower 300-room hotel and anticipated similar sized new construction in the current proposal. It was our understanding from the initial RFP forward that the Port Authority would restore the Flight Center's envelope and the central landmark interior space and handle asbestos remediation. We are disappointed that after such excellent work on the restoration to date—having won public praise and professional awards—the Port Authority is prepared to short change this historic property by permitting the hotel structures to create a looming wall close behind and above the Saarinen structure.

We would like to underscore that DOCOMOMO NY/Tri-State's foremost concern is to see a successful TWA Flight Center redevelopment completed. We understand that this is a critical moment of the project; we do not want to see the building mothballed for another decade. In

continued

the interest of having the Flight Center revitalized and accessible to future generations we support the MCL Development proposal overall while advocating for a revision that would moderate the building height.

On behalf of the Executive Committee
Yours Sincerely,



Nina Rappaport
Vice President
DOCOMOMO New York/Tri-State

Steven, Jim

From: Laakso Kati [Kati.Laakso@formin.fi]
Sent: Wednesday, July 15, 2015 5:46 PM
To: Steven, Jim
Subject: RE: JFK Flight Center RAC #32.1 Follow Up

Dear Jim,

Thank you for your message. I believe we will not prepare a separate formal comment sheet but I do agree with several of the other RAC members, hoping the Port Authority would consider taking on the responsibility of the renovation of the TWA Headhouse which is a very valuable building in terms of architectural history and the legacy of Eero Saarinen. Our wish is that the Port Authority would value the building and take financial responsibilty that it will survive intact for future generations.

The developers can not take on the cost of a renovation of the Headhouse without making the hotel building unnecessarily large, nor do I think they should. Since the Headhouse is a valuable part of the JFK and Port Authority it should be under those organizations interest to make sure it will survive for future generations. I hope this clarifies our standpoint, sorry for being this late with it!

I wish you a lovely summer and really hope a solution can be found that will please all partners. It would be a huge shame if the terminal could not be used, and if the plans with the current developer would fall through. I sincerely believe that the current developer would be willing and able to honor the legacy of the work of Eero Saarinen if only they would be given the chance to do so.

Best,
Kati

Kind regards,
Kati Laakso
Cultural Attaché

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Fax +1.212.750.4418 / Email: kati.laakso@formin.fi
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From: Steven, Jim [mailto:jsteven@panynj.gov]
Sent: 15. heinäkuuta 2015 16:01
To: Laakso Kati
Subject: JFK Flight Center RAC #32.1 Follow Up

Good afternoon Kati .... I hope you are doing well. In the last RAC presentation that was held at the Highline Hotel, I had requested that the RAC members provide me with their formal comment on the MCR development proposal. I have received several, but since you have been an active participant recently, I was wondering what your position was ? I will tell you that so far the reactions have been mixed (very similar to the reactions we heard at the meeting).

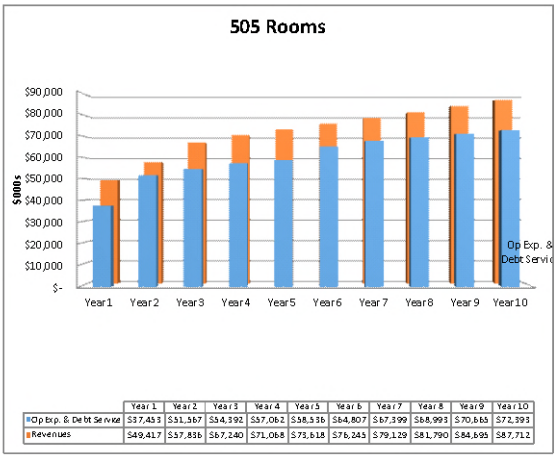
I will be consolidating all the responses and distributing them early next week. That will be followed up by a telecom wrap up and a more definitive position from the RAC voting membership.

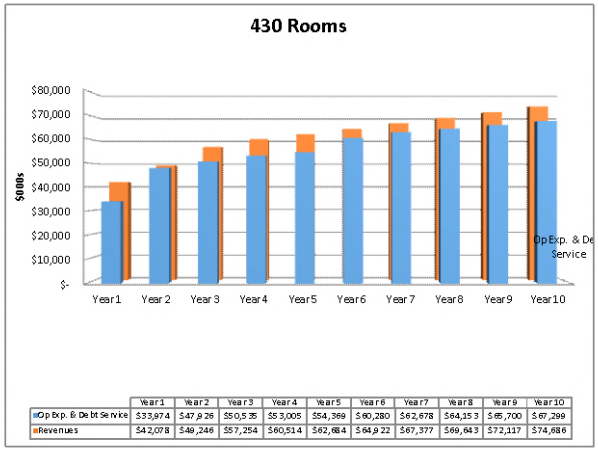
Hope to hear back from you !

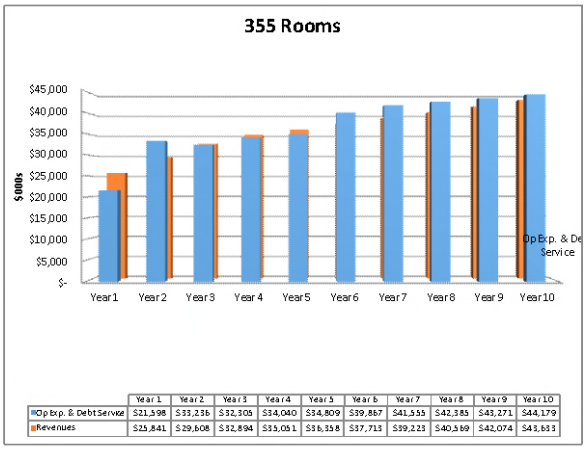
Cheers

Jim

Hotel Financial Performance vs. Number of Hotel Rooms

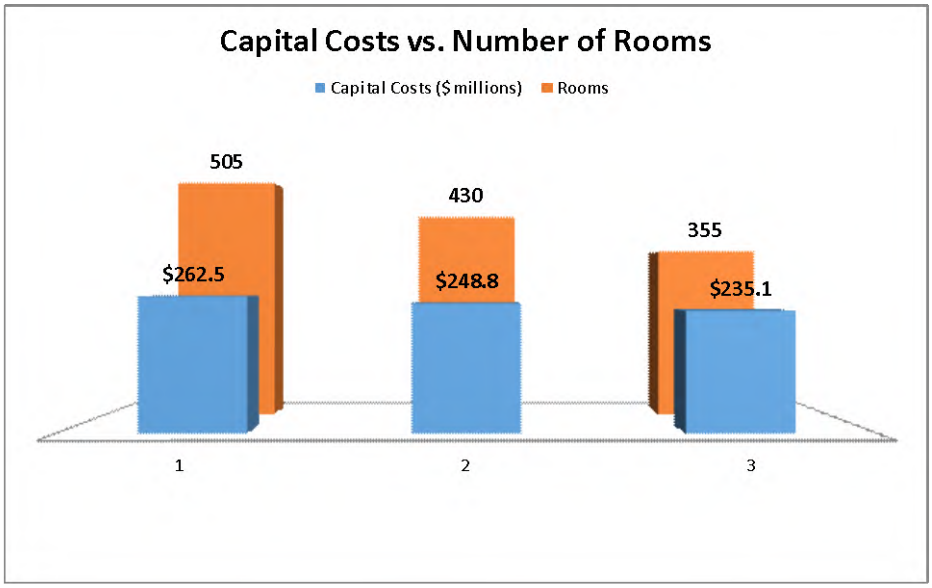






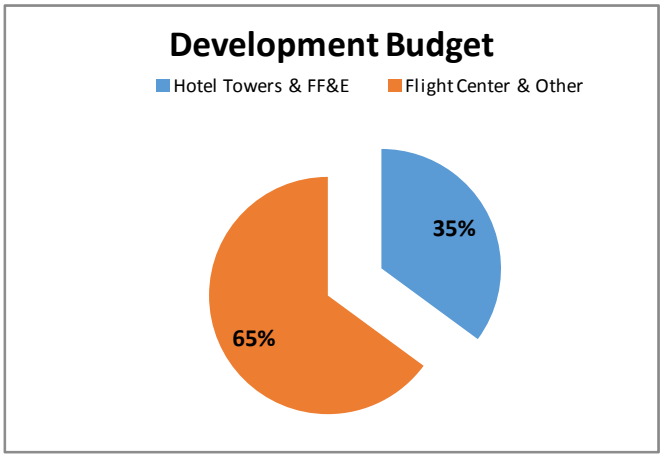
Looking at the first ten years of operations, operating costs and debt service (Principal and Interest) exceed revenues as the number of hotel rooms is decreased from 505 to 430 and then to 355. This result is driven by the large amount of investment and fixed costs associated with the Flight Center.

Hotel Investment vs. Number of Hotel Rooms

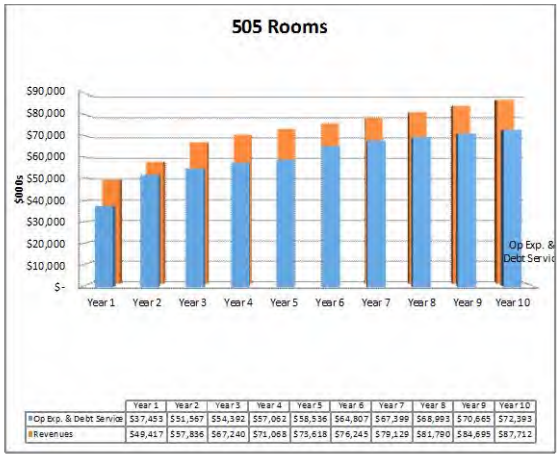


Room Reduction (505 to 355)	**-30%**
Capital Cost Reduction ($262.5 M to $235.1 M)	**-11%**

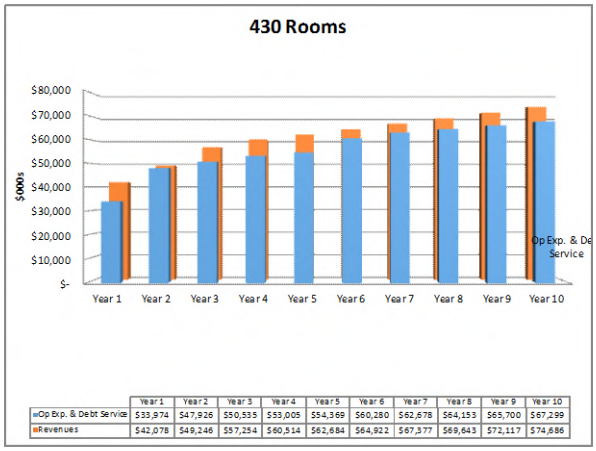
The cost of the hotel towers, rooms and FF&E is disproportionately small as compared to the cost of renovating and modernizing the Flight Center.



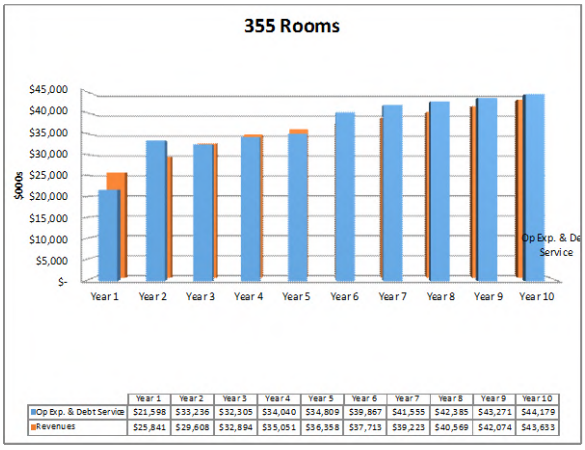
Hotel Financial Performance vs. Number of Hotel Rooms



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Op Exp. & Debt Service	$37,453	$51,567	$54,392	$57,052	$58,536	$64,807	$67,399	$68,993	$70,665	$72,393
Revenues	$49,417	$57,836	$67,240	$71,068	$75,618	$76,245	$79,129	$81,780	$84,695	$87,712



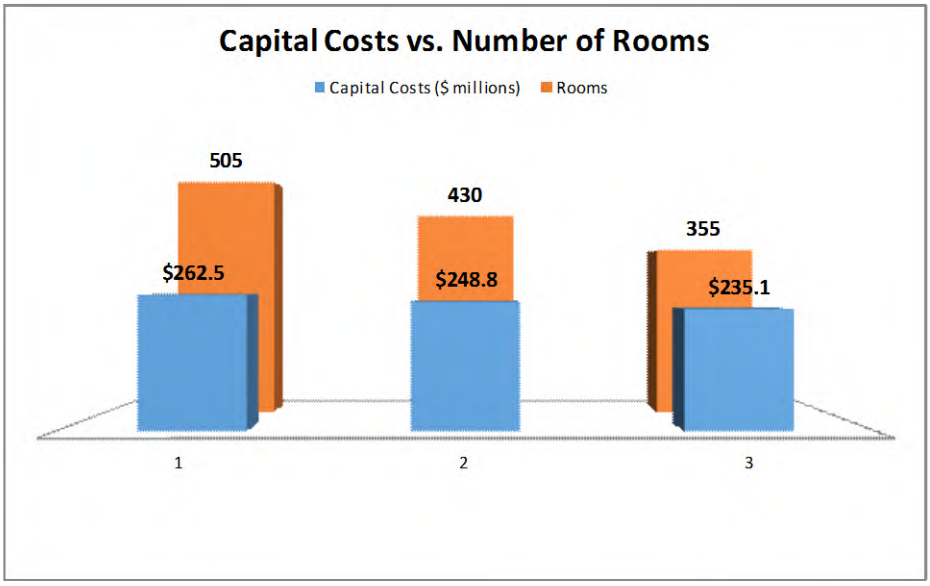
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Op Exp. & Debt Service	$33,974	$47,926	$50,535	$53,005	$54,369	$60,280	$62,678	$64,153	$65,700	$67,299
Revenues	$42,078	$49,246	$57,254	$60,514	$62,684	$64,922	$67,377	$69,643	$72,117	$74,686



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Op Exp. & Debt Service	$21,598	$33,236	$32,305	$34,040	$34,809	$39,867	$41,555	$42,385	$43,271	$44,179
Revenues	$25,841	$29,608	$32,894	$35,051	$36,358	$37,713	$39,223	$40,569	$42,074	$43,633

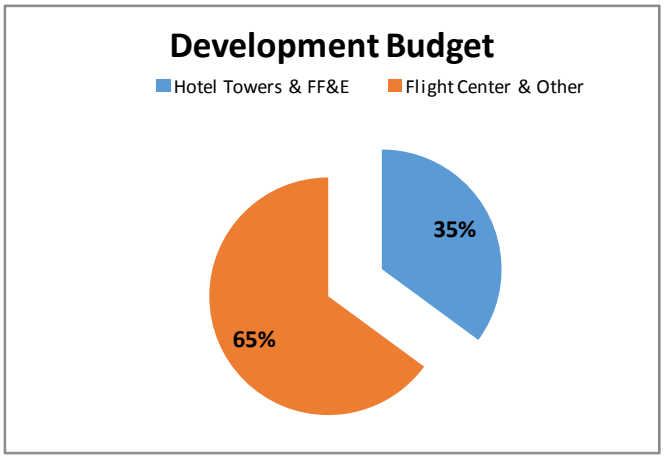
Looking at the first ten years of operations, operating costs and debt service (Principal and Interest) exceed revenues as the number of hotel rooms is decreased from 505 to 430 and then to 355. This result is driven by the large amount of investment and fixed costs associated with the Flight Center.

Hotel Investment vs. Number of Hotel Rooms



Room Reduction (505 to 355)	**-30%**
Capital Cost Reduction ($262.5 M to $235.1 M)	**-11%**

The cost of the hotel towers, rooms and FF&E is disproportionately small as compared to the cost of renovating and modernizing the Flight Center.



From: Steven, Jim [mailto:jsteven@panynj.gov]
Sent: Monday, December 07, 2015 5:26 PM
To: tkelly@mas.org; Frank Emile Sanchis III; 'Alex Herrera'; kslevin@mas.org; 'ngabriel@achp.gov'; 'mpond@pfnyc.org'; 'nina@ninarappaport.com';Kati.Laakso@formin.fi; Tyler Morse; Brook Jackson; 'cvaughn@achp.gov'; Richard Smyth; Seri Worden; Leddy, James; 'marie.jenet@faa.gov'; 'Beth.Cumming@parks.ny.gov'; Betsy_Merritt@nthp.org
Cc: Kimball, Nathaniel; Lee, John; gail.butler@faa.gov; Knoesel, Edward; Schmidt, Michael; Free, Don; Rogak, Elizabeth; Pierpont, Ruth (PARKS)
Subject: RAC Meeting #33 Follow Up - Draft MOA Amendment

Dear RAC Members,

We appreciate your continuing involvement in the RAC discussions aimed at the restoration and building of the TWA Flight Center Hotel. At the December 1 RAC meeting we discussed revising the Draft MOA Amendment with the verbal comments we received during the RAC meeting. The redlined version of the draft MOA Amendment showing those changes is attached for review and comment. Also attached is the attendee list from the December 1 RAC meeting. Please review and provide your comments on the Draft MOA Amendment by December 14 .

In revising the MOA Amendment we noticed a reference in a Whereas clause to an August 2015 Conceptual Plan. That was not correct. We held RAC meetings in May and June and not August. The Concept Plan exhibit that was included in the December 1 meeting notice was the latest version based on the design presented during the two summer meetings and further evolved based on due diligence activities such as locating footings and structural elements for the Flight Center tubes leading to Terminal 5. Those structural elements constrained options for below grade circulation and spaces which was revised as shown on the plan attached to the December 1 meeting notice. That drawing which was provided two weeks ago has since been amended to include a date of December 1 and more prominently show the word “Concept” along the top.

An issue was raised during the RAC meeting about the review times. I will be posting the preliminary and pre-final drawings (list of specific drawing to be provided at a later point) on an web-based FTP accessible to all RAC members with notification that it has been posted and how to access the web-based FTP site. We would then look for your comments within 14 days of the notification to you and the posting.

During the December 1 RAC meeting clarification was provided on the MOA Amendment/Environmental Assessment (EA) process. For your convenience a summary is provided. RAC consulting party comments will be reviewed by the RAC Signatories and a determination made as to what changes need to be made to the Draft MOA Amendment. The Draft MOA Amendment would then become part of the draft Environmental Assessment (EA) submittal that the Port Authority would make to the FAA related to changes to the Airport Layout Plan. Once the FAA has reviewed and commented on the draft EA, and the Port Authority revised the document accordingly, it will be released to the public for review and comment. After the FAA considers all comments received and is satisfied that all comments were adequately responded to, it will make an environmental determination. The MOA Amendment would be signed by the signatories, the consulting parties would have an opportunity to sign (concur), and the MOA Amendment would then become part of the Final EA.

As discussed at the December 1 RAC meeting, please submit any additional comments on the Draft MOA Amendment by December 14. Please do not hesitate to contact me with any questions.

