

FOI#15954



Minority Business Enterprise Legal Defense and Education Fund, Inc.

Barrington Suites #400
4201 Connecticut Avenue, NW
Washington, DC 20008

May 1, 2015

Mr. Danny Ng
Freedom of Information Administrator
Office of the Secretary
Port Authority of New York and New Jersey
4 World Trade Center, 18th Floor
150 Greenwich Street
New York, NY 10007

dng@panynj.gov

RE: **Revised Freedom of Information Request – Reference No. 15954**
World Trade Center, Port Authority Trans-Hudson Terminal (PATH) and JFK Runway Projects

Dear Mr. Ng:

Thank you for responding to my initial request for documents under the Port Authority's Freedom of Information Code regarding documents related to the World Trade Center (WTC), Permanent PATH Terminal, PATH Harrison Station and 13R-31L JFK Runway construction projects. The timeframe for the documents is as soon as possible or ten (10) business days. The FOI request has been revised to solicit copies of specific documents executed between the Port Authority of NY and NJ ("Port Authority") and the U.S. Department of Transportation ("DOT"), Federal Transit Administration ("FTA"), U.S. Federal Aviation Administration ("FAA") and any other involved parties relevant to the above-referenced projects in New York. The requested documents include the following between the parties involved:

- The Port Authority Grant Application submitted to the FTA's Lower Manhattan Recovery Office (LMRO), DOT, FTA, and/or /FAA for each project.
- Executed Master Agreements for each project: WTC, PATH and the JFK Runway.
- NY/NJ State Uniform Reports for DBE/MBE/WBE requirements.

The Port Authority accepted a grant under the American Recovery & Reinvestment Act (ARRA) of 2009, which was administered by the Federal Aviation Administration (FAA) through the Airport Improvement Program (AIP) for the 13R-31L JFK Runway construction. The Master Agreement between FTA and the Port Authority for the WTC and PATH projects is Contract No. DTFT60-09-D-00008.

Thank you for your immediate attention to this request. If you require additional information, please contact me at the following: ROBINSONANTHONYW@aol.com or (202) 258-3815. Any assistance that you can provide will truly be appreciated.

Sincerely,

Anthony W. Robinson

Anthony W. Robinson, Esq.
President

cc: Marc Pentino, (OST) Marc.Pentino@dot.gov

THE PORT AUTHORITY OF NY & NJ

FOI Administrator

May 29, 2015

Mr. Anthony Robinson
Minority Business Enterprise Legal
Defense and Education Fund, Inc.
4201 Connecticut Avenue, NW
Washington, DC 20008

Re: Freedom of Information Reference No. 15954

Dear Mr. Robinson:

This is in response to your May 1, 2015 request, which has been processed under the Port Authority's Freedom of Information Code (the "Code", copy enclosed) for copies of the following specific documents executed between the Port Authority of NY and NJ ("Port Authority") and the U.S. Department of Transportation ("DOT"), Federal Transit Administration ("FTA"), U.S. Federal Aviation Administration ("FAA") and any other involved parties related to the World Trade Center, Permanent PATH Terminal, PATH Harrison Station and 13R-31L JFK Runway construction projects: The Port Authority Grant Application submitted to the FTA's Lower Manhattan Recovery Office (LMRO), DOT, FTA, and/or FAA for each project. Executed Master Agreements for each project: WTC, PATH and the JFK Runway. NY/NJ State Uniform Reports for DBE/MBE/WBE requirements.

Material responsive to your request and available under the Code can be found on the Port Authority's website at <http://www.panynj.gov/corporate-information/foi/15954-C.pdf>. Paper copies of the available records are available upon request.

Pursuant to the Code, certain portions of the material responsive to your request are exempt from disclosure as, among other classifications, personal privacy and security.

Please refer to the above FOI reference number in any future correspondence relating to your request.

Very truly yours,

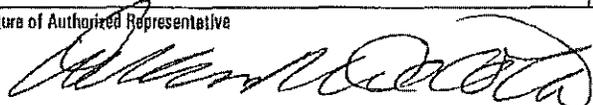


Danny Ng
FOI Administrator

Enclosure

4 World Trade Center, 18th Floor
150 Greenwich Street
New York, NY 10006
T: 212 435 3622 F: 212 435 7555

APPLICATION FOR FEDERAL ASSISTANCE

1. TYPE OF SUBMISSION Application <input checked="" type="checkbox"/> Construction <input type="checkbox"/> Non-construction		2. DATED SUBMITTED		Applicant Identifier 09-01	
Preapplication <input type="checkbox"/> Construction <input type="checkbox"/> Non-construction		3. DATE RECEIVED BY STATE		State Application Identifier	
		4. DATE RECEIVED BY FEDERAL AGENCY		Federal Identifier	
5. APPLICANT INFORMATION					
Legal Name The PORT AUTHORITY of NEW YORK AND NEW JERSEY			Organizational Unit John F. Kennedy International Airport		
Address (give city, county, state and zip code): Aviation Department 225 Park Avenue South 9th Floor New York, New York 10003			Name and telephone number of the person to be contacted on matters involving this application (give area code) Richard J. Milhaven (212) 435-3765		
6. EMPLOYER IDENTIFICATION NUMBER (EIN) 1 3 - 6 4 0 0 6 5 4			7. TYPE OF APPLICANT: (enter appropriate letter in box) <input checked="" type="checkbox"/> N A. State B. County C. Municipal D. Township E. Interstate F. Intermunicipal G. Special District H. Independent School Dist. I. State Controlled Institution of Higher learning J. Private University K. Indian Tribe L. Individual M. Profit Organization N. Other (Specify) Bi-State Agency		
8. TYPE OF APPLICATION <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision If Revision, enter appropriate letter(s) box(es) <input type="checkbox"/> <input type="checkbox"/> A. Increase Award B. Decrease Award C. Increase Duration D. Decrease Duration E. Other (Specify) _____			9. NAME OF FEDERAL AGENCY: Federal Aviation Administration		
10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER 2 0 1 0 0 Title: Airport Improvement Program			11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT: Rehabilitation of Runway 13R-31L - Phase I		
12. AREAS AFFECTED BY PROJECT (CITIES, COUNTIES, STATES, ETC) New York					
13. PROPOSED PROJECT		14. CONGRESSIONAL DISTRICTS OF			
Start Date	Ending Date	a. Applicant CD-6, 7, 9, 10 & 14		b. Project CD-06	
15. ESTIMATED FUNDING		16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?			
a. Federal	\$.00	a. Yes This preapplication/application was made available to the state executive order 12372 process for review on Date _____			
b. Applicant	\$.00	b. No <input type="checkbox"/> Program is not covered by EO 12372			
c. State	\$.00	<input type="checkbox"/> Or program has not been selected by state for review			
d. Local	\$.00	17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?			
e. Other	\$.00	<input type="checkbox"/> Yes " If Yes", attach an explanation <input checked="" type="checkbox"/> No			
f. Program Income	\$.00	18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT. THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED			
g. TOTAL	\$.00	a. Typed Name of Authorized Representative William DeCota		b. Title Director - Aviation	
				c. Telephone Number (212) 435-3703	
		d. Signature of Authorized Representative 		e. Date Signed 10-22-08	

SECTION IV – REMARKS

Reference Form 424, page 1

Item 2

Applicant's Application Identifier

a) Number: 09-01

Item 11

Title and Description of Project:

Rehabilitation of Runway 13R-31L

This grant will fund the rehabilitation of 2,522 linear feet of runway, extending from existing Taxiway PE (future Taxiway PF) (west end of the Runway) at Station 0+00 to 1,272 feet east of the Centerline of Taxiway PC or Station 25+22, consisting of Portland Cement Concrete 200 feet wide and 80 feet of Shoulder/Erosion Pavement on each side.

The Pavement Condition Index (PCI) rating for the runway section from Station 0+00 to 25+22 varies from 35 to 70, for an average of 60, which is in the "poor" range.

The existing runway is approximately 15,000 feet in length and 150 feet wide. The rehabilitated runway will be 200 feet in width and typically have a 40 foot wide shoulder and a 40 foot wide strip of erosion pavement on each side. An average depth of six (6) inches of asphalt will be milled from the current runway surface and replaced with an average depth of 18 inches of concrete. An on-site concrete plant will be required.

Item 15

Estimated Funding:

Federal:	\$	14,999,024
Applicant:	\$	0
Total:	\$	14,999,024

PART III - BUDGET INFORMATION - CONSTRUCTION

SECTION A - GENERAL

- 1. Federal Domestic Assistance Catalog No.
- 2. Functional or Other Breakout

SECTION B - CALCULATION OF FEDERAL GRANT

Cost Classification	Use only for revisions			Total Amount Required
	Latest Approved Amount	Adjustment or (-)	+	
1. Administration Expense				0
2. Preliminary Expense				0
3. Land, structures, right-of-way				
4. Architectural engineering basic fees				0
5. Other architectural engineering fees				
6. Project inspection fees				0
7. Land development				
8. Relocation Expenses				
9. Relocation payments to individuals and businesses				
10. Demolition and removal				
11. Construction and project improvement				14,999,024
12. Equipment				
13. Miscellaneous				
14. Total (Lines 1 through 13)				14,999,024
15. Estimated Income (if applicable)				
16. Net Project Amount (Line 14 minus 15)				14,999,024
17. Less: Ineligible Exclusions				
18. Add: Contingencies				
19. Total Project Amt.				14,999,024
20. Federal Share requested of Line 19				14,999,024
21. Add Rehabilitation Grants Requested (100 percent)				
22. Total Federal grant requested (Lines 20 & 21)				14,999,024
23. Grantee share				0
24. Other shares				
25. Total project (Lines 22, 23 & 24)				14,999,024

SECTION C - EXCLUSIONS		
Classification	Ineligible for Participation (1)	Excluded from Contingency Provision (2)
a.	\$	\$
b.		
c.		
c.		
e.		
f.		
g.		
SECTION D - PROPOSED METHOD OF FINANCING NON-FEDERAL SHARE		
27. Grantee Share		0
a. Securities		
b. Mortgages		
c. Appropriations (By Applicant)		
d. Bonds		
e. Tax Levies		
f. Non Cash		
g. Other (Explain)		
h. TOTAL - Grantee share		0
28. Other Shares		
a. State		
b. Other		
c. Total Other Shares		
29. TOTAL		0
SECTION E - REMARKS		
PART IV PROGRAM NARRATIVE (Attach - See Instructions)		

APPLICATION FOR FEDERAL ASSISTANCE

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3. Land, structures, right-of-way			
4. Architectural engineering basic fees			0
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6. Project inspection fees			0
7. Land development			
8. Relocation Expenses			
9. Relocation payments to individuals and businesses			
10. Demolition and removal			
11. Construction and project improvement			14,999,024
12. Equipment			
13. Miscellaneous			
14. Total (Lines 1 through 13)			14,999,024
15. Estimated Income (if applicable)			
16. Net Project Amount (Line 14 minus 15)			14,999,024
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18. Add: Contingencies			
19. Total Project Amt.			14,999,024
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21. Add Rehabilitation Grants Requested (100 percent)			
22. Total Federal grant requested (Lines 20 & 21)			14,999,024
23. Grantee share			0
24. Other shares			
25. Total project (Lines 22, 23 & 24)			14,999,024

SECTION C - EXCLUSIONS		
Classification	Ineligible for Participation (1)	Excluded from Contingency Provision (2)
a.	\$	\$
b.		
c.		
c.		
e.		
f.		
g.		
SECTION D - PROPOSED METHOD OF FINANCING NON-FEDERAL SHARE		
27. Grantee Share		0
a. Securities		
b. Mortgages		
c. Appropriations (By Applicant)		
d. Bonds		
e. Tax Levies		
f. Non Cash		
g. Other (Explain)		
h. TOTAL - Grantee share		0
28. Other Shares		
a. State		
b. Other		
c. Total Other Shares		
29. TOTAL		0
SECTION E - REMARKS		
PART IV PROGRAM NARRATIVE (Attach - See Instructions)		



U. S. Department
of Transportation

Federal Aviation
Administration

GRANT AGREEMENT

Date of Offer: June 12, 2009
Project Number: 3-36-0066-166-2009

RECIPIENT: The Port Authority of New York and New Jersey
(Herein called Sponsor)

AIRPORT: John F. Kennedy International Airport, New York

OFFER

THE FEDERAL AVIATION ADMINISTRATION, FOR AND ON BEHALF OF THE UNITED STATES, HEREBY OFFERS AND AGREES to pay, as the United States' share, 100 percent of the allowable costs incurred in accomplishing the project consisting of the following:

Rehabilitate and Widen a Portion of Runway 13R-31L (2,522 L.F.)

as more particularly described in the Project Application dated October 22, 2008.

The maximum obligation of the United States payable under this Offer shall be \$14,999,024.

For the purposes of any future grant amendments, subject to the availability of funds, which may increase the foregoing maximum obligation of the United States under the provisions of the Act, and applicable provisions of Title 49, United States Code, the following amounts are being specified for this purpose:

\$14,999,024	for airport development,
\$ -0-	for land, and
\$ -0-	for planning.

This offer is made pursuant to and for the purpose of carrying out the provisions of the American Economic Recovery and Reinvestment Act of 2009, herein called "the Act," to make grants for discretionary projects as authorized by subchapter 1 of Chapter 471 and subchapter 1 of Chapter 475 of Title 49 United States Code, as amended, and in consideration of (a) the Sponsor's adoption and ratification of the representations and assurances contained in said Project Application and its acceptance of this Offer as hereinafter provided, and (b) the benefits to accrue to the United States and the public from the accomplishment of the Project and compliance with the assurances and conditions as herein provided. Acceptance and execution of this offer shall comprise a Grant Agreement, as provided by Title 49 U.S.C., constituting the contractual obligations and rights of the United States and the Sponsor.

UNITED STATES OF AMERICA
FEDERAL AVIATION ADMINISTRATION

Steven M. Urlass, Manager
New York Airports District Office

SPECIAL CONDITIONS

1. The Exhibit "A" – Demised Premises John F. Kennedy International Airport, JFK-1, Sheet 1 of 3, dated 11/23/04, and the Exhibit "A" – Demised Premises John F. Kennedy International Airport Details, JFK-2, Sheet 2 of 3, dated 11/23/04, and the Exhibit "A" – Demised Premises John F. Kennedy International Airport Aqueduct Details, JFK-3, Sheet 3 of 3, dated 11/23/04, all sent to FAA via Port Authority letter dated 8/04/05 are incorporated herein by reference and made a part hereof.
2. It is further understood and agreed that by accepting this grant the airport sponsor certifies that they will comply with the FAA procedures for AIP grant projects that are detailed in the Advisory Circulars that are attached to the Grant Master Agreement. The airport sponsor should give special attention to the requirements for the selection of consultants, preparation of plans and specifications, construction and equipment contract requirements, real property acquisition and construction final acceptance.
3. Special Conditions for ARRA Grants.
 - a. **Compliance to Special Reporting Requirement** – It is agreed and understood that in accepting this Grant Offer, the sponsor acknowledges and agrees that it will provide all reports, in a format and with such frequency as determined by the FAA, for all information related to the administration of this grant as required by Congress or any Federal agency with authority to require such reporting including, but not limited to, that required by Section 1201, Section 1512 and Section 1609 of the American Recovery and Reinvestment Act of 2009.

This reporting will include, but not be limited to, schedules, construction progress, project expenditures, job creation, etc. as specified in the tables below. The Sponsor agrees to modify these tables and any other specific reporting requirements when requested by the FAA with respect to this grant.

The sponsor further agrees to provide the FAA with the certifications required by Sections 1201, 1511, and 1607 of the ARRA of 2009 in the format and at the time required by under the Act and related guidance issued by the FAA or another Federal agency. The following are the Government-wide standards set of data elements for reporting information under sections 1512(c) and 1609(c) of the American Recovery and Reinvestment Act of 2009, Public Law 111-5 ("Recovery Act").

General Section – Award and Award Recipient Information to Be Completed by each ARRA Grant Recipient for each ARRA Grant Award

Please provide requested information regarding the award and award recipient.

Item	Data Elements	Instruction
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Item	Data Elements	Instruction
ARRA-A	Awarding Federal agency and Organizational Element to Which Report is Submitted	Provide the name of the awarding Federal agency and organizational element identified in the award document or otherwise instructed by the agency. The organizational element is a subagency within an awarding Federal agency.
ARRA-B	Federal Grant or Other Identifying Number Assigned by the awarding Federal agency	Provide the grant/award number contained in the award document.
ARRA-C	DUNS Number	Provide the prime recipient organization's 9 digit Data Universal Numbering System (DUNS) number or Central Contractor Registration plus 4 extended DUNS number.
ARRA-D	EIN	Provide the recipient organization's Employer Identification Number (EIN) provided by the Internal Revenue Service.
ARRA-E	CFDA	Provide Catalog of Federal Domestic Assistance (CFDA) number on the award document or provided by the awarding agency
ARRA-F	Recipient Organization	Provide the legal name of recipient organization and address, including zip code. This should be the same name and address that appears in recipient's Central Contractor Registration profile.
ARRA-G	Recipient Account Number or Account Number	Provide the account number or any other identifying number assigned by the recipient to the award. This number is strictly for the recipient's use only and is not required by the awarding Federal agency.
ARRA-H	Project/Grant Period	Indicate the project/grant period established in the award document during which Federal sponsorship begins and ends. Note: Some agencies award multi-year grants for a project/grant period (e.g., 5 years) that are funded in increments known as budget periods or funding periods. These are typically annual increments. Please provide the total project/grant period, not the individual budget period or funding period.
ARRA-I	Reporting Period End Date	The frequency of required reporting is quarterly. Provide the ending date of the reporting period. For quarterly reports, the following calendar quarter reporting period end dates shall be used: 6/30; 9/30; 12/31, or 3/31. For final reports, the reporting period end date shall be the end date of the project/grant period.
ARRA-J	Final Report	Mark appropriate box. Check "yes" only if this is the final report for the project/grant period specified in Box 6.
ARRA-K	Report or Frequency	Select "quarterly" for quarterly reports and/or "final".

Section 1: Project / Activity Information to Be Completed by each ARRA Grant Recipient for each ARRA Grant Award

Please provide requested information for the project or activity for which Recovery Act funds were awarded.

Item	Data Elements	Instructions
ARRA-1-01	Name of Project or Activity	Provide a brief descriptive title of the project or activity funded in whole or in part with Recovery Act funds. (If this award funds multiple projects or activities, provide a descriptive title that captures the general focus area, e.g., "COMMUNITY DEVELOPMENT.")
ARRA-1-02	Total Amount of Recovery Funds Received from Federal Agency Identified in Item ARRA-A	Provide the cumulative amount of actual cash received from the Federal agency as of the reporting period end date.
ARRA-1-03	Amount of recovery funds received that were expended to projects or activities ("Federal Share of Expenditures")	Provide the cumulative total for the amount of Federal fund expenditures. For reports prepared on a cash basis, expenditures are the sum of cash disbursements for direct charges for property and services; the amount of indirect expense charged; the value of third-party in-kind contributions applied; and the amount of cash advance payments and payments made to subcontractors and subawardees. For reports prepared on an accrual basis, expenditures are the sum of cash disbursements for direct charges for property and services; the amount of indirect expense incurred; the value of in-kind contributions applied; and the net increase or decrease in the amounts owed by the recipient for (1) goods and other property received; (2) services performed by employees, contractors, subcontractors, subawardees, and other payees; and (3) programs for which no current services or performance are required. Do not include program income expended.

Section 2 Project / Activity Information to Be Completed by each ARRA Grant Recipient for each ARRA Grant Award

Please provide requested information for the project or activity for which Recovery Act funds were awarded.

Item	Data Elements	Instructions
ARRA-2-01	Description of Project or Activity (code(s))	For awards primarily funding infrastructure projects or activities, provide the North American Industry Classification System (NAICS) code(s) that describe the Recovery Act project or activities under this award. A searchable code list is at http://www.census.gov/naics/ . For all other awards, provide the National Center for Charitable Statistics "NTEE-NPC" code(s) that describe the Recovery Act project or activities under this award. A searchable code list is at http://nccsdataweb.urban.org/PubApps/nteeSearch.php?gQry=all-core&codeType=NPC .
ARRA-2-02	Description of Project or Activity (brief narrative)	A description of the overall purpose and expected outcomes or results of the award and first-tier subaward(s), including significant deliverables and, if appropriate, units of measure.
ARRA-2-03	Evaluation of completion status of the project or activity.	Please choose one of the following options: Not started; Less than 50% completed; Completed 50% or more; Fully Completed.

ARRA-2-04	A narrative description of the employment impact of the Recovery Act funded work.	<p>Provide a narrative description of the employment impact of the Recovery Act funded work. This narrative should be cumulative for each calendar quarter and at a minimum, address the impact on the recipient's workforce, and if known, the impact on the workforces of subrecipients. At a minimum, the recipient shall provide—</p> <p>(i) <u>A brief description of the types of jobs created and jobs retained in the United States and outlying areas.</u> "Jobs or positions created" means an estimate of those new positions created and filled, or previously existing unfilled positions that are filled, as a result of Recovery Act funding. "Jobs or positions retained" means an estimate of those previously existing filled positions that are retained as a result of Recovery Act funding. This description may rely on job titles, broader labor categories, or the contractor's existing practice for describing jobs as long as the terms used are widely understood and describe the general nature of the work; and</p> <p>(ii) <u>An estimate of the number of jobs created and jobs retained in the United States and outlying areas.</u> At a minimum, this estimate shall include any new positions created and any existing filled positions that were retained to support or carry out Recovery Act projects or activities managed directly by the recipient, and if known, by subrecipients. The number shall be expressed as "full-time equivalent" (FTE), calculated cumulatively as all hours worked divided by the total number of hours in a full-time schedule, as defined by the recipient. For instance, two full-time employees and one part-time employee working half days would be reported as 2.5 FTE in each calendar quarter.</p> <p>(iii) A job cannot be reported as both created and retained. As use in this instruction, United States means the 50 States and the District of Columbia, and outlying areas means—</p> <p>(1) <i>Commonwealths.</i></p> <p>(i) Puerto Rico.</p> <p>(ii) The Northern Mariana Islands;</p> <p>(2) <i>Territories.</i></p> <p>(i) American Samoa.</p> <p>(ii) Guam.</p> <p>(iii) U.S. Virgin Islands; and</p> <p>(3) <i>Minor outlying islands.</i></p> <p>(i) Baker Island.</p> <p>(ii) Howland Island.</p> <p>(iii) Jarvis Island.</p> <p>(iv) Johnston Atoll.</p> <p>(v) Kingman Reef.</p> <p>(vi) Midway Islands.</p> <p>(vii) Navassa Island.</p> <p>(viii) Palmyra Atoll.</p> <p>(ix) Wake Atoll.</p>
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ARRA-2-05	For infrastructure investments made by State and local governments: Total cost of infrastructure investment made by State and Local governments:.	Provide the cumulative total cost of investment.
ARRA-2-06	For infrastructure investments made by State and local governments: What is the rationale of the Award Recipient for funding the infrastructure investment with funds made available under this Act?	<p>Explain how the infrastructure investment will contribute to one or more purposes of the Recovery Act:</p> <p>Purposes:</p> <p>(1) To preserve and create jobs and promote economic recovery.</p> <p>(2) To assist those most impacted by the recession.</p> <p>(3) To provide investments needed to increase economic efficiency by spurring technological advances in science and health.</p> <p>(4) To invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits.</p> <p>(5) To stabilize State and local government budgets, in order to minimize and avoid reductions in essential services and counter-productive state and local tax increases.</p>
ARRA-2-07	For infrastructure investments made by State and local governments: Who should we contact if we have concerns about this infrastructure investment?	Provide name, phone number, address and email address of the appropriate contact in the state/local government.

b. **Contract and Notice to Proceed** – It is agreed and understood that the Sponsor will have a fully executed contract in place for construction or manufacture of the project described within 15 calendar days of the date of this Grant Offer, and further, that the Sponsor will issue a Notice to Proceed within 30 days of Grant Offer. The Sponsor further agrees and understands if a contract is not executed within 15 days, and/or Notice to Proceed is not given within 30 days of the Grant Offer, the FAA may unilaterally cancel the grant and recover the grant funds for redistribution.

c. **Grant Closure and Recovery** – The FAA may unilaterally close this grant and recover the funds without prejudice if the Sponsor does not comply with any of these Special Conditions or other provisions of the American Recovery and Reinvestment Act of 2009.

- d. **Drawdowns** – The Sponsor shall make timely payments for costs incurred (construction, engineering, etc.) and shall request payment reimbursement or initiate ECHO drawdowns at least every 30 days as evidence of such payments. Payment requests or drawdowns shall only be for reimbursement of work completed and shall only be required if contractor payments have taken place in the preceding period.
- e. **Project Completion** – The Sponsor is expected to take all appropriate actions necessary to promptly carry out and complete the project no later than February 16, 2011. For purposes of this Special Condition, the term "completed" means when the contractor or the manufacturer of equipment is finished as evidenced by the project's Final Inspection Report.
- f. **Amendments** – It is understood and agreed that this grant can only be amended in three ways:
- a. With funds made available by the American Recovery and Reinvestment Act of 2009, if available. Further, it is understood and agreed that this grant cannot be amended after September 30, 2010;
 - b. With funds available and in accordance with the Passenger Facility Charge program; and
 - c. Retroactively reimbursed with available Sponsor entitlement funds. However, if Sponsor entitlements funds are used, the Federal Share Percentage (FSP) is not 100% but rather the FSP applicable to the project using entitlement funding as
- g. **Airport Signs** – The airport grant recipient of American Recovery and Reinvestment Act of 2009 (ARRA) funds hereby agrees that it will strongly encourage the prime contractor of an airport project funded with ARRA funds to post signs identifying the project as one funded in whole or in part by ARRA funds. Airport signs should be visible to the public using the airport, such as on the main entrance road to the Airport or Terminal. The airport signs should, at a minimum, prominently display the two recovery logos (Recovery.gov and USDOT TIGER). The signs may also contain text explaining that the project is funded, fully or in part, with ARRA funds. The signs should be solely used to publicize ARRA funding of an airport project.
- h. **Buy American Preference Requirement** – The Sponsor hereby acknowledges the requirement to apply the Buy American Preference Requirement (BAPR) (49 USC 50101) to the project (s) funded by this grant. This requirement includes the compliance with the following provisions:

Required Use of American Iron, Steel, and Manufactured Goods—Section 1605 of the American Recovery and Reinvestment Act of 2009—Construction Materials

(a) *Definitions.* As used in this award term and condition—

"Building or work" means construction, maintenance, alteration, or repair. The terms include, without limitation, buildings, structures, and improvements of all types, such as bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, power lines, pumping stations, heavy generators, railways, airports, terminals, docks, piers, wharves, ways, lighthouses, buoys,

jetties, breakwaters, levees, canals, dredging, shoring, rehabilitation and reactivation of plants, scaffolding, drilling, blasting, excavating, clearing, and landscaping. The manufacture or furnishing of materials, articles, supplies, or equipment (whether or not a Federal or State agency acquires title to such materials, articles, supplies, or equipment during the course of the manufacture or furnishing, or owns the materials from which they are manufactured or furnished) is not "building" or "work" within the meaning of this definition unless conducted in connection with and at the site of such building or work as is described in the foregoing sentence, or under the United States Housing Act of 1937 and the Housing Act of 1949 in the construction or development of the project.

"Construction material" means an article, material, or supply brought to the construction site by the recipient, subrecipient or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

"Domestic construction material" means—

(1) An unmanufactured construction material mined or produced in the United States;

or

(2) A construction material manufactured in the United States.

"Foreign construction material" means a construction material other than a domestic construction material.

"Manufactured product, good or construction material" means any construction material that is not unmanufactured construction material."

"Public building or public work" means building or work, the construction, alteration, maintenance, or repair of which, as defined in this award term, is carried on directly by authority of, or with funds of, a Federal agency to serve the interest of the general public regardless of whether title thereof is in a Federal agency.

"Steel" means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.

"Unmanufactured construction material" means raw material brought to the construction site for incorporation into the building or work that has not been--

(1) Processed into a specific form and shape; or

(2) Combined with other raw material to create a material that has different properties than the properties of the individual raw materials.

"United States" means the 50 States, the District of Columbia, and outlying areas including:

(1) Commonwealths.

- (i) Puerto Rico.
- (ii) The Northern Mariana Islands;
- (2) Territories.
 - (i) American Samoa.
 - (ii) Guam.
 - (iii) U.S. Virgin Islands; and
- (3) Minor outlying islands.
 - (i) Baker Island.
 - (ii) Howland Island.
 - (iii) Jarvis Island.
 - (iv) Johnston Atoll.
 - (v) Kingman Reef.
 - (vi) Midway Islands.
 - (vii) Navassa Island.
 - (viii) Palmyra Atoll.
 - (ix) Wake Atoll.

(b) *Domestic preference.*

(1) This award term and condition implements Section 1605 of the American Recovery and Reinvestment Act of 2009 (Recovery Act)(Pub. L. 111-5); by requiring that all iron, steel, and other manufactured goods used as construction material in the project are produced in the United States.

(2) The recipient shall use only domestic construction material in performing this project, except as provided in paragraph (b)(3) and (b)(4) of this term and condition.

(3) This requirement does not apply to the construction material or components listed by the Government as follows:

- *Cement and cement products,*
- *AWOS I, II, III and above as manufactured by Vaisala,*
- *Certain Amerace Isolation Transformers,*
- *Articles listed in Federal Acquisition Regulation Part 25.104, Nonavailable Articles.*

(4) The award official may add other foreign construction material to the list in paragraph (b)(3) of this term and condition if the Federal government determines that—

(i) The cost of domestic construction material would be unreasonable. The cost of domestic iron, steel, or other manufactured goods used as construction material is unreasonable when the cumulative cost of such material will increase the cost of the overall project by more than 25 percent;

(ii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or

(iii) The application of the restriction of section 1605 of the Recovery Act to a particular construction material would be inconsistent with the public interest.

(c) *Request for determination of inapplicability of Section 1605 of the Recovery Act.*

(1)(i) Any recipient request to use foreign construction material in accordance with paragraph (b)(4) of this clause shall include adequate information for Government evaluation of the request, including—

- (A) A description of the foreign and domestic construction materials;
 - (B) Unit of measure;
 - (C) Quantity;
 - (D) Price;
 - (E) Time of delivery or availability;
 - (F) Location of the construction project;
 - (G) Name and address of the proposed supplier; and
 - (H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(4) of this clause.
- (ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.
- (iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty.
- (iv) Any recipient request for a determination submitted after award shall explain why the recipient could not reasonably foresee the need for such determination and could not have requested the determination before award. If the recipient does not submit a satisfactory explanation, the award official need not make a determination.
- (2) If the Federal government determines after award that an exception to section 1605 of the Recovery Act applies, the award official will amend the award to allow use of the foreign construction material. When the basis of the exception is nonavailability or public interest, the amended award shall reflect adjustment of the award amount or redistribution of budgeted funds, as appropriate, to cover costs associated with acquiring or using the foreign construction material. When the basis for the exception is the unreasonable price of a domestic construction material, the award official shall adjust the award amount or redistribute budgeted funds, as appropriate, by at least the differential established in 2 CFR 176.110(a).
- (3) Unless the Government determines that an exception to section 1605 of the Recovery Act applies, use of foreign construction material is noncompliant with section 1605 of the American Recovery and Reinvestment Act.
- (d) *Data.* To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Recipient shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison			
Construction Material Description	Unit of Measure	Quantity	Price (Dollars)*
<i>Item 1:</i>			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____
<i>Item 2:</i>			
Foreign construction material	_____	_____	_____

Domestic construction
material

[List name, address, telephone number, email address, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]

[Include other applicable supporting information.]

[Include all delivery costs to the construction site.]*

- i. **Tracking and Documenting ARRA Expenditures** – The Sponsor hereby acknowledges the requirement to adhere to certain recipient responsibilities regarding tracking and documenting Recovery Act expenditures. To this end, the Sponsor hereby agrees to the following:

Recovery Act Transactions Listed in Schedule of Expenditures of Federal Awards and Recipient Responsibilities for Informing Subrecipients

(a) To maximize the transparency and accountability of funds authorized under the American Recovery and Reinvestment Act of 2009 (Public Law 111-5)(Recovery Act) as required by Congress and in accordance with 2 CFR 215, subpart A.21 “Uniform Administrative Requirements for Grants and Agreements” and OMB A-102 Common Rules provisions, recipients agree to maintain records that identify adequately the source and application of Recovery Act funds.

(b) For recipients covered by the Single Audit Act Amendments of 1996 and OMB Circular A-133, “Audits of States, Local Governments, and Non-Profit Organizations,” recipients agree to separately identify the expenditures for Federal awards under the Recovery Act on the Schedule of Expenditures of Federal Awards (SEFA) and the Data Collection Form (SF-SAC) required by OMB Circular A-133. This shall be accomplished by identifying expenditures for Federal awards made under Recovery Act separately on the SEFA, and as separate rows under Item 9 of Part III on the SF-SAC by CFDA number, and inclusion of the prefix “ARRA-” in identifying the name of the Federal program on the SEFA and as the first characters in Item 9d of Part III on the SF-SAC.

(c) Recipients agree to separately identify to each subrecipient, and document at the time of sub-award and at the time of disbursement of funds, the Federal award number, CFDA number, and amount of Recovery Act funds. When a recipient awards Recovery Act funds for an existing program, the information furnished to subrecipients shall distinguish the subawards of incremental Recovery Act funds from regular sub-awards under the existing program.

(d) Recipients agree to require their subrecipients to include on their SEFA information to specifically identify Recovery Act funding similar to the requirements for the recipient SEFA described above. This information is needed to allow the recipient to properly monitor subrecipient expenditure of ARRA funds as well as oversight by the Federal awarding agencies, Offices of Inspector General and the Government Accountability Office

- j. **Prohibition Against Business with Suspended or Debarred Parties** – The Sponsor hereby agrees to award contracts only after determining that the proposed contractor is not listed on the 12 General Services Administration (GSA)

Excluded Parties List System available at <https://www.epls.gov/>

k. Retroactivity of Modification of Requirements – The Sponsor hereby agrees to be bound by and to comply with any and all future modifications to the ARRA funding requirements for sponsors by the United States with respect to ARRA grants awarded prior to the date of said modifications. This is necessary due to the expedited nature of this program.

4. The sponsor agrees to perform the following:

1. Furnish a construction management program to FAA prior to the start of construction which shall detail the measures and procedures to be used to comply with the quality control provisions of the construction contract, including, but not limited to, all quality control provisions and tests required by the Federal specifications. The program shall include as a minimum:

a. The name of the person representing the sponsor who has overall responsibility for contract administration for the project and the authority to take necessary actions to comply with the contract.

b. Names of testing laboratories and consulting engineer firms with quality control responsibilities on the project, together with a description of the services to be provided.

c. Procedures for determining that testing laboratories meet the requirements of the American Society of Testing and Materials standards on laboratory evaluation, referenced in the contract specifications (D3666, C1077).

d. Qualifications of engineering supervision and construction personnel.

e. A listing of all tests required by the contract specifications, including the type and frequency of tests to be taken, the method of sampling, the applicable test standard, and the acceptance criteria or tolerances permitted for each type of test.

f. Procedures for ensuring that the tests are taken in accordance with the program, that they are documented daily, that the proper corrective actions, where necessary, are undertaken.

2. Submit at completion of the project, a final test and quality control report documenting the results of all tests performed, highlighting those tests that failed or did not meet the applicable test standard. The report shall include the pay reductions applied and reasons for accepting any out-of-tolerance material. An interim test and quality control report shall be submitted, if requested by the FAA.

3. Failure to provide a complete report as described in paragraph 2,

or failure to perform such tests, shall, absent any compelling justification, result in a reduction in Federal participation for costs incurred in connection with construction of the applicable pavement. Such reduction shall be at the discretion of the FAA and will be based on the type or types of required tests not performed or not documented and will be commensurate with the proportion of applicable pavement with respect to the total pavement constructed under the grant agreement.

4. The FAA, at its discretion, reserves the right to conduct independent tests and to reduce grant payments accordingly if such independent tests determine that sponsor tests results are inaccurate.

5. For a project to replace or reconstruct pavement at the airport, the sponsor shall implement an effective airport pavement maintenance management program as required by Airport Sponsor Assurance Number 11. The sponsor shall use such program for the useful life of any pavement constructed, reconstructed, or repaired with Federal financial assistance at the airport. As a minimum, the program must conform with the provisions in the following outline entitled "Pavement Maintenance Management Program."

"Pavement Maintenance Management Program"

An effective pavement maintenance management program is one that details the procedures to be followed to assure that proper pavement maintenance, both preventive and repair, is performed. An airport sponsor may use any form of inspection program it deems appropriate. The program must, as a minimum, include the following:

1. Pavement Inventory. The following must be depicted in an appropriate form and level of detail:

- Location of all runways, taxiways and aprons
- Dimension
- Type of pavement
- Year of construction or most recent major rehabilitation

For compliance with the Airport Improvement Program assurances, pavements that have been constructed, reconstructed, or repaired with Federal financial assistance shall be so depicted.

2. Inspection Schedule

a. Detailed Inspection. A detailed inspection must be performed at least once a year. If a history of recorded pavement deterioration is available, i.e. Pavement Condition Index (PCI) survey as set forth in Advisory Circular 150/5380-6, Guidelines and Procedures for Maintenance of Airport Pavements, the frequency of inspections may be extended to three years.

b. Drive-by Inspection. A drive-by inspection must be performed a minimum of once per month to detect unexpected changes in the pavement condition.

3. Record Keeping. Complete information on the findings of all detailed inspections and on the maintenance performed must be recorded and kept on file for a minimum of five years. The types of distress, their locations, and remedial action, scheduled or performed, must be documented. The minimum information to be recorded is listed below.

- a. inspection date
- b. location
- c. distress types
- d. maintenance scheduled or performed

For drive-by inspections, the date of inspection and any maintenance performed must be recorded.

4. Information Retrieval. An airport sponsor may use any form of record keeping it deems appropriate, so long as the information and records produced by the pavement survey can be retrieved to provide a report to the FAA as may be required.

5. Reference. Refer to Advisory Circular 150/5380-6, Guidelines and Procedures for Maintenance of Airport Pavements, for specific guidelines and procedures for maintaining airport pavements and establishing an effective maintenance program. Specific types of distress, their probable causes, inspection guidelines, and recommended methods of repair are presented.

5. Provisions applicable to a recipient that is a private entity.

1. You as the recipient, your employees, sub recipients under this award, and sub recipient's employees may not--

- i. Engage in severe forms of trafficking in persons during the period of time that the award is in effect;
- ii. Procure a commercial sex act during the period of time that the award is in effect; or
- iii. Use forced labor in the performance of the award or sub awards under the award.

2. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if you or a recipient that is a private entity—

- i. Is determined to have violated a prohibition in paragraph a.1 of this award term; or

- ii. Has an employee who is determined by the agency official authorized to terminate the award to have violated a prohibition in paragraph a.1 of this award term through conduct that is either—
 - A. Associated with performance under this award; or
 - B. Imputed to you or your subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR Part 180, "OMB Guidelines to Agencies on Governmentwide debarment and Suspension (Nonprocurement)," as implemented by our agency at 49 CFR Part 29.

b. Provision applicable to a recipient other than a private entity. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if a subrecipient that is a private entity—

1. Is determined to have violated an applicable prohibition in paragraph a.1 of this award term; or
2. Has an employee who is determined by the agency official authorized to terminate the award to have violated an applicable prohibition in paragraph a.1 of this award term through conduct that is either—
 - i. Associated with the performance under this award; or
 - ii. Imputed to the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR Part 180, "OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," as implemented by our agency at 49 CFR Part 29.

c. Provisions applicable to any recipient.

1. You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in paragraph a.1 of this award term.
2. Our right to terminate unilaterally that is described in paragraph a.2 or b of this section:
 - i. Implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C 7104(g), and
 - ii. Is in addition to all other remedies for noncompliance that are available to us under this award.
3. You must include the requirements of paragraph a.1 of this award

term in any subaward you make to a private entity.

d. Definitions. For purposes of this award term:

1. "Employee" means either:
 - i. An individual employed by you or a subrecipient who is engaged in the performance of the project or program under this award; or
 - ii. Another person engaged in the performance of the project or program under this award and not compensated by you including, but not limited to, a volunteer or individual whose services are contributed by a third party as an in-kind contribution toward cost sharing or matching requirements.
2. "Forced Labor" means labor obtained by any of the following methods: the recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt, bondage or slavery.
3. "Private Entity":
 - i. Means any entity other than a State, local government, Indian tribe, or foreign public entity, as those terms are defined in 2 CFR 175.25.
 - ii. Includes:
 - A. A nonprofit organization, including any nonprofit institution of higher education, hospital, or tribal organization other than one included in the definition of Indian tribe at 2 CFR 175.25(b).
 - B. A for-profit organization.
4. "Severe forms of trafficking in persons," "commercial sex act," and "coercion" have the meanings given at section 103 of the TVPA, as amended (22 U.S.C. 7102).

ACCEPTANCE

The Sponsor agrees to accomplish the project in compliance with the terms and conditions contained herein and in the document "Master Agreement on Terms and Conditions of Accepting Airport Improvement Program Grants" accepted February 21, 2006.

Executed this 15th day of June 2009.

(SEAL)

The Port Authority of New York & New Jersey
Name of Sponsor

Susan Bae
Signature of Sponsor's Designated Official Representative

Deputy Director Aviation
Title

Attest:

[Handwritten Signature]

Title:

SECRETARY

CERTIFICATE OF SPONSOR'S ATTORNEY

I, Lawrence S. Hofrichter, acting as Attorney for the Sponsor do hereby certify:

of New York and New Jersey

That in my opinion the Sponsor is empowered to enter into the foregoing Grant Agreement under the laws of the State. Further, I have examined the foregoing Grant Agreement, and the actions taken by said Sponsor relating thereto, and find that the acceptance thereof by said Sponsor and Sponsor's official representative has been duly authorized and that the execution hereof is in all respects due and proper and in accordance with the laws of the said State and Title 49 U.S.C. In addition, for grants involving projects to be carried out on property not owned by the Sponsor, there are no legal impediments that will prevent full performance by the Sponsor. Further, it is my opinion that the said Grant Agreement constitutes a legal and binding obligation of the Sponsor in accordance with the terms thereof.