Thanks—Jim
James Steven, P.E.
Program Director JFK Redevelopment

Office: (718) 244-4502
Cell: (917) 567-9269

MEETING TITLE: **RAC Meeting #33 - Draft Amendment to MOA**

DATE: December 1, 2015, Tuesday

LOCATION: 25-05/06

	NAME (PLEASE PRINT)	COMPANY	SIGNATURE
1	Michael Schmidt	PA - Aviation	
2	Jim Steven	PA - JFK Aviation	
3	Dan Fee	PA - Properties	
4	Yusuke Iimura	PA - Aviation	Yusuke Iimura
5	TYLER MORSE	MCR	
6	RICHARD SAUTHWICK	Beya Blinder Belle	
7	Brook Jackson	PFor NYC	
8	Nate Kimball	PA - Aviation	
9	Marie Jenel	FAA - NYASU	
10	WARD DENNIS	HQ	
11	FRANK SANCHIS	MAS	
12	Nina Rappaport	DOCOMOMO NYNJ	
13	Ruth Pierpont	NYSHPO	Ruth Pierpont
14	Elizabeth Rogak	PA LAW	
15	Jim Leddy	JETBLUE	
16	Richard Smyth	JetBlue	
17	Seri Worden	Nat'l Trust	
18	TINA KELLY	MAS	
19	Alex Herrera	NYLC	
20	ED KNOESEL	PA	
21	Charlene Vaughn	ACHP	
22	Nayah Gabriel	ACHP	
23	Beth Cumming	SHPO	
24	Gail Butler	FAA	
25	Betsy Merritt	Nat'l Trust Historic Preservation	on phone
26			

Meeting Minutes RAC Meeting #34

Meeting Date:	February 26, 2016
Subject:	JFK Redevelopment Advisory Committee Meeting #34
Location:	4 WTC – Conf Rm 18 A & B
Attendees:	See attached sign-in sheet

Introduction

The thirty-fourth meeting of the Redevelopment Advisory Committee (RAC) was convened to present to the full committee progress made by the Developer's design team prior to the public review of the projects Environmental Analysis. The meeting was held on February 26, 2016 at Port Authority Offices at 4 World Trade Center – Room 18 A & B, and chaired by the Port Authority of New York and New Jersey (PA).

Discussion

Jim Steven (PA) opened the meeting with an introduction of the attendees, including Ms. Gina Pollara, the new President & CEO of The Municipal Art Society of New York and several attendees via telcon and webx. He then turned the program over to Tyler Morse of MCR to provide a detailed update of progress sine the last RAC meeting.

Mr. Morse, began by updating all on the progress being made with NYC through the ULURP process and MCR's successfully securing 100% approval from the Community Boards and Queens Boro Presidents Office. He indicated that things were on track for City Planning Commission's vote on March 9th. Mr. Frank Sanchez, MAS voiced his concern that the RAC had not been made aware of the various community board meetings. Many of the consulting parties echoed that concern. Mr. Steven reminded the meeting attendees that the ULURP process should not have been a surprise since the RAC had been made aware of them (in general manner, without specific dates) during the summer of 2015, at a RAC gathering in the Fall of 2015 and again at the December 1st RAC #33 meeting. Mr. Lefkowitz, MCR's Council, reminded the attendees that the ULURP process was a "real-estate" proceeding and that design elements are not presented, discussed or a factor in the leasing aspects of the ULURP process. That explanation cleared the air and members were satisfied that they were not being cut out of the process.

That conversation followed with more discussion on what information has been shared with regard to the design. Both Mr. Steven and Mr. Southwick reiterated that what is being shared with the RAC is not public and exclusive to the RAC members only. Ms. Marie Janet, FAA, further explained that the information being presented today would become public when the EA is issued (current forecast is within a month). The EA will then be available for public commentary for 30 days.

Mr. Morse, then turned the meeting over to Mr. Richard Southwick, BBB and Anne Marie Lubrano, Lubrano Ciavarra Architects, to present progress made on the design. The presentation included a previously circulated PowerPoint that was made available to those attending by phone via a web-x.

The presentation began with a conceptual design for the restoration of the original parking area in front of the Flight Center including a pathway from the Yellow Garage to the Flight Center's main entrance. Mr. Sanchez, advised the group that he had another commitment but wanted to take this opportunity to remind the RAC of previous thoughts and consideration of parking garage to Flight Center access. He restated his prior suggestions that there is a need for an elevator at corner of the parking garage to provide more direct access to facilitate upwards of 2 million annual visitors. He also advised that he thought the hotel and conference area access proposal via the Flight Tubes was clever. Mr. Sanchez concluded by again reminding the RAC of his concern that there remains a need to build an improvement to the connection at the end of the Flight Tubes into Terminal 5.

The presentation then went in some level of detail thru guest flows between the historic Flight Center and the new hotel buildings, including design challenges that would be faced by attempting to connect anywhere other than through the flight tubes. The team also presented proposed solution to curtain wall glazing as well as architectural treatments to the ends of the building and setbacks on the roof levels. A number of positive reactions came from various parties including:

- A "closed cavity curtain wall system that relies on positive air pressure in the interstitial spaces to minimize noise.
- Mullion and glazing colors
- Textured concrete panels at the ends of the building

The RAC was reminded that the design is still developing and that they will be looped in. Mr. Steven also reminded them that he is working with Mr. Southwick on preparing a design review schedule that will afford the RAC the opportunity to weigh in on aspects of the design that "touch" on the historic Flight Center. The current stage of design is expected to take another 5 months and be completed in mid-July.

Mr. Steven offered to the RAC members a visit / tour of the Flight Center and asked that they coordinate with each other and propose a few dates.

The meeting concluded with the Port Authority requesting that the attendees please provide their written comments to the presentation by March 4th.

Next Meeting – TBD (tentatively April / May 2016)

The above represents our understanding of the topics discussed and decisions reached. Any comments or corrections regarding the above items should be sent to Jim Steven with a copy to Beth Cumming in writing..

Appendix D: Natural Resources Agency Correspondence

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov

Joe Martens
Commissioner

July 27, 2015

Keri A. Cibelli
AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Re: Terminal 5 at John F. Kennedy International Airport
Town/City: New York. County: Queens.

Dear Keri A. Cibelli:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities, which our databases indicate occur, or may occur, on your site or in the immediate vicinity of your site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Sincerely,

Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program

754

The following state-listed animals have been documented at your project site, or in its vicinity.

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed or are candidates for federal listing.

For information about potential impacts of your project on these populations, how to avoid, minimize, or mitigate any impacts, and any permit considerations, contact the Wildlife Manager at the NYSDEC Regional Office for the region where the project is located. A listing of Regional Offices is at http://www.dec.ny.gov/about/558.html.

The following species have been documented at John F. Kennedy International Airport, near the project site. Potential onsite and offsite impacts from the project may need to be addressed.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*FEDERAL LISTING*	
Birds				
Short-eared Owl *Breeding*	*Asio flammeus*	Endangered		211
Northern Harrier *Breeding*	*Circus cyaneus*	Threatened		1641
Upland Sandpiper *Breeding*	*Bartramia longicauda*	Threatened		10924

This report only includes records from the NY Natural Heritage databases. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NYSDEC at www.dec.ny.gov/animals/7494.html.

U.S. Fish & Wildlife Service

JFK

IPaC Trust Resource Report

Generated July 01, 2015 09:54 AM MDT

US Fish & Wildlife Service

IPaC Trust Resource Report

Project Description

NAME

JFK

PROJECT CODE

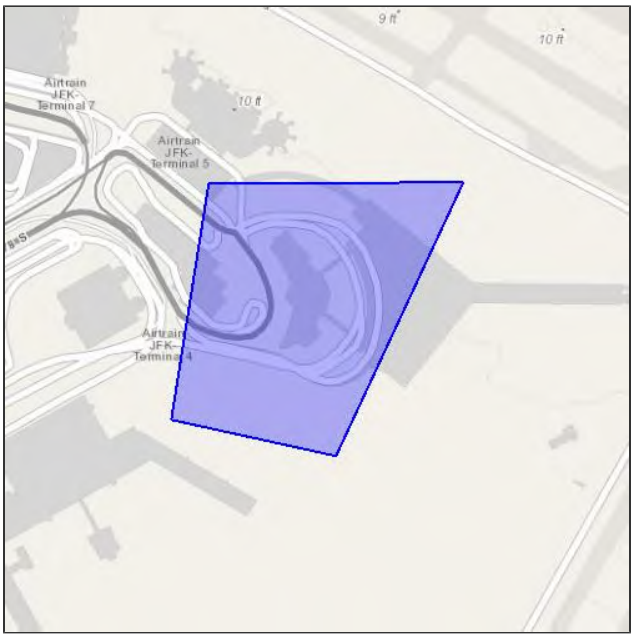
DSGXJ-N7KSB-G5VNV-FFHUA-QSGIY4

LOCATION

Queens County, New York

DESCRIPTION

No description provided



U.S. Fish & Wildlife Contact Information

Species in this report are managed by:

Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967
(631) 286-0485

Endangered Species

Proposed, candidate, threatened, and endangered species that are managed by the Endangered Species Program and should be considered as part of an effect analysis for this project.

This unofficial species list is for informational purposes only and does not fulfill the requirements under Section 7 of the Endangered Species Act, which states that Federal agencies are required to "request of the Secretary of Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action." This requirement applies to projects which are conducted, permitted or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can be obtained by returning to this project on the IPaC website and requesting an Official Species List from the regulatory documents section.

Birds

Piping Plover Charadrius melodus — **Threatened**

CRITICAL HABITAT
There is **final** critical habitat designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B079

Red Knot Calidris canutus rufa — **Threatened**

CRITICAL HABITAT
No critical habitat has been designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DM

Roseate Tern Sterna dougallii dougallii — **Endangered**

CRITICAL HABITAT
No critical habitat has been designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B07O

Flowering Plants

Seabeach Amaranth Amaranthus pumilus — **Threatened**

CRITICAL HABITAT
No critical habitat has been designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=Q2MZ

Critical Habitats

Potential effects to critical habitat(s) within the project area must be analyzed along with the endangered species themselves.

There is no critical habitat within this project area

Migratory Birds

Birds are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

You are responsible for complying with the appropriate regulations for the protection of birds as part of this project. This involves analyzing potential impacts and implementing appropriate conservation measures for all project activities.

American Oystercatcher Haematopus palliatus — **Bird of conservation concern**
Year-round
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0G8

American Bittern Botaurus lentiginosus — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F3

Bald Eagle Haliaeetus leucocephalus — **Bird of conservation concern**
Year-round
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B008

Black Skimmer Rynchops niger — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0EO

Black Rail Laterallus jamaicensis — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B09A

Black-billed Cuckoo Coccyzus erythropthalmus — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HI

Blue-winged Warbler Vermivora pinus — **Bird of conservation concern**
Season: Breeding

Canada Warbler Wilsonia canadensis — **Bird of conservation concern**
Season: Breeding

Fox Sparrow Passerella iliaca — **Bird of conservation concern**
Season: Wintering

Gull-billed Tern Gelochelidon nilotica — **Bird of conservation concern**
Season: Breeding

Hudsonian Godwit Limosa haemastica — **Bird of conservation concern**
Season: Migrating

Least Bittern Ixobrychus exilis — **Bird of conservation concern**
Season: Breeding

Least Tern Sterna antillarum — **Bird of conservation concern**
Season: Breeding

Pied-billed Grebe Podilymbus podiceps — **Bird of conservation concern**
Year-round

Prairie Warbler Dendroica discolor — **Bird of conservation concern**
Season: Breeding

Purple Sandpiper Calidris maritima — **Bird of conservation concern**
Season: Wintering

Red Knot Calidris canutus rufa — **Bird of conservation concern**
Season: Wintering
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DM

Rusty Blackbird Euphagus carolinus — **Bird of conservation concern**
Season: Wintering

Saltmarsh Sparrow Ammodramus caudacutus — **Bird of conservation concern**
Season: Breeding

Seaside Sparrow Ammodramus maritimus — **Bird of conservation concern**
Year-round

Short-eared Owl Asio flammeus — **Bird of conservation concern**
Season: Wintering
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HD

Snowy Egret Egretta thula — **Bird of conservation concern**
Season: Breeding

Upland Sandpiper Bartramia longicauda — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HC

Wood Thrush Hylocichla mustelina — **Bird of conservation concern**
Season: Breeding

Worm Eating Warbler Helmitheros vermivorum — **Bird of conservation concern**
Season: Breeding

Refuges

Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. If your project overlaps or otherwise impacts a Refuge, please contact that Refuge to discuss the authorization process.

There are no refuges within this project area

Wetlands

Impacts to NWI wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

Project proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate U.S. Army Corps of Engineers District.

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Wetland data is unavailable at this time.

Appendix E: USDOT Section 4(f) Evaluation

USDOT Section 4(f) Evaluation

TWA Flight Center Hotel Project
John F. Kennedy International Airport
Queens, New York

Prepared For:
U.S. Department of Transportation Federal Aviation Administration

Sponsored By:
The Port Authority of NY & NJ

Prepared by:
AKRF, Inc.

April 2016

This Section 4(f) assessment becomes a Federal document when evaluated, signed, and dated by the Responsible FAA Official.

_____ _____

Responsible FAA Official Date

Table of Contents

List of Figures

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List of Attachments

Chapter 1: Introduction

1-1 INTRODUCTION

This document is the Draft Section 4(f) Evaluation for the TWA Flight Center Hotel Project (the Project). This evaluation was prepared in coordination with the TWA Flight Center Hotel Draft Environmental Assessment (EA) to satisfy the requirements of Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966. In 1983, Section 4(f) of the USDOT Act was codified as 49 USC § 303(c), but this law is still commonly referred to as Section 4(f). This evaluation was also prepared in accordance with the Federal Aviation Administration (FAA) implementing regulations for Section 4(f) at FAA Order 1050 1.F.

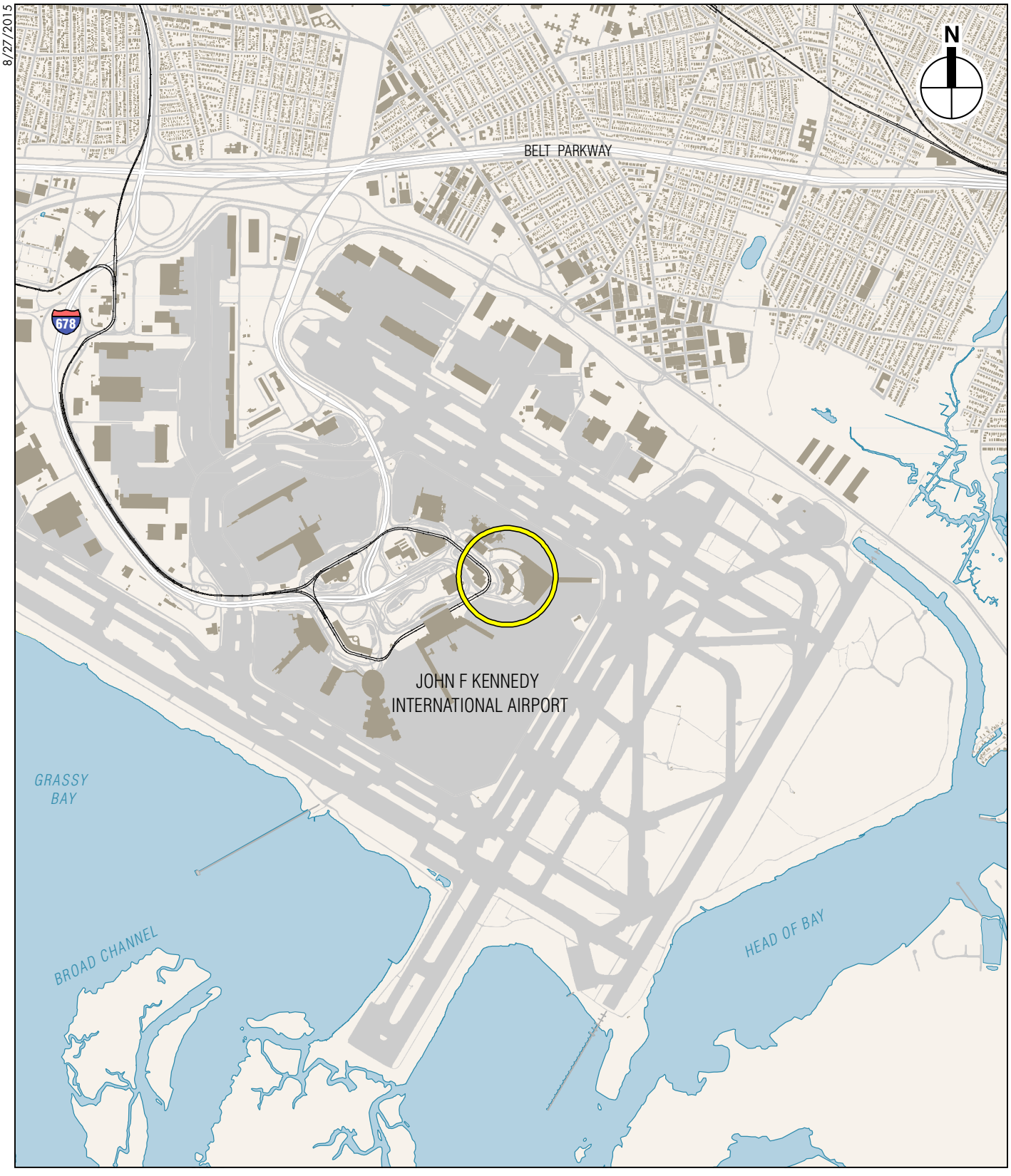
The Port Authority of New York and New Jersey (Port Authority) proposes to develop the TWA Flight Center Hotel as an adaptive reuse of the historic TWA Flight Center at John F. Kennedy International Airport (JFK) in Jamaica in the borough of Queens, New York City (see **Figure 1-1**). The Proposed Project would require the use of an historic building (TWA Flight Center) that is protected under Section 4(f) (see **Figure 1-2**).

1-2 PROJECT BACKGROUND

The centerpiece of the Proposed Project is the rehabilitation, restoration, and re-purposing of the historic TWA Flight Center. The TWA Flight Center was designed by Eero Saarinen and opened in 1962. Additions were completed in the 1960s and 1970s, along with further alterations undertaken in later years including the construction of Terminal 5/6 (jetBlue Terminal) to the north. The TWA Flight Center is a vaulted reinforced concrete structure designed with a sunken waiting area with a glazed façade that originally faced the runway, and with balcony levels where bar, restaurant and first-class waiting areas were located. The TWA Flight Center, with is sweeping and aerodynamic architectural forms, is recognized as a significant example of Post-War Modern architecture in the United States.

In 2004, jetBlue and the Port Authority initiated comprehensive redevelopment of Terminals 5 and 6, which ultimately resulted in the construction of existing JFK Terminal 5 and the demolition of JFK Terminal 6. In 2004, an *EA and Section 4(f) Evaluation for the Terminal 5/6 Redevelopment Project: JFK International Airport* (referred to herein as the 2004 EA) was prepared. To address the impact on historic resources during the redevelopment of the terminals, the FAA, the Advisory Council on Historic Preservation (ACHP), the New York State Historic Preservation Office (SHPO), and the Port Authority entered into a Memorandum of Agreement (MOA) for the Rehabilitation, Restoration, and Adaptive Reuse of the TWA Flight Center (referred to herein as the 2004 MOA). Alterations to the TWA Flight Center included the removal of both flight wings and the reconstruction of the West Tube. The East and West Tubes now connect

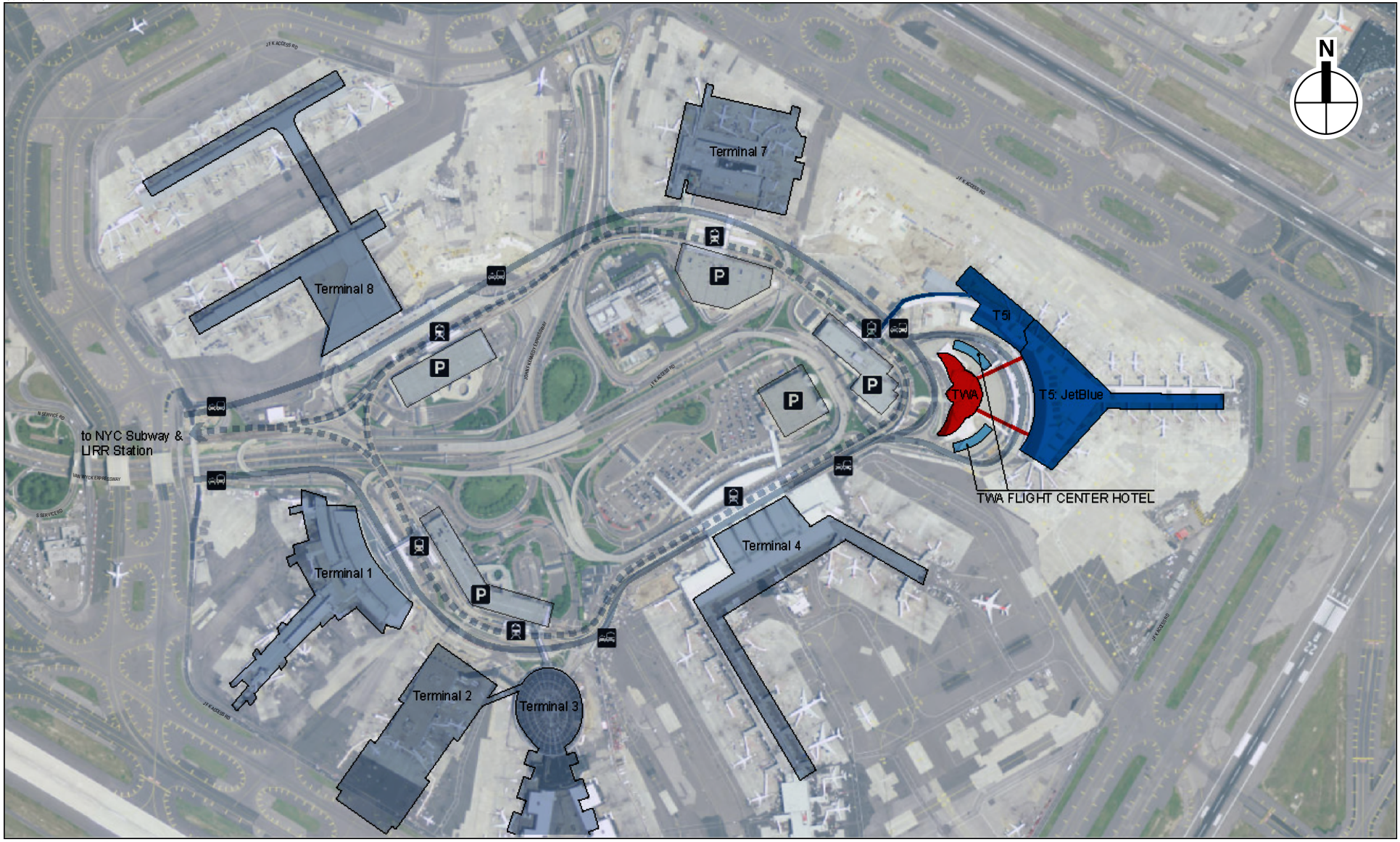
8/27/2015



TWA Flight Center Hotel

Project Location
Figure 1-1

8.27.15



TWA Flight Center Hotel

Proposed Site Plan

Figure 1-2

to the jetBlue Terminal, with the West Tube having been reconstructed as part of the Terminal 5/6 Redevelopment Project.

Stipulation 7 of the 2004 MOA required that the "TWA Terminal" (the name used for the TWA Flight Center in the Section 106 documentation, referred to as the TWA Flight Center throughout this document), including the Main Terminal Building, Flight Wings, and East and West Tubes be nominated to the National Register prior to the demolition of the Flight Wings. As a result of this stipulation, the TWA Terminal was formally listed on the National Register in October 2005. Since the 2004 EA, the Port Authority has performed approximately $19 million in extensive restoration work on the TWA Flight Center, plus annual maintenance while searching for an appropriate adaptive reuse developer for the building. The 2004 MOA stipulated that an adaptive reuse developer should be retained to develop the TWA Terminal in accordance with the Secretary of Interior Standards for the Treatment of Historic Properties.

The proposed long-term lease for financing, planning and design, rehabilitation / restoration / construction, management, operation and marketing of the TWA Flight Center Hotel is based on a Request for Proposals (RFP) selection process undertaken by the Port Authority. To date, there have been a total of three RFP's for the Adaptive Re-Use and Historic Preservation of the former TWA Flight Center. The initial tender in 2006 for an unspecified type of development opportunity garnered only a single respondent, who indicated that for a price, any program developed by the Port Authority would be considered. The proposal was determined to be "non-responsive" and was ended. Subsequent discussions internally at the Port Authority and with the Redevelopment Advisory Committee (RAC) led to the Port Authority taking on limited restoration of the TWA Flight Center and a decision on what next steps should be taken towards adaptive reuse. Ultimately, consensus was reached that the most sustainable business adaptive re-use and development would likely be a hotel. JFK airport has a need for a full service hotel within the central terminal area (CTA).

1-3 APPLICABILITY OF SECTION 4(F) TO THE PROJECT

Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 USC § 303; 23 CFR § 774) prohibits the FHWA from approving any program or project that requires the "use" of (1) any publicly owned parkland, recreation area, or wildlife and waterfowl refuge of national, state, or local significance; or (2) any land from a historic site of national, state, or local significance (collectively "Section 4(f) resources"), unless there is no feasible and prudent avoidance alternative to the use of such land; and the action includes all possible planning to minimize harm to the park, recreation area, wildlife refuge, or historic resource resulting from such use; or it is determined that the use of the property, including measures to minimize harm, will have a *de minimis* impact on the property.

A project "uses" a Section 4(f) resource when:

1) It permanently incorporates land from the resource into a transportation facility;

2) It temporarily but adversely occupies land that is part of the resource (e.g., when all or part of the Section 4(f) property is required for project construction-related activities); or

3) It "constructively" uses the resource, which occurs "when the transportation project does not incorporate land from a Section 4(f) resource, but the proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired" (23 CFR Part 774.15(a)).

The Project would require the permanent use of the historic TWA Flight Center, a property that qualifies for protection under Section 4(f). Whenever a Section 4(f) property must be used for a transportation project, documentation must be prepared to demonstrate that:

- No feasible and prudent alternative exists to the use of the Section 4(f) property; and
- The project includes all possible planning to minimize harm to the property.

As defined in 23 CFR § 774.17, an alternative is not feasible if it cannot be built as a matter of sound engineering judgment. An alternative is not prudent if:

- It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;
- It results in unacceptable safety or operational problems;
- After reasonable mitigation, it still causes:
  - Severe social, economic, or environmental impacts;
  - Severe disruption to established communities;
  - Severe disproportionate impacts to minority or low income populations; or
  - Severe impacts to environmental resources protected under other federal statutes;
- It results in additional construction, maintenance, or operational costs of an extraordinary magnitude;
- It causes other unique problems or unusual factors; or
- It involves multiple factors of the above, that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

If there is no feasible and prudent avoidance alternative, FHWA may approve only the alternative that causes the least overall harm in light of the statute's preservation purpose. As stated in 23 CFR § 774.3, the "least overall harm" is determined by balancing the following list of factors:

- The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property);
- The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection;
- The relative significance of each Section 4(f) property;
- The views of the official(s) with jurisdiction over each Section 4(f) property;

- The degree to which each alternative meets the purpose and need for the project;
- After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f); and
- Substantial differences in costs among the alternatives.

As set forth in 23 CFR § 774.5, the Section 4(f) evaluation should be provided for coordination and comment to the U.S. Department of the Interior (DOI) and to officials with jurisdiction over the Section 4(f) resource that would be used by the Project—in this case the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), and the State Historic Preservation Officer (SHPO).

Chapter 2: Purpose and Need

2-1 STATEMENT OF PURPOSE AND NEED

The purpose and need of the Proposed Project is to fulfill several important goals that will benefit all airport users (passengers, tenant airlines and their employees, Port Authority, and other customers), as well as the general public. These include:

- Restoration, rehabilitation, and adaptive reuse of the historic TWA Flight Center;
- Addition of a high-quality and full service hotel, conference center, and related facilities within the CTA and with AirTrain and inter-terminal connections;
- Enhance customer convenience and on-airport experiences; and,
- Economic benefits in terms of new private investment, public revenues to the Port Authority and other jurisdictions, and new employment opportunities and economic activity generated at the airport.

2-1-1 NEED FOR TWA FLIGHT CENTER REUSE

As documented in the 2004 EA, the historic TWA Flight Center was found inadequate to be operated as an active airline terminal. The final approved development plan for Terminal 5, which now surrounds the TWA Flight Center, was based on a commitment to incorporate an adaptive reuse strategy pursuant to the MOA entered into by the FAA, Port Authority, SHPO, ACHP, jetBlue, and other consulting parties to the Section 106 review undertaken as part of the Terminal 5 approval process.

As detailed in Chapter 5, *Environmental Consequences,* of the 2016 TWA Flight Center Hotel Project EA, the MOA resulted in a process to ensure ongoing maintenance, initial restoration and rehabilitation work, and to solicit, review, and approve adaptive reuse proposals. To date, the Port Authority has invested about $19 million on extensive restoration work including replacing soundproofing materials on the ceiling of the main hall, restoration of the Lower and Upper Lobby areas, replacement of skylights, restoration of the East Flight Tube and removal and restoration of exterior areas.

Discussions internally at the Port Authority and with the RAC led to a decision on what next steps should be taken towards adaptive reuse. Ultimately consensus was reached that the most sustainable business adaptive re-use and development would likely be a hotel.

The proposed TWA Flight Center Hotel is a direct response by the developer to RFP #38826 issued by Port Authority. Development plans have been reviewed by the RAC. The proposal will provide an adaptive reuse that will provide for rehabilitation and restoration pursuant to the guidelines established in the MOA and consistent with Secretary of the Interior's *Standards for the Treatment of Historic Properties - Rehabilitation*.

2-1-2 NEED FOR FULL SERVICE HOTEL

JFK is one of the most important airports in global aviation serving as a domestic and international gateway to the New York City region. Like other major airports, JFK is a major center of economic activity with about 37,000 employees and serves over 50 million passengers per year. As a full service hotel with conference facilities, the proposed TWA Flight Center Hotel will provide a major new asset to all airport users and further enhance the market competitiveness of the airport.

As airports continue to evolve with more diverse economic activities, airport hotels are increasingly seen as important market segments with meeting and conference elements and growing room night demand. Top ranked international and North American airport hotels overwhelmingly have direct terminal access and have broad user amenities and conference facilities. The consistently top ranked North American Hotel is the Vancouver Airport Fairmount Hotel which, like the proposed TWA Flight Center Hotel, provides both of these critical elements. In addition, the proposed TWA Flight Center Hotel has the unique attribute of using the internationally recognized and iconic TWA Flight Center serving as the centerpiece of the proposed hotel.

As analyzed by the Port Authority and summarized in the 2014 developer RFP[1], the proposed TWA Flight Center Hotel would be introduced within a robust lodging market with consistently strong economic performance in occupancy, room rates, and revenue per available room (RevPAR). The local market for airport hotels at JFK, with about 10 full service or larger hotels of 100 rooms or more have shown continuous growth in RevPAR between 2009 and 2013. The proposed TWA Flight Center Hotel would expand the market choices available to the overnight lodging marketplace.

As part of their response to the RFP, the Developer analyzed hotel economic data obtained from standard industry sources (STR Research) from three on-airport hotels—Marriott Newark Airport, Marriott Philadelphia Airport, Marriott Tampa Airport—as well as six of the adjacent JFK Airport hotels to evaluate the performance of the proposed TWA Flight Center Hotel.

2-1-3 ENHANCED CUSTOMER CONVENIENCE AND EXPERIENCE

As set forth in the developer's RFP and business model, the proposed TWA Flight Center Hotel would primarily serve existing and future demand presently at JFK. Among the 30 large hub airports in the United States, JFK has the fourth fastest projected annual compound growth rate at 2.43% between 2013 and 2040. FAA data indicates that JFK had 27.737 million enplanements (the sum of originating and connecting passengers but not arriving passengers) in 2013 and has a projected 47.337 million enplanements by 2040.

The Developer estimates that its market segmentation would be based on: 17 percent of the hotel room demand generated by airlines in lodging for crew layovers or crew and passengers for irregular operations (IRROPs); 31 percent by the demand for airport-

[1] Port Authority of NY&NJ. "Request for Proposals for the Development, Leasing, Management and Operation of a Hotel Incorporating the TWA Flight Center at John F. Kennedy International Airport (RFP#38826). August 8, 2014

based meetings, conferences, and other events; and 52 percent would be by arriving or departing passenger demand for hotel room nights.

Room utilization and traveler bookings are based on capturing existing and future demand from airport operations and offer substantial market value through its direct connection to the CTA via the AirTrain. This also has a secondary benefit to the region by limiting vehicular traffic (vans, buses, taxis, and private cars) to and from airport to accommodate this demand. Airport-based conferences and meetings would include new opportunities based on a lack of existing facilities and a more efficient way to capture existing meeting and conference demand that already exists based on short-term travel demand to and from the New York region.

2-1-4 ADDITIONAL ECONOMIC BENEFITS

As estimated by the Developer, the proposed TWA Flight Center Hotel would provide an expansion of economic activity at JFK, from construction activities and through permanent operation of the new hotel. However, the Proposed Project would not increase the number of flights at JFK or alter any airside operations.

The development will invest some $265 million in equity and debt during the construction period. This expenditure will result in additional spending in the local economy and will generate new taxes and other revenues at a local, state and federal level.

Once opened, the project is anticipated to generate approximately 500 to 600 permanent full and part time jobs. Operation of the hotel will generate revenue to the Port Authority in terms of base rent and percentage rent and a profit share. Taxes will accrue based on payroll and income taxes on employee wages as well as on sales taxes for goods and services as well as specific hotel occupancy taxes.

Chapter 3: Project Description

The centerpiece of the Proposed Project is the rehabilitation, restoration, and re-purposing of the historic TWA Flight Center. The iconic TWA Flight Center was designed by Eero Saarinen and opened in 1962. While the adjacent jetBlue Terminal T5 construction was completed in 2009, the TWA Flight Center has not been in use as a functioning terminal building since 2001. The MOA prepared as part of the Terminal 5/6 Redevelopment Plan specifically identified the need and process for seeking adaptive re-use alternatives for the TWA Flight Center, and the Proposed Project is a direct outcome of that process. The project has the following elements specific to the development and re-use of the former terminal building.

3-1 DEMOLITION OF NON-HISTORIC ADDITIONS

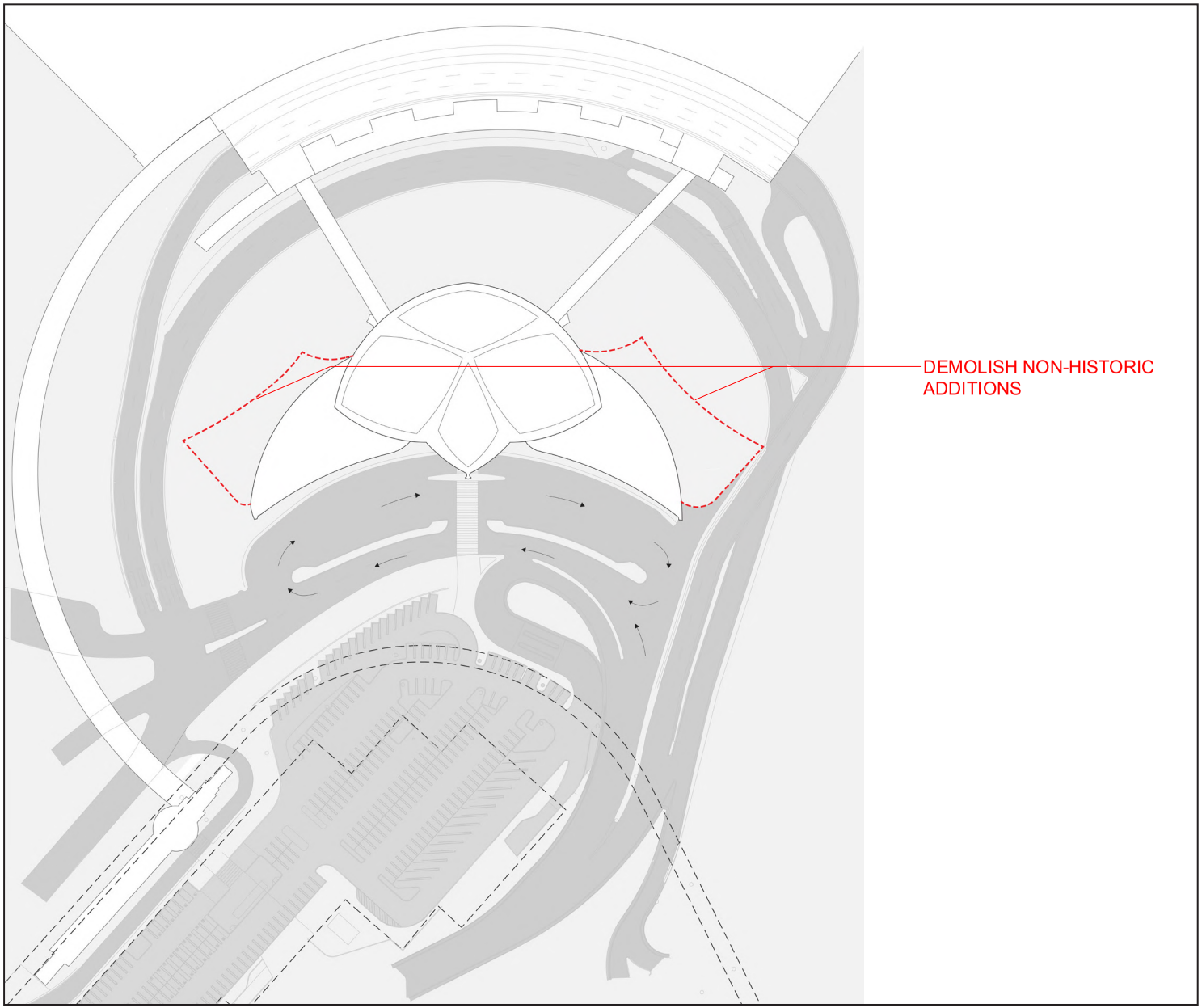
The initial step in the development of the site is the demolition of the non-historic portions of the TWA Flight Center building (see **Figure 3-1)**. Two additions were added around 1970 and altered the original footprint of the 1962 building. The demolition of these additions would allow the area needed for new construction.