Lawrence S. Hofrichter
Signature of Sponsor's Attorney

6/15/09
Date

(Attorney Certification must be the same date or after Sponsor signature date)

PART III - BUDGET INFORMATION - CONSTRUCTION**SECTION A - GENERAL**

1. Federal Domestic Assistance Catalog No. 20-106
2. Functional or Other Breakout 3-36-0066-166-09

SECTION B - CALCULATION OF FEDERAL GRANT

Cost Classification	Use only for revisions		Total Amount Required
	Latest Approved Amount	Adjustment + or (-)	
1. Administrative expense	\$	\$	\$ 0.00
2. Preliminary expense			\$0
3. Land, structures, right-of-way			\$0.00
4. Architectural engineering basic fees			\$0.00
5. Other architectural engineering fees			\$0.00
6. Project inspection fees			\$0.00
7. Land development			\$0
8. Relocation expenses			\$0.00
9. Relocation payments to individuals and businesses			\$0
10. Demolition and removal			\$0.00
11. Construction and project improvement			\$14,999,024.00
12. Equipment			\$0.00
13. Miscellaneous			\$0.00
14. Total (Lines 1 through 13)			\$14,999,024.00
15. Estimated Income (if applicable)			\$0
16. Net Project Amount (Line 14 minus 15)			\$14,999,024.00
17. Less: Ineligible exclusions			\$0
18. Add: Contingencies			\$0
19. Total Project Amt. (Excluding rehabilitation grants)			\$14,999,024.00
20. Federal share requested on Line 19			\$14,999,024.00
21. Add: Rehabilitation grants requested (100 percent)			\$0
22. Total Federal grant requested 100 %			\$14,999,024.00
23. Grantee share %			
24. Other shares 0 %			
25. Total Project (Lines 22, 23, and 24)	\$	\$	\$ 14,999,024.00

SECTION C - EXCLUSIONS

Classification	Ineligible for Participation (1)	Excluded from Contingency Provision (2)
26.		
a.	\$	\$
b.		
c.		
d.		
e.		
f.		
g. Totals	\$	\$

SECTION D - PROPOSED METHOD OF FINANCING NON-FEDERAL SHARE

27. Grantee Share	\$
a. Securities	0
b. Mortgages	0
c. Appropriations (by applicant)	0
d. Bonds	0
e. Tax Levies	0
f. Non Cash	0
g. Other (Explain)	0
h. TOTAL - Grantee Share	
28. Other Shares	
a. State	
b. Other	0
c. Total Other Shares	
29. TOTAL	\$

SECTION E - REMARKS



*U. S. Department of Transportation
Federal Aviation
Administration*

SPONSOR: THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY
AIRPORT: JOHN F. KENNEDY INTERNATIONAL AIRPORT, JAMAICA, NEW YORK

MASTER AGREEMENT ON TERMS AND CONDITIONS OF ACCEPTING AIRPORT IMPROVEMENT PROGRAM GRANTS

This document contains the terms and conditions of accepting Airport Improvement Program (AIP) grants from the Federal Aviation Administration (FAA) for the purpose of carrying out the provisions of Title 49, United States Code. These terms and conditions become applicable when the sponsor accepts a Grant Offer from the FAA that references this document. The terms and conditions may be unilaterally amended by the FAA, by notification in writing, and such amendment will only apply to grants accepted after notification.

I. DEFINITIONS

- A.** Sponsor - An agency that is legally, financially, and otherwise able to assume and carry out the certifications, representations, warranties, assurances, covenants and other obligations required in this document and in the accepted Grant Agreement.
- B.** Project - Work as identified in the Grant Agreement.
- C.** Primary Airport - a commercial service airport the Secretary of Transportation determines to have more than 10,000 passenger boardings each year.

II. CERTIFICATIONS

Title 49, United States Code, section 47105(d), authorizes the Secretary to require certification from the Sponsor that it will comply with statutory and administrative requirements in carrying out a project under the AIP. The following list of certified items includes major requirements for this aspect of project implementation. However, the list is not comprehensive, nor does it relieve sponsors from fully complying with all applicable statutory and administrative standards. In accepting this grant, the Sponsor certifies that each of the following items was or will be complied with in the performance of grant agreements. If a certification cannot be met for a specific project, the Sponsor must fully explain in an attachment to the project application.

- A. Sponsor Certification for Selection of Consultants.** General standards for selection of consultant services within Federal grant programs are described in Title 49, Code of Federal Regulations (CFR), and Part 18.36. Sponsors may use other qualifications-based procedures provided they are equivalent to specific standards in 49 CFR 18 and Advisory Circular 150/5100-14, Architectural, Engineering, and Planning Consultant Services for Airport Grant Projects.
 - 1. Solicitations were (will be) made to ensure fair and open competition from a wide area of interest.
 - 2. Consultants were (will be) selected using competitive procedures based on qualifications, experience, and disadvantaged enterprise requirements with the fees determined through negotiations.

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3. A record of negotiations has been (will be) prepared reflecting considerations involved in the establishment of fees, which are not significantly above the Sponsor's independent cost estimate.
4. If engineering or other services are to be performed by Sponsor force account personnel, prior approval was (will be) obtained from the FAA.
5. The consultant services contracts clearly establish (will establish) the scope of work and delineate the division of responsibilities between all parties engaged in carrying out elements of the project.
6. Costs associated with work ineligible for AIP funding are (will be) clearly identified and separated from eligible items in solicitations, contracts, and related project documents.
7. Mandatory contract provisions for grant-assisted contracts have been (will be) included in consultant services contracts.
8. The cost-plus-percentage-of-cost methods of contracting prohibited under Federal standards were not (will not be) used.
9. If the services being procured cover more than the single grant project referenced in this certification, the scope of work was (will be) specifically described in the advertisement; and future work will not be initiated beyond five years.

B. Sponsor Certification for Project Plans and Specifications. AIP standards are generally described in Advisory Circulars 150/5100-6, Labor Requirements for the Airport Improvement Program; 150/5100-15, Civil Rights Requirements for the Airport Improvement Program; and 150/5100-16, Airport Grant Assurance One-General Federal Requirements. A list of current advisory circulars with specific standards for design or construction of airports, as well as procurement/installation of equipment and facilities, is referenced in standard airport sponsor Grant Assurance 34 in this document.

1. The plans and specifications were (will be) prepared in accordance with applicable Federal standards and requirements; so no deviation or modification to standards set forth in the advisory circulars, or State standard, is necessary other than those previously approved by the FAA.
2. Specifications for the procurement of equipment are not (will not be) proprietary or written so as to restrict competition. At least two manufacturers can meet the specifications?
3. The development included (to be included) in the plans is depicted on the airport layout plan approved by the FAA.
4. Development that is ineligible for AIP funding has been (will be) omitted from the plans and specifications.
5. The process control and acceptance tests required for the project by standards contained in Advisory Circular 150/5370-10 are (will be) included in the project specifications.
6. If a value engineering clause is incorporated into the contract, concurrence was (will be) obtained from the FAA.
7. The plans and specifications incorporate (will incorporate) applicable requirements and recommendations set forth in the Federally approved environmental finding.
8. For construction activities within or near aircraft operational areas, the requirements contained in Advisory Circular 150/5370-2 have been (will be) discussed with the FAA, as well as incorporated into the specifications; and a safety/phasing plan has FAA's concurrence, if required.
9. The project was (will be) physically completed without Federal participation in costs due to errors and omissions in the plans and specifications that were foreseeable at the time of project design.

C. Sponsor Certification for Equipment/Construction Contracts. General standards for equipment and construction contracts within Federal grant programs are described in Title 49, CFR, Part 18.36. AIP standards are generally described in FAA Advisory Circular (AC) 150/5100-6, Labor Requirements for the Airport Improvement Program; 150/5100-15, Civil Rights Requirements for the Airport Improvement Program; and 150/5100-16, Airport Grant Assurance

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One—General Federal Requirements. Sponsors may use State and local procedures provided procurements conform to these Federal standards.

1. A code or standard of conduct is (will be) in effect governing the performance of the Sponsor's officers, employees, or agents in soliciting and awarding procurement contracts.
2. Qualified personnel are (will be) engaged to perform contract administration, engineering supervision, construction inspection, and testing.
3. The procurement was (will be) publicly advertised using the competitive sealed bid method of procurement.
4. The bid solicitation clearly and accurately describes (will describe):
 - a. The current Federal wage rate determination for all construction projects; and
 - b. All other requirements of the equipment and/or services to be provided.
5. Concurrence was (will be) obtained from FAA prior to contract award under any of the following circumstances:
 - a. Only one qualified person/firm submits a responsive bid;
 - b. The contract is to be awarded to other than the lowest responsible bidder;
 - c. Life cycle costing is a factor in selecting the lowest responsive bidder; or
 - d. Proposed contract prices are more than 10 percent over the Sponsor's cost estimate.
6. All contracts exceeding \$100,000 require (will require) the following provisions:
 - a. A bid guarantee of 5 percent, a performance bond of 100 percent, and a payment bond of 100 percent;
 - b. Conditions specifying administrative, contractual, and legal remedies, including contract termination, for those instances in which contractors violate or breach contract terms; and
 - c. Compliance with applicable standards and requirements issued under Section 306 of the Clean Air Act (42 USC 1857(h)), Section 508 of the Clean Water Act (33 USC 1368), and Executive Order 11738.
7. All construction contracts contain (will contain) provisions for:
 - a. Compliance with the Copeland "Anti-Kick Back" Act; and
 - b. Preference given in the employment of labor (except in executive, administrative, and supervisory positions) to honorably discharged Vietnam-era veterans and disabled veterans.
8. All construction contracts exceeding \$2,000 contain (will contain) the following provisions:
 - a. Compliance with the Davis-Bacon Act based on the current Federal wage rate determination; and
 - b. Compliance with the Contract Work Hours and Safety Standards Act (40 USC 327-330), Sections 103 and 107.
9. All construction contracts exceeding \$10,000 contain (will contain) appropriate clauses from 41 CFR Part 60 for compliance with Executive Orders 11246 and 11375 on Equal Employment Opportunity.
10. All contracts and subcontracts contain (will contain) clauses required from Title VI of the Civil Rights Act and 49 CFR 23 and 49 CFR 26 for Disadvantaged Business Enterprises.
11. Appropriate checks have been (will be) made to assure that contracts or subcontracts are not awarded to those individuals or firms suspended, debarred, or voluntarily excluded from doing business with any U.S. Department of Transportation (DOT) element and appearing on the DOT Unified List.

D. Sponsor Certification for Real Property Acquisition. General requirements on real property acquisition and relocation assistance are in Title 49, CFR, Part 24 and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act).

The Sponsor's attorney or other official has (will have) good and sufficient title and title evidence on property in the project.

If defects and/or encumbrances exist in the title that adversely impact the Sponsor's intended use of property in the project, they have been (will be) extinguished, modified, or subordinated.

If property for airport development is (will be) leased, the following conditions have been (will be) met:

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- a. The term is for 20 years or the useful life of the project;
- b. The lessor is a public agency; and
- c. The lease contains no provisions that prevent full compliance with this grant agreement.

Property in the project is (will be) in conformance with the current Exhibit "A" property map, which is based on deeds, title opinions, land surveys, the approved airport layout plan, and project documentation. For any acquisition of property interest in noise sensitive approach zones and related areas, property interest was (will be) obtained to ensure land is used for purposes compatible with noise levels associated with operation of the airport.

For any acquisition of property interest in runway protection zones and areas related to 14 CFR 77 surfaces, property interest was (will be) obtained for the following:

- a. The right of flight;
- b. The right of ingress and egress to remove obstructions; and
- c. The right to restrict the establishment of future obstructions.

Appraisals prepared by qualified real estate appraisers hired by the Sponsor include (will include) the following:

- a. Valuation data to estimate the current market value for the property interest acquired on each parcel; and
- b. Verification that an opportunity has been provided the property owner or representative to accompany appraisers during inspections.

Each appraisal has been (will be) reviewed by a qualified review appraiser to recommend an amount for the offer of just compensation, and the written appraisals and review appraisal are (will be) available to FAA for review.

A written offer to acquire each parcel was (will be) presented to the property owner for not less than the approved amount of just compensation.

Effort was (will be) made to acquire each property through the following negotiation procedures:

- a. No coercive action was (will be) taken to induce agreement; and
- b. Supporting documents for settlements are (will be) included in the project files.

If a negotiated settlement is not reached, the following procedures were (will be) used:

- a. Condemnation was (will be) initiated and a court deposit not less than the just compensation was (will be) made prior to possession of the property; and
- b. Supporting documents for awards were (will be) included in the project files.

If displacement of persons, businesses, farm operations, or non-profit organizations is involved, a relocation assistance program was (will be) established, with displaced parties receiving general information on the program in writing, including relocation eligibility, and a 90-day notice to vacate.

Relocation assistance services, comparable replacement housing, and payment of necessary relocation expenses were (will be) provided within a reasonable time period for each displaced occupant in accordance with the Uniform Act.

E. Sponsor Certification for Construction Project Final Acceptance. General requirements for final acceptance and closeout of Federally funded construction projects are in Title 49, CFR, Part 18.50. The Sponsor shall determine that project costs are accurate and proper in accordance with specific requirements of this grant Agreement and contract documents.

1. The personnel engaged in project administration, engineering supervision, construction inspection, and testing were (will be) determined to be qualified as well as competent to perform the work.
2. Daily construction records were (will be) kept by the resident engineer/construction inspector as follows:
 - a. Work in progress
 - b. Quality and quantity of materials delivered
 - c. Test locations and results
 - d. Instructions provided the contractor
 - e. Weather conditions
 - f. Equipment use

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- g. Labor requirements
 - h. Safety problems
 - i. Changes required.
3. Weekly payroll records and statements of compliance were (will be) submitted by the prime contractor and reviewed by the Sponsor for Federal labor and civil rights requirements (Advisory Circulars 150/5100-6 and 150/5100-15).
 4. Complaints regarding the mandated Federal provisions set forth in the contract documents have been (will be) submitted to the FAA.
 5. All tests specified in the plans and specifications were (will be) performed and the test results documented as well as made available to the FAA.
 6. For any test results outside of allowable tolerances, appropriate corrective actions were (will be) taken.
 7. Payments to the contractor were (will be) made in compliance with contract provisions as follows:
 - a. Payments are verified by the Sponsor's internal audit of contract records kept by the resident engineer; and
 - b. If appropriate, pay reduction factors required by the specifications are applied in computing final payments; and a summary of pay reductions are made available to the FAA.
 8. The project was (will be) accomplished without significant deviations, changes, or modifications from the approved plans and specifications, except where approval is obtained from the FAA.
 9. A final project inspection was (will be) conducted with representatives of the Sponsor and the contractor, and project files contain (will contain) documentation of the final inspection.
 10. Work in this grant agreement was (will be) physically completed, and corrective actions required as a result of the final inspection are completed to the satisfaction of the Sponsor.
 11. If applicable, the as-built plans, an equipment inventory, and a revised airport layout plan have been (will be) submitted to the FAA.
 12. Applicable close out financial reports have been (will be) submitted to the FAA.
- F. Sponsor Certification for Seismic Design and Construction.** 49 CFR Part 41 sets forth the requirements in the design and construction of the building(s) to be financed with the assistance of the FAA. Compliance will be met by adhering to at least one of the following accepted standards:
1. Model codes found to provide a level of seismic safety substantially equivalent to that provided by use of the 1988 National Earthquake Hazards Reduction Program (NEHRP) including:
 - a. The 1991 International Conference of Building Officials (IBCO) Uniform Building Code, published by the International Conference of Building Officials, 5360 South Workman Mill Road, Whittier, California 90601;
 - b. The 1992 Supplement to the Building Officials and Code Administration International (BOCA) National Building Code, published by the Building Officials and Code Administrators, 4051 West Flossmoor Road, Country Club Hills, Illinois 60478-5795; and
 - c. The 1992 Amendments to the Southern Building Code Congress (SBCC) Standard Building Code, published by the Southern Building Code Congress International, 900 Montclair Road, Birmingham, Alabama 35213-1206.
 2. Revisions to the model codes listed above that are substantially equivalent or exceed the then current or immediately preceding edition of the NEHRP recommended provisions, as it is updated, may be approved by the DOT Operating Administration to meet the requirements of 49 CFR Part 41.
 3. State, county, local, or other jurisdictional building ordinances adopting and enforcing the model codes, listed above, in their entirety, without significant revisions or changes in the direction of less seismic safety, meet the requirement of 49 CFR Part 41.

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G. Drug-Free Workplace. General requirements on the drug-free workplace within Federal grant programs are described in Title 49, CFR, Part 29 and the Drug-Free Workplace Act of 1988. Sponsors are required to certify they will provide, or will continue to provide, a drug-free workplace in accordance with the regulation.

1. A statement has been (will be) published notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Sponsor's workplace, and specifying the actions to be taken against employees for violation of such prohibition.
2. An ongoing drug-free awareness program has been (will be) established to inform employees about:
 - a. The dangers of drug abuse in the workplace;
 - b. The Sponsor's policy of maintaining a drug-free workplace;
 - c. Any available drug counseling, rehabilitation, and employee assistance programs; and
 - d. The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace.
3. Each employee to be engaged in the performance of the work has been (will be) given a copy of the statement required within item 1 above.
4. Employees have been (will be) notified in the statement required by item 1 above that, as a condition of employment under this grant, the employee will:
 - a. Abide by the terms of the statement; and
 - b. Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction.
5. The FAA will be notified in writing within ten calendar days after receiving notice under item 4b above from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title of the employee, to the FAA. Notices shall include the project number of each affected grant.
6. One of the following actions will be taken within 30 calendar days of receiving a notice under item 4b above with respect to any employee who is so convicted:
 - a. Take appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
 - b. Require such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency.
7. A good faith effort will be made to continue to maintain a drug-free workplace through implementation of items 1 through 6 above.

III. GENERAL CONDITIONS

- A. The allowable costs of the project shall not include any costs determined by the FAA to be ineligible for consideration under the Title 49 U.S.C..
- B. Payment of the United States' share of the allowable project costs will be made pursuant to and in accordance with the provisions of such regulations and procedures as the Secretary shall prescribe. Final determination of the United States' share will be based upon the final audit of the total amount of allowable project costs, and settlement will be made for any upward or downward adjustments to the Federal share of costs.
- C. The Sponsor shall carry out and complete the Project without undue delays and in accordance with the terms hereof, and such regulations and procedures as the Secretary shall prescribe.

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The normally acceptable duration of a project is four years. Projects open more than four years will be reviewed by FAA. FAA may take unilateral action if in its judgement project delays are unacceptable or Sponsors are non-responsive. This unilateral action may include grant closeout and/or withholding additional programming of AIP projects.

- D. The FAA reserves the right to amend or withdraw a grant offer at any time prior to its acceptance by the Sponsor.
- E. A grant offer will expire, and the United States shall not be obligated to pay any part of the costs of the project unless the grant offer has been accepted by the Sponsor on or before 60 days after the grant offer but no later than September 30 of the federal fiscal year the grant offer was made, or such subsequent date as may be prescribed in writing by the FAA.
- F. The Sponsor shall take all steps, including litigation if necessary, to recover Federal funds spent fraudulently, wastefully, or in violation of Federal antitrust statutes, or misused in any manner in any project upon which Federal funds have been expended. For the purposes of this grant agreement, the term "Federal funds" means funds however used or disbursed by the Sponsor that were originally paid pursuant to this or any other Federal grant agreement. It shall obtain the approval of the Secretary as to any determination of the amount of the Federal share of such funds. It shall return the recovered Federal share, including funds recovered by settlement, order or judgment, to the Secretary. It shall furnish to the Secretary, upon request, all documents and records pertaining to the determination of the amount of the Federal share or to any settlement, litigation, negotiation, or other efforts taken to recover such funds. All settlements or other final positions of the Sponsor, in court or otherwise, involving the recovery of such Federal share shall be approved in advance by the Secretary.
- G. The United States shall not be responsible or liable for damage to property or injury to persons which may arise from, or be incident to, compliance with a grant agreement.
- H. If, during the life of the project, the FAA determines that a grant amount exceeds the expected needs of the Sponsor by \$5,000 or five percent (5%), whichever is greater, a grant amount can be unilaterally reduced by letter from FAA advising of the budget change. Conversely, with the exception of planning projects, if there is an overrun in the eligible project costs, FAA may increase a grant for an airport development project to cover the amount of the overrun not to exceed 15% percent of the original grant amount. For a grant for non-primary airports to acquire an interest in land, the FAA may increase the grant amount by not more than the greater of the following, based on current creditable appraisals or a court award in a condemnation proceeding, (1) 15% percent of the original grant amount or (2) 25% percent of the total increase in allowable project costs attributable to acquiring an interest in land. FAA will advise the Sponsor by letter of the increase. Planning projects will not be increased above the planning portion of the maximum obligation of the United States shown in the grant agreement. Upon issuance of either of the aforementioned letters, the maximum obligation of the United States is adjusted to the amount specified. In addition, the Sponsor's officially designated representative, is authorized to request FAA concurrence in revising the project description and grant amount within statutory limitations. A letter from the FAA concurring in the said requested revision to the project work description and grant amount shall constitute an amendment to a Grant Agreement.
- I. If requested by the Sponsor and authorized by the FAA, the letter of credit method of payment may be used. It is understood and agreed that the sponsor agrees to request cash withdrawals on the letter of credit only when actually needed for its disbursements and to timely reporting of such disbursements as required. It is understood that failure to adhere to this provision may cause the letter of credit to be revoked.
- J. Unless otherwise approved by the FAA, the Sponsor will not acquire or permit any contractor or subcontractor to acquire any steel or manufactured products produced outside the United States

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to be used for any project for airport development or noise compatibility for which funds are provided under this grant. The sponsor will include in every contract a provision implementing this condition.