3-2 NEW HOTEL GUEST ROOM BUILDINGS

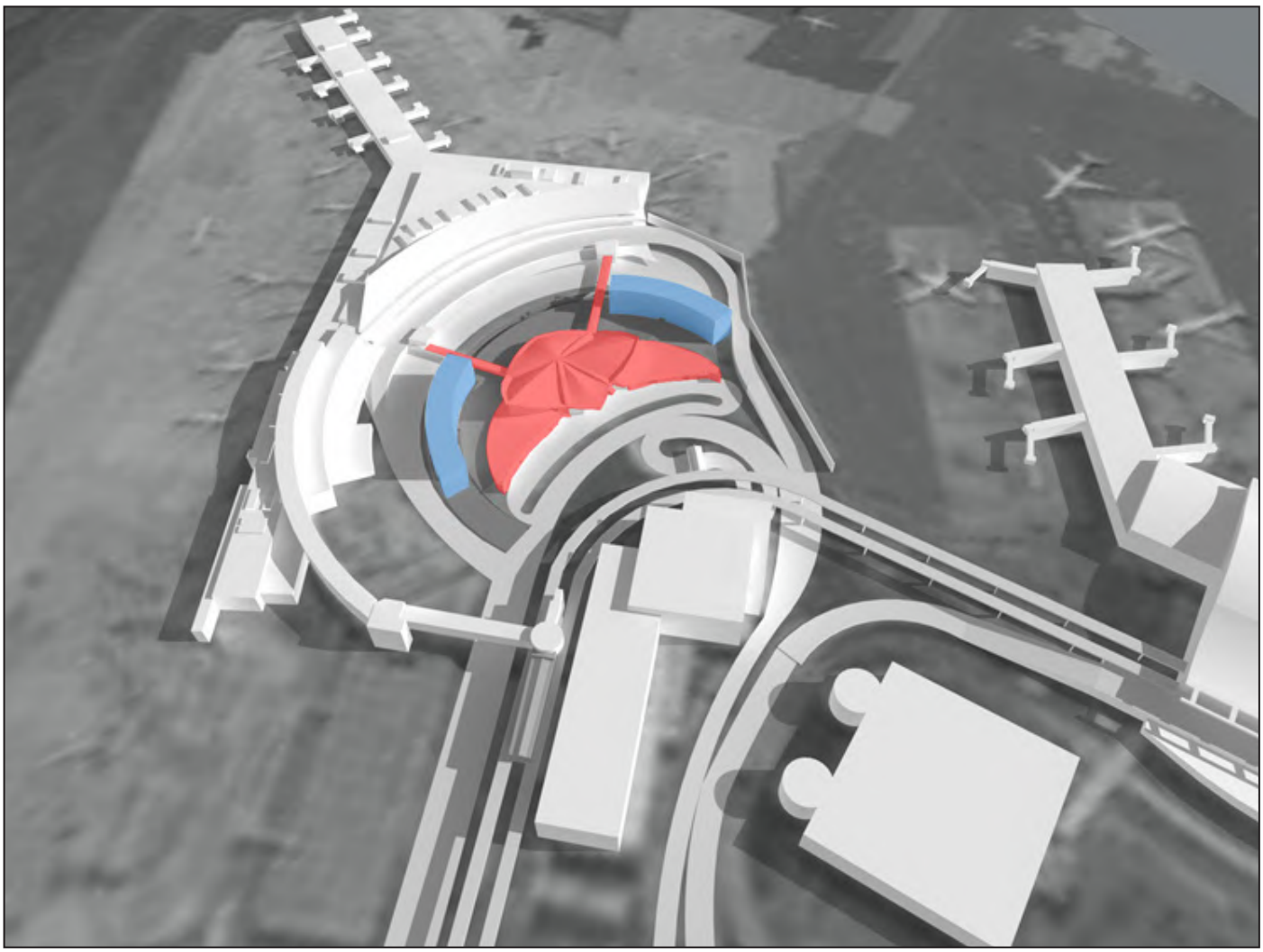
The Proposed Project includes the construction of two new guest room buildings on either side of the TWA Flight Center (see **Figure 3-2**). Approximately 505 guest rooms are proposed to be split between the two guest room buildings, including 20 suites.

The floor area of all new above-grade construction will total about 220,000 square feet, while the combined footprint of the newly constructed guest room buildings will total 31,400 square feet. The total Proposed Project including the restored TWA Flight Center and the new conference facilities would total about 440,000 square feet (including about 140,000 square feet of space retained in the existing terminal building and 50,000 square feet of newly constructed below grade conference space, and 30,000 square feet of newly constructed below grade service space). There would also be an underground cogeneration facility of about 7,500 square feet. Each hotel room building would be about 110,000 square feet and would be about one quarter of the overall volume of space.

The height of the new buildings will be up to 84 feet (including parapet wall but exclusive of mechanical areas such as elevator shafts), which is contextually within the building heights of surrounding buildings (such as the jetBlue Terminal 5 Skyway) and slightly taller than the TWA Flight Center itself. The curtain walls of the new guest room buildings will be clad with glass on the north and south facades. Additionally, a 5,000-square-feet roof-top observation deck with a cocktail lounge and a shallow splash-pool would be located on the south guest room building with views of the nearby runways.



Existing Conditions
Figure 3-1



Proposed Action Alternative

Figure 3-2

3-3 TWA FLIGHT CENTER RESTORATION

Since the EA for the Terminal 5/6 Redevelopment Project was completed in 2004, the Port Authority has performed restoration work on the TWA Flight Center. The Proposed Project would complete the restoration of additional areas requiring extensive work. The original historic main TWA Flight Center Terminal building would be repurposed as the Lobby area and amenities for the hotel. Iconic public spaces would be restored to recapture their original grandeur, designs, and concepts. The East and West connector tubes provide pedestrian walkways from the Lobby level of the TWA Flight Center to the jetBlue Terminal 5, as well as the new guest room buildings. New passageways would be cantilevered from the guest room buildings to connect to the East and West Tubes. While the East Tube has been restored, the West tube was reconstructed as part of the Terminal 5/6 Redevelopment Project.

3-3-1 LOWER LOBBY LEVEL

The interior of the TWA Flight Center is divided into three levels. The TWA Flight Center Hotel Lower Lobby is located at street level. Both ticketing areas at the Lower Lobby would be physically restored and repurposed. The South ticketing area would serve as a combination of Retail space and food hall. The North ticketing area would feature a new row of counters based on original design from 1962 to accommodate hotel and event check-in, including hotel baggage check-in which would be offered to all hotel visitors at street level to minimize the impact of wheeled luggage on the restored entrance staircases. No baggage check-in for flights would be accommodated. New ramps would be constructed to connect the Lower Lobby to the Lobby Level, following the historic path of circulation. Below grade walkways for staff would connect the Below Grade Level of the TWA Flight Center to the Below Grade Level of the guest room buildings.

3-3-2 LOBBY LEVEL

The main focus of the Lobby Level is the TWA Flight Center's iconic sunken lounge, as well as entrances to the East and West Tubes. This level would also include a Concierge, Junior Aviator's Club, Duty-Free Shop, Ballroom, and Retail space. Exhibit areas for historic interpretive displays would be developed throughout the hotel Lobby in partnership with the New-York Historical Society and the New York City Landmarks Preservation Commission. The historic interpretive displays would feature the history of the TWA Flight Center, Eero Saarinen, JFK Airport, TWA, and aviation in New York City.

Accommodations for airline travelers would be provided by the hotel. The Lobby would include a minimum of two electronic ticketing kiosks for use by jetBlue airline passengers (as set forth in the 2004 MOA), as well as check-in counters for select customers. The Solari Board with flight information would be rebuilt from its original 1958 plans and remain as a unique, historic feature of the Lobby. The mechanical board would retain its distinct, audible clicking as flight information is updated.

One of the cocktail lounges, "The Connie Bar", would be located inside a re-purposed Lockheed "Super G" Constellation Airplane (the "Connie"). The airplane would be located between the two connector tubes and accessed via walkways from the guest room buildings.

3-3-3 MEZZANINE LEVEL

The Mezzanine Level would include three restaurant and lounge areas original to the TWA Flight Center: The First Class Lounge, Lisbon Lounge, and Paris Café. Efforts would be made to replace the existing undersized elevator systems while preserving historic integrity.

3-3-4 BELOW GRADE LEVELS

The hotel would offer a total of 50,000 square feet of conference space, located mainly on the newly expanded Below Grade Levels with flexible meeting rooms of varying capacities. The Below Grade Level would also include the kitchens, mechanical rooms, laundry, fitness center, and additional space for the historic interpretive displays.

3-3-5 SUMMARY

The total area of the proposed full service hotel, including existing areas to remain, and all Below Grade Level areas will be 440,000 square feet and the underground cogeneration facility would be an additional 7,500 square feet. The height of the existing TWA Flight Center was taken into consideration in the design and siting of the Proposed Project. As such, the proposed hotel guest rooms and amenities would be partially submerged to create a habitable basement level. This approach also offers a direct relationship between the guest accommodations and the hotel back of house.

Chapter 4: Description of Section 4(f) Resources

The project site contains the TWA Flight Center, designed by Eero Saarinen and constructed in 1962, with additions completed in the 1960s and 1970s and with further alterations undertaken in later years including as part of the construction of Terminal 5/6 (jetBlue Terminal) to the north. The TWA Main Terminal building is a vaulted reinforced concrete structure designed with a sunken waiting area with a glazed façade that originally faced the runway, and with balcony levels where bar, restaurant and first-class waiting areas were located. The TWA Flight Center, with is sweeping and aerodynamic architectural forms, is recognized as a significant example of Post-War Modern architecture in the United States.

Stipulation 7 of the MOA required that the "TWA Terminal" (the name used for the TWA Flight Center in the Section 106 documentation), including the Main Terminal Building, Flight Wings, and East and West Tubes be nominated to the National Register prior to the demolition of the Flight Wings. As a result of this stipulation, the TWA Terminal was formally listed on the National Register in October 2005. As defined in the National Register nomination, the boundary consists of a polygon that encompassed all the existing components of the terminal complex, including the Main Terminal Building, East and West Tubes, both Flight Wings, and certain land beyond the boundary of these structures. The period of significance established in the National Register nomination spans between 1962 and 1970, which corresponds to the initial construction of the TWA Terminal through completion of the baggage wings.

The building was originally designed with one raised and enclosed walkway or "tube"-the East Tube – which connected to a flight wing (Flight Wing 2), which contained boarding gates where passengers boarded and deplaned. In 1967, a second and larger flight wing was added (Flight Wing 1) and was connected to the Main Terminal Building by another raised tube, the West Tube, which was longer and different in design to the East Tube. Between 1967 and 1970, additions were constructed to the runway, or airside, of the building on either side of the waiting area glazed façade, to house additional baggage handling, ticketing and office functions. These additions, or wings, were also constructed of concrete, altered the original footprint of the 1962 building, and are not included in the listing on the National Register..

Construction of Terminal 5/6 resulted in further alterations to the TWA Flight Center. These include the removal of both flight wings and the reconstruction of the West Tube in conformance with the 2004 MOA. The East and West Tubes now connect to the jetBlue Terminal, with the West Tube having been reconstructed as part of the Terminal 5/6 Redevelopment Project. The TWA Flight Center site is defined by the airport access roads that surround it, including those built as part of the Terminal 5/6 Redevelopment Project. The areas of the Proposed Project site that are not occupied by the existing building's footprint include a loading dock area at the east end of the building, and stone gravel throughout the remainder of the site. Since the EA for the Terminal 5/6

Redevelopment Project was completed in 2004, the Port Authority has performed approximately $19 million in extensive restoration work on the TWA Flight Center, plus annual maintenance. In summary, the work consisted of replacing soundproofing material on the ceiling of the main hall, restoration of the tiles in Lower and Upper Lobby areas of the main hall, replacement of skylights, restoration of the East connector tube, and restoration of portions of the exterior.

The TWA Flight Center is vacant; American Airlines acquired TWA's assets in 2001 and subsequently vacated the building in 2002 when TWA's lease expired.

Chapter 5: Alternatives

5-1 AVOIDANCE ALTERNATIVES

5-1-1 NO BUILD / NO ACTION ALTERNATIVE

In the No Build, or No Action, Alternative the proposed TWA Flight Center Hotel would not be built, and the historic TWA Flight Center would not have an adaptive reuse program and would not undergo the complete rehabilitation and restoration as set forth in the 2004 MOA. With the No Action Alternative, there would be no use of the building and basic services would not be provided. There would be no public access to the building. There would be no new on-airport hotel and no enhancement for customer experience at the airport, and the TWA Flight Center would not result in new employment and economic activity at the airport.

In terms of the adaptive re-use of the TWA Flight Center, and as set forth in Stipulation 20 of the 2004 MOA, if the Port Authority has not reached agreement with an adaptive reuse developer, the signatories to the MOA shall reconsider the terms of the agreement. As the Port Authority has indicated, no other funding resources are available and absent a private development partner, there is no anticipated ability to continue with the restoration and rehabilitation of the TWA Flight Center. The complete restoration project is estimated to require a total of $87 million, of which only a portion (approximately $19 million) has been funded by the Port Authority.

The absence of a high quality on-airport hotel is an increasingly notable omission compared with other international gateway airports. At JFK all adjacent hotels are off airport grounds and are not connected by transit or walkways to terminals. The Newark International Airport has an on-airport Marriott although it is not directly connected to any one terminal or a stop on its AirTrain. Market trends, nationally and locally as researched by the Developer and by the Port Authority, indicate that there is substantial value to on-airport hotel operations (increased occupancy, higher rates) and terminal connected hotels add to the economic value of the airport itself.[2]

The No Action Alternative would not add additional on-airport employment opportunities or expand market opportunities as available from the on-airport hotel and conference facilities and would therefore not contribute to JFK's prominence as an important

[2] Based on market analysis of other airport hotels and interviews with American Airlines and jetBlue (MCR Responses to Port Authority RFP Questions, November 2014). jetBlue and MCR Development. "Flight Center Hotel LLC, RFP Question Responses." November 6, 2014.

regional economic center of activity. In summary, the alternative does not meet any of the identified needs.

5-1-2 HOTEL AT ANOTHER LOCATION AT JFK AIRPORT

5-1-2-1 WITHIN CENTRAL TERMINAL AREA

The first choice would be to find an alternative hotel site that would be as conveniently located within the CTA as with the Proposed Project. As shown in **Figure 5-1**, the TWA Flight Center site is the only viable location in the CTA that could accommodate new hotel facilities without requiring extensive relocation or incursion into or above parking garages, circulation roadways, or terminal structures. Therefore, based on the configuration of the CTA, no other locations would be available to build a hotel and connect directly to a terminal or the AirTrain system. Another location within the CTA would not meet the stated purpose and need of creating an adaptive reuse for the historic TWA Flight Center.

5-1-2-2 FORMER RAMADA PLAZA HOTEL

The former Ramada Plaza Hotel (JFK Building 144) hotel is located in the far northern section of the airport adjacent to the Belt Parkway and the Van Wyck Expressway. The hotel was originally opened in 1958 as a Travelodge and was closed in 2009 after many years of interim uses and deteriorating conditions. It is not connected to the AirTrain and does have any proposed redevelopment interest as a hotel facility. Redeveloping the Ramada Plaza site would allow for an on-airport hotel facility but it would for all practical purposes operate in the same manner as the existing airport adjacent hotels since it would not be directly connected to the terminal or to transit. This alternative would also not meet the goal of creating an adaptive reuse for the historic TWA Flight Center. At a later date, a solicitation will be issued for a Developer to restore the former Ramada Hotel. However, as mentioned above, the Port Authority envisions it as a full or limited service hotel outside of the CTA, and would not meet the purpose and need of this project.

5-1-3 HOTEL AT ANOTHER LOCATION OFF JFK AIRPORT

There are numerous airport-oriented hotels located just off the airport property, primarily along the service roads of the Belt Parkway and the Nassau Expressway/Rockaway Boulevard. New hotels as allowed by local zoning and land use controls and in response to market demand are already a component of the lodging market.

This alternative would not meet the purposed and need of providing for an adaptive reuse of the TWA Flight Center or of providing an on-airport full service hotel.

5-1-4 SUMMARY

Avoidance alternatives would not be practical in terms of providing a reasonable development site and would not meet the purpose and need of the project as an adaptive reuse of the historic TWA Flight Center resulting in the rehabilitation and restoration of the facility. These alternatives were found not to be feasible and prudent avoidance alternatives, as defined in the Section 4(f) regulations.

2014 Aerial of Central Terminal Area

Figure 5-1

5-2 LEAST HARM ALTERNATIVES

As set forth in the Section 4(f) regulations, if the analysis conducted concludes that there is no feasible and prudent avoidance alternative, then FAA may approve, from among the remaining alternatives that use Section 4(f) property, the alternative that causes the least overall harm in light of the statute's preservation purpose (23 CFR § 774.3). During development of alternatives for the Project, design alternatives were considered that would not constitute avoidance alternatives, because the use of Section 4(f) resources would still be required, as discussed in this section.

5-2-1 SMALLER HOTEL AT THE TWA FLIGHT CENTER

Smaller hotel proposals were considered in earlier proposals considered and not carried forward by the Port Authority in response to earlier developer RFPs. In review and negotiation of the these smaller hotel proposals, in each case it was determined that the hotel proposal was not financially viable and could not support the development of the hotel or the rehabilitation, restoration, and maintenance of the TWA Flight Center pursuant to the MOA and the 2004 Terminal 5 EA.

In responding the Port Authority's 2014 RFP for adaptive reuse of the TWA Flight Center, the Developer presented a detailed financial model based on the comprehensive restoration of the TWA Flight Center and the development of the hotel itself including the TWA Flight Center, the new hotel room buildings, and related improvements to entire site. The project is reliant upon a balance between the hotel guest rooms and associated programs that support them. Alternative design schemes were considered and rejected due to site constraints and efforts to give visual clarity to the Flight Center. It is an important feature of the proposed design to distinguish between the historic structure and new spaces.

The size of the Proposed Project is in good part based on the restoration of the Flight Center which adds a considerable premium to the overall cost of development. As presented by the Developer to the RAC, this additional cost is estimated at approximately $87 million, of which an initial $19 million was funded by the Port Authority and the remaining $68 million will be funded by the Developer and integrated into the overall projection of costs that need to be offset by future revenues.

As with any hotel operations, guest rooms drive revenue and the proposed approximately 505 guest rooms are critical to the financial viability of the overall Proposed Project and, as modeled by the designated Developer, represent about 70 percent of total revenues. Analysis by the designated Developer highlights the sensitivity of building a smaller hotel in that there is a high level of fixed costs that remain regardless of the number of hotel rooms. In terms of construction, this results in a higher construction cost per room. On an operating basis, a smaller hotel does not offer the benefit of substantial cost savings relative to the loss of revenue. For example, the size difference would likely reduce the employment number by only 20 employees with an approximately 100 room reduction. This could reduce labor costs by an estimated $1.0 million while it would also result in a drop in revenue by approximately $10 million; thus revenue losses are almost 10 times the cost reduction. This is illustrated in **Table 5-1,** which provides a comparison of approximately 400 and 505 room hotels.

Table 5-1
Comparison of 400 Room Hotel to Proposed 505 Rooms

	Reduced Approximately 400 Rooms	Proposed Approximately 505 Rooms	Change
Total Approximate Construction Costs	$260,944,000	$277,671,357	-$16,656,000
Approximate Cost of Construction Per Room	$652,360	$549,844	$102,516 per room
Estimated Number of Employees	480	500	-20
Estimated Payroll ($50,000 per employee)	$24,000,000	$25,000,000	-$1,000,000
Estimated Hotel Room Revenue ($1 million per room per year)	$40,000,000	$50,000,000	-$10,000,000
Sources: MCR/Flight Center LLC			

The implications of a reduced hotel room count would be insufficient revenue to ensure a viable financial basis. This could affect terms of lease and revenue payments to the Port Authority or affect other aspects of the overall business plan including the upfront and ongoing costs for the restoration and rehabilitation of the TWA Flight Center.

5-2-2 OTHER USES CONSIDERED FO THE TWA FLIGHT CENTER

Other uses considered for the TWA Flight Center consisted of an Airline Terminal, Conference Center, and a Museum. Consideration of reopening the TWA Flight Center as an airline terminal was eliminated as a possibility in the 2004 EA. Consideration of repurposing the TWA Flight Center as a Conference Center or a Museum were not practical since neither one would generate enough revenue to rehabilitate, restore and support the on-going maintenance of this historic facility. The TWA Flight Center has open public spaces that were meant to accommodate large numbers of people leaving or returning from their flights. A Museum was not feasible however even if it was it would not have recreated the same energy as when it operated as an airline terminal. A hotel and conference facility would help to bring the public back to the building to create that high energy environment.