- K. It is understood and agreed by and between the parties hereto that the Sponsor shall complete this project to provide a safe and usable unit.
- L. It is understood and agreed by and between the parties hereto that the typewritten description of airport development appearing in Item 11 of the Project Application is hereby deleted and the typewritten description of airport development appearing on Page 1 of the Grant Offer is substituted in its place and stead.
- M. Private sponsors shall provide, when requested by the FAA, for an audit of the project to be made at the completion of the grant objective in accordance with accepted standard audit practices. Two copies of that audit shall be forwarded to the FAA, Airports District Office.
- N. For grants containing paving projects in excess of \$250,000, the sponsor agrees to perform the following:
1. Furnish a construction management program to FAA prior to the start of construction which shall detail the measures and procedures to be used to comply with the quality control provisions of the construction contract, including, but not limited to, all quality control provisions and tests required by the Federal specifications. The program shall include as a minimum:
 - a. The name of the person representing the sponsor who has overall responsibility for contract administration for the project and the authority to take necessary actions to comply with the contract.
 - b. Names of testing laboratories and consulting engineer firms with quality control responsibilities on the project together with a description of the services to be provided.
 - c. Procedures for determining that testing laboratories meet the requirements of the American Society of Testing and Materials Standards on laboratory evaluation, referenced in the contract specifications (D 3666, C 1077).
 - d. Qualifications of engineering supervision and construction inspection personnel.
 - e. A listing of all tests required by the contract specifications, including the type and frequency of test to be taken, the method of sampling, the applicable test standard, and the acceptance criteria or tolerances permitted for each type of tests.
 - f. Procedures for ensuring that the tests are taken in accordance with the program, that they are documented daily, and that the proper corrective actions, where necessary are undertaken.
 2. Submit at completion of the project, a final test and quality control report documenting the results of all tests performed, highlighting those tests that failed or did not meet the applicable test standard. The report shall include the pay reductions applied and reasons for accepting any out-of-tolerance material. An interim test and quality control report shall be submitted, if requested by the FAA.
 3. Failure to provide a complete report as described in paragraph 2, or failure to perform such tests, shall, absent any compelling justification, result in a reduction in Federal participation for costs incurred in connection with construction of applicable pavement. Such reduction shall be at the discretion of the FAA and will be based on the type or types of required tests not performed or not documented and will be commensurate with

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the proportion of applicable pavement with respect to the total pavement constructed under the grant agreement.

4. The FAA, at its discretion, reserves the right to conduct independent tests and to reduce grant payments accordingly if such independent tests determine that the sponsor test results are inaccurate.
- O. For a project to replace or reconstruct pavement at the airport, the sponsor shall implement an effective pavement maintenance management program as is required by Sponsor Assurance Number 11. The sponsor shall use such program for the useful life of any pavement constructed, reconstructed or repaired with Federal financial assistance at the airport. An effective pavement management program is one that details the procedure to be followed to assure that proper pavement maintenance, both preventative and repair, is performed. An airport sponsor may use any form of inspection program it deems appropriate. The program must, as a minimum, include the following:
1. **Pavement Inventory.** The following must be depicted in an appropriate form and level of detail:
 - Location of all runways, taxiways, and aprons
 - Dimension
 - Type of Pavement
 - Year of Construction or most recent major rehabilitationPavements that have been constructed, reconstructed, or repaired with Federal financial assistance shall be so depicted.
 2. **Inspection Schedule.**
 - a. **Detailed Inspection.** A detailed inspection must be performed at least once a year. If a history of recorded pavement deterioration is available, i.e. Pavement Condition Index, (PCI) survey as set forth in Advisory Circular 150/5380-6, Guidelines and Procedures for Maintenance of Airport Pavements, the frequency of inspections may be extended for three years.
 - b. **Drive-by Inspection.** A drive-by inspection must be performed a minimum of once per month to detect any unexpected changes in the pavement condition.
 3. **Record Keeping.** Complete information on the findings of all detailed inspections and on the maintenance performed must be kept on file for a minimum of five years. The types of distress, their locations, and remedial action, scheduled or performed, must be documented. The minimum information to be recorded is listed below.
 - a. inspection date
 - b. location
 - c. distress types
 - d. maintenance scheduled or performed
- For drive-by inspections, the date of inspection and any maintenance performed must be recorded.
4. **Information Retrieval.** An airport sponsor may use any form of record keeping it deems appropriate, so long as the information and records produced by the pavement survey can be retrieved to provide a report to the FAA as may be required.

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5. Reference. Refer to Advisory Circular 150/5380-6, Guidelines and Procedures for Maintenance of Airport Pavements, for specific guidelines and procedures for maintaining airport pavements and establishing an effective pavement maintenance program. Specific types of distress, their probable causes, inspection guidelines, and recommended methods of repair are presented.

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IV ASSURANCES (Dated 3/05)

A. General.

1. These assurances shall be complied with in the performance of grant agreements for airport development, airport planning, and noise compatibility program grants for airport sponsors.
2. These assurances are required to be submitted as part of the project application by sponsors requesting funds under the provisions of Title 49, U.S.C., subtitle VII, as amended. As used herein, the term "public agency sponsor" means a public agency with control of a public-use airport; the term "private sponsor" means a private owner of a public-use airport; and the term "sponsor" includes both public agency sponsors and private sponsors.
3. Upon acceptance of the grant offer by the sponsor, these assurances are incorporated in and become part of the grant agreement.

B. Duration and Applicability.

1. **Airport development or Noise Compatibility Program Projects Undertaken by a Public Agency Sponsor.** The terms, conditions and assurances of the grant agreement shall remain in full force and effect throughout the useful life of the facilities developed or equipment acquired for an airport development or noise compatibility program project, or throughout the useful life of the project items installed within a facility under a noise compatibility program project, but in any event not to exceed twenty (20) years from the date of acceptance of a grant offer of Federal funds for the project. However, there shall be no limit on the duration of the assurances regarding Exclusive Rights and Airport Revenue so long as the airport is used as an airport. There shall be no limit on the duration of the terms, conditions, and assurances with respect to real property acquired with federal funds. Furthermore, the duration of the Civil Rights assurance shall be specified in the assurances.
2. **Airport Development or Noise Compatibility Projects Undertaken by a Private Sponsor.** The preceding paragraph 1 also applies to a private sponsor except that the useful life of project items installed within a facility or the useful life of the facilities developed or equipment acquired under an airport development or noise compatibility program project shall be no less than ten (10) years from the date of acceptance of Federal aid for the project.
3. **Airport Planning Undertaken by a Sponsor.** Unless otherwise specified in the grant agreement, only Assurances 1, 2, 3, 5, 6, 13, 18, 30, 32, 33, and 34 in section C apply to planning projects. The terms, conditions, and assurances of the grant agreement shall remain in full force and effect during the life of the project.

C. Sponsor Certification. The sponsor hereby assures and certifies, with respect to this grant that:

1. **General Federal Requirements.** It will comply with all applicable Federal laws, regulations, executive orders, policies, guidelines, and requirements as they relate to the application, acceptance and use of Federal funds for this project including but not limited to the following:

Federal Legislation

- a. Title 49, U.S.C., subtitle VII, as amended.
- b. Davis-Bacon Act - 40 U.S.C. 276(a), et seq.¹
- c. Federal Fair Labor Standards Act - 29 U.S.C. 201, et seq.
- d. Hatch Act - 5 U.S.C. 1501, et seq.²

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- e. Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 Title 42 U.S.C. 4601, et seq.^{1,2}
- f. National Historic Preservation Act of 1966 - Section 106 - 16 U.S.C. 470(f).¹
- g. Archeological and Historic Preservation Act of 1974 - 16 U.S.C. 469 through 469c.¹
- h. Native Americans Grave Repatriation Act - 25 U.S.C. Section 3001, et seq.
- i. Clean Air Act, P.L. 90-148, as amended.
- j. Coastal Zone Management Act, P.L. 93-205, as amended.
- k. Flood Disaster Protection Act of 1973 - Section 102(a) - 42 U.S.C. 4012a.¹
- l. Title 49, U.S.C., Section 303, (formerly known as Section 4(f))
- m. Rehabilitation Act of 1973 - 29 U.S.C. 794.
- n. Civil Rights Act of 1964 - Title VI - 42 U.S.C. 2000d through d-4.
- o. Age Discrimination Act of 1975 - 42 U.S.C. 6101, et seq.
- p. American Indian Religious Freedom Act, P.L. 95-341, as amended.
- q. Architectural Barriers Act of 1968 - 42 U.S.C. 4151, et seq.¹
- r. Power plant and Industrial Fuel Use Act of 1978 - Section 403- 2 U.S.C. 8373.¹
- s. Contract Work Hours and Safety Standards Act - 40 U.S.C. 327, et seq.¹
- t. Copeland Antikickback Act - 18 U.S.C. 874.¹
- u. National Environmental Policy Act of 1969 - 42 U.S.C. 4321, et seq.¹
- v. Wild and Scenic Rivers Act, P.L. 90-542, as amended.
- w. Single Audit Act of 1984 - 31 U.S.C. 7501, et seq.²
- x. Drug-Free Workplace Act of 1988 - 41 U.S.C. 702 through 706.

Executive Orders

- Executive Order 11246 - Equal Employment Opportunity¹
- Executive Order 11990 - Protection of Wetlands
- Executive Order 11998 - Flood Plain Management
- Executive Order 12372 - Intergovernmental Review of Federal Programs.
- Executive Order 12699 - Seismic Safety of Federal and Federally Assisted New Building Construction¹
- Executive Order 12898 - Environmental Justice

Federal Regulations

- a. 14 CFR Part 13 - Investigative and Enforcement Procedures.
- b. 14 CFR Part 16 - Rules of Practice For Federally Assisted Airport Enforcement Proceedings.
- c. 14 CFR Part 150 - Airport noise compatibility planning.
- d. 29 CFR Part 1 - Procedures for predetermination of wage rates.¹
- e. 29 CFR Part 3 - Contractors and subcontractors on public building or public work financed in whole or part by loans or grants from the United States.¹
- f. 29 CFR Part 5 - Labor standards provisions applicable to contracts covering federally financed and assisted construction (also labor standards provisions applicable to non-construction contracts subject to the Contract Work Hours and Safety Standards Act).¹
- g. 41 CFR Part 60 - Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor (Federal and federally assisted contracting requirements).¹
- h. 49 CFR Part 18 - Uniform administrative requirements for grants and cooperative agreements to state and local governments.³
- i. 49 CFR Part 20 - New restrictions on lobbying.

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- j. 49 CFR Part 21 - Nondiscrimination in federally-assisted programs of the Department of Transportation - effectuation of Title VI of the Civil Rights Act of 1964.
- k. 49 CFR Part 23 - Participation by Disadvantage Business Enterprise in Airport Concessions.
- l. 49 CFR Part 24 - Uniform relocation assistance and real property acquisition for Federal and federally assisted programs.^{1 2}
- m. 49 CFR Part 26 - Participation By Disadvantaged Business Enterprises in Department of Transportation Programs.
- n. 49 CFR Part 27 - Nondiscrimination on the basis of handicap in programs and activities receiving or benefiting from Federal financial assistance.¹
- o. 49 CFR Part 29 - Government wide debarment and suspension (non-procurement) and government wide requirements for drug-free workplace (grants).
- p. 49 CFR Part 30 - Denial of public works contracts to suppliers of goods and services of countries that deny procurement market access to U.S. contractors.
- q. 49 CFR Part 41 - Seismic safety of Federal and federally assisted or regulated new building construction.¹

Office of Management and Budget Circulars

- a. A-87 - Cost Principles Applicable to Grants and Contracts with State and Local Governments.
- b. A-133 - Audits of States, Local Governments, and Non-Profit Organizations

¹ These laws do not apply to airport planning sponsors.

² These laws do not apply to private sponsors.

³ 49 CFR Part 18 and OMB Circular A-87 contain requirements for State and Local Governments receiving Federal assistance. Any requirement levied upon State and Local Governments by this regulation and circular shall also be applicable to private sponsors receiving Federal assistance under Title 49, United States Code.

Specific assurances required to be included in grant agreements by any of the above laws, regulations or circulars are incorporated by reference in the grant agreement.

2. Responsibility and Authority of the Sponsor.

- a. **Public Agency Sponsor:** It has legal authority to apply for the grant, and to finance and carry out the proposed project; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing body authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.
- b. **Private Sponsor:** It has legal authority to apply for the grant and to finance and carry out the proposed project and comply with all terms, conditions, and assurances of this grant agreement. It shall designate an official representative and shall in writing direct and authorize that person to file this application, including all understandings and assurances contained therein; to act in connection with this application; and to provide such additional information as may be required.

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- 3. Sponsor Fund Availability.** It has sufficient funds available for that portion of the project costs which are not to be paid by the United States. It has sufficient funds available to assure operation and maintenance of items funded under the grant agreement which it will own or control.
- 4. Good Title.**
- a. It, a public agency or the Federal government, holds good title, satisfactory to the Secretary, to the landing area of the airport or site thereof, or will give assurance satisfactory to the Secretary that good title will be acquired.
 - b. For noise compatibility program projects to be carried out on the property of the sponsor, it holds good title satisfactory to the Secretary to that portion of the property upon which Federal funds will be expended or will give assurance to the Secretary that good title will be obtained.
- 5. Preserving Rights and Powers.**
- a. It will not take or permit any action which would operate to deprive it of any of the rights and powers necessary to perform any or all of the terms, conditions, and assurances in the grant agreement without the written approval of the Secretary, and will act promptly to acquire, extinguish or modify any outstanding rights or claims of right of others which would interfere with such performance by the sponsor. This shall be done in a manner acceptable to the Secretary.
 - b. It will not sell, lease, encumber, or otherwise transfer or dispose of any part of its title or other interests in the property shown on Exhibit A to this application or, for a noise compatibility program project, that portion of the property upon which Federal funds have been expended, for the duration of the terms, conditions, and assurances in the grant agreement without approval by the Secretary. If the transferee is found by the Secretary to be eligible under Title 49, United States Code, to assume the obligations of the grant agreement and to have the power, authority, and financial resources to carry out all such obligations, the sponsor shall insert in the contract or document transferring or disposing of the sponsor's interest, and make binding upon the transferee all of the terms, conditions, and assurances contained in this grant agreement.
 - c. For all noise compatibility program projects, which are to be carried out by another unit of local government or are on property owned by a unit of local government other than the sponsor, it will enter into an agreement with that government. Except as otherwise specified by the Secretary, that agreement shall obligate that government to the same terms, conditions, and assurances that would be applicable to it if it applied directly to the FAA for a grant to undertake the noise compatibility program project. That agreement and changes thereto must be satisfactory to the Secretary. It will take steps to enforce this agreement against the local government if there is substantial non-compliance with the terms of the agreement.
 - d. For noise compatibility program projects to be carried out on privately owned property, it will enter into an agreement with the owner of that property which includes provisions specified by the Secretary. It will take steps to enforce this agreement against the property owner whenever there is substantial non-compliance with the terms of the agreement.

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- e. If the sponsor is a private sponsor, it will take steps satisfactory to the Secretary to ensure that the airport will continue to function as a public-use airport in accordance with these assurances for the duration of these assurances.
 - f. If an arrangement is made for management and operation of the airport by any agency or person other than the sponsor or an employee of the sponsor, the sponsor will reserve sufficient rights and authority to insure that the airport will be operated and maintained in accordance Title 49, United States Code, the regulations and the terms, conditions and assurances in the grant agreement and shall insure that such arrangement also requires compliance therewith.
6. **Consistency with Local Plans.** The project is reasonably consistent with plans (existing at the time of submission of this application) of public agencies that are authorized by the State in which the project is located to plan for the development of the area surrounding the airport.
7. **Consideration of Local Interest.** It has given fair consideration to the interest of communities in or near where the project may be located.
8. **Consultation with Users.** In making a decision to undertake any airport development project under Title 49, United States Code, it has undertaken reasonable consultations with affected parties using the airport at which project is proposed.
9. **Public Hearings.** In projects involving the location of an airport, an airport runway, or a major runway extension, it has afforded the opportunity for public hearings for the purpose of considering the economic, social, and environmental effects of the airport or runway location and its consistency with goals and objectives of such planning as has been carried out by the community and it shall, when requested by the Secretary, submit a copy of the transcript of such hearings to the Secretary. Further, for such projects, it has on its management board either voting representation from the communities where the project is located or has advised the communities that they have the right to petition the Secretary concerning a proposed project.
10. **Air and Water Quality Standards.** In projects involving airport location, a major runway extension, or runway location it will provide for the Governor of the state in which the project is located to certify in writing to the Secretary that the project will be located, designed, constructed, and operated so as to comply with applicable air and water quality standards. In any case where such standards have not been approved and where applicable air and water quality standards have been promulgated by the Administrator of the Environmental Protection Agency, certification shall be obtained from such Administrator. Notice of certification or refusal to certify shall be provided within sixty days after the project application has been received by the Secretary.
11. **Pavement Preventive Maintenance.** With respect to a project approved after January 1, 1995, for the replacement or reconstruction of pavement at the airport, it assures or certifies that it has implemented an effective airport pavement maintenance-management program and it assures that it will use such program for the useful life of any pavement constructed, reconstructed or repaired with Federal financial assistance at the airport. It will provide such reports on pavement condition and pavement management programs as the Secretary determines may be useful.

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12. **Terminal Development Prerequisites.** For projects which include terminal development at a public use airport, as defined in Title 49, it has, on the date of submittal of the project grant application, all the safety equipment required for certification of such airport under section 44706 of Title 49, United States Code, and all the security equipment required by rule or regulation, and has provided for access to the passenger enplaning and deplaning area of such airport to passengers enplaning and deplaning from aircraft other than air carrier aircraft.
13. **Accounting System, Audit, and Record Keeping Requirements.**
- a. It shall keep all project accounts and records which fully disclose the amount and disposition by the recipient of the proceeds of the grant, the total cost of the project in connection with which the grant is given or used, and the amount or nature of that portion of the cost of the project supplied by other sources, and such other financial records pertinent to the project. The accounts and records shall be kept in accordance with an accounting system that will facilitate an effective audit in accordance with the Single Audit Act of 1984.
 - b. It shall make available to the Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, for the purpose of audit and examination, any books, documents, papers, and records of the recipient that are pertinent to the grant. The Secretary may require that an appropriate audit be conducted by a recipient. In any case in which an independent audit is made of the accounts of a sponsor relating to the disposition of the proceeds of a grant or relating to the project in connection with which the grant was given or used, it shall file a certified copy of such audit with the Comptroller General of the United States not later than six (6) months following the close of the fiscal year for which the audit was made.
14. **Minimum Wage Rates.** It shall include, in all contracts in excess of \$2,000 for work on any projects funded under the grant agreement which involve labor, provisions establishing minimum rates of wages, to be predetermined by the Secretary of Labor, in accordance with the Davis-Bacon Act, as amended (40 U.S.C. 276a-276a-5), which contractors shall pay to skilled and unskilled labor, and such minimum rates shall be stated in the invitation for bids and shall be included in proposals or bids for the work.
15. **Veteran's Preference.** It shall include in all contracts for work on any project funded under the grant agreement which involve labor, such provisions as are necessary to insure that, in the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to Veterans of the Vietnam era and disabled veterans as defined in Section 47112 of Title 49, United States Code. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.
16. **Conformity to Plans and Specifications.** It will execute the project subject to plans, specifications, and schedules approved by the Secretary. Such plans, specifications, and schedules shall be submitted to the Secretary prior to commencement of site preparation, construction, or other performance under this grant agreement, and, upon approval of the Secretary, shall be incorporated into this grant agreement. Any modification to the approved plans, specifications, and schedules shall also be subject to approval of the Secretary, and incorporated into the grant agreement.