5-2-3 SUMMARY

The least harm analysis considered smaller hotel projects as alternatives. Based on the evaluation of proposals and financial analyses, it has been confirmed that a smaller hotel would not be financially viable and does not meet the purpose and need for the project.

Chapter 6: Mitigation

6-1 MEASURES TO MINIMIZE HARM

In the absence of a prudent and feasible alternative that avoids all use of Section 4(f) land, it was demonstrated that reuse of the TWA Flight Center incorporates all possible planning to minimize harm to the resource. The MOA stipulates the mitigation measures for the adverse effects under the Section 106 process, and for the continued involvement of the RAC. The stipulations were developed with comment and input from the signatories (the FAA, SHPO, the Port Authority, and the ACHP) and consulting parties. The stipulations of the MOA and its Draft First Amendment proposed adaptive reuse of the TWA Fight Center Terminal, including the preparation of a HABS/HAER document, maintenance and preservation guidelines, public education efforts, and preparation of a rehabilitation and reuse plan. The development of jetBlue's Terminal 5 eliminated the potential reuse of the TWA Flight Center as an operable airport terminal.

As the proposed TWA Flight Center Hotel is subject to the approval from the FAA, the proposed project is subject to review pursuant to Section 106 of the National Historic Preservation Act of 1966 (NHPA) as implemented by federal regulations appearing in 36 CFR Part 800. Section 106 of the NHPA mandates that federal agencies consider the effect of their actions on any properties listed in or determined eligible for listing on the National Register of Historic Places (NRHP, "historic properties") and afford the ACHP a reasonable opportunity to comment on such undertakings.

Section 106 requires the lead federal agency, in consultation with the SHPO and appropriate Consulting Parties, to determine whether a Proposed Project would have any adverse effects on historic properties within the area of potential effects for that action. Section 106 requires consultation with the SHPO, federally recognized Indian tribes that might attach religious and cultural significance to historic properties affected by the Proposed Project, and additional Consulting Parties with a demonstrated interest in the proposed based on a legal or economic relation to affected properties, or an interest in the Proposed Project's effects on historic properties. In addition, the ACHP has participated in consultation for the resolution of adverse effects. Revised Section 106 regulations became effective in January 2001, with amendments effective in August 2004.

Consultation pursuant to Section 106 for the TWA Flight Center Hotel is proceeding pursuant to an MOA executed among the Port Authority, SHPO, the FAA, and the ACHP in October 2004 for the Terminal 5/6 Redevelopment Project. As part of the planning and environmental review conducted for the Terminal 5/6 Redevelopment Project, consultation was undertaken pursuant to Section 106 to assess the project's potential effects on historic properties. At the time of this consultation, the TWA Flight Center, including the Main Terminal Building, Flight Wing 2, and East and West Tubes, had been determined eligible for listing on the State/National Register of Historic

Places. The TWA Flight Center, consisting of the Main Terminal Building, East and West Tubes, and Flight Wing 2, had also been designated a New York City Landmark (including portions of the interior of the Main Terminal Building, the East and West Tubes, and Flight Wing 2) in 1994.

Consultation pursuant to Section 106 identified that the Terminal 5/6 Redevelopment Project would result in an Adverse Effect on the TWA Terminal, due to the planned removal of the original Flight Wing 2 and anticipated modifications to the West Tube. This Adverse Effect and measures that were developed to mitigate the Adverse Effect were memorialized in the 2004 MOA. The MOA set forth a number of measures that would be undertaken to avoid, minimize and mitigate the Adverse Effect of Terminal 5/6 Redevelopment Project, including how consultation would proceed regarding the future treatment and reuse of the TWA Terminal.

The TWA Flight Center Hotel is a direct outcome of, and serves to implement certain stipulations of the MOA with respect to the restoration, rehabilitation, and adaptive reuse of the TWA Flight Center. Consultation for the TWA Flight Center Hotel is consistent with and within the Section 106 framework established by the MOA.

The MOA and RFP issued by the Port Authority to solicit adaptive reuse proposals for hotel use require the selected developer to comply with the stipulations of the MOA. These stipulations and the status of compliance are described below.[3]

6-1-1 DRAFT FIRST AMENDMENT TO THE 2004 MOA

Based on the Section 106 consultation with SHPO and the RAC regarding the design of the proposed TWA Flight Center Hotel and the adaptive reuse of the TWA Flight Center, a Draft First Amendment to the 2004 MOA has been drafted. As described above, the Proposed Project would result in the removal of the additions completed in 1970 to the airside of the TWA Main Terminal Building. This proposed modification has been reviewed by SHPO and the RAC. As these additions have not attained significance on their own or as part of the overall understanding of the TWA Flight Center, their removal would be consistent with the Secretary of the Interior's Standards for Rehabilitation. Removal of these additions would return the TWA Flight Center to its 1967 configuration, the year in which the West Tube was completed, and allow for a greater separation between the TWA Main Terminal Building and the proposed hotel.

The proposed hotel has been designed with two separate guest room buildings to be constructed east and west of the TWA Main Terminal Building. The proposed crescent-shaped footprints of the hotel buildings follow a similar curvature as the façade of the original TWA Main Terminal Building (prior to the 1970s) additions. Connections from the proposed hotel to the TWA Main Terminal Building would be via underground passageways, thereby not interfering with the sculptural quality of the TWA Main Terminal Building. The proposed glass and metal primary facades have been designed to complement and not compete with the masonry TWA Flight Center.

[3] Stipulations 1 through 18 contain commitments related to design, rehabilitation, restoration and maintenance and are described below. Stipulations 19 through 21 relate to the administration of the MOA and therefore are not evaluated for their compliance status.

6-1-2 MOA COMPLIANCE

The 2004 MOA established the initial framework that created the developer request for proposals ultimately leading to the Port Authority's selection of the Developer and the proposed TWA Flight Center Hotel development plan. This section summarizes compliance with the stipulations of the agreement, as well as stipulations detailed in the Draft First Amendment. The stipulations are shortened and summarized in the EA and the entire 2004 MOA and its Draft First Amendment is found in Attachment A.

6-1-2-1MOA Planning Stipulations

1. Issuance of RFP and execution of an agreement with an adaptive reuse developer for the adaptive reuse and restoration of the TWA Terminal (TWA Flight Center).

Compliance Status: The Port Authority has issued three RFPs and the Proposed Project is specifically in response to RFP #38826. SHPO, RAC and the Port Authority concurrence on conceptual plans is a pre-requisite for the lease agreement for adaptive reuse. SHPO approvals are required on more specific plans for construction as details are developed in accordance with the Secretary of the Interior *Standards for Treatment of Historic Properties - Rehabilitation*.

Amendment 1A. The adaptive reuse developer will adhere to the terms and conditions of the amended 2004 MOA, as contained in the long-term lease for the site.

Compliance Status: Flight Center Hotel LLC and the Port Authority have entered a long-term lease, which provides for the adaptive reuse of the site in accordance with the stipulations in the 2004 MOA and its Draft First Amendment.

2. Installation of two electronic ticketing kiosks in the TWA Terminal (TWA Flight Center).

Compliance Status: Two kiosks including power and communication lines have been installed on the main Lower Lobby level of the TWA Main Terminal Building east of the main roadway entrance. The Port Authority will keep SHPO and the RAC advised regarding their activation.

3. Formation of an RAC, consisting of Section 106 consulting parties that choose to participate, along with the SHPO and the Port Authority, to provide input regarding the Terminal 5/6 Redevelopment Project and reuse/restoration of the TWA Terminal (TWA Flight Center).

Compliance Status: The RAC has been formed and has been providing input regarding the proposed TWA Flight Center Hotel design and adaptive reuse of the TWA Terminal. The RAC will continue to meet until all stipulations under the MOA have been concluded.

4/5. Provision of design guidance regarding design of the new Terminal in relation to the historic TWA Terminal (TWA Flight Center), including the requirement that designs be forwarded to SHPO and the Port Authority as well as to the RAC for review and comment.

Compliance Status: Terminal 5 (Jet Blue) has been constructed and design consultation with the RAC is ongoing with respect to the adaptive reuse of the TWA Terminal. A

portion of the restoration of historic areas of the terminal has been substantially completed, including Upper and Lower Lobby areas, façade, frontage and the interim outdoor plaza. The complete restoration project is estimated to require a total of $84 million, of which only a portion (approximately $19 million) has been completed by the Port Authority. Restoration of the remaining historic areas would be performed by the adaptive reuse developer, Flight Center Hotel, LLC.

Amendment 5A. Provision of preliminary and pre-final design guidance regarding the TWA Flight Center Hotel and adaptive reuse of the historic TWA Terminal (TWA Flight Center) and the Connecting Flight Tubes, including the requirement that designs be forwarded to all consulting parties, as well as to the RAC, for review and comment via a web-based FTP site.

Compliance Status: Design plans for the restoration, rehabilitation, and adaptive reuse of the TWA Terminal by Flight Center Hotel, LLC, were developed in coordination with SHPO, the Port Authority, and the RAC.

Amendment 5B. The design plans for the TWA Flight Center Hotel will include two new structures, a historical interpretive display, the restored Solari Flight information Display, updated roadways, pedestrian access, and landscaping.

Compliance Status: The adaptive reuse developer, Flight Center Hotel, LLC, is committed to providing the abovementioned integral components for the TWA Flight Center Hotel.

Amendment 5C. If final design plans for the TWA Flight Center Hotel "differ substantially" from those approved by the Port Authority and SHPO, then the consulting parties and RAC shall reconvene to review and comment on the design changes.

Compliance Status: The following design changes would be avoided to the fullest extent possible: any changes impacting the footprint or height of the proposed new construction; any proposed changes to the historic exterior façade (i.e. concrete shell, window walls, skylights, or tubes); or any interior changes to the character-defining features. The consulting parties and RAC would have the opportunity to review any necessary design changes.

6. Installation of an interpretive exhibit illustrating the history and significance of the TWA Terminal.

Compliance Status: The developer, Flight Center Hotel, LLC is committed to providing an educational exhibit. This exhibit is planned at the ground level of the TWA Main Terminal Building, and consists of the two areas at the base of the circulation cores (escalators, stairs, elevator) that will provide access from the Lobby level to the proposed conference center at ground level.

7. Preparation by a qualified professional of a National Register of Historic Places nomination for the TWA Main Terminal Building, Connector Tubes, and Flights wings prior to the demolition of the flight wings.

Compliance Status: The nomination was prepared, and the TWA Terminal was listed on the National Register of Historic Places in 2005.

8. Recordation of the TWA Main Terminal Building to Level 1 Historical Architectural Building Survey/Historic American Engineering Record (HABS/HAER) standards.

Compliance Status: The HABS/HAER documentation was recorded with the National Parks Service, New York State Archives, the Port Authority, and the SHPO. The work was conducted by a consultant chosen by the Port Authority who meets the professional qualifications established by the United States Department of the Interior as set forth in 36 CFR 61).

9. Acknowledgement that the columns that support the East Tube may need to be altered to allow the proposed roadway to be built between the TWA Terminal (TWA Flight Center) and new Terminal 5 to pass beneath the tube.

Compliance Status: Design and construction of the roadway was completed without the need to modify the East Tube's support columns.

10. Provision that the Flight Wings may not be removed until the plan for the new Terminal 5 has been established and a lease agreement is in place between the Port Authority and the Terminal 5 tenant.

Compliance Status: A lease agreement between the Port Authority and jetBlue was executed on November 22, 2005, and the Flight Wings have since been removed as part of the construction of the new Terminal.

6-1-2-2MOA Interim Maintenance Stipulation

11. The MOA provides for the maintenance of the TWA Terminal by the Port Authority until such time as these responsibilities are transferred to the adaptive reuse developer.

Compliance Status: This maintenance has been ongoing, including inspections and repairs, as needed.

6-1-2-3MOA Restoration and Rehabilitation Stipulations

12/13. Restoration and rehabilitation of the TWA Main Terminal Building and the East Tube shall be in accordance with the Secretary of the Interior's Standards, with the full visible exterior of the East Tube retained and modifications to the West Tube to be undertaken in consultation with the RAC.

Compliance Status: A number of the exterior and interior spaces have been restored and rehabilitated by the Port Authority, including the Lower Lobby and upper main Lobby spaces, the interior of the East Tube, the existing façade including most of the landside entrances and front window wall and skylights. The balcony areas will be restored by the Flight Center Hotel, LLC as per the Secretary of the Interiors Standards – Restoration, and in consultation with SHPO and the RAC. The full visible exterior length of the East Tube has been retained, and the West Tube has been modified and has a similar appearance to the East Tube. Both Tubes connect the TWA Main Terminal Building with Terminal 5 (jetBlue).

14. Investigation of the potential reuse of the Flight Wing 1 and 2 gate lounge "trumpets" or other significant architectural elements as part of the new Terminal design.

Compliance Status: Based on consultation with SHPO and the RAC, the "trumpets" were not incorporated into the design of the new Terminal.

15. Restoration of the TWA Main Terminal Building and Flight Tubes will include the removal of non-historic additions and restoration of certain original interior features of the TWA Main Terminal Building.

Compliance Status: This work is ongoing. Additions as specified in the MOA including entrance vestibules, security booths, the south baggage facility and the pedestrian canopy have been removed. The interior Lobby spaces have been restored with non-historic signage and furniture removed. The east and west balcony levels will be restored and rehabilitated by TWA Flight Center Hotel, for use as lounge, restaurant, café, and retail space in coordination with SHPO and the RAC. In addition, though not specified in the MOA, the Proposed Project would also remove the non-contributing 1970s additions placed on the airside of the Main Terminal Building to house office, ticketing, and baggage functions, consistent with the 1967 period of restoration and as described in greater detail below.

Amendment 15A. Should previously unidentified archaeological properties be discovered during rehabilitation of the TWA Terminal (TWA Flight Center), work activities should cease and the Port Authority would notify the FAA and SHPO in accordance with 36 CFR Section 800.13(b).

Compliance Status: The adaptive reuse developer and its contractors are committed to the protocols following the unanticipated discovery of archaeological resources. The FAA and SHPO would be notified within 24 hours to provide documentation.

Amendment 15B. Should unanticipated adverse effects occur during rehabilitation of the TWA Terminal (TWA Flight Center), the Port Authority would notify the FAA and SHPO in accordance with 36 CFR Section 800.13(b).

Compliance Status: The adaptive reuse developer and its contractors are committed to the protocols following the unanticipated adverse effects during construction. The FAA and SHPO would be notified within 24 hours to provide documentation.

Amendment 15C. The FAA and the Port Authority shall provide a status report 12 months following the execution of the First Amendment to the 2004 MOA. Annual reports shall also be provided by January 30th of each year until the MOA expires or is terminated. Following review of the annual reports, the consulting parties and the RAC may request a meeting, as needed.

Compliance Status: A status report and subsequent annual reports will be submitted, including a summary detailing work undertaken; any proposed scheduling changes; problems and resolutions; and any resolutions to disputes and objections.

16. Approval of the SHPO will be sought once the restoration and rehabilitation work at the TWA Main Terminal Building and the East Tube has been completed as set forth by Stipulation 12 of the MOA. In addition, the SHPO will notify the RAC once they have been notified of completion by the Port Authority, to give the RAC the opportunity to comment and also tour the restored and rehabilitated spaces.

Compliance Status: As discussed above, a portion of the restoration and rehabilitation work has been completed by the Port Authority, with additional restoration and rehabilitation to be undertaken by TWA Flight Center Hotel, LLC. Consultation with SHPO and the RAC is ongoing regarding the adaptive reuse design for the TWA Main Terminal Building and the design of the TWA Flight Center Hotel.

6-1-2-4MOA Ongoing Maintenance and Preservation Stipulations

17/18. The MOA require that the Port Authority prepare maintenance and preservation guidelines for the TWA Main Terminal Building and East Tube upon completion of the rehabilitation and restoration work, for submission to SHPO for review and approval, and that the Port Authority perform an inspection of the TWA Main Terminal Building and East Tube every five years and that the report documenting the inspections and approved by SHPO be provided to the signatories of the MOA by the Port Authority.

Compliance Status: The adaptive reuse developer will prepare maintenance and preservation guidelines for the repair of historic materials and fixtures and for façade maintenance and cleaning, with the requirement of inspections included in the agreement between the Port Authority and the adaptive reuse developer.

Amendment 17A. The developer shall prepare maintenance and preservation guidelines for treatment of the TWA Main Terminal Building and East Tube. The guidelines shall be submitted to the Port Authority and, SHPO, and the RAC, following completion of the rehabilitation and restoration work.

Compliance Status: The adaptive reuse developer will submit maintenance and preservation guidelines for review and approval.

Chapter 7: Public Outreach and Agency Coordination

The Port Authority and FAA have involved the public, coordinated with agencies, and engaged with consulting parties regarding this project. Section 4(f) determinations require input from agencies having jurisdiction over affected Section 4(f) resources. The Department of Interior (DOI) reviews the Section 4(f) evaluation during a 45-day review period.

7-1 NEPA

To satisfy requirements for public involvement, a Notice of Public Availability was published in the *New York Newsday, Daily News (Queens edition), Queens Chronicle, Queens Courier, Queens Times Ledger, Queens Ledger, Long Island Herald, and South East Queens Press,* newspapers. The Draft EA is available at the Port Authority's Administration Building at JFK and Port Authority's central staff office in Manhattan (4 World Trade Center). A copy of the document is also available for review on the website, http://www.panynj.gov/about/studies-reports.html. A 30 day comment period extends from April 7, 2016 to May 7, 2016. The DOI Section 4(f) consistency review extends from April 7, 2016 to May 22, 2016.

To ensure that interested parties are informed, another advertisement will be placed in the local newspapers announcing the FAA's decision. Copies of the Final EA and the FAA's decision will be available at the Port Authority's Administration Building at JFK, and Port Authority's central staff office in Manhattan.

7-2 SECTION 106 COORDINATION WITH AGENCIES AND CONSULTING PARTIES

The Port Authority and FAA have coordinated with public agencies, and engaged with consulting parties regarding the Proposed Project and issues addressed in this EA. A consultation under Section 106 of the NHPA has occurred as part of the environmental planning for the Proposed Project because the Proposed Project involves a resource listed in the National Register of Historic Places. Both NEPA and NHPA and their associated regulations, require public and agency involvement before FAA can render a decision on the Proposed Project. A public notice and comment period will be part of the NEPA process. The intent of public and agency involvement is to ensure that the public and resource agencies can review the adaptive reuse of the historic resource and provide input on the Proposed Project. In addition, the RAC continues to provide the agency coordination and guidance in the review of this Proposed Project in accordance with Section 106 of the National Historic Preservation Act. The proposed TWA Flight Center Hotel, LLC project has been presented to the RAC at four meetings—May 11, 2015, June 17, 2015, December 1, 2015, and February 26, 2016. A detailed discussion on the Section 106 process is included in Section 5-2, Historical, Architectural, Archaeological, and Cultural Resources.

7-3 NEW YORK CITY UNIFORM LAND USE REVIEW PROCEDURE

The public has had several opportunities to learn about and share comments on the proposed TWA Flight Center Hotel through public meetings and hearing associated with the New York City Uniform Land Use Review Procedure (ULURP), a process which establishes several opportunities for public review and comment. The ULURP process is in support of the proposed project sponsor's seeking a long term lease commitment directly with New York City which would only be required if the City's lease with the Port Authority is not renewed.

Specifically, the project has been presented at regularly scheduled public meetings including to the three local Community Boards (10, 12, and 13) that are located adjacent to the airport, the Queens Borough President's office, and the New York City Planning Commission. In each instance, the project sponsor provided an overview presentation of the project in terms of the proposed development program, the specific need for the lease commitment by the City, the restoration of the historic TWA Flight Center, and a visual depiction of the project in relationship to the surrounding buildings of this portion of the Central Terminal Area. Board members and the general public were allowed to ask questions and comment on the proposed project.

As part of their role and input to the ULURP process, each of the Community Boards and the Borough President's office have recommended approval of the proposed project. The New York City Planning Commission approved the ULURP application on March 9, 2016. The ULURP process concludes with a final hearing by the New York City Council. In chronological order, the location and dates of meetings held to date on the proposed TWA Flight Center Hotel are listed below:

Queens Community Board 13 Land Use Committee
Monday, December 14, 2015 at 7:00 pm
Community Board 13 Office
219-41 Jamaica Avenue
Queens Village, NY 11428

Queens Community Board 13 Full Board Meeting
Monday, December 21, 2015 at 7:30
Bellerose Assembly of God
240-15 Hillside Avenue,
Bellerose, NY 11426

Queens Community Board 12 Land Use Committee
Tuesday, January 5, 2016 at 7:00pm
Community Board 12 Office
90-28 161st Street
Jamaica, NY 11432

Queens Community Board 10 Land Use Committee
Wednesday, January 6, 2016 at 7pm
115-01 Lefferts Blvd.

South Ozone Park, NY 11420

Queens Community Board 10 Full Board Meeting
Thursday, January 7, 2016 at 7:45pm
Knights of Columbus Hall
135-45 Lefferts Boulevard
South Ozone Park, NY 11420

Queens Community Board 12 Full Board Meeting
Wednesday, January 20, 2016 at 7pm
Robert Ross Johnson Family Life Center
172-17 Linden Boulevard
Jamaica, NY 11434

Queens Borough President Hearing
Thursday, January 28, 2016 at 10:30am
Queens Borough Hall
120-55 Queens Boulevard
Jamaica, NY 11424

Queens Borough Board Meeting
Monday, February 8, 2016 at 5:30pm
Queens Borough Hall
120-55 Queens Boulevard
Jamaica, NY 11424

City Planning Commission Review Session
Monday, February 22, 2016 at 10am
Spector Hall
22 Reade Street
New York, NY 10007

City Planning Commission Public Hearing
Wednesday, February 24, 2016 at 10am
Spector Hall
22 Reade Street
New York, NY 10007

Chapter 8: Conclusion

This evaluation has been prepared to assess the potential effects of the Proposed Project on Section 4(f) resources and to evaluate alternatives that avoid or minimize impacts to those resources. Based on the above considerations, there is no prudent and feasible alternative to this use of the historic TWA Flight Center. The Proposed Project includes all possible planning to minimize harm to the Section 4(f) resource resulting from such use. Additionally, the purpose of the project includes the preservation of the historic transportation facility and the implementation of the 2004 MOA and its Draft First Amendment.

Attachments: Table of Contents

*** See EA Appendix B**
**** See EA Appendix C**

Appendix F: Coastal Zone Consistency Determination

For Internal Use Only:	WRP no.
Date Received:	DOS no.

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM
Consistency Assessment Form

Proposed action subject to CEQR, ULURP, or other Local, State or Federal Agency Discretionary Actions that are situated within New York City's designated Coastal Zone Boundary must be reviewed and assessed for their consistency with the *New York City Waterfront Revitalization Program (WRP)*. The WRP was adopted as a 197-a Plan by the Council of the City of New York on October 13, 1999, and approved in coordination with local, state and Federal laws and regulations, including the State's Coastal Management Program (Executive Law, Article 42) and the Federal Coastal Zone Management Act of 1972 (P.L. 92-583). As a result of these approvals, state and federal discretionary actions within the city's coastal zone must be consistent to the maximum extent practicable with the WRP policies and the city must be given the opportunity to comment on all state and federal projects within its coastal zone.

This form is intended to assist an applicant in certifying that the proposed activity is consistent with the WRP. It should be completed when the local, state, or federal application is prepared. The completed form and accompanying information will be used by the New York State Department of State, other State Agency or the New York City Department of City Planning in its review of the applicant's certification of consistency.

A. APPLICANT

1. Name:
Port Authority of New York and New Jersey (Attn: Marc Helman)

Address:
4 World Trade Center, 150 Greenwich Street, 20th Floor, New York, NY 10007

3. Telephone: (212) 435-6112 Fax: (212) 435-6251

E-mail Address:
mhelman@panynj.gov

4. Project site owner:
Port Authority of New York and New Jersey

B. PROPOSED ACTIVITY

1. Brief description of activity:
Development of an on-airport hotel with 505 rooms at JFK Airport and utilizing this historic TWA Flight Center located in the Central Terminal Area

2. Purpose of activity:
Adaptive reuse of historic landmark, new airport hotel, enhanced customer experience, new economic activity

3. Location of activity: **Jamaica** Borough: **Queens**

Street Address or Site Description:
Terminal 5 in the Central Terminal Area of JFK International Airport

Proposed Activity Cont'd

4. If a federal or state permit or license was issued or is required for the proposed activity, identify the permit type(s), the authorizing agency and provide the application or permit number(s), if known:

   NYSDOS Coastal Zone Consistency Determination; Authorization to discharge dewatering effluent under JFK SPDES Permit No. 0008109; Stormwater Pollution Prevention Plan (SWPPP); and Long Island Well Permit

5. Is federal or state funding being used to finance the project? If so, please identify the funding source(s).

   No

		Yes	No
6.	Will the proposed project result in any large physical change to a site within the coastal area that will require the preparation of an environmental impact statement?		
	If yes, identify Lead Agency:	____	X

7. Identify **City** discretionary actions, such as **zoning amendment or adoption of an urban renewal plan**, required for the proposed project.

   N/A

C. COASTAL ASSESSMENT

The following questions represent, in a broad sense, the policy of the WRP. The number in the parentheses after each question indicated the policy or policies that are the focus of the question. A detailed explanation of the Waterfront Revitalization Program and its policies are contained in the publication the *New York City Waterfront Revitalization Program.*

Check either "Yes" or "No" for each of the following questions. Once the checklist is completed, assess how the proposed project affects the policy or standards indicated in "( )" after each question with a Yes response. Explain how the action is consistent with the goals of the policy or standard.

Location Questions:		**Yes**	**No**
1.	Is the project site on the waterfront or at the water's edge?	____	X
2.	Does the proposed project require a waterfront site?	____	X
3.	Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land underwater, or coastal waters?	____	X

Policy Questions:		**Yes**	**No**

The following questions represent, in a broad sense, the policies of the WRP. Numbers in parentheses after each questions indicate the policy or policies addressed by the question. The new Waterfront Revitalization Program offers detailed explanations of the policies, including criteria for consistency determinations.

Check either "Yes" or "No" for each of the following questions. For all "yes" responses, provide an attachment assessing the effects of the proposed activity on the relevant policies or standards. Explain how the action would be consistent with the goals of those policies and standards.

4.	Will the proposed project result in revitalization or redevelopment of a deteriorated or under- used waterfront site? (1)	____	X
5.	Is the project site appropriate for residential or commercial redevelopment? (1.1)	X	____
6.	Will the action result in a change in scale or character of a neighborhood? (1.2)	____	X
7.	Will the proposed activity require provision of new public services or infrastructure in undeveloped or sparsely populated sections of the coastal area? (1.3)	____	X

Policy Questions cont'd:		Yes	No
8.	Is the action located in one of the designated Significant Maritime and Industrial Areas (SMIA): South Bronx, Newtown Creek, Brooklyn Navy Yard, Red Hook, Sunset Park, or Staten Island? (2)		X
9.	Are there any waterfront structures, such as piers, docks, bulkheads or wharves, located on the project sites? (2)		X
10.	Would the action involve the siting or construction of a facility essential to the generation or transmission of energy, or a natural gas facility, or would it develop new energy resources? (2.1)		X
11.	Does the action involve the siting of a working waterfront use outside of a SMIA? (2.2)		X
12.	Does the proposed project involve infrastructure improvement, such as construction or repair of piers, docks, or bulkheads? (2.3, 3.2)		X
13.	Would the action involve mining, dredging, or dredge disposal, or placement of dredged or fill materials in coastal waters? (2.3, 3.1, 4, 5.3, 6.3)		X
14.	Would the action be located in a commercial or recreational boating center, such as City Island, Sheepshead Bay or Great Kills or an area devoted to water-dependent transportation? (3)		X
15.	Would the proposed project have an adverse effect upon the land or water uses within a commercial or recreation boating center or water-dependent transportation center? (3.1)		X
16.	Would the proposed project create any conflicts between commercial and recreational boating? (3.2)		X
17.	Does the proposed project involve any boating activity that would have an impact on the aquatic environment or surrounding land and water uses? (3.3)		X
18.	Is the action located in one of the designated Special Natural Waterfront Areas (SNWA): Long Island Sound-East River, Jamaica Bay, or Northwest Staten Island? (4 and 9.2)		X
19.	Is the project site in or adjacent to a Significant Coastal Fish and Wildlife Habitats? (4.1)		X
20.	Is the site located within or adjacent to a Recognized Ecological Complex: South Shore of Staten Island or Riverdale Natural Area District? (4.1and 9.2)		X
21.	Would the action involve any activity in or near a tidal or freshwater wetland? (4.2)		X
22.	Does the project site contain a rare ecological community or would the proposed project affect a vulnerable plant, fish, or wildlife species? (4.3)		X
23.	Would the action have any effects on commercial or recreational use of fish resources? (4.4)		X
24.	Would the proposed project in any way affect the water quality classification of nearby waters or be unable to be consistent with that classification? (5)		X
25.	Would the action result in any direct or indirect discharges, including toxins, hazardous substances, or other pollutants, effluent, or waste, into any waterbody? (5.1)	X	
26.	Would the action result in the draining of stormwater runoff or sewer overflows into coastal waters? (5.1)	X	
27.	Will any activity associated with the project generate nonpoint source pollution? (5.2)		X

Policy Questions cont'd:		Yes	No
28.	Would the action cause violations of the National or State air quality standards? (5.2)		X
29.	Would the action result in significant amounts of acid rain precursors (nitrates and sulfates)? (5.2C)		X
30.	Will the project involve the excavation or placing of fill in or near navigable waters, marshes, estuaries, tidal marshes or other wetlands? (5.3)		X
31.	Would the proposed action have any effects on surface or ground water supplies? (5.4)		X
32.	Would the action result in any activities within a Federally designated flood hazard area or State designated erosion hazards area? (6)	X	
33.	Would the action result in any construction activities that would lead to erosion? (6)	X	
34.	Would the action involve construction or reconstruction of flood or erosion control structure? (6.1)		X
35.	Would the action involve any new or increased activity on or near any beach, dune, barrier island, or bluff? (6.1)		X
36.	Does the proposed project involve use of public funds for flood prevention or erosion control? (6.2)		X
37.	Would the proposed project affect a non-renewable source of sand? (6.3)		X
38.	Would the action result in shipping, handling, or storing of solid wastes; hazardous materials, or other pollutants? (7)	X	
39.	Would the action affect any sites that have been used as landfills? (7.1)		X
40.	Would the action result in development of a site that may contain contamination or has a history of underground fuel tanks, oil spills, or other form or petroleum product use or storage? (7.2)	X	
41.	Will the proposed activity result in any transport, storage, treatment, or disposal of solid wastes or hazardous materials, or the siting of a solid or hazardous waste facility? (7.3)	X	
42.	Would the action result in a reduction of existing or required access to or along coastal waters, public access areas, or public parks or open spaces? (8)		X
43.	Will the proposed project affect or be located in, on, or adjacent to any federal, state, or city park or other land in public ownership protected for open space preservation? (8)		X
44.	Would the action result in the provision of open space without the provision for its maintenance? (8.1)		X
45.	Would the action result in any development along the shoreline but NOT include new water enhanced or water dependent recreational space? (8.2)		X
46.	Will the proposed project impede visual access to coastal lands, waters and open space? (8.3)		X
47.	Does the proposed project involve publically owned or acquired land that could accommodate waterfront open space or recreation? (8.4)		X
48.	Does the project site involve lands or waters held in public trust by the state or city? (8.5)		X

Policy Questions cont'd:		Yes	No
49.	Would the action affect natural or built resources that contribute to the scenic quality of a coastal area? (9)		X
50.	Does the site currently include elements that degrade the area's scenic quality or block views to the water? (9.1)		X
51.	Would the proposed action have a significant adverse impact on historic, archeological, or cultural resources? (10)		X
52.	Will the proposed activity affect or be located in, on, or adjacent to an historic resource listed on the National or State Register of Historic Places, or designated as a landmark by the City of New York? (10)	X	

For all "Yes" responses to Policy Questions 4-52, please see Section F. "Waterfront Revitalization Program". The policy questions above cross reference the relevant policies in parenthesis.

D. CERTIFICATION

The applicant must certify that the proposed activity is consistent with New York City's Waterfront Revitalization Program, pursuant to the New York State Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If the certification can be made, complete this section.

"The proposed activity complies with New York State's Coastal Management Program as expressed in New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program, and will be conducted in a manner consistent with such program."

Contact's Name: Port Authority of New York and New Jersey (Attn: Marc Helman)

Address: 4 World Trade Center, 150 Greenwich Street, 20th Floor, New York, NY 10007

Telephone: 212-435-6112

Contact's Signature: Marc Helman Date: 24 September 2015

NEW YORK STATE DEPARTMENT OF STATE
COASTAL MANAGEMENT PROGRAM

Federal Consistency Assessment Form

An applicant, seeking a permit, license, waiver, certification or similar type of approval from a federal agency which is subject to the New York State Coastal Management Program (CMP), shall complete this assessment form for any proposed activity that will occur within and/or directly affect the State's Coastal Area. This form is intended to assist an applicant in certifying that the proposed activity is consistent with New York State's CMP as required by U.S. Department of Commerce regulations (15 CFR 930.57). It should be completed at the time when the federal application is prepared. The Department of State will use the completed form and accompanying information in its review of the applicant's certification of consistency.

A. **APPLICANT** (please print)

1. Name: Port Authority of New York and New Jersey (Attn: Marc Helman)

2. Address: 4 World Trade Center, 150 Greenwich Street, 20th Floor, New York, NY 10007

3. Telephone: Area Code 212-435-6112

B. **PROPOSED ACTIVITY**

1. Brief description of activity:

Development of an on-airport hotel with 505 rooms at JFK Airport and utilizing the historic TWA Flight Center located within the Central Terminal Area

2. Purpose of activity

Adaptive reuse of historic landmark, new airport hotel, enhanced customer experience, new economic activity

3. Location of activity

Queens	**Jamaica**	**JFK International Airport**
County	City, Town, or Village	Street or Site Description

4. Type of federal permit/license required: **Approval of Change to the Airport Layout Plan (ALP)**

5. Federal application number, if known: **NA**

6. If a state permit/license was issued or is required for the proposed activity, identify the state agency and provide the application or permit number, if known:

NA

C. **COASTAL ASSESSMENT** Check either "YES" or "NO" for each of these questions. The numbers following each question refer to the policies described in the CMP document (see footnote on page 2) which may be affected by the proposed activity.

1. Will the proposed activity result in any of the following:	YES	NO
a. Large physical change to a site within the coastal area which will require the preparation of an environmental impact statement? (11, 22, 25, 32, 37, 38, 41, 43)	☐	☒
b. Physical alteration of more than two acres of land along the shoreline, land under water or coastal waters? (2, 11, 12, 20, 28, 35, 44)	☐	☒
c. Revitalization/redevelopment of a deteriorated or underutilized waterfront site? (1)	☐	☒
d. Reduction of existing or potential public access to or along coastal waters? (19, 20)	☐	☒
e. Adverse effect upon the commercial or recreational use of coastal fish resources? (9, 10)	☐	☒
f. Siting of a facility essential to the exploration, development and production of energy resources in coastal waters or on the Outer Continental Shelf? (29)	☐	☒
g. Siting of a facility essential to the generation or transmission of energy? (27)	☐	☒
h. Mining, excavation, or dredging activities, or the placement of dredged or fill material in coastal waters? (15, 35)	☐	☒
i. Discharge of toxics, hazardous substances or other pollutants into coastal waters? (8, 15, 35)	☐	☒
j. Draining of stormwater runoff or sewer overflows into coastal waters? (33)	☒	☐
k. Transport, storage, treatment, or disposal of solid wastes or hazardous materials? (36, 39)	☒	☐
l. Adverse effect upon land or water uses within the State's small harbors? (4)	☐	☒

2. Will the proposed activity affect, or be located in, on, or adjacent to any of the following:	YES	NO
a. State designated freshwater or tidal wetland? (44)	☐	☒
b. Federally designated flood and/or state designated erosion hazard area? (11, 12, 17)	☒	☐
c. State designated significant fish and/or wildlife habitat? (7)	☐	☒
d. State designated significant scenic resource or area? (24)	☐	☒
e. State designated important agricultural lands? (26)	☐	☒
f. Beach, dune or barrier island? (12)	☐	☒
g. Major ports of Albany, Buffalo, Ogdensburg, Oswego or New York? (3)	☐	☒
h. State, county, or local park? (19, 20)	☐	☒
i. Historic resource listed on the National or State Register of Historic Places? (23)	☒	☐

3. Will the proposed activity require any of the following:	YES	NO
a. Waterfront site? (2, 21, 22)	☐	☒
b. Provision of new public services or infrastructure in undeveloped or sparsely populated sections of the coastal area? (5)	☐	☒
c. Construction or reconstruction of a flood or erosion control structure? (13, 14, 16)	☐	☒
d. State water quality permit or certification? (30, 38, 40)	☐	☒
e. State air quality permit or certification? (41, 43)	☐	☒

4. Will the proposed activity occur within and/or affect an area covered by a State approved local waterfront revitalization program? (see policies in local program document)	YES	NO
	☒	☐

D. **ADDITIONAL STEPS**

1. If all of the questions in Section C are answered "NO", then the applicant or agency shall complete Section E and submit the documentation required by Section F.

2. If any of the questions in Section C are answered "YES", then the applicant or agent is advised to consult the CMP, or where appropriate, the local waterfront revitalization program document*. The proposed activity must be analyzed in more detail with respect to the applicable state or local coastal policies. On a separate page(s), the applicant or agent shall: (a) identify, by their policy numbers, which coastal policies are affected by the activity, (b) briefly assess the effects of the activity upon the policy; and, (c) state how the activity is consistent with each policy. Following the completion of this written assessment, the applicant or agency shall complete Section E and submit the documentation required by Section F.

E. **CERTIFICATION**

The applicant or agent must certify that the proposed activity is consistent with the State's CMP or the approved local waterfront revitalization program, as appropriate. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program, or with the applicable approved local waterfront revitalization program, and will be conducted in a manner consistent with such program."

Contact's Name: Port Authority of New York and New Jersey (Attn: Marc Helman)

Address: 4 World Trade Center, 150 Greenwich Street, 20th Floor, New York, NY 10007

Telephone: Area Code 212-435-6112

Contact's Signature: Marc Helman Date: 24 September 2015

F. **SUBMISSION REQUIREMENTS**

1. The applicant or agent shall submit the following documents to the **New York State Department of State, Office of Coastal, Local Government and Community Sustainability, Attn: Consistency Review Unit, 1 Commerce Plaza, 99 Washington Avenue – Suite 1010, Albany, New York 12231.**

    a. Copy of original signed form.
    b. Copy of the completed federal agency application.
    c. Other available information which would support the certification of consistency.

2. The applicant or agent shall also submit a copy of this completed form along with his/her application to the federal agency.