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- 17. Construction Inspection and Approval.** It will provide and maintain competent technical supervision at the construction site throughout the project to assure that the work conforms to the plans, specifications, and schedules approved by the Secretary for the project. It shall subject the construction work on any project contained in an approved project application to inspection and approval by the Secretary and such work shall be in accordance with regulations and procedures prescribed by the Secretary. Such regulations and procedures shall require such cost and progress reporting by the sponsor or sponsors of such project as the Secretary shall deem necessary.
- 18. Planning Projects.** In carrying out planning projects:
- a. It will execute the project in accordance with the approved program narrative contained in the project application or with the modifications similarly approved.
 - b. It will furnish the Secretary with such periodic reports as required pertaining to the planning project and planning work activities.
 - c. It will include in all published material prepared in connection with the planning project a notice that the material was prepared under a grant provided by the United States.
 - d. It will make such material available for examination by the public, and agrees that no material prepared with funds under this project shall be subject to copyright in the United States or any other country.
 - e. It will give the Secretary unrestricted authority to publish, disclose, distribute, and otherwise use any of the material prepared in connection with this grant.
 - f. It will grant the Secretary the right to disapprove the sponsor's employment of specific consultants and their subcontractors to do all or any part of this project as well as the right to disapprove the proposed scope and cost of professional services.
 - g. It will grant the Secretary the right to disapprove the use of the sponsor's employees to do all or any part of the project.
 - h. It understands and agrees that the Secretary's approval of this project grant or the Secretary's approval of any planning material developed as part of this grant does not constitute or imply any assurance or commitment on the part of the Secretary to approve any pending or future application for a Federal airport grant.
- 19. Operation and Maintenance.**
- a. The airport and all facilities which are necessary to serve the aeronautical users of the airport, other than facilities owned or controlled by the United States, shall be operated at all times in a safe and serviceable condition and in accordance with the minimum standards as may be required or prescribed by applicable Federal, state and local agencies for maintenance and operation. It will not cause or permit any activity or action thereon which would interfere with its use for airport purposes. It will suitably operate and maintain the airport and all facilities thereon or connected therewith, with due regard to climatic and flood conditions. Any proposal to

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temporarily close the airport for non-aeronautical purposes must first be approved by the Secretary.

In furtherance of this assurance, the sponsor will have in effect arrangements for-

- (1) Operating the airport's aeronautical facilities whenever required;
- (2) Promptly marking and lighting hazards resulting from airport conditions, including temporary conditions; and
- (3) Promptly notifying airmen of any condition affecting aeronautical use of the airport.

Nothing contained herein shall be construed to require that the airport be operated for aeronautical use during temporary periods when snow, flood or other climatic conditions interfere with such operation and maintenance. Further, nothing herein shall be construed as requiring the maintenance, repair, restoration, or replacement of any structure or facility which is substantially damaged or destroyed due to an act of God or other condition or circumstance beyond the control of the sponsor.

- b. It will suitably operate and maintain noise compatibility program items that it owns or controls upon which Federal funds have been expended.
20. **Hazard Removal and Mitigation.** It will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards.
21. **Compatible Land Use.** It will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which Federal funds have been expended.
22. **Economic Nondiscrimination.**
- a. It will make the airport available as an airport for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities, including commercial aeronautical activities offering services to the public at the airport.
 - b. In any agreement, contract, lease, or other arrangement under which a right or privilege at the airport is granted to any person, firm, or corporation to conduct or to engage in any aeronautical activity for furnishing services to the public at the airport, the sponsor will insert and enforce provisions requiring the contractor to-
 - (1) furnish said services on a reasonable, and not unjustly discriminatory, basis to all users thereof, and
 - (2) charge reasonable, and not unjustly discriminatory, prices for each unit or service, provided that the contractor may be allowed to make reasonable and nondiscriminatory discounts, rebates, or other similar types of price reductions to volume purchasers.
 - c. Each fixed-based operator at the airport shall be subject to the same rates, fees, rentals, and other charges as are uniformly applicable to all other

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fixed-based operators making the same or similar uses of such airport and utilizing the same or similar facilities.

- d. Each air carrier using such airport shall have the right to service itself or to use any fixed-based operator that is authorized or permitted by the airport to serve any air carrier at such airport.
 - e. Each air carrier using such airport (whether as a tenant, nontenant, or subtenant of another air carrier tenant) shall be subject to such nondiscriminatory and substantially comparable rules, regulations, conditions, rates, fees, rentals, and other charges with respect to facilities directly and substantially related to providing air transportation as are applicable to all such air carriers which make similar use of such airport and utilize similar facilities, subject to reasonable classifications such as tenants or nontenants and signatory carriers and non-signatory carriers. Classification or status as tenant or signatory shall not be unreasonably withheld by any airport provided an air carrier assumes obligations substantially similar to those already imposed on air carriers in such classification or status.
 - f. It will not exercise or grant any right or privilege which operates to prevent any person, firm, or corporation operating aircraft on the airport from performing any services on its own aircraft with its own employees [including, but not limited to maintenance, repair, and fueling] that it may choose to perform.
 - g. In the event the sponsor itself exercises any of the rights and privileges referred to in this assurance, the services involved will be provided on the same conditions as would apply to the furnishing of such services by commercial aeronautical service providers authorized by the sponsor under these provisions.
 - h. The sponsor may establish such reasonable, and not unjustly discriminatory, conditions to be met by all users of the airport as may be necessary for the safe and efficient operation of the airport.
 - i. The sponsor may prohibit or limit any given type, kind or class of aeronautical use of the airport if such action is necessary for the safe operation of the airport or necessary to serve the civil aviation needs of the public.
23. **Exclusive Rights.** It will permit no exclusive right for the use of the airport by any person providing, or intending to provide, aeronautical services to the public. For purposes of this paragraph, the providing of the services at an airport by a single fixed-based operator shall not be construed as an exclusive right if both of the following apply:
- a. It would be unreasonably costly, burdensome, or impractical for more than one fixed-based operator to provide such services, and
 - b. If allowing more than one fixed-based operator to provide such services would require the reduction of space leased pursuant to an existing agreement between such single fixed-based operator and such airport.
- It further agrees that it will not, either directly or indirectly, grant or permit any person, firm, or corporation, the exclusive right at the airport to conduct any aeronautical activities, including, but not limited to charter flights, pilot training, aircraft rental and sightseeing, aerial photography, crop dusting, aerial advertising and surveying, air carrier operations, aircraft sales and services, sale of aviation petroleum products whether or not conducted in conjunction with other aeronautical activity, repair and maintenance of aircraft, sale of

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aircraft parts, and any other activities which because of their direct relationship to the operation of aircraft can be regarded as an aeronautical activity, and that it will terminate any exclusive right to conduct an aeronautical activity now existing at such an airport before the grant of any assistance under Title 49, United States Code.

24. **Fee and Rental Structure.** It will maintain a fee and rental structure for the facilities and services at the airport which will make the airport as self-sustaining as possible under the circumstances existing at the particular airport, taking into account such factors as the volume of traffic and economy of collection. No part of the Federal share of an airport development, airport planning or noise compatibility project for which a grant is made under Title 49, United States Code, the Airport and Airway Improvement Act of 1982, the Federal Airport Act or the Airport and Airway Development Act of 1970 shall be included in the rate basis in establishing fees, rates, and charges for users of that airport.
25. **Airport Revenues.**
- a. All revenues generated by the airport and any local taxes on aviation fuel established after December 30, 1987, will be expended by it for the capital or operating costs of the airport; the local airport system; or other local facilities which are owned or operated by the owner or operator of the airport and which are directly and substantially related to the actual air transportation of passengers or property; or for noise mitigation purposes on or off the airport. Provided, however, that if covenants or assurances in debt obligations issued before September 3, 1982, by the owner or operator of the airport, or provisions enacted before September 3, 1982, in governing statutes controlling the owner or operator's financing, provide for the use of the revenues from any of the airport owner or operator's facilities, including the airport, to support not only the airport but also the airport owner or operator's general debt obligations or other facilities, then this limitation on the use of all revenues generated by the airport (and, in the case of a public airport, local taxes on aviation fuel) shall not apply.
 - b. As part of the annual audit required under the Single Audit Act of 1984, the sponsor will direct that the audit will review, and the resulting audit report will provide an opinion concerning, the use of airport revenue and taxes in paragraph (a), and indicating whether funds paid or transferred to the owner or operator are paid or transferred in a manner consistent with Title 49, United States Code and any other applicable provision of law, including any regulation promulgated by the Secretary or Administrator.
 - c. Any civil penalties or other sanctions will be imposed for violation of this assurance in accordance with the provisions of Section 47107 of Title 49, United States Code.
26. **Reports and Inspections.** It will:
- a. submit to the Secretary such annual or special financial and operations reports as the Secretary may reasonably request and make such reports available to the public; make available to the public at reasonable times and places a report of the airport budget in a format prescribed by the Secretary;
 - b. for airport development projects, make the airport and all airport records and documents affecting the airport, including deeds, leases, operation and use agreements, regulations and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request;

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- c. for noise compatibility program projects, make records and documents relating to the project and continued compliance with the terms, conditions, and assurances of the grant agreement including deeds, leases, agreements, regulations, and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request; and
 - d. in a format and time prescribed by the Secretary, provide to the Secretary and make available to the public following each of its fiscal years, an annual report listing in detail:
 - (i) all amounts paid by the airport to any other unit of government and the purposes for which each such payment was made; and
 - (ii) all services and property provided by the airport to other units of government and the amount of compensation received for provision of each such service and property.
- 27. **Use by Government Aircraft.** It will make available all of the facilities of the airport developed with Federal financial assistance and all those usable for landing and takeoff of aircraft to the United States for use by Government aircraft in common with other aircraft at all times without charge, except, if the use by Government aircraft is substantial, charge may be made for a reasonable share, proportional to such use, for the cost of operating and maintaining the facilities used. Unless otherwise determined by the Secretary, or otherwise agreed to by the sponsor and the using agency, substantial use of an airport by Government aircraft will be considered to exist when operations of such aircraft are in excess of those which, in the opinion of the Secretary, would unduly interfere with use of the landing areas by other authorized aircraft, or during any calendar month that-
 - a. Five (5) or more Government aircraft are regularly based at the airport or on land adjacent thereto; or
 - b. The total number of movements (counting each landing as a movement) of Government aircraft is 300 or more, or the gross accumulative weight of Government aircraft using the airport (the total movement of Government aircraft multiplied by gross weights of such aircraft) is in excess of five million pounds.
- 28. **Land for Federal Facilities.** It will furnish without cost to the Federal Government for use in connection with any air traffic control or air navigation activities, or weather-reporting and communication activities related to air traffic control, any areas of land or water, or estate therein, or rights in buildings of the sponsor as the Secretary considers necessary or desirable for construction, operation, and maintenance at Federal expense of space or facilities for such purposes. Such areas or any portion thereof will be made available as provided herein within four months after receipt of a written request from the Secretary.
- 29. **Airport Layout Plan.**
 - a. It will keep up to date at all times an airport layout plan of the airport showing (1) boundaries of the airport and all proposed additions thereto, together with the boundaries of all offsite areas owned or controlled by the sponsor for airport purposes and proposed additions thereto; (2) the location and nature of all existing and proposed airport facilities and structures (such as runways, taxiways, aprons, terminal buildings, hangars and roads), including all proposed extensions and reductions of existing airport facilities; and (3) the location of all existing and proposed nonaviation areas and of all existing improvements thereon. Such airport layout plans and each amendment, revision, or modification thereof, shall be subject to the approval of the Secretary which approval shall be evidenced by the signature of a duly authorized representative of the Secretary on the face of the airport layout plan. The sponsor will not make or permit any changes or

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alterations in the airport or any of its facilities which are not in conformity with the airport layout plan as approved by the Secretary and which might, in the opinion of the Secretary, adversely affect the safety, utility or efficiency of the airport.

- b. If a change or alteration in the airport or the facilities is made which the Secretary determines adversely affects the safety, utility, or efficiency of any federally owned, leased, or funded property on or off the airport and which is not in conformity with the airport layout plan as approved by the Secretary, the owner or operator will, if requested, by the Secretary (1) eliminate such adverse effect in a manner approved by the Secretary; or (2) bear all costs of relocating such property (or replacement thereof) to a site acceptable to the Secretary and all costs of restoring such property (or replacement thereof) to the level of safety, utility, efficiency, and cost of operation existing before the unapproved change in the airport or its facilities.
- 30. Civil Rights.** It will comply with such rules as are promulgated to assure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or benefiting from funds received from this grant. This assurance obligates the sponsor for the period during which Federal financial assistance is extended to the program, except where Federal financial assistance is to provide, or is in the form of personal property or real property or interest therein or structures or improvements thereon in which case the assurance obligates the sponsor or any transferee for the longer of the following periods: (a) the period during which the property is used for a purpose for which Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits, or (b) the period during which the sponsor retains ownership or possession of the property.
- 31. Disposal of Land.**
- a. For land purchased under a grant for airport noise compatibility purposes, it will dispose of the land, when the land is no longer needed for such purposes, at fair market value, at the earliest practicable time. That portion of the proceeds of such disposition which is proportionate to the United States' share of acquisition of such land will, at the discretion of the Secretary, 1) be paid to the Secretary for deposit in the Trust Fund, or 2) be reinvested in an approved noise compatibility project as prescribed by the Secretary, including the purchase of nonresidential buildings or property in the vicinity of residential buildings or property previously purchased by the airport as part of noise compatibility program..
 - b. For land purchased under a grant for airport development purposes (other than noise compatibility), it will, when the land is no longer needed for airport purposes, dispose of such land at fair market value or make available to the Secretary an amount equal to the United States' proportionate share of the fair market value of the land. That portion of the proceeds of such disposition which is proportionate to the United States' share of the cost of acquisition of such land will, (1) upon application to the Secretary, be reinvested in another eligible airport improvement project or projects approved by the Secretary at that airport or within the national airport system, or (2) be paid to the Secretary for deposit in the Trust Fund if no eligible project exists.
 - c. Land shall be considered to be needed for airport purposes under this assurance if (1) it may be needed for aeronautical purposes (including

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runway protection zones) or serve as noise buffer land, and (2) the revenue from interim uses of such land contributes to the financial self-sufficiency of the airport. Further, land purchased with a grant received by an airport operator or owner before December 31, 1987, will be considered to be needed for airport purposes if the Secretary or Federal agency making such grant before December 31, 1987, was notified by the operator or owner of the uses of such land, did not object to such use, and the land continues to be used for that purpose, such use having commenced no later than December 15, 1989.

- d. Disposition of such land under (a) or (b) will be subject to the retention or reservation of any interest or right therein necessary to ensure that such land will only be used for purposes which are compatible with noise levels associated with operation of the airport.
32. **Engineering and Design Services.** It will award each contract, or sub-contract for program management, construction management, planning studies, feasibility studies, architectural services, preliminary engineering, design, engineering, surveying, mapping or related services with respect to the project in the same manner as a contract for architectural and engineering services is negotiated under Title IX of the Federal Property and Administrative Services Act of 1949 or an equivalent qualifications-based requirement prescribed for or by the sponsor of the airport.
33. **Foreign Market Restrictions.** It will not allow funds provided under this grant to be used to fund any project which uses any product or service of a foreign country during the period in which such foreign country is listed by the United States Trade Representative as denying fair and equitable market opportunities for products and suppliers of the United States in procurement and construction.
34. **Policies, Standards, and Specifications.** It will carry out the project in accordance with policies, standards, and specifications approved by the Secretary including but not limited to the advisory circulars listed in the Current FAA Advisory Circulars for AIP projects, dated July 1, 1999 and included in this grant, and in accordance with applicable state policies, standards, and specifications approved by the Secretary.
35. **Relocation and Real Property Acquisition.** (1) It will be guided in acquiring real property, to the greatest extent practicable under State law, by the land acquisition policies in Subpart B of 49 CFR Part 24 and will pay or reimburse property owners for necessary expenses as specified in Subpart B. (2) It will provide a relocation assistance program offering the services described in Subpart C and fair and reasonable relocation payments and assistance to displaced persons as required in Subpart D and E of 49 CFR Part 24. (3) It will make available within a reasonable period of time prior to displacement, comparable replacement dwellings to displaced persons in accordance with Subpart E of 49 CFR Part 24.
36. **Access By Intercity Buses.** The airport owner or operator will permit, to the maximum extent practicable, intercity buses or other modes of transportation to have access to the airport, however, it has no obligation to fund special facilities for intercity buses or for other modes of transportation.
37. **Disadvantaged Business Enterprises.** The recipient shall not discriminate on the basis of race, color, national origin or sex in the award and performance of any DOT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR Part 26. The Recipient shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure non discrimination in the award and administration of DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR Part 26, and as approved by DOT, is incorporated by reference

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in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the recipient of its failure to carry out its approved program, the Department may impose sanctions as provided for under Part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801).

38. Hangar Construction. If the airport owner or operator and a person who owns an aircraft agree that a hangar is to be constructed at the airport for the aircraft at the aircraft owner's expense, the airport owner or operator will grant to the aircraft owner for the hangar a long term lease that is subject to such terms and conditions on the hangar as the airport owner or operator may impose.

39. Competitive access.

- a. If the airport owner or operator of a medium or large hub airport (as define in section 47102 of title 49, U.S.C.) has been unable to accommodate one or more requests by an air carrier for access to gates or other facilities at the airport in order to allow the air carrier to provide service to the airport or to expand service at the airport, the airport owner or operator shall transmit a report to the Secretary that-
1. Describes the request;
 2. Provides an explanation as to why the request could not be accommodated; and
 3. Provides a time frame within which, if any, the airport will be able to accommodate the requests.

b. Such report shall due on either February 1 or August 1 of each year if the airport has been unable to accommodate the request(s) in the six month period prior to the applicable due date.

CURRENT FAA ADVISORY CIRCULARS FOR AIP/PFC PROJECTS

Updated on: 7/1/2005

The following apply to both AIP and PFC Projects

NUMBER	TITLE
70/7460-1J and Change 1 150/5000-13	Obstruction Marking and Lighting
150/5070-6A 150/5190-5 and Change1	Announcement of Availability-- RTCA Inc., Document RTCA-221, Guidance and Recommended Requirements for Airport Surface Movement Sensors Airport Master Plans Exclusive Rights and Minimum Standards for Commercial Aeronautical Activities
150/5200-28B	Notices to Airmen (NOTAMS) for Airport Operators
150/5210-5B	Painting, Marking and Lighting of Vehicles Used on an Airport
150/5210-7C	Aircraft Fire and Rescue Communications

MASTER AGREEMENT TERMS AND CONDITIONS OF ACCEPTING AIRPORT IMPROVEMENT PROGRAM GRANTS

150/5210-13B	Water Rescue Plans, Facilities, and Equipment
150/5210-14A	Airport Fire and Rescue Personnel Protective Clothing
150/5210-15	Airport Rescue & Firefighting Station Building Design
150/5210-18	Systems for Interactive Training of Airport Personnel
150/5210-19	Driver's Enhanced Vision System (DEVS)
150/5220-4B	Water Supply Systems for Aircraft Fire and Rescue Protection
150/5220-10C	Guide Specification for Water/Foam Type Aircraft Rescue and Firefighting Vehicles
150/5220-13B	Runway Surface Condition Sensor Specification Guide
150/5220-16C	Automated Weather Observing Systems for NonFederal Applications
150/5220-17A and Change 1	Design Standards for Aircraft Rescue Firefighting Training Facilities
150/5220-18	Buildings for Storage and Maintenance of Airport Snow and Ice Control Equipment and Materials
150/5220-19	Guide Specification for Small, Dual-Agent Aircraft Rescue and Firefighting Vehicles
150/5220-20 and Change 1	Airport Snow and Ice Control Equipment
150/5220-21B	Guide Specification for Lifts Used to Board Airline Passengers With Mobility Impairments
150/5220-22 and Change 1	Engineering Materials Arresting Systems (EMAS) for Aircraft Overruns
150/5300-13 and Changes 1 through 8	Airport Design
150/5300-14 and Changes 1 and 2	Design of Aircraft Deicing Facilities
150/5320-5B	Airport Drainage
150/5320-6D and Changes 1 through 6	Airport Pavement Design and Evaluation
150/5320-12C and	Measurement, Construction, and

MASTER AGREEMENT TERMS AND CONDITIONS OF ACCEPTING AIRPORT IMPROVEMENT PROGRAM GRANTS

Changes 1 through 6	Maintenance of Skid Resistant Airport Pavement Surfaces
150/5320-14	Airport Landscaping for Noise Control Purposes
150/5320-15 and Change1	Management of Airports Industrial Waste
150/5325-4A and Change1	Runway Length Requirements for Airport Design
150/5335-5 and Change1	Standardized Method of Reporting Pavement Strength PCN
150/5340-1J 150/5340-5B and Change1	Standards for Airport Markings Segmented Circle Airport Marker System
150/5340-18D	Standards for Airport Sign Systems
150/5340-19	Taxiway Centerline Lighting System
150/5345-3E	Specification for L821 Panels for Remote Control of Airport Lighting Circuit Selector Switch
150/5345-5A 150/5345-7E	Specification for L824 Underground Electrical Cable for Airport Lighting Circuits
150/5345-10E	Specification for Constant Current Regulators Regulator Monitors
150/5345-12C	Specification for Airport and Heliport Beacon
150/5345-13A	Specification for L841 Auxiliary Relay Cabinet Assembly for Pilot Control of Airport Lighting Circuits
150/5345-26C	Specification for L823 Plug and Receptacle, Cable Connectors
150/5345-27D	Specification for Wind Cone Assemblies
150/5345-28F	Precision Approach Path Indicator (PAPI) Systems
150/5345-39B and Change1	FAA Specification L853, Runway and Taxiway Centerline Retroreflective Markers
150/5345-42D	Specification for Airport Light Bases, Transformer Housings, Junction Boxes and Accessories
150/5345-43E	Specification for Obstruction Lighting Equipment