3. If there are any questions regarding the submission of this form, contact the Department of State at (518) 474-6000.

*These state and local documents are available for inspection at the offices of many federal agencies, Department of Environmental Conservation and Department of State regional offices, and the appropriate regional and county planning agencies. Local program documents are also available for inspection at the offices of the appropriate local government.

CONSISTENCY OF THE PROPOSED PROJECT WITH COASTAL ZONE POLICIES

As the project requires approval from the Federal Aviation Administration (FAA), it is subject to the New York State Coastal Zone Management Program (CZMP) and compliance with its 44 coastal policies. New York City's Waterfront Revitalization Program (WRP) also includes 10 principal policies. These policies were designed to maximize the benefits derived from economic development, environmental preservation, and public use of the waterfront, while minimizing the conflicts among those objectives. For each policy and sub-policy question that was answered "yes" in the Coastal Assessment Forms, this analysis includes a discussion of the policy's applicability to the proposed project and the proposed project's consistency with the respective policy.

WATERFRONT REVITALIZATION PROGRAM POLICIES

WRP POLICY 1

Support and facilitate commercial and residential development in areas well-suited to such development.

Policy 1.1: Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.

The proposed action is located in a Coastal Zone area that is already an actively used airport. The TWA Flight Center Terminal building is an existing building at JFK Airport that would be repurposed as the Lobby area and amenities for the hotel. Two new hotel guest room buildings would be constructed on either side of the TWA Flight Center Terminal. Therefore, the proposed project is consistent with this policy.

WRP POLICY 5

Protect and improve water quality in the New York City coastal area.

Policy 5.1: Manage direct or indirect discharges to waterbodies.

JFK is serviced by an independent storm sewer system that collects stormwater runoff from the Airport and discharges to Jamaica Bay at 26 separate outfall locations. All discharges occurring via the stormwater conveyance system would be in accordance with the requirements set forth in the existing State Pollutant Discharge Elimination System (SPDES) permit. Erosion and sediment control measures and stormwater management measures would be developed as part of the Stormwater Pollution Prevention Plan (SWPPP). The Proposed Action would not discharge large quantities of freshwater into Jamaica Bay, which is a tidal waterbody. Groundwater recovered during any construction dewatering would be treated, as necessary, prior to discharge to the storm sewer system. Therefore, the proposed project is consistent with this policy.

WRP POLICY 6

Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.

A section of the Proposed Action would encroach in the special flood hazard area subject to inundation by the 500-year floodplain as designated by Federal Emergency Management Agency (FEMA) in the Preliminary Flood Insurance Rate Maps (FIRMS) released January 30,

2015. However, the Proposed Action is not considered a "critical action," as defined in the Water Resources Council Floodplain Management Guidelines. The proposed action would occur in a previously developed area and, therefore, construction would not involve activities that would lead to erosion. Therefore, there would be no floodplain impacts associated with the Proposed Action. Therefore, the proposed project is consistent with this policy.

WRP POLICY 7

Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may post risks to the environment and public health and safety.

Policy 7.2: Prevent and remediate discharge of petroleum products

Various subsurface investigations in the vicinity of the project site have identified soil and groundwater impacted by jet fuel, gasoline, diesel, and other petrochemical products. Between 1999 and 2005, five separate investigations were performed during which numerous monitoring wells were installed and soil and groundwater samples were collected. The petroleum contamination is currently being remediated under a New York State Department of Environmental Conservation (NYSDEC) approved Remedial Action Workplan (RAWP). An Environmental Management Plan (EMP) will be prepared for the project and will include measures to be implemented to prevent and remediate additional petroleum contamination that may be discovered during site construction. Therefore, the proposed project is consistent with this policy.

Policy 7.3: Transport solid waste and hazardous substance and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.

All solid waste and hazardous substances at the site would be transported and disposed of in accordance with applicable regulations. The proposed project would not result in the degradation of coastal resources. Therefore, the proposed project is consistent with this policy.

WRP POLICY 10

Protect, preserve and enhance resources significant to the historical, archaeological, and cultural legacy of the New York City coastal area.

The proposed action provides for the adaptive reuse of the historic TWA Flight Center, which was listed on the National Register of Historic Places in 2005. The development plan is subject to a 2015 Memorandum of Agreement (MOA) developed through the consultation process of Section 106 of the National Historic Preservation Act. The MOA outlines requirements for the restoration and preservation of the TWA Flight Center. The MOA was developed by the Redevelopment Advising Committee (RAC). The RAC signatories are the Port Authority of New York and New Jersey (Port Authority), the State Historic Preservation Office (SHPO), the Federal Aviation Administration (FAA) and the Advisory Council for Historic Preservation (ACHP). The RAC consulting parties consist of the National Trust for Historic Preservation, the Municipal Art Society of New York, the New York City Partnership, Documentation, and Conservation of Buildings,Sites and Neighborhoods of the Modern Movement (DOCOMOMO), the Finnish Council, New York Landmarks Conservancy and the New York Building Congress. The subject MOA will be completed and filed upon approval from the RAC. Based on the above, the proposed project is consistent with this policy.

NEW YORK STATE COASTAL ZONE MANAGEMENT PROGRAM POLICIES

CZMP POLICY 11

Buildings and other structures will be sited in the coastal area so as to minimize damage to property and the endangering of human lives caused by flooding and erosion.

Although a section of the Proposed Action would encroach in the special flood hazard area subject to inundation by the 500-year floodplain as designated by Federal Emergency Management Agency (FEMA) in the Preliminary Flood Insurance Rate Maps (FIRMS) released January 30, 2015. However, the Proposed Action is not considered a "critical action," as defined in the Water Resources Council Floodplain Management Guidelines. In addition, the project is not sited near the shoreline or in an area subject to erosion. Therefore, the proposed project is consistent with this policy.

CZMP POLICY 12

Activities or development in the coastal area will be undertaken so as to minimize damage to natural resources and property from flooding and erosion by protecting natural protective features including beaches, dunes, barrier islands and bluffs.

The project would be constructed on land areas that do not include natural protective features such as beaches, dunes, barrier islands, and bluffs. Therefore Policy 12 is not applicable.

CZMP POLICY 17

Non-structural measures to minimize damage to natural resources and property from flooding and erosion shall be used whenever possible.

Non-structural measures, such as the set-back of buildings, use of vegetation, etc. are not applicable to the project. The Proposed Action would not cause shoreline erosion or increases in area flooding. Therefore, the project would be consistent with Policy 17.

CZMP POLICY 23

Protect, enhance, and restore structures, districts, areas or sites that are of significance in the history, architecture, archeology or culture of the state, its communities, or the nation.

The proposed action provides for the adaptive reuse of the historic TWA Flight Center, which was listed on the National Register of Historic Places in 2005. The development plan is subject to a 2015 Memorandum of Agreement (MOA) developed through the consultation process of Section 106 of the National Historic Preservation Act. The MOA outlines requirements for the restoration and preservation of the TWA Flight Center. The MOA was developed by the Redevelopment Advising Committee (RAC). The RAC signatories are the Port Authority of New York and New Jersey (Port Authority), the State Historic Preservation Office (SHPO), the Federal Aviation Administration (FAA) and the Advisory Council for Historic Preservation (ACHP). The RAC consulting parties consist of the National Trust for Historic Preservation, the Municipal Art Society of New York, the New York City Partnership, Documentation, and Conservation of Buildings,Sites and Neighborhoods of the Modern Movement (DOCOMOMO), the Finnish Council, New York Landmarks Conservancy and the New York Building Congress.

The subject MOA will be completed and filed upon approval from the RAC. Based on the above, the proposed project is consistent with this policy.

CZMP POLICY 33

Best management practices will be used to ensure the control of storm water runoff and combined sewer overflows draining into coastal waters.

JFK is serviced by an independent storm sewer system that collects stormwater runoff from the Airport and discharges to Jamaica Bay at 26 separate outfall locations. All discharges occurring via the stormwater conveyance system would be in accordance with the requirements set forth in the existing State Pollutant Discharge Elimination System (SPDES) permit. Erosion and sediment control measures and stormwater management measures would be developed as part of the Stormwater Pollution Prevention Plan (SWPPP). The Best Management Practices Plan (BMPP) for JFK which includes requirements to manage stormwater runoff would be implemented as a part of the Proposed Action. Groundwater recovered during any construction dewatering would be treated, as necessary, prior to discharge to the storm sewer system. Therefore, the proposed project would be consistent with Policy 33.

CZMP POLICY 36

Activities related to the shipment and storage of petroleum and other hazardous materials will be conducted in a manner that will prevent or at least minimize spills into coastal waters; all practicable efforts will be undertaken to expedite the cleanup of such discharges; and restitution for damages will be required when these spills occur.

All solid waste and hazardous substances at the site would be stored, transported and disposed of in accordance with applicable regulations. The proposed project would not be expected to result in spills into coastal waters. Therefore, the proposed project is consistent with this policy.

CZMP POLICY 39

The transport, storage, treatment and disposal of solid wastes, particularly hazardous wastes, within coastal areas will be conducted in such a manner so as to protect groundwater and surface water supplies, significant fish and wildlife habitats, recreation areas, important agricultural lands and scenic resources.

Any transport, storage, treatment and disposal of hazardous materials would be the responsibility of the contractor and would comply with relevant laws and regulations. Therefore, the proposed project is consistent with this policy.

UPS OVERNIGHT DELIVERY

September 29, 2015

Jeffrey Zappieri
Supervisor, Consistency Review Unit
New York State Department of State
Division of Coastal Resources
1 Commerce Plaza, Suite 1010
Albany, NY 12231-0001

SUBJECT: JOHN F. KENNEDY INTERNATIONAL AIRPORT
TWA FLIGHT CENTER HOTEL PROJECT
CZMP CERTIFICATION & REQUEST FOR CONCURRENCE

Dear Mr. Zappieri:

The Port Authority of NY & NJ (Port Authority) is proposing an adaptive reuse of the recently restored, historic former Trans World Airlines (TWA) Flight Center (terminal) at the John F. Kennedy International Airport (JFK). The project site is located near Jamaica Bay, at Jamaica Borough of Queens, Queens County, NY. The work would involve the development of the TWA Flight Center Hotel at the site of the former TWA terminal.

The proposed work would include the construction of two new buildings, one on each side of the TWA Flight Center. These buildings would provide approximately 500 guest rooms as well as conference facilities. The original Flight Center buildings would be repurposed as the lobby check-in area and also used to provide other amenities, e.g. food hall, lounges, retail space. The project would also include construction of an on-site cogeneration facility and direct connections to AirTrain and the airport roadway system.

The Federal Aviation Administration (FAA) must approve the project because it involves a change in the airport layout plan. The Port Authority has reviewed the subject project in light of the New York State Department of State (NYSDOS) Coastal Zone Management Plan (CZMP) policies and the New York City Waterfront Revitalization Program (NYCWRP) policies and determined it would be in compliance with both and would not cause foreseeable adverse effects on coastal resources.

Enclosed are drawings and renderings showing the project area and proposed construction, a completed Federal Consistency Assessment Form (FCAF), a completed New York City Waterfront Revitalization Program Consistency Assessment Form (NYC WRPCAF), and policy evaluations for each to assist in your review of the project.

Engineering Department
4 World Trade Center, 150 Greenwich Street
*New York, NY 1000*7

The project site is located within a developed area that is inland of the shoreline. Therefore, the work will not require a Section 10 or Section 404 Permit from the U.S. Army Corps of Engineers. Nor will it require a Tidal Wetlands Permit, Protection of Waters Permit, or Section 401 Water Quality Certification from the New York State Department of Environmental Conservation (NYSDEC).

A Stormwater Pollution Prevention Plan (SWPPP) will be prepared for the project and a Notice of Intent submitted to the NYSDEC as required by the Port Authority's State Pollution Discharge Elimination System Permit No. NY 000 8109 and the JFK Best Management Practices Plan. If, during or prior to construction, it is determined that dewatering from well points is required, an application for a Long Island Well Permit will be submitted to the NYSDEC.

If you have any questions or require any additional information, please contact Ms. Thzaira Charles by e-mail at tcharles@panynj.gov or telephone at (212) 435 – 6109. Alternatively, I may be contacted directly by e-mail at mhelman@panynj.gov or telephone at (212) 435 - 6112.

Very truly yours,

Marc Helman

Marc Helman
Supervisor, Permits and Governmental Approvals
Environmental Engineering Unit

Enclosures:
1) Project Drawings and Renderings
2) FCAF & NYC WRPCAF w/ policy evaluations

cc: Michael Marrella, NYCDCP
Ed Knoesel & Nate Kimball, Port Authority

UPS OVERNIGHT DELIVERY

September 29, 2015

Michael Marrella
Director, Waterfront and Open Space Division
New York City Department of City Planning
22 Reade Street
New York, NY 10007-1216

SUBJECT: JOHN F. KENNEDY INTERNATIONAL AIRPORT
TWA FLIGHT CENTER HOTEL PROJECT
WRP CERTIFICATION & REQUEST FOR CONCURRENCE

Dear Mr. Marrella:

The Port Authority of NY & NJ (Port Authority) is proposing an adaptive reuse of the recently restored, historic former Trans World Airlines (TWA) Flight Center (terminal) at the John F. Kennedy International Airport (JFK). The project site is located near Jamaica Bay, at Jamaica Borough of Queens, Queens County, NY. The work would involve the development of the TWA Flight Center Hotel at the site of the former TWA terminal.

The proposed work would include the construction of two new buildings, one on each side of the TWA Flight Center. These buildings would provide approximately 500 guest rooms as well as conference facilities. The original Flight Center buildings would be repurposed as the lobby check-in area and also used to provide other amenities, e.g. food hall, lounges, retail space. The project would also include construction of an on-site cogeneration facility and direct connections to AirTrain and the airport roadway system.

The Federal Aviation Administration (FAA) must approve the project because it involves a change in the airport layout plan. The Port Authority has reviewed the subject project in light of the New York City Waterfront Revitalization Program (NYCWRP) policies and New York State Department of State (NYSDOS) Coastal Zone Management Plan (CZMP) policies and determined it would be in compliance with both and would not cause foreseeable adverse effects on coastal resources.

Enclosed are drawings and renderings showing the project area and proposed construction, a completed New York City Waterfront Revitalization Program Consistency Assessment Form (NYC WRPCAF), Federal Consistency Assessment Form (FCAF), and policy evaluations for each to assist in your review of the project.

Engineering Department
4 World Trade Center, 150 Greenwich Street
New York, NY 10007

The project site is located within a developed area that is inland of the shoreline. Therefore, the work will not require a Section 10 or Section 404 Permit from the U.S. Army Corps of Engineers. Nor will it require a Tidal Wetlands Permit, Protection of Waters Permit, or Section 401 Water Quality Certification from the New York State Department of Environmental Conservation (NYSDEC).

A Stormwater Pollution Prevention Plan (SWPPP) will be prepared for the project and a Notice of Intent submitted to the NYSDEC as required by the Port Authority's State Pollution Discharge Elimination System Permit No. NY 000 8109 and the JFK Best Management Practices Plan. If, during or prior to construction, it is determined that dewatering from well points is required, an application for a Long Island Well Permit will be submitted to the NYSDEC.

If you have any questions or require any additional information, please contact Ms. Thzaira Charles by e-mail at tcharles@panynj.gov or telephone at (212) 435 – 6109. Alternatively, I may be contacted directly by e-mail at mhelman@panynj.gov or telephone at (212) 435 - 6112.

Very truly yours,

Marc Helman

Marc Helman
Supervisor, Permits and Governmental Approvals
Environmental Engineering Unit

Enclosures:
1) Project Drawings and Renderings
2) NYC WRPCAF & FCAF w/ policy evaluations

cc: Jeff Zappierri, NYSDOS
Ed Knoesel & Nate Kimball, Port Authority

STATE OF NEW YORK
DEPARTMENT OF STATE
ONE COMMERCE PLAZA
99 WASHINGTON AVENUE
ALBANY, NY 12231-0001

ANDREW M. CUOMO
GOVERNOR

CESAR A. PERALES
SECRETARY OF STATE

November 12, 2015

Mr. Marc Helman
Supervisor, Permits and Governmental Approvals
Port Authority of New York & New Jersey (PANYNJ)
4 World Trade Center
New York, New York 10007

Re: **F-2015-0763**
Federal Aviation Administration (FAA) –
Approval of change to Airport Layout Plan,
TWA Flight Center and Hotel Project;
John F. Kennedy (JFK) Airport, Queens, NY
Jamaica Bay

General Concurrence – No Objection

Dear Mr. Helman:

The Department of State received your submittal requesting consistency concurrence for the above-referenced matter on November 12, 2015. The Department has no objection to the FAA approval of the above proposed changes to the airport layout plan. Therefore, further review of the proposed activity by the Department of State and the Department's concurrence with an individual consistency certification for the proposed activity is not required.

This General Concurrence is without prejudice to and does not obviate the need to obtain all other applicable licenses, permits, other forms of authorization or approval that may be required pursuant to existing State statutes. When communicating with us regarding this matter, please contact Jeffrey Zappieri at (518) 474-6000 and refer to our file #F-2014-0763.

Sincerely,

Jeffrey Zappieri
Supervisor, Consistency Review Unit
Office of Planning and Development

JZ/ ts

From: Allan Zaretsky (DCP) [mailto:AZARETSKY@planning.nyc.gov]
Sent: Tuesday, November 17, 2015 9:46 AM
To: Helman, Marc; Charles, Thzaira
Cc: Michael Marrella (DCP); Caldwell, Denise (DOS)
Subject: WRP Consistency Review: TWA Flight Center Hotel (WRP #15-121)

Hello Mr. Helman,

We have completed the review of the project as described below for consistency with the policies and intent of the New York City Waterfront Revitalization Program (WRP).

TWA Flight Center Hotel: Adaptive reuse and development of an on-airport hotel with 5050 rooms at JFK Airport utilizing the historic TWA Flight Center located in the Central Terminal Area.

Based on the information submitted, the Waterfront Open Space Division, on behalf of the New York City Coastal Commission, having reviewed the waterfront aspect of this action, finds that the actions will not substantially hinder the achievement of any Waterfront Revitalization Program (WRP) policy and hereby provides its finding to the New York State Department of State (DOS) that this action is consistent with the WRP policies and the local program. Please note that the proposed action(s) are subject to consistency review and approval by the New York State Department of State (DOS) in accordance with the New York State Coastal Management Program.
This finding is only applicable to the information received and the current proposal. Any additional information or project modifications would require an independent consistency review.

For your records, this project has been assigned WRP # 15-121. If there are any questions regarding this review, please contact me.

Regards,
Allan Zaretsky

ALLAN ZARETSKY
PLANNER | WATERFRONT & OPEN SPACE DIVISION

NYC DEPT. OF CITY PLANNING
22 READE STREET • NEW YORK, NY 10007 • **t** 212.720.3448
www.nyc.gov/planning/resiliency

Appendix G: Public Involvement

Appendix G - Public Outreach and Agency Coordination

NEPA

To satisfy requirements for public involvement, a Notice of Public Availability was published in the *New York Newsday, Daily News (Queens edition), Queens Chronicle, Queens Courier, Queens Times Ledger, Queens Ledger, Long Island Herald, and South East Queens Press* newspapers. The Draft EA is available at the Port Authority's Administration Building at JFK and Port Authority's central staff office in Manhattan (4 World Trade Center). A copy of the document is also available for review on the website, http://www.panynj.gov/about/studies-reports.html. A 30 day comment period extends from April 7, 2016 to May 7, 2016. The Department of Interior Section 4(f) consistency review extends from April 7, 2016 to May 22, 2016.