MASTER AGREEMENT TERMS AND CONDITIONS OF ACCEPTING AIRPORT IMPROVEMENT PROGRAM GRANTS

150/5345-44G	Specification for Taxiway and Runway Signs
150/5345-45A	Lightweight Approach Light Structure
150/5345-46B	Specification for Runway and Taxiway Light Fixtures
150/5345-47A	Isolation Transformers for Airport Lighting Systems
150/5345-49A	Specification L854, Radio Control Equipment
150/5345-50 and Change1	Specification for Portable Runway Lights
150/5345-51 and Change1	Specification for Discharge-Type Flasher Equipment
150/5345-52	Generic Visual Glideslope Indicators (GVGI)
150/5345-53B	Airport Lighting Equipment Certification Program
150/5345-54A and Change1	Specification for L-1884 Power and Control Unit for Land and Hold Short
150/45-55	Lighted Visual Aid to Indicate Temporary Runway Closure
150/5360-9	Planning and Design of Airport Terminal Facilities at NonHub Locations
150/5360-11	Energy Conservation for Airports Buildings
150/5360-12D	Airport Signing & Graphics
150/5360-13 and Change1	Planning and Design Guidance for Airport Terminal Facilities
150/5370-2E	Operational Safety on Airports During Construction
150/5370-10B	Standards for Specifying Construction of Airports
150/5380-6A	Guidelines and Procedures for Maintenance of Airport Pavements
150/5390-2B	Heliport Design
150/5390-3	Vertiport Design
150/5395-1	Seaplanes Bases
150/5200-30	Airport Winter Safety Operations
150/5200-33	Hazardous Wildlife Attractants On or Near Airports
150/5300-15	Use of Value Engineering for

MASTER AGREEMENT TERMS AND CONDITIONS OF ACCEPTING AIRPORT IMPROVEMENT PROGRAM GRANTS

150/5370-11	Engineering Design of Airport Grant Project
1505370-12	Use of Nondestructive Testing Devices in the Evaluation of Airport Pavements
150/5370-6	Quality Control of Construction for Airport Grants
	Construction Progress and Inspection Report-Airport Grant Program

The following apply to AIP Projects only

NUMBER	TITLE
150/5100-14C	Architectural, Engineering, and Planning Consultant Services for Airport Grant Projects
150/5100-15A	Civil Rights Requirement For The Airport Improvement Program
150/5100-17 and Changes 1through 4	Land Acquisition and Relocation Assistance for Airport Improvement Program
150/5190-5 and Change1	Exclusive Rights and Minimum Standards for Commercial Aeronautical Activities
150/5200-30A CHG 1 & 2	Airport Winter Safety and Operations
150/5200-33A	Hazardous Wildlife Attractants On or Near Airports
150/5300-15	Use of Value Engineering for Engineering Design of Airport Grant Projects
150/5320-17	Airfield Pavement Surface Evaluation and Rating (PASER) Manuals
150/5360-11	Energy Conservation for Airport Buildings
150/5370-6B	Construction Progress and Inspection Report-Airport Grant Program
150/5370-11A	Use of Nondestructive Testing Devices in the Evaluation of Airport Pavements
150/5370-12	Quality Control of Construction for Airport Grant Projects

MASTER AGREEMENT TERMS AND CONDITIONS OF ACCEPTING AIRPORT IMPROVEMENT PROGRAM GRANTS

150/5370-13

Offpeak Construction of Airport Pavements Using Hot-Mix Asphalt
Pavement Management System
Handbook For Identification of Alkali-silica Reactivity in Airfield Pavements

150/5380-7

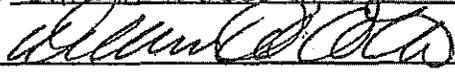
150/5380-8

ACCEPTANCE

The Sponsor does hereby ratify and adopt all assurances, statements, representations, warranties, covenants, and agreements contained in this Master Agreement as part of all Grant Agreements between the Sponsor and the Federal Aviation Administration as provided by Title 49 U.S.C. which are executed subsequent to the date of acceptance of this Master Agreement.

Date: 2/21/06

Name/Title: William DeCota, Director of Aviation

Signature: 

Sponsor: The Port Authority of New York + New Jersey

Airport: John F. Kennedy International

**PERMANENT WTC PATH TERMINAL PROJECT:
REVISED and RESTATED CONSTRUCTION AGREEMENT
Between the PORT AUTHORITY of NEW YORK and NEW JERSEY
and the FEDERAL TRANSIT ADMINISTRATION**

THIS REVISED AND RESTATED CONSTRUCTION AGREEMENT (Agreement) is entered into by and between the Port Authority of New York and New Jersey (PANYNJ), a municipal corporate instrumentality and political subdivision of the States of New York and New Jersey, and the Federal Transit Administration (FTA), an agency of the United States Department of Transportation (USDOT).

WHEREAS, the 2002 Supplemental Appropriations Act for Further Recovery From and Response to Terrorist Attacks on the United States (Public Law No. 107-206) made \$2.75 billion available to the Federal Emergency Management Administration (FEMA), an agency of the United States Department of Homeland Security, to assist state and local transportation agencies in their repair and replacement of transportation infrastructure in the Borough of Manhattan following the terrorist attacks of September 11, 2001;

WHEREAS, in August 2002 FEMA executed a Memorandum of Agreement with the USDOT whereby FTA is administering this \$2.75 billion in FEMA funding, together with \$1.8 billion in funds made available to FTA under Public Law No. 107-206 for the repair, replacement, and enhancement of transportation infrastructure in the Borough of Manhattan;

WHEREAS, in May 2006 FTA and PANYNJ executed a Construction Agreement (original CA) whereby FTA allocated \$2.201 billion in Federal financial assistance for design and construction of the *Permanent WTC PATH Terminal Project* ("WTC PATH Terminal" or the "Project," also known locally as the WTC Transportation Hub), from the funds made available under Public Law No. 107-206; PANYNJ committed \$300 million of its own resources toward the Project; and at the time, the Estimated Overall Project cost of the WTC PATH Terminal was \$2.501 billion;

WHEREAS, the completion date and budget for the WTC PATH Terminal will extend beyond those set forth in the original CA, due, in part, to factors beyond the control of FTA and PANYNJ, including delays in the design and construction of other buildings and infrastructure at the World Trade Center, rapid and unforeseeable cost growth in fuel and construction material, and intense competition for labor and material with other major public and private infrastructure and development in metropolitan New York City; and due, in part, to the inability of PANYNJ and its initial construction manager/general contractor

Permanent WTC PATH Terminal RRCA
September 2012

to agree upon a guaranteed maximum price for construction of a substantial portion of the Project;

WHEREAS, in June 2009 the Governor of New York and PANYNJ requested that an additional amount of approximately \$671 million, in total, of Federal funding available to FTA under Public Law No. 107-206 be reallocated to the WTC PATH Terminal to help finance the cost overruns on the Project, which was comprised of the following: an approximate \$553.6 million originally allocated for design and construction of a Vehicular Security Center and Tour Bus Parking Facility (VSC) at the World Trade site, an additional \$70 million originally allocated for design and construction of the Cortlandt Street 1-Line Station, and an additional \$47.35 million that had not yet been allocated to any particular project;

WHEREAS, in February 2011 the PANYNJ Board of Commissioners re-authorized the total estimated cost of the WTC PATH Terminal at \$3.44 billion, which includes an approximate \$61 million in local financing costs extraneous to this Agreement between FTA and PANYNJ;

WHEREAS, FTA has determined that altering the Baseline Cost Estimate, Project Budget, and Baseline Schedule previously established by the May 2006 Construction Agreement is in the best interests of accelerating the repair, replacement, and enhancement of transportation infrastructure in the Borough of Manhattan;

WHEREAS, FTA has determined that the establishment of an "FTA Risk Retainage" is necessary and prudent to protect the Federal government's continuing investment in the WTC PATH Terminal, and to keep faith with the Federal taxpayer and the people who live, work, and travel within lower Manhattan; and

WHEREAS, FTA and PANYNJ have agreed that their respective obligations and responsibilities related to completion of the WTC PATH Terminal shall be determined by and under the terms and conditions of this Revised and Restated Construction Agreement and have agreed that this Revised and Restated Construction Agreement shall be recognized as the sole understanding by and between FTA and PANYNJ in consideration of the mutual commitments set forth in this Agreement;

THEREFORE, in consideration of the above and the parties' mutual commitments as set forth in this Revised and Restated Construction Agreement, FTA and PANYNJ agree to the specific terms, conditions, and provisions set forth in this entire Agreement including, in particular, the specific terms of the following Sections and Attachments:

SECTION 1 DEFINITIONS

"Agreement" means this Revised and Restated Construction Agreement between FTA and PANYNJ and consists of all parts and documents identified in Section 14 of this Agreement, and will include all future addenda, substitutions, modifications and amendments as and when legally executed and effective.

"Baseline Cost Estimate" means the document described in Section 4 of this Agreement and set forth in Attachment 4 to this Agreement. The Baseline Cost Estimate reflects the total anticipated cost of the Project as of the Date of this Agreement.

"Baseline Schedule" means the document described in Section 8 of this Agreement and set forth in Attachment 6 to this Agreement. The Baseline Schedule reflects the Major Milestones on the critical path to Complete the Project and indicates for each of the Project Units the beginning and completion of performance.

"Complete the Project" means to accomplish all of the scope and activities of the Project as described in Attachment 1 to this Agreement, "Scope of the Project," and Attachment 3 to this Agreement, "Project Description." Recognizing that portions of the Project will be opened in phases, this term equates to the issuance of the last "Temporary Permit to Occupy or Use" by the PANYNJ Chief Engineer required to ensure safe occupancy and use of completed space and equipment, for the Project.

"Date of this Agreement" means the date FTA executes this Revised and Restated Construction Agreement.

"FTA Risk Retainage" refers to a certain amount of Federal funding for the Project that FTA will keep in retainage, in accordance with the Project Execution Plan (PEP), for purposes of addressing future cost overruns on the Project or offsetting (reducing) the local funds necessary to Complete the Project. As of the Date of this Agreement, the amount of the FTA Risk Retainage is \$280 million. The FTA Risk Retainage may be released to PANYNJ, in whole or in part, in FTA's discretion, at any time during construction of the Project, and will be released in full upon the completion of all of the scope and activities of the Project as described in Attachments 1 and 3 to this Agreement, "Scope of the Project" and "Project Description."

"LMRO Master Agreement" means the Master Agreement for Lower Manhattan Recovery Grants dated October 1, 2011, which governs all of the projects that will be funded in whole or in part with funds made available under Public Law 107-206 through grants administered by FTA's Lower Manhattan

Recovery Office (LMRO). The LMRO Master Agreement is incorporated by reference and made part of this Construction Agreement.

"Project" means PANYNJ's *Permanent WTC PATH Terminal Project* ("WTC PATH Terminal", also known locally as the WTC Transportation Hub), and specifically, all of the scope and activities described in Attachments 1 and 3 to this Agreement, "Scope of the Project" and "Project Description."

"Project Costs" means all costs eligible for Federal financial participation under the terms of this Agreement and consistent with the cost principles set forth in Section 9 of the LMRO Master Agreement, "Payments."

"Project Execution Plan (PEP)" means the management strategies PANYNJ is using to Complete the Project, as described in the document titled "WTC PATH Hub Negotiated Project Execution Plan", dated in 2012. The Project Execution Plan (PEP) includes all explanatory, supporting and supplementary documents, commitments, and agreements accepted or approved by FTA. In its discretion, FTA will consider the progress being made under the PEP in determining whether to release the FTA Risk Retainage for the Project, in whole or in part.

"Recovery Plan" means a plan developed by PANYNJ, and accepted by FTA, whereby PANYNJ will take every reasonable measure to recover any delay in achieving the Major Milestones identified in the baseline schedule set forth in Attachment 6 to this Agreement (the Baseline Schedule) and to recover any increase in the costs of a Project Unit as currently estimated, as compared to the cost identified in Attachment 4 to this Agreement (the Baseline Cost Estimate). The fundamental objectives of a Recovery Plan are to maintain the Required Completion Date, notwithstanding any delay in achieving certain milestones, and to keep the total project costs within the Baseline Cost Estimate, notwithstanding any overruns on individual Project Units.

"Required Completion Date" means the date certain by which PANYNJ agrees to accomplish the scope and activities described in Attachments 1 and 3 to this Agreement, to Complete the Project and achieve the operational function and use of the Project.

SECTION 2 PURPOSES OF AGREEMENT

The purposes of this Agreement are to:

- (a) provide Federal financial assistance to PANYNJ from funds made available by Public Law 107-206 for purposes that are consistent with Public Law 107-206 and other applicable laws, statutes, and regulations;

(b) describe the Project with particularity, and set forth the mutual understandings, terms, conditions, rights and obligations of FTA and PANYNJ related to PANYNJ's implementation of the Project, PANYNJ's future management and operation of the Project, and the manner in which Project real property and equipment will be used;

(c) establish certain limitations on the Federal financial assistance for the Project, and the manner in which the Federal funds will be awarded and released to PANYNJ;

(d) establish PANYNJ's obligations to Complete the Project with a specified amount of Federal assistance, and by a specified date, and to pay all costs necessary to Complete the Project that are in excess of the Federal funds that will be awarded and released to PANYNJ; and

(e) ensure PANYNJ's timely and efficient management of the Project.

SECTION 3 PREVIOUS FEDERAL AWARDS AND DOCUMENTS

(a) Federal law and procedure require the completion of environmental and historic preservation reviews prior to the award and execution of this Agreement. Prior awards of Federal funds for these reviews and other project development activities are described in Attachment 7 to this Agreement. These previous awards of Federal funds are incorporated by reference and made part of this Agreement, except for the terms and conditions thereof specifically superseded by this Agreement. Further, in executing this Agreement, PANYNJ assures FTA that the certifications and assurances made by PANYNJ upon which FTA relied in these prior actions were made in good faith and to the best of PANYNJ's knowledge and belief, and that PANYNJ has no present knowledge of facts or circumstances substantially affecting the continued validity of these certifications and assurances that PANYNJ has not formally conveyed to FTA prior to FTA's awards of funding set forth in this Agreement.

(b) This Agreement does not discharge or rescind any of the terms, conditions, or obligations established under the documents set forth in Attachment 7 unless specifically stated otherwise herein. Furthermore, the terms, conditions and obligations of this Agreement take precedence over the provisions of all prior agreements between FTA and PANYNJ related to the Project and will be controlling for all actions related to the Project taken after the Date of this Agreement, unless specifically stated otherwise herein.

SECTION 4 BASELINE COST ESTIMATE

(a) Use of the Baseline Cost Estimate. The Baseline Cost Estimate (BCE) is set forth at Attachment 4 to this Agreement. The BCE is comprised of all of the activities necessary to Complete the Project, and it reflects the total anticipated cost of the Project as of the Date of this Agreement. The BCE is derived from the most recent cost estimates of the individual third party contracts and force account work and reflects appropriate escalation and contingencies, and the Major Milestones set forth in Attachment 6 to this Agreement, "Baseline Schedule." The BCE will not be amended or modified during the construction of the Project. FTA will use the BCE to monitor PANYNJ's construction of the Project and its compliance with certain terms and conditions of this Agreement. PANYNJ will submit periodic cost reports in a format consistent with the BCE so that FTA can, with reasonable diligence, reconcile PANYNJ's reports with the BCE.

(b) Requirement for a Recovery Plan. If at any time during its efforts to Complete the Project PANYNJ determines that the costs of one or more of the Project Units will exceed the amount set forth in Attachment 4, PANYNJ must immediately notify FTA of the amount of the difference (overrun) and the reasons for the difference. Further, PANYNJ must provide FTA with a Recovery Plan that demonstrates PANYNJ is taking and will take every reasonable measure to recover the difference between the actual and estimated costs of that Project Unit, and keep the total project cost within the total amount specified in the BCE.

SECTION 5 LIMITATIONS OF THE FEDERAL FUNDING COMMITMENT

(a) Funding Mechanism. The Federal funding for the Project has been and will be awarded through FTA's electronic grant award and management system ("TEAM"), under a single grant: FTA's project number NY-43-0002. Certain Project expenditures have already been reimbursed under this grant, as reflected in Attachment 5 to this Agreement, "Project Budget." As the Project progresses, FTA will authorize the expenditure of additional funds for Project activities and allow PANYNJ to draw down additional funds under the grant, as appropriate.

(b) Maximum Amount of Federal Funding. FTA is allocating \$2.872 billion in Federal financial assistance for the *WTC PATH Terminal* Project from the Federal funding made available by Public Law No. 107-206. If this \$2.872 billion in Federal financial assistance is insufficient to Complete the Project, PANYNJ is solely responsible for the payment of any additional costs (overruns). FTA has no obligation to provide any financial assistance beyond the \$2.872 billion made available by Public Law No. 107-206. Furthermore, if ever PANYNJ determines that the total Project Costs of the Project will necessarily exceed the Baseline Cost Estimate, PANYNJ must immediately inform FTA of the amount of the cost

overruns, and the reasons for the cost overruns, and demonstrate that PANYNJ has taken and will take every reasonable measure to minimize any possibility of any further cost overruns.

(c) No Local Match. There is no requirement that the Federal funding for the Project be matched by local funds. Nonetheless, PANYNJ is contributing certain amounts of local funding to the Project that are reflected in Attachment 5 to this Agreement, "Project Budget."

(d) FTA Risk Retainage. In accordance with the PEP, FTA will keep a certain amount of Federal funding for the Project in retainage, for purposes of addressing potential cost overruns on the Project or offsetting (reducing) the local funds necessary to Complete the Project. As of the Date of this Agreement, the amount of the FTA Risk Retainage is \$280 million. In the sole discretion of FTA, this FTA Risk Retainage may be released to PANYNJ, in whole or in part, at any time during construction of the Project, and will be released in full upon the completion of all of the scope and activities of the Project as described in Attachments 1 and 3 to this Agreement, "Scope of the Project" and "Project Description."

(e) Allocation of Federal Funding for Lower Manhattan Recovery Projects. Set forth in Attachment 9 to this Agreement, "Allocation of Federal Funding for Lower Manhattan Recovery Projects," is a table depicting both the original and current allocations of the Federal funding made available to FTA and FEMA under Public Law 107-206 for the several projects sponsored by PANYNJ, the New York Metropolitan Transportation Authority, and the New York State Department of Transportation.

SECTION 6 PANYNJ'S OBLIGATIONS TO COMPLETE THE VEHICULAR SECURITY CENTER AND FINANCE THE RECONSTRUCTION OF THE CORTLANDT STREET 1-LINE STATION

(a) Obligation to Complete the Vehicular Security Center. Of the \$4.55 billion in Federal funding made available under Public Law No. 107-206, \$478 million was originally allocated for the design and construction of the VSC, a screening and parking facility for tour buses, automobiles, and commercial vehicles serving the World Trade Center; additionally, FTA set aside \$95.6 million in reserve, originally, to ensure completion of the VSC. Ultimately, however, PANYNJ expended only approximately \$19.8 million in Federal funding for the VSC. In exchange for FTA's agreement to reallocate an approximate \$553.6 million to the *WTC PATH Terminal*, to help cover the cost overruns on the *WTC PATH Terminal*, PANYNJ is committed to completing the design and construction of the VSC without any further Federal financial assistance under Public Law. No. 107-206. Both FTA and PANYNJ recognize, moreover, that the timely completion of

the VSC is critical to the timely completion of all other major infrastructure at or adjacent to the World Trade Center, and to the security of the *WTC PATH Terminal*. Therefore, PANYNJ is obliged to report to FTA no less than once every three months on the status of its efforts to complete the VSC. The reallocation of Federal funds from the VSC to the *WTC PATH Terminal* is reflected in Attachment 9 to this Agreement, "Allocation of Federal Funding for Lower Manhattan Recovery Projects."

(b) Obligation to Help Finance the Reconstruction of the Cortlandt Street 1-Line Station. Of the \$4.55 billion in Federal funding made available under Public Law No. 107-206, approximately \$70 million was originally allocated for the reconstruction of the Cortlandt Street 1-Line Station, a rapid rail station on the "1" line, operated by the New York Metropolitan Transportation Authority (MTA), which served the World Trade Center prior to the terrorist attacks of September 11, 2001. These funds have now been reallocated to help cover the cost overruns on the *WTC PATH Terminal*, which is reflected in Attachment 9 to this Agreement, "Allocation of Federal Funding for Lower Manhattan Recovery Projects." PANYNJ remains committed, however, to helping finance the reconstruction of the Cortlandt Street 1-Line Station. Specifically:

- (i) FTA agrees to reallocate this \$70 million to the *WTC PATH Terminal* and PANYNJ has authorized the expenditure of up to \$150 million from its own resources toward the reconstruction of the Cortlandt Street 1-Line Station, which will be completed in cooperation with the MTA. Both FTA and PANYNJ recognize, moreover, that the timely completion of the Cortlandt Street 1-Line Station is critical to the timely completion of other major infrastructure at or adjacent to the World Trade Center. Therefore, PANYNJ is obliged to report to FTA no less than once every three months on the status of the efforts to complete the Cortlandt Street 1-Line Station.
- (ii) PANYNJ and MTA will execute a number of agreements to finance and facilitate the construction of the Cortlandt Street 1-Line Station concomitant to the construction of the *WTC PATH Terminal*. In the event the costs of the Cortlandt Street 1-Line Station exceed the \$150 million PANYNJ has currently committed to that project, PANYNJ and MTA will work cooperatively to reduce the costs to stay within the budget, or if needed, work together to find a source of additional local funds to complete the work.