To ensure that interested parties are informed, another advertisement will be placed in the local newspapers announcing the FAA's decision. Copies of the Final EA and the FAA's decision will be available at the Port Authority's Administration Building at JFK, and Port Authority's central staff office in Manhattan.

SECTION 106 COORDINATION WITH AGENCIES AND OTHER CONSULTING PARTIES

The Port Authority and FAA have coordinated with public agencies, and engaged with consulting parties regarding the Proposed Project and issues addressed in this EA. A consultation under Section 106 of the NHPA has occurred as part of the environmental planning for the Proposed Project because the Proposed Project involves a resource listed in the National Register of Historic Places. Both NEPA and NHPA and their associated regulations, require public and agency involvement before FAA can render a decision on the Proposed Project. A public notice and comment period will be part of the NEPA process. The intent of public and agency involvement is to ensure that the public and resource agencies can review the adaptive reuse of the historic resource and provide input on the Proposed Project. In addition, the RAC continues to provide the agency coordination and guidance in the review of this Proposed Project in accordance with Section 106 of the National Historic Preservation Act. The proposed TWA Flight Center Hotel, LLC project has been presented to the RAC at four meetings—May 11, 2015, June 17, 2015, December 1, 2015, and February 26, 2016. A detailed discussion on the Section 106 process is included in Section 5-2, *Historical, Architectural, Archaeological, and Cultural Resources*.

NEW YORK CITY UNIFORM LAND USE REVIEW PROCEDURE

The public has had several opportunities to learn about and share comments on the proposed TWA Flight Center Hotel through public meetings and hearing associated with the New York City Uniform Land Use Review Procedure (ULURP), a process which establishes several opportunities for public review and comment. The ULURP process

is in support of the proposed project sponsor's seeking a long term lease commitment directly with New York City which would only be required if the City's lease with the Port Authority is not renewed.

Specifically, the project has been presented at regularly scheduled public meetings including to the three local Community Boards (10, 12, and 13) that are located adjacent to the airport, the Queens Borough President's office, and the New York City Planning Commission. In each instance, the project sponsor provided an overview presentation of the project in terms of the proposed development program, the specific need for the lease commitment by the City, the restoration of the historic TWA Flight Center, and a visual depiction of the project in relationship to the surrounding buildings of this portion of the Central Terminal Area. Board members and the general public were allowed to ask questions and comment on the proposed project.

As part of their role and input to the ULURP process, each of the Community Boards and the Borough President's office have recommended approval of the proposed project. The New York City Planning Commission approved the ULURP application on March 9, 2016. The ULURP process concludes with a final hearing by the New York City Council. In chronological order, the location and dates of meetings held to date on the proposed TWA Flight Center Hotel are listed below:

Queens Community Board 13 Land Use Committee
Monday, December 14, 2015 at 7:00 pm
Community Board 13 Office
219-41 Jamaica Avenue
Queens Village, NY 11428

Queens Community Board 13 Full Board Meeting
Monday, December 21, 2015 at 7:30
Bellerose Assembly of God
240-15 Hillside Avenue,
Bellerose, NY 11426

Queens Community Board 12 Land Use Committee
Tuesday, January 5, 2016 at 7:00pm
Community Board 12 Office
90-28 161st Street
Jamaica, NY 11432

Queens Community Board 10 Land Use Committee
Wednesday, January 6, 2016 at 7pm
115-01 Lefferts Blvd.
South Ozone Park, NY 11420

Queens Community Board 10 Full Board Meeting
Thursday, January 7, 2016 at 7:45pm
Knights of Columbus Hall
135-45 Lefferts Boulevard
South Ozone Park, NY 11420

APPENDIX G

Queens Community Board 12 Full Board Meeting
Wednesday, January 20, 2016 at 7pm
Robert Ross Johnson Family Life Center
172-17 Linden Boulevard
Jamaica, NY 11434

Queens Borough President Hearing
Thursday, January 28, 2016 at 10:30am
Queens Borough Hall
120-55 Queens Boulevard
Jamaica, NY 11424

Queens Borough Board Meeting
Monday, February 8, 2016 at 5:30pm
Queens Borough Hall
120-55 Queens Boulevard
Jamaica, NY 11424

City Planning Commission Review Session
Monday, February 22, 2016 at 10am
Spector Hall
22 Reade Street
New York, NY 10007

City Planning Commission Public Hearing
Wednesday, February 24, 2016 at 10am
Spector Hall
22 Reade Street
New York, NY 10007

Queens Borough Board Recommendation

APPLICATION: ULURP #160097 PPQ **COMMUNITY BOARDS: 10, 12 & 13**

DOCKET DESCRIPTION

IN THE MATTER OF an application submitted by the Department of Small Business Services, pursuant to Section 197-c of the NYC Charter, for the disposition of a lease to Flight Center Hotel, LLC located at Building 60 at JFK International Airport, in an M1-1 District, Block 14260 part of Lot 1, Zoning Map 18d, Jamaica, Borough of Queens

PUBLIC MEETING

A Public Meeting was held in the Borough President's Conference Room at 120-55 Queens Boulevard on February 8, 2016 at 5:30 P.M. pursuant to Section 82(5) of the New York City Charter and was duly advertised in the manner specified in Section 197-c (i) of the New York City Charter. The applicant made a presentation.

CONSIDERATION

Subsequent to a review of the application and consideration of testimony received at the public meeting, the following issues and impacts have been identified:

- **The Department of Small Business Services/NYC Economic Development Corporation has filed an application that would allow disposition of a lease to Flight Center Hotel, LLC for approximately 6 acres of land including Building 60 (the landmarked former TWA Terminal) located within John F Kennedy International Airport (JFK Airport). PANY & NJ currently has a lease to operate JFK Airport that expires in 2050.;**
- **Flight Center Hotel, LLC is preparing to enter into a 75 year sub-lease with the Port Authority of New York & New Jersey (PANY & NJ). Flight Center Hotel, LLC would redevelop the site with two new hotel buildings built on either side of the restored/rehabilitated former TWA Terminal Building. The 75-year term of the Flight Center pending sub-lease extends beyond the PANY & NJ airport lease with New York City that expires in 2050.;**
- **This application is necessary as a contingency in the event that PANY & NJ does not renew the lease for JFK Airport beyond 2050. Approval of this application would enable New York City to lease the property directly to Flight Center Hotel, LLC or through another successor operator of the airport property. Additionally, this application would allow the possibility to extend the lease of the 6 acre development parcel through 2119.;**
- **Flight Center Hotel, LLC is proposing to build 505 hotel guest rooms in two new buildings on either side of the landmarked building. The former TWA Terminal Building would be faithfully restored and updated for reuse as the hotel lobby, conference center and ballrooms, restaurants and retail space, museums commemorating midcentury modern design and TWA as a pioneering airline. It is anticipated that construction and reopening the building for public use will generate approximately 3700 jobs. Jobs and contracts will be secured through local hiring and outreach to MWBE firms. They have secured agreements with the building and operating trades assuring that the project will be built soundly and safely, and operated by skilled labor ;**
- **Community Board 10 – Public Hearing January 7, 2016 – Approved 31-0-1;**
- **Community Board 12 – Public Hearing January 20, 2016 – Approved 27-0-0**
- **Community Board 13 – Public Hearing December 21, 2015 - Approved 27-0-2**

RECOMMENDATION

Based on the above consideration, the Queens Borough Board with a quorum present voted 10-0-0 to approve this application

Melinda Katz

PRESIDENT, BOROUGH OF ~~QUEENS~~

2/10/16

DATE

Queens Borough President Recommendation

APPLICATION: ULURP #160097 PPQ **COMMUNITY BOARDS: 10, 12 & 13**

DOCKET DESCRIPTION

IN THE MATTER OF an application submitted by the Department of Small Business Services, pursuant to Section 197-c of the NYC Charter, for the disposition of a lease to Flight Center Hotel, LLC located at Building 60 at JFK International Airport, in an M1-1 District, Block 14260 part of Lot 1, Zoning Map 18d, Jamaica, Borough of Queens

PUBLIC HEARING

A Public Hearing was held in the Borough President's Conference Room at 120-55 Queens Boulevard on January 28, 2016 at 10:30 A.M. pursuant to Section 82(5) of the New York City Charter and was duly advertised in the manner specified in Section 197-c (i) of the New York City Charter. The applicant made a presentation. There were eleven (11) speakers in favor with none (0) opposed. The hearing was closed.

CONSIDERATION

Subsequent to a review of the application and consideration of testimony received at the public meeting, the following issues and impacts have been identified:

- **The Department of Small Business Services/NYC Economic Development Corporation has filed an application that would allow disposition of a lease to Flight Center Hotel, LLC for approximately 6 acres of land including Building 60 (the landmarked former TWA Terminal) located within John F Kennedy International Airport (JFK Airport). PANY & NJ currently has a lease to operate JFK Airport that expires in 2050;**

- **Flight Center Hotel, LLC is preparing to enter into a 75 year sub-lease with the Port Authority of New York & New Jersey (PANY & NJ). Flight Center Hotel, LLC would redevelop the site with two new hotel buildings built on either side of the restored/rehabilitated former TWA Terminal Building. The 75-year term of the Flight Center pending sub-lease extends beyond the PANY & NJ airport lease with New York City that expires in 2050;**

- **This application is necessary as a contingency in the event that PANY & NJ does not renew the lease for JFK Airport beyond 2050. Approval of this application would enable New York City to lease the property directly to Flight Center Hotel, LLC or through another successor operator of the airport property. Additionally, this application would allow the possibility to extend the lease of the 6 acre development parcel through 2119;**

- **Flight Center Hotel, LLC is proposing to build 505 hotel guest rooms in two new buildings on either side of the landmarked building. The former TWA Terminal Building would be faithfully restored and updated for reuse as the hotel lobby, conference center and ballrooms, restaurants and retail space, museums commemorating midcentury modern design and TWA as a pioneering airline. It is anticipated that construction and reopening the building for public use will generate approximately 3700 jobs. Jobs and contracts will be secured through local hiring and outreach to MWBE firms. They have secured agreements with the building and operating trades assuring that the project will be built soundly and safely, and operated by skilled labor ;**

- **Community Board 10 approved the application by a vote of 31-0-1 at a public hearing held on January 7, 2016;**

- **Community Board 12 approved the application by a vote of 27-0-0 at a public hearing held on January 20, 2016;**

- **Community Board 13 approved the application by a vote of 27-0-2 at a public hearing held on December 21, 2015;**

- The speakers at the Borough President's public hearing included representatives from not for profit advocacy groups, trade and business associations, and a former TWA employee all spoke in favor of the application. Each speaker was highly supportive and remarked on the applicant's openness and attention to historic detail for the project. The project is expected to restore and reactivate an iconic landmarked building with a host of uses creating a destination that would economically benefit Queens and New York City.

RECOMMENDATION

Based on the above consideration, I hereby recommend approval of this application.

Melinda Katz

PRESIDENT, BOROUGH OF QUEENS

2/10/16

DATE

NYCPLANNING
DEPARTMENT OF CITY PLANNING CITY OF NEW YORK

Community/Borough Board Recommendation

Pursuant to the Uniform Land Use Review Procedure

Application #: **C160097PPQ**	Project Name: **TWA Flight Center Hotel at JFK Airport**
CEQR Number: TYPE II	Borough(s): Queens Community District Number(s): 10, 12 & 13

Please use the above application number on all correspondence concerning this application

SUBMISSION INSTRUCTIONS

1. Complete this form and return to the Department of City Planning by one of the following options:
   - **EMAIL (recommended):** Send email to CalendarOffice@planning.nyc.gov and include the following subject line: (CB or BP) Recommendation + (6-digit application number), e.g., "CB Recommendation #C100000ZSQ"
   - **MAIL:** Calendar Information Office, City Planning Commission, Room 2E, 22 Reade Street, New York, NY 10007
   - **FAX:** (212) 720-3356 and note "Attention of the Calendar Office"
2. Send one copy of the completed form with any attachments to the applicant's representative at the address listed below, one copy to the Borough President, and one copy to the Borough Board, when applicable.

Docket Description:

IN THE MATTER OF an application submitted by the Department of Small Business Services, pursuant to Section 197-c of New York City Charter, for the disposition of a lease to Flight Center Hotel, LLC located at Building 60 at JFK International Airport, Block 14260, p/o Lot 1, pursuant to zoning.

Applicant(s):	Applicant's Representative:
NYC Dept. of Small Business Services 110 William Street New York, NY 10038	Hardy Adasko NYC Economic Development Corporation 110 William Street New York, NY 10038 212.312.3703

Recommendation submitted by:
Queens Community Board 10

Date of public hearing: January 7, 2016 Location: 135-45 Lefferts Blvd., S. Ozone Park, NY11420

Was a quorum present? YES [x] NO [ ] *A public hearing requires a quorum of 20% of the appointed members of the board, but in no event fewer than seven such members.*

Date of Vote: January 7, 2016 Location: 135-45 Lefferts Blvd, S. Ozone Park, NY 11420

RECOMMENDATION

- [x] Approve
- [ ] Approve With Modifications/Conditions
- [ ] Disapprove
- [ ] Disapprove With Modifications/Conditions

Please attach any further explanation of the recommendation on additional sheets, as necessary.

Voting

In Favor: 31 # Against: 0 #Abstaining: Total members appointed to the board: 43
1-Not voted due to conflict of interest.

Name of CB/BB officer completing this form	Title	Date
Elizabeth Braton	Chairperson	1/14/16

NYCPLANNING
DEPARTMENT OF CITY PLANNING CITY OF NEW YORK

NOTIFICATION OF COMMUNITY/BOROUGH BOARD PUBLIC HEARING

Application #: **C160097PPQ**	Project Name: **TWA Flight Center Hotel at JFK Airport**
CEQR Number: TYPE II	Borough(s): Queens Community District Number(s): 10, 12 & 13

Please use the above application number on all correspondence concerning this application

SUBMISSION INSTRUCTIONS

1. Return this completed page at least fourteen (14) days before the scheduled hearing date by one of the following options:
   - **EMAIL (recommended):** Send email to CalendarOffice@planning.nyc.gov and include in the subject line: (CB or BB) Public Hearing Notice + (6-digit application number), e.g., "CB Public Hearing Notice #C100000ZSQ"
   - **MAIL:** Calendar Office, City Planning Commission, Room 2E, 22 Reade Street, New York, NY 10007
   - **FAX:** to (212) 720-3356 and note "Attention of the Calendar Office"
2. Send one copy to the applicant's representative at the address listed below at least (10) days before the scheduled hearing date.

Docket Description:

IN THE MATTER OF an application submitted by the Department of Small Business Services, pursuant to Section 197-c of New York City Charter, for the disposition of a lease to Flight Center Hotel, LLC located at Building 60 at JFK International Airport, Block 14260, p/o Lot 1, pursuant to zoning.

Applicant(s):	Applicant's Representative:
NYC Dept. of Small Business Services 110 William Street New York, NY 10038	Hardy Adasko NYC Economic Development Corporation 110 William Street New York, NY 10038 212.312.3703

Contact:
Address questions about this application to the following DCP office:
DEPARTMENT OF CITY PLANNING
Queens Office
Address: 120-55 Queens Blvd., Room 201, Kew Gardens NY 11424
Phone: 718-286-3170
Fax: 718-286-3183

Notification submitted by:
Queens Community Board 10

Date of Public Hearing: January 7, 2016	*Time:* 8:35 pm

Hearing Location: 135-45 Lefferts Blvd., S. Ozone Park, NY 11420

Name of CB/BB officer completing this form	*Title*	*Date*
Elizabeth Braton	Chairperson	1/14/16

NYCPLANNING
DEPARTMENT OF CITY PLANNING CITY OF NEW YORK

Community/Borough Board Recommendation

Pursuant to the Uniform Land Use Review Procedure

Application #: C160097PPQ	Project Name: **TWA Flight Center Hotel at JFK Airport**
CEQR Number: TYPE II	Borough(s): Queens Community District Number(s): 10, 12 & 13

Please use the above application number on all correspondence concerning this application

SUBMISSION INSTRUCTIONS

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   - **FAX:** (212) 720-3356 and note "Attention of the Calendar Office"
2. Send one copy of the completed form with any attachments to the applicant's representative at the address listed below, one copy to the Borough President, and one copy to the Borough Board, when applicable.

Docket Description:

IN THE MATTER OF an application submitted by the Department of Small Business Services, pursuant to Section 197-c of New York City Charter, for the disposition of a lease to Flight Center Hotel, LLC located at Building 60 at JFK International Airport, Block 14260, p/o Lot 1, pursuant to zoning.

Applicant(s):	Applicant's Representative:
NYC Dept. of Small Business Services 110 William Street New York, NY 10038	Hardy Adasko NYC Economic Development Corporation 110 William Street New York, NY 10038 212.312.3703

Recommendation submitted by:
Queens Community Board 12

Date of public hearing: January 20, 2016 Location: Robert Rose Johnson Family Life Center 172-17 Linden Blvd. St. Albans, NY 11434

Was a quorum present? YES ☒ NO ☐ *A public hearing requires a quorum of 20% of the appointed members of the board, but in no event fewer than seven such members.*

Date of Vote: January 20, 2016 Location: 172-17 Linden Blvd. St. Albans, NY 11434

RECOMMENDATION

☒ Approve
☐ Approve With Modifications/Conditions
☐ Disapprove
☐ Disapprove With Modifications/Conditions

Please attach any further explanation of the recommendation on additional sheets, as necessary.

Voting

In Favor: 27 # Against: 0 # Abstaining: 0 Total members appointed to the board: 42

Name of CB/BB officer completing this form	*Title*	*Date*
Yvonne Reddick	District Manager	2/4/2016

NYCPLANNING
DEPARTMENT OF CITY PLANNING CITY OF NEW YORK

Community/Borough Board Recommendation

Pursuant to the Uniform Land Use Review Procedure

Application #: **C160097PPQ**	Project Name: **TWA Flight Center Hotel at JFK Airport**
CEQR Number: TYPE II	Borough(s): Queens Community District Number(s): 10, 12 & 13

Please use the above application number on all correspondence concerning this application

SUBMISSION INSTRUCTIONS

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   - **FAX:** (212) 720-3356 and note "Attention of the Calendar Office"
2. Send one copy of the completed form with any attachments to the applicant's representative at the address listed below, one copy to the Borough President, and one copy to the Borough Board, when applicable.

Docket Description:

IN THE MATTER OF an application submitted by the Department of Small Business Services, pursuant to Section 197-c of New York City Charter, for the disposition of a lease to Flight Center Hotel, LLC located at Building 60 at JFK International Airport, Block 14260, p/o Lot 1, pursuant to zoning.

Applicant(s):	Applicant's Representative:
NYC Dept. of Small Business Services 110 William Street New York, NY 10038	Hardy Adasko NYC Economic Development Corporation 110 William Street New York, NY 10038 212.312.3703

Recommendation submitted by:
Queens Community Board 13

Date of public hearing: 12.21.15 Location: Bellerose Assembly of God 240-15 Hillside Ave, Bellerose, NY

Was a quorum present? YES ☑ NO ☐ *A public hearing requires a quorum of 20% of the appointed members of the board, but in no event fewer than seven such members.*

Date of Vote: 12.21.15 Location: Bellerose Assembly of God 240-15 Hillside Ave., Bellerose, NY

RECOMMENDATION

☑ Approve ☐ Approve With Modifications/Conditions

☐ Disapprove ☐ Disapprove With Modifications/Conditions

Please attach any further explanation of the recommendation on additional sheets, as necessary.

Voting

In Favor: 28 # Against: ϕ # Abstaining: 2 Total members appointed to the board: 46

Name of CB/BB officer completing this form	Title	Date
Mark McMillan	District Manager	12.28.15