SECTION 7 REQUIRED COMPLETION DATE

PANYNJ agrees to achieve the Required Completion Date (RCD) on or before December 17, 2015, in accordance with the terms and conditions of this

Agreement. The RCD is a material term of this Agreement. PANYNJ's failure to achieve the operational functions of the Project on or before the RCD will constitute a breach of this Agreement. Upon PANYNJ's submittal of an acceptable Recovery Plan in accordance with Section 8(b) of this Agreement, FTA may determine in its sole discretion to waive a breach, or an anticipatory breach, and to extend the RCD if there is an unavoidable delay in achieving the operational goals of the Project resulting from an event or circumstance beyond the control of PANYNJ or if FTA determines that allowing the delay is in the best interests of the United States Government and the success of the Project. In the event FTA accepts a Recovery Plan with an RCD later than the original RCD, the later RCD will become the operative RCD for the Project.

SECTION 8 BASELINE SCHEDULE

(a) Use of the Baseline Schedule. The Baseline Schedule is set forth in Attachment 6 to this Agreement. FTA will use the Baseline Schedule to monitor PANYNJ's performance of the Project and compare planned to actual Project implementation. Accordingly, the Baseline Schedule will not be amended or modified during the construction of the Project, although the actual schedule of the Project may be modified from time to time as necessary and appropriate. No less than once a month PANYNJ will report the actual schedule of the Project as compared to the Baseline Schedule. These monthly reports will reflect any updates to PANYNJ's integrated master schedule and any associated variance reports that identify major changes from the previous reports.

(b) Requirement for a Recovery Plan. If at any time during its efforts to Complete the Project PANYNJ determines that it will not achieve one or more of the Major Milestones set forth in the Baseline Schedule, PANYNJ must immediately notify FTA of the amount of slippage in the Baseline Schedule and the reasons it will not achieve these Major Milestones. Further, PANYNJ must provide FTA with a Recovery Plan that demonstrates PANYNJ is taking and will take every reasonable measure to achieve the Required Completion Date and minimize any further slippage in the Baseline Schedule. PANYNJ's submittal of an acceptable Recovery Plan, in itself, will not constitute a breach of this Agreement; rather, a breach of this Agreement for failure to achieve the operational functions of the Project on or before the RCD will be determined strictly in accordance with Section 7 of this Agreement.

SECTION 9 RISK ANALYSES

PANYNJ and FTA have performed and will continue to perform on-going analyses of risks inherent in the Project. These include, potentially, risks to the Project from differing and unknown field and subsurface conditions, integration of other buildings and structures, utility connections, the necessity of coordinating the

Baseline Schedule with the schedules for construction of other infrastructure in the vicinity of the Project, and the need to take certain measures to mitigate environmental impacts and the adverse effects of the Project on historic resources. Previously, PANYNJ has received a combined financial systems and procurement systems baseline review confirming that PANYNJ has systems in place to adequately manage the project and comply with applicable Federal law and regulation. PANYNJ agrees that any specific risks identified and prioritized by either PANYNJ or FTA will be reported to FTA, mitigated, monitored, and updated on a continuous basis, as the Project progresses through design and construction. PANYNJ also pledges its utmost cooperation in enabling FTA and its consulting contractors both to critique PANYNJ's risk analyses and perform any separate risk analyses that FTA may deem appropriate during the course of the Project.

SECTION 10 PROJECT MANAGEMENT OVERSIGHT

PANYNJ acknowledges that FTA will oversee PANYNJ's development, management, and construction of the Project in much the same manner as FTA performs project management oversight of major capital investments funded under 49 U.S.C. Section 5309. PANYNJ acknowledges, also, that FTA will be assisted in its efforts by a number of consultants in project, financial, and procurement systems management, and environmental mitigation and monitoring. Prior to the execution of this Agreement, PANYNJ has developed and FTA has accepted a Project Management Plan (PMP) for the *WTC PATH Terminal/Project*, and together, FTA and PANYNJ have developed and agreed to the Project Execution Plan (PEP) for the *WTC PATH Terminal/Project*. PANYNJ pledges its utmost cooperation in enabling FTA and its consulting contractors to monitor PANYNJ's adherence to both its PMP and PEP.

SECTION 11 ENVIRONMENTAL PROTECTION

As a condition precedent to this Agreement FTA and PANYNJ have assessed the environmental impacts of this Project, as required by the National Environmental Policy Act and other applicable law. The results of this assessment and the mitigation measures adopted for this Project are set forth in Attachment 8 to this Agreement, "Measures to Mitigate Environmental Impacts." PANYNJ acknowledges that it shall not withdraw or substantially change any of the mitigation measures set forth either in Attachment 8 or FTA's environmental record for the Project without express written approval from FTA. On a quarterly basis, PANYNJ will provide FTA and its consulting contractors a written report on PANYNJ's progress in carrying out these mitigation measures.

SECTION 12 APPLICABLE LAW AND FEDERAL REQUIREMENTS

All awards of Federal financial assistance for this Project are governed by the Federal statutory, regulatory, and program requirements identified in the LMRO Master Agreement, dated October 1, 2011, which is incorporated by reference and made part of this Construction Agreement. The LMRO Master Agreement will continue to govern the Project unless or until it is modified by FTA. If neither Federal statute nor Federal common law governs the interpretation of the provisions of this Agreement, the state law of the State of New York will apply to govern such interpretation. This provision is intended only to supplement Section 2.c of the LMRO Master Agreement, "Application of Federal, State, and Local Laws and Regulations."

SECTION 13 NOTICES

Notices required by this Agreement will be addressed as follows:

As to FTA:

Mr. Stephen Goodman
Director, Lower Manhattan Recovery Office
Federal Transit Administration
One Bowling Green
Room 436
New York, New York 10004-1415

As to PANYNJ:

Mr. Steven Plate
Deputy Chief, Capital Planning and
Director, World Trade Center Construction
The Port Authority of New York and New Jersey
115 Broadway, 10th Floor
New York, New York 10006

SECTION 14 CREATION, CONTENTS, AND EXECUTION OF THE AGREEMENT AND AMENDMENTS TO THE AGREEMENT

This Revised and Restated Construction Agreement consists of the text of this Agreement, the nine numbered Attachments to this Agreement, the LMRO Master Agreement, PANYNJ's application for Federal financial assistance, and FTA's environmental record for the Project. Simultaneous to the execution of this Agreement in typewritten hard copy, the Agreement will be executed by electronic means through FTA's electronic award and management system. To

Permanent WTC PATH Terminal RRCA
September 2012

the extent any discrepancy may arise between the typewritten version and the electronic version of this Agreement, the typewritten version will prevail. Any inconsistency between PANYNJ's application and the terms and conditions of this Agreement will be resolved according to the clear meaning of the provisions of this Agreement and the Attachments hereto. This Agreement may be amended at any time upon the approval of both FTA and PANYNJ. Amendments will become effective upon approval by both parties.

Dated:

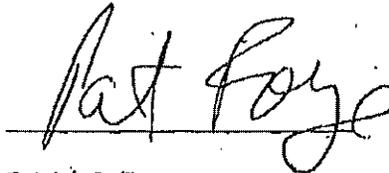
9/18/12



Peter M. Rogoff
Federal Transit Administrator
United States Department
of Transportation

Dated:

9/6/12



Patrick J. Foye
Executive Director
The Port Authority of New York
and New Jersey

ATTACHMENTS

- 1 SCOPE OF THE PROJECT
- 2 MAP OF PROJECT FOOTPRINT
- 3 PROJECT DESCRIPTION
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World Trade Center Transportation Hub Project

**(also referred to as the Permanent World Trade Center
Port Authority Trans Hudson Terminal And Pedestrian Connections)**

Revised And Restated Construction Agreement**Project Scope
Attachment 1**

Following the terrorist attacks of September 11, 2001 that destroyed the former World Trade Center (WTC) PATH Terminal, the Port Authority of New York & New Jersey (the Port Authority) implemented a \$566 million program to restore PATH service to Lower Manhattan, including the construction of a temporary PATH station at the WTC site that opened in December 2004 and remains in operation. The Port Authority will construct the WTC Transportation Hub (Permanent WTC PATH Terminal) and pedestrian concourses (the Project) as a high priority project for the revitalization of Lower Manhattan and redevelopment of the WTC site.

The WTC Transportation Hub project will restore and enhance transportation facilities and infrastructure that existed at the original WTC complex. The project will contribute significantly to the recovery of Lower Manhattan and address the transportation needs of commuters, residents and visitors by bringing full PATH operations, and accommodations for New York City Transit (NYCT) subway service, to the WTC site including the WTC Memorial.

Prior to September 11, 2001, more than 150,000 pedestrians (including 67,000 PATH riders and tens of thousands of subway riders) traveled through the WTC complex daily. The Permanent WTC PATH Terminal will be a gateway to Lower Manhattan with up to 250,000 pedestrians, including approximately 80,000 PATH riders, traveling through the Hub concourses multiple times each day (upon full buildout of the WTC site).

The Permanent WTC PATH Terminal is part of a larger vision for the WTC site, which has been a coordinated effort among many stakeholders and other projects planned and under construction for the site. The Permanent WTC PATH Terminal Project will be a world-class facility, with an iconic Transit Hall serving as the hub of a regional transportation system, which is integrated with existing and future transportation facilities and development in the surrounding area. The purpose of the Project is to:

- Create an intermodal transportation facility, serving as a regional hub, with a PATH Terminal that restores and enhances PATH facilities and serves future ridership and pedestrian growth. The PATH station and associated facilities will be primarily on the Platform and Mezzanine Levels located in the WTC West Bath tub, and the Transit Hall and associated facilities will be on the Main, Upper and Ground Levels in the East Bath tub.
- Provide seamless pedestrian connections to adjacent subway, ferry and bus systems and facilities; the WTC memorial and cultural facilities; and commercial development at the WTC site, as well as adjacent business and residential areas. The East/West Corridor will provide a pedestrian connection across the entire site on the Mezzanine and Transit Hall Main Levels; and the North/South Corridor in the East Bath tub will extend from the Transit Hall on the Main and Upper Levels leading to the commercial office towers and the exterior streets.

- Improve the patron experience within a climate controlled environment; with clear visual orientation to interior and exterior destinations; security features and openness that provide a sense of security and contribute to a safer environment; and improved access for customers with disabilities.
- Create a sustainable, environmentally friendly, design that incorporates sustainable ("green") design principles and introduces natural light and complies with Leadership in Energy and Environmental Design (LEED) certification standards where possible.
- Re-establish interior circulation space to support future retail and commercial development undertaken by other entities. The retail and commercial development is not within the scope of the Hub Project, and is not funded by this Construction Agreement.

The Hub Project will be constructed concurrently with several other projects at the WTC Site, consistent with an overall WTC Site Master Plan. Various interagency agreements, particularly at project interface points, will be negotiated and entered into, as appropriate, prior to final design and construction. The Hub Project will be built while maintaining active PATH service to Lower Manhattan and NYCT subway service with minimal disruption. The Hub Project will incorporate security features including structural hardening, surveillance systems, as well as advanced mechanical systems controls.

The Project complies with the requirements of the National Environmental Policy Act (NEPA) and has implemented Environmental Performance Commitments presented in the June 29, 2005 Record of Decision. Project designs and historic resource mitigation measures were developed in compliance with the requirements of the National Historic Preservation Act Section 106, and are stipulated in the Permanent WTC PATH Terminal Memorandum of Agreement executed on April 19, 2005.

**World Trade Center Transportation Hub
Project Description Attachment 3****Overview**

The World Trade Center Transportation Hub (Hub) Project (also known as the Permanent World Trade Center Port Authority Trans-Hudson (PATH) Terminal and Pedestrian Connections) is needed to restore and enhance transportation facilities and infrastructure that existed at the WTC complex prior to September 11, 2001. The Hub project will contribute significantly to the recovery of Lower Manhattan by meeting the transportation needs of commuters, local residents and visitors and by facilitating future increase of PATH operations to the WTC site, including access to the WTC Memorial and the commercial development.

In addition to the expanded PATH station facilities, the Hub project provides below-grade fare-free public circulation corridors throughout the WTC site that also facilitates adjacent retail and commercial development.¹ The North/South Corridor, East/West Corridor, and Mezzanine connect at the Transit Hall. There will be two major spaces created by the Hub project: the Transit Hall/Oculus in the eastern portion of the project (between Greenwich Street and Church Street), and the PATH Hall below the WTC Memorial Plaza in the western portion of the project. The Transit Hall superstructure is oval in shape, forming a transparent Oculus that allows sunlight to illuminate the Transit Hall Main Level.

Protocols for the administration and management of the Hub Project are documented in the current versions of the Project Management Plan (PMP) and the Project Execution Plan (PEP). The Project design was completed pursuant to guidelines and criteria developed for this project during the Preliminary Engineering Phase, including the Basis of Design, Architectural Design Guidelines, and Sustainable Design Guidelines specific to the Hub project. The Hub project also conforms with applicable WTC security design criteria. All Hub project construction activities are monitored for compliance with the Environmental Performance Commitments (EPCs) described in Project Unit 1.

The WTC Transportation Hub is being built on a fast track basis and has utilized concurrent design and construction schedules to expedite progress and achieve completion. Prior to March 2009, the Hub project procurement strategy was to complete the majority of the project for a Guaranteed Maximum Price (GMP) by utilizing a Construction Manager/General Contractor (CM/GC)—Phoenix Constructors retained by the Port Authority in 2006. The CM/GC had the flexibility to either self-perform or subcontract various construction elements for the Hub Project.

In early 2009, the Port Authority and Phoenix agreed to modify their contract to allow the Port Authority to competitively bid the remaining work for the Hub Project. A GMP could not be resolved by the parties prior to completion of design and a new strategy was implemented to allow the project to maintain progress on the Hub Project budget and schedule updated pursuant to the October 2008 *WTC (Assessment) Report: A Roadmap Forward*. In mid-2009, the Port Authority retained a Construction Management firm, the Tishman-Turner joint venture (TTJV), to manage the remaining procurement and construction of the Hub Project utilizing lump sum contracts. As further described in Project Unit No. 12, certain portions of the overall Hub Project construction are being managed and built by other stakeholders/entities (such as Silverstein Properties, Inc.), to provide more efficient coordination of the Hub work with other adjacent and concurrent WTC construction.

¹ The WTC commercial and retail space development is being advanced by other stakeholders / projects, and is not funded by the Hub Project grant. The retail spaces adjacent to the Hub Project will be generally located along the perimeter of the Transit Hall, the East/West Corridor, and the North/South Corridors in the East Bathub.

Project Footprint

As depicted in the Attachment 2, the WTC site is divided into east and west areas by the New York City Transit (NYCT) 1-Line subway. The Hub Project extends across the WTC site — including the Transit Hall and pedestrian connections to be built in the (new) East Bath tub — and the PATH Station tracks, platforms, mezzanine and pedestrian connections in the (existing) West Bath tub.

Platform Level (*approx. el. 250*). The PATH platforms will be located at the base of the WTC West Bath tub (west of the NYCT 1-Line subway³). There will be five tracks and four platforms, which will accommodate projected PATH ridership. Each platform will have multiple vertical circulation elements to move passengers to and from the Mezzanine Level.

Mezzanine Level (*approx. el. 266*). The Mezzanine Level—above the Platform Level—will house fare equipment and will have up to 5,000 square-feet of PATH support spaces. The Mezzanine (also known as PATH Hall) will provide major connections east to the Transit Hall, and a pedestrian corridor will extend beyond the WTC site west to the World Financial Center (WFC), Battery Park City and provide access to the WFC Ferry Terminal further west.

Transit Hall Main Level (*approx. el. 274*). The Transit Hall on the east has two concourse levels: the Main Level and the Upper Level. The west end of the Main Level connects to the PATH Hall/ Mezzanine Level and the East/West Corridor, which provides access to One World Trade Center and other development and facilities to the west. The Transit Hall Main Level also provides connections to NYCT subways and commercial development to the north, south and east, and to the Fulton Street Transit Center (beyond the WTC site, further to the east) via the Dey Street Concourse.

Transit Hall Upper Level (*approx. el. 296*). The Transit Hall Upper Level circles the perimeter of the Transit Hall and overlooks the Main Level. Like the Transit Hall Main Level, it provides major pedestrian connections to the north, south and east, re-establishing connections to the NYCT's WTC Chambers Street (E-Line), Cortlandt Street (1-Line), and Cortlandt Street (R-Line) subway stations, as well as access to the WTC Streets and Memorial Plaza outside. The WTC Hub's signature architectural element is the Oculus canopy that rises above the Transit Hall.

Street Level (*approx. el. 326*). Transit Hall entrances and exterior Hub Plaza areas will be at Street Level, located on the eastern portion of the WTC site along Church Street and between Dey Street and Fulton Street.

Description by Project Unit

The WTC Transportation Hub Project is comprised of twelve Project Units (PU's) that encompass development and management activities (three PU's) and construction activities (nine PU's) that are necessary to build the project—whether by the Port Authority or by other parties. The RRCA Attachment 4 includes a revised Project Unit structure that merges and recombines some components from the original 2006 Construction Agreement, that aligns with the current program management and implementation of the Hub Project.

1. Project Direction and Administration

This Project Unit includes the activities for project direction and management from inception to completion, including construction phase technical services, construction management, CM/GC professional services, environmental monitoring and project administration as described in the following paragraphs.

³ Formerly known as the 1 and 9 Line, as referenced in the 2005 environmental (NEPA) documentation.

Project Direction and Management. This activity includes the direction, management and related work by staff leading the design, construction, safety and related activities for project. It includes significant ongoing coordination and negotiation of project parameters with public and private stakeholders, including the communication and coordination with the FTA and the public, as necessary to successfully implement the project. Coordination with outside agencies and internal and external stakeholders culminated in Design Principal Letters and/or Memorandums of Understanding with each party, as needed. The direction and management of the Hub Project is being led by Port Authority World Trade Center Construction (WTCC) staff and supported by other Port Authority staff, as well as external (third-party) program management support consultants and construction management support consultants.

Construction Phase Technical Services and Support. This activity includes construction phase services by architectural and engineering design resources, including the review of construction phase deliverables such as shop drawings and samples, as well as procurement documentation, construction sequencing and logistics plans, lay-down area plans, staging plans, materials reports, estimate updates, site safety and security procedures, change order documentation, contractor invoices, schedule development and updates, status reports, presentation materials, job photographs, warrantee, operations and maintenance documentation, inspection and inspection monitoring services, and as-built drawings. This work is being performed by Port Authority technical staff including Engineering Department and Technology Services Department and consultants; external (third-party) design consultants (Downtown Design Partnership); and, program management support consultants (Louis Berger Group) and construction management support consultants (PB/URS joint venture).

Construction Management. This activity includes construction management for the WTC Transportation Hub project including resident engineer activities such as contractor supervision, inspection services; preparation, review and analysis of procurement plans and documentation, change order documentation, contractor invoices, status reports, presentation materials; construction sequencing and logistics plans, lay-down area plans, staging plans, maintenance and protection of traffic within the WTC site for the WTC Transportation Hub; determination of impacts on the community due to construction activity; estimates, schedules, Master Progress Schedule for WTC Transportation Hub construction, Building Information Management (BIM) system; document control, Site Safety Program for the WTC Transportation Hub, job photographs, warrantee, operations and maintenance documentation, punch lists, and as-built drawings. The activities also included services to review the project for constructability, value engineering and cost saving opportunities, quantity take-offs and cost estimates that reflect market conditions and pricing. Construction management is performed by Port Authority technical staff including Engineering Department and Technology Services Department and external (third-party) construction management consultants (Tishman-Turner joint venture; Phoenix Constructors professional services); and construction management support consultants (PB/URS joint venture). This activity includes the General Conditions work (after 2009) performed by or through the new Construction Manager, Tishman-Turner (e.g. pest control, surveying, rubbish removal, supplies, etc.) and other contractors. (The construction administration and contractor supervision work performed by Phoenix Constructors through 2011, is included in the General Conditions work under Project Unit 4.) This activity also includes systems commissioning services being performed by Jacobs Engineering as of 2011.

Environmental Performance Commitments and Section 106 Compliance. This activity includes the monitoring, testing and reporting performed by the Port Authority pursuant to the Hub Project's environmental approvals (provided under Project Unit 3); and implementation of applicable project plans and commitments (e.g., environmental performance, historic resource protection). Such activities ensure and verify compliance with relevant plans and commitments during the Hub Project's final design and construction. Measures to Mitigate Environmental Impacts are listed in the RRCA Attachment 8. This work is being performed by Port Authority staff, as well as external (third-party) program management support and construction management support consultants. (Construction management and construction activities supporting EPC and Section 106 compliance are incorporated with the construction Project Units 4-12.)

Administration. This activity includes insurance costs for the Hub project, allocated through an overall Owner Controlled Insurance Program (OCIP) for the PA's work at the WTC site. (Any applicable contractor performance bond costs are included in the construction Project Units 4-12). Allowances were originally budgeted for real estate acquisition; however there are no real estate acquisition costs for the Hub project, so the real estate activity was eliminated from the grant in 2009, and the funding has been reallocated to other project activities.

2. Project Design (Conceptual Planning, Preliminary Engineering and Final Design)

This Project Unit includes activities for architectural, engineering and other technical design work occurring during the Conceptual Planning, Preliminary Engineering and Final Design phases, in order to produce construction documents (drawings and specifications), cost estimates, schedules and other project documentation.

Particularly during the Preliminary Engineering phase, there were extensive feasibility studies, alternatives analyses, project reviews (including Peer Review and Value Engineering), and a thorough programmatic review and assessment—documented in *The World Trade Center Report: A Roadmap Forward*—that led to Hub Project design modifications. The Hub Project's Preliminary Engineering was completed in 2008, and Final Design was substantially completed in 2010 (construction documents were prepared and issued in packages as early as 2005, in accordance with project implementation needs).

The Project Design activities were performed primarily by external (third-party) design consultants -- the Downtown Design Partnership (a joint venture), in association with Santiago Calatrava; certain design work was performed by internal Port Authority Engineering Department staff (described in the Force Account Plan). There is ongoing technical and design support work during construction provided by DDP and PA Engineering that is included in Project Unit 1.

3. Environmental Review

This Project Unit includes the work performed to complete the National Environmental Policy Act (NEPA) process, Section 106 of the National Historic Preservation Act and Section 4(f) of the National Transportation Act of 1966. In fulfillment of NEPA, Draft and Final Environmental Impact Statements (DEIS, FEIS) for the project were published on June 4, 2004 and May 13, 2005, respectively. Evaluation and consideration of comments received on the FEIS led to issuance of a Record of Decision (ROD) by FTA on June 29, 2005.

The Port Authority joined in the development of Environmental Performance Commitments (EPC's) for the Lower Manhattan Federal Transportation Recovery Projects as part of the ROD. The EPC's cover the following elements: Air Quality, Noise and Vibration, Cultural and Historic Resources, Access and Circulation, Economic Effects and Design for the Environment.

This Project Unit included significant work related to Section 106 Historic Resource evaluations with the Consulting Parties, leading to a coordinated Determination of Eligibility (March 31, 2004) and a project Memorandum of Agreement (MOA) executed on April 19, 2005. The MOA was developed over the course of five Section 106 Consulting Parties' meetings that included a diverse array of organizations interested in the PATH Terminal's affect on the WTC Site's historic resources and surrounding historic structures. The Section 106 Consulting Parties were composed of historic preservation organizations, 9/11-based groups, elected officials, civic organizations, area resident groups, State Historic Preservation Officer and the Advisory Council on Historic Preservation. The MOA includes stipulations to mitigate the project's adverse effects on historic resources.

The MOA identifies the historic resource elements impacted by the WTC Transportation Hub Project. These resources include the WTC Perimeter Column Remnants outlining the North Tower and South Tower Footprint Areas, E Subway Entrance, (West Bathtub) East and West Slurry Walls, Steel Beams in

WTC Transportation Hub

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Cross Form and Remnants of the Hudson Terminal of the Hudson and Manhattan (H&M) Railroad, and the Hudson River Bulkhead. To varying degrees, the resources may be salvaged, preserved, protected or relocated to mitigate potential impacts as appropriate. Every effort has been made to avoid or minimize adverse effects to WTC Site resources as specified in the Resource Protection Plan (RPP) in fulfillment of the MOA. The disposition of the WTC Site's structural remnants will be determined in accordance with the MOA and RPP, and could be relocated from the WTC site and transported to JFK Airport Hangar 17 where they would be catalogued and stored with other WTC artifacts. All costs for this Project Unit were incurred through 2006.

Attachment 4 - Baseline Cost Estimate (Project Units)
 WTC Transportation Hub (Permanent WTC PATH Terminal Project)

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PU #	Project Activity (1)	Start Date	FTA (Allowable) Finish Date (2)	Construction Duration (months)	Midpoint of Construction Duration	FTA (Allowable) Budget Amount (2)
1	Project Direction and Administration	Jan 2002 (A)	Dec 2015			\$655,968,400
2	Project Design (CP, PE and FD)	Jan 2002 (A)	Apr 2010 (A)			\$164,983,900
3	Environmental Review (NEPA / Section 106)	Dec 2003 (A)	Jun 2005 (A)			\$3,829,800
4	1-Line Temporary Underpinning, East Bathub & (Plx) General Conditions (Construction)	Mar 2006 (A)	Jun 2011 (A)	63	Nov 2008	\$355,514,440
5	West Bathub Early Work, East West Corridor and Temporary Facilities (Construction)	Sep 2005 (A)	Jul 2011 (A)	70	Aug 2008	\$328,576,320
6	Transit Hall Substructures (Construction)	Sep 2009 (A)	Dec 2015	39	May 2011	\$203,555,800
7	Transit Hall Superstructure (Oculus) (Construction)	Mar 2011 (A)	Oct 2015	55	Jul 2013	\$279,290,400
8	PATH Facilities (Station and PATH Hall) (Construction)	Mar 2010 (A)	Dec 2015	71	Feb 2013	\$645,494,000
9	Greenwich Street Corridor (Construction)	Aug 2009 (A)	Jan 2012 (A)	28	Oct 2010	\$108,868,400
10	MEP Systems, Vertical Circulation, and Common Infrastructure (Construction)	Aug 2010 (A)	Dec 2015	66	Feb 2013	\$398,032,500
11	Structural Steel to Grade (Construction)	Aug 2009 (A)	Apr 2015	68	Jun 2012	\$474,345,900
12	Hub Facilities by Other Projects (Construction)	Mar 2009 (A)	Dec 2015	83	Jun 2012	\$376,540,140
	Total Project Budget (with FTA Risk Retainage)					\$3,995,000,000

Notes

- (1) Construction Project Units have been re-aligned from the original 2006 Construction Agreement. See Attachment 3 for detailed descriptions.
- (2) The values in this attachment are not to exceed amounts that are independent of the PA's current working budget.

Attachment 5 - Project Budget - Proposed ALI Structure
WTC Transportation Hub Revised and Restated Construction Agreement
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FTA ALI	Activity Line Item (ALI) Descriptions	Federal Amounts	Local Amounts	(FTA Allowable) Total Amounts
12.72.03	Prelim Eng - Project Direction	3,019,800	744,316	3,764,116
12.72.01	Prelim Eng - Force Account Arch & Eng Design	15,113,322	6,385,993	21,499,315
12.71.01	Prelim Eng - Third Party Arch Eng & PM Contracts	45,258,026	2,029,189	47,287,215
12.71.01	NEPA / Section 106 Monitoring	203,562	231,555	435,117
12.72.03	Conceptual Ping - Project Direction	400,000	383,948	783,948
12.72.01	Conceptual Ping - Force Account Arch & Eng Design	1,332,426	2,123,733	3,456,159
12.71.01	Conceptual Ping - Third Party Arch, Eng & PM Contracts	6,023,672	288,762	6,312,434
44.26.09	NEPA - Project Direction	565,000	166,117	731,117
12.72.01	NEPA - Force Account Environmental Review	568,714	111,378	680,092
12.71.01	NEPA - Third Party Contracts	2,194,896	208,278	2,403,174
12.71.05	Construction - Insurance (inc. performance bonds)	122,281,906	52,718,094	175,000,000
12.72.04	Construction Mgmt - Force Account	7,442,976	8,129,117	15,572,093
12.71.04	Construction Mgmt - Third Party Contracts - CM	35,117,741	6,162,340	41,280,081
12.71.04	Construction Management (Tishman/Turner)	103,217,558	9,657,104	112,874,662
12.71.04	CM/GC Professional Services	8,221,583	-	8,221,583
12.72.03	Construction - Project Direction	17,665,559	22,670,014	40,335,573
12.72.02	Construction - Force Account Arch & Eng Design	9,015,117	12,692,522	21,707,639
12.71.03	Construction - Third Party Arch & Eng Contracts	68,000,000	89,750,724	157,750,724
12.72.03	Final Design - Project Direction	7,633,000	3,115,453	10,748,453
12.71.02	Final Design - Third Party Arch Eng & PM Contracts	77,737,881	16,916,667	94,654,548
12.79.00	Project Administration (CP, NEPA, PE, FD and Constr.)	-	8,771,892	8,771,892
12.72.02	Final Design - Force Account Arch & Eng Design	10,742,441	-	10,742,441
12.33.03	Construction - 4 Line Temporary Underpinning	27,842,530	9,410,108	37,252,638
12.33.03	Construction - East Bathtub	149,170,804	12,543,542	161,714,346
12.33.03	Early Action - East Bathtub Site Prep (Pkg. 4a)	3,063,100	484,360	3,547,461
12.33.03	Construction - General Conditions (Phoenix)	112,151,666	40,848,334	153,000,000
12.33.03	Construction - General Conditions (Non Phoenix)	-	24,320,742	24,320,742
12.33.03	Construction - PATH Facilities	91,169,630	11,138,562	102,308,192
12.33.03	Acquisition - Rolling Stock Flatcars	2,982,862	156,841	3,139,703
12.33.03	Construction - West Bathtub	79,790,404	-	79,790,404
12.33.03	Construction - East/West Corridors	25,558,350	870,304	26,428,654
12.33.03	Construction - 9A Underpass - East Section	79,086,531	18,141,233	97,227,764
12.33.03	Early Action - Equipment Purchase Order (Pkg. 1)	14,225,239	3,623,990	17,849,228
12.33.03	Early Action - West Bathtub Site Prep (Pkg. 3)	1,278,556	553,818	1,832,374
12.33.03	Construction - Transit Hall Substructure	102,847,534	11,335,812	114,183,346
12.33.03	Construction - East Side Architectural Trades	60,429,377	18,627,462	79,056,839
12.33.03	Construction - Transit Hall Superstructure	170,019,238	86,883,104	256,902,342
12.33.03	Construction - PATH Hall Construction	423,000,000	179,440,382	602,440,382
12.71.08	Construction - Force Account PATH Support	5,493,833	10,703,309	16,197,142
12.33.03	Construction - Greenwich Street Corridor	85,000,000	16,843,518	101,843,518
12.71.08	MTA Force Account	-	7,024,881	7,024,881
12.33.03	Construction - Mechanical And Electrical Systems	201,129,509	46,394,133	247,523,643
12.33.03	Construction - Vertical Circulation Elements	30,082,334	7,147,522.38	37,229,856.87
12.33.03	Site Common Infrastructure (Cost Share)	15,000,000	51,511,294	66,511,294
12.33.03	Structural Steel	335,294,863	115,827,870.99	451,122,734.48
12.33.03	Construction - Vent Structures (9A Median)	35,628,459	6,339,555	41,968,014
12.33.03	Construction - Hub Scope By Others	-	220,601,939	220,601,939
12.33.03	Construction - 9A Underpass - West Section	-	70,965,377	70,965,377
12.33.03	Construction - Hub Scope By SPI In T2	-	43,004,806	43,004,806
12.73.00	Program Contingency	-	145,000,000	145,000,000
	(FTA Allowable) Total Project Budget	\$2,592,000,000	\$1,403,000,000	3,995,000,000

The total project budget amount above incorporates the FTA Risk Retainage of \$280 million. The FTA Risk Retainage will be committed as funding amounts at the FTA's discretion in accordance with the Project Execution Plan (PEP), with portions to be included in federal amounts, or to reduce local amounts, as needed to complete the project.

The total project budget amount above is a not to exceed amount, that is independent of the PA's current working budget.

World Trade Center Transportation Hub - Milestone Table
Attachment 6

The original 2006 Construction Agreement (CA) established milestone dates associated with the construction Project Units. The Project Unit structure has been revised in this Revised and Restated Construction Agreement (RRCA) to align with changes in the construction management, procurement and phasing of the WTC Hub project. The RRCA maintains several of the original CA milestones,¹ and also identifies new milestones addressing the remaining work to be performed. The milestone dates below are derived from the FTA's probabilistic targets, which were developed from analysis and evaluation of the PA's working schedule (Integrated Master Schedule MS-57 (data date June 1, 2011)). These FTA target dates are for RRCA administration purposes, and may be later than the PA's current working schedule / forecast dates for the WTC Hub project.

Construction Project Units – Major Milestones	FTA Allowable Milestone Dates
Project Unit 4 – 1-Line Temporary Underpinning, East Bathtub, and (Phoenix) General Conditions	
Temporary Underpinning Complete	6/30/2008 (A)
Phoenix CM/GC Contract Substantially Complete	8/1/2011 (A)
Project Unit 5 – West Bathtub Early Work, East/West Corridor and Temporary Facilities	
Ductbank Relocation Complete	5/1/2008 (A)
East/West Corridor Structure Substantially Complete	6/14/2011 (A)
Project Unit 6 – Transit Hall Substructures	
Transit Hall Substructure Complete (to elevation 274')	6/12/2012 (A)
Project Unit 7 – Transit Hall Superstructure (Oculus)	
Transit Hall Superstructure Complete (glazing)	1/13/2015
Transit Hall Substantially Complete (fit-out)	10/11/2015
Project Unit 8 – PATH Facilities (Station and PATH Hall)	
South Mezzanine Concrete Substantially Complete (to elevation 307')	11/13/2010 (A)
Platform A Beneficial Use	3/15/13
Platforms C and D Substantially Complete	12/17/2015
Project Unit 9 – Greenwich Street Corridor	
Greenwich Street Corridor Load Transfer Complete (including North)	1/28/2012 (A)
Project Unit 10 – MEP Systems, Vertical Transportation and Common Infrastructure	
Spot Network NW Commissioning Complete	1/22/2014
MEP Connections to Central Systems	10/11/2014
Chiller Plant Utility Tunnel Complete	11/25/2014
Vertical Circulation Elements Operational	7/20/2015
Project Unit 11 – Structural Steel (to Grade)	
East Bathtub Structural Steel to Grade Substantially Complete	12/2/2012
Mezzanine Structural Steel at Platform B Substantially Complete	8/16/2013
Mezzanine Structural Steel at Platform C Substantially Complete	3/3/2015
Project Unit 12 – WTC Hub Facilities by Other Projects (including SPI)	
Route 9A Pedestrian Underpass Structure (West Section) Complete	2/13/2012 (A)
North-South Corridor Structure Substantially Complete	12/24/2014
Port Authority Project Substantial Completion Date (MS 62)	5/30/2015
FTA Required Completion Date (RCD)	12/17/2015

¹ (Original) project milestones removed for the RRCA include: Temporary Access Operational, Platform B Complete, East Bathtub Complete, and Demolition of Temporary Concourse Complete.

(A) = Actual date as of the RRCA.

**WORLD TRADE CENTER TRANSPORTATION HUB PROJECT
REVISED AND RESTATED CONSTRUCTION AGREEMENT**

PRIOR FTA GRANT ACTIONS AND INTERAGENCY AGREEMENTS

ATTACHMENT 7

This attachment identifies the FTA grant actions (to date) related to the WTC Transportation Hub project, and also identifies interagency agreements between the PA and other entities to perform design and construction work for the project, and other agreements needed to coordinate work with adjacent projects.

A. PRIOR GRANT ACTIONS

<u>Grant Action</u>	<u>Purpose</u>	<u>Date</u>
1. Initial Grant - NY-43-0002-00	Allocate \$1.7 billion to the Permanent WTC PATH Terminal project.	December 16, 2003
2. Budget Revision 1 - NY-43-0002-00	Certain changes in several ALI's to better reflect recent forecasts that will not change the overall project budget.	January 13, 2005
3. Budget Revision 2 - NY-43-0002-00	Adjust Preliminary Engineering Activities and Final Design Development of Early Action Items by \$28 million.	April 25, 2005
4. Grant Amendment 1 - NY-43-0002-01	Increase the grant by an additional \$221 million to include the scope of work for the east bathtub, west bathtub slurry wall liner, and the E/W corridor hardening.	July 7, 2005
5. Budget Revision 3 - NY-43-0002-01	Adjust budget for Final Design ALI's to \$135 million.	August 23, 2005
6. Grant Amendment 2 - NY-43-0002-02	Based on review of early action construction activities, adjust tasks for third party construction contracts, third party construction management, CM/GC professional services, early action purchase orders, west bathtub site preparation and east bathtub site preparation. No change in total grant amount.	August 31, 2005
7. Grant Amendment 3 - NY-43-0002-03	Allocate \$79.3 million to include the scope of work for the Temporary Underpinning of the 1 Subway Line.	January 31, 2006
8. Budget Revision 4 - NY-43-0002-03	Adjust Preliminary Engineering and NEPA budget amounts.	March, 2006
9. Grant Amendment 4 NY-43-0002-04	Execute the Construction Agreement; establish Project Units, budgets, milestones and dates; revise and re-budget other tasks; and, add ALI for FTA Risk Reserve. No change in total grant amount.	April 25, 2006
10. Grant Amendment 5 NY-43-0002-05	Add conditions to require the relocation or support of the Vesey Street Stair remnant prior to excavating in that area. No change in total grant amount.	December 2006

11. Grant Amendment 6 NY-43-0002-06	Increase local funding by \$320 million. (No change in the federal commitment of \$1.921 billion and reserve of \$280 million.) Create ALI's for Steel construction and General Conditions (Phoenix) and revise budgets of other ALI's.	September 2009
12. Grant Amendment 7 NY-43-0002-07	Adjust federal and local amounts amongst various ALIs to increase the amount of federal funds available to facilitate current drawdowns. (No change in the overall total federal and local amounts.) Most of the revisions are temporary and would be further revised with the Revised and Restated Construction Agreement (RRCA).	June 2011

B. INTERAGENCY PROJECT DEVELOPMENT AGREEMENTS

The following interagency project development agreements between the PANYNJ and other external entities and agencies during preliminary engineering to address and coordinate the key design interfaces and boundaries for the WTC Transportation Hub with other adjacent WTC projects.

<u>Agreement (between the PANYNJ and . . .)</u>	<u>Purpose</u>	<u>Date</u>
1. <u>City of New York</u>	WTC Redevelopment Agreement	November 24, 2004
2. <u>City of New York, Silverstein Properties, Inc. and the Lower Manhattan Development Corporation</u>	WTC Design and Site Plan Agreement	November 24, 2004
3. <u>MTA Capital Construction</u>	Dey Street Concourse Connection	June 28, 2005
4. <u>Lower Manhattan Development Corporation</u>	WTC Memorial - Visitor Orientation Education Center Interface	March 20, 2006
5. <u>MTA Capital Construction</u>	No. 1 Line Subway - Underpinning Requirements	March 20, 2006
6. <u>Lower Manhattan Development Corporation</u>	WTC Memorial Interface	March 20, 2006
7. <u>Lower Manhattan Development Corporation</u>	WTC Memorial Museum Interface	March 20, 2006
8. <u>Silverstein Properties, Inc.</u> (currently applicable to 1 WTC, LLC)	WTC PATH Terminal - East/West Corridor Interface with the Freedom Tower (currently 1 WTC)	April 7, 2006
9. <u>New York State Department of Transportation</u>	Route 9A/West Street – PATH Ventilation Shafts (North and South) and Pedestrian Underpass	June 7, 2006

<u>Agreement (between the PANYNJ and . . .)</u>	<u>Purpose</u>	<u>Date</u>
10. <u>Lower Manhattan Development Corporation</u>	Performing Arts Center Interface	June 7, 2006

C. INTERAGENCY DESIGN AND CONSTRUCTION AGREEMENTS (for Hub project work)

The following agreements provide for external entities (other than the Port Authority) performing work at or near the World Trade Center site, to coordinate their work and in some cases to also perform certain portions of work for the WTC Transportation Hub project. These arrangements provide for more efficient and timely design and/or construction of the Hub Project.

<u>Agreement (between the PANYNJ and . . .)</u>	<u>Purpose</u>	<u>Date</u>
1. <u>MTA New York City Transit and MTA Capital Construction</u>	No. 1 Subway Line Underpinning – force account work and general outages by MTA to facilitate temporary underpinning work	June 2006
2. <u>WTC Memorial Foundation</u> (now known as the National September 11 Memorial and Museum)	Construction Management Agreement - PA to manage construction of the Memorial, and other (PA) projects to be performed in conjunction with Memorial.	August 2006
3. <u>Silverstein Properties, Inc.</u>	Master Development Agreement - Construction of Hub project elements in the East Bathub by SPL.	November 2006
4. <u>Battery Park City Authority and Brookfield Properties</u>	Easement Agreements for portions of Route 9A pedestrian underpass	March 2007
5. <u>Battery Park City Authority and City of New York</u>	Funding of extensions of the Route 9A pedestrian underpass.	January 2009
6. <u>Brookfield Financial Properties</u>	Construction of portions of the Route 9A pedestrian underpass.	March 2010

<u>Agreement (between the PANYNJ and . . .)</u>	<u>Purpose</u>	<u>Date</u>
7. <u>Silverstein Properties, Inc.</u>	Amended and Restated Master Development Agreement - Additional construction of Hub project elements by SPI	December 2010
8. <u>MTA Capital Construction</u>	Cortlandt Street R-Line – Remediation – MTA to perform remediation work at the station.	December 2010

D. OTHER INTERAGENCY AGREEMENTS (not included in Hub project scope)

The following interagency agreements are relevant to the WTC Transportation Hub project, to coordinate with other adjacent projects, or to perform work for other external entities. These agreements do not provide for performance of work within the scope or budget of the WTC Transportation Hub project; however these agreements may outline external cost sharing arrangements for work that is not part of the WTC Hub project.

<u>Agreement (between the PANYNJ and . . .)</u>	<u>Purpose</u>	<u>Date</u>
1. <u>New York State Department of Transportation</u>	Construction Coordination with the Route 9A Rehabilitation Project	March 2007
2. <u>Lower Manhattan Construction Command Center</u>	Construction Coordination – PA contribution to funding of the LMCCC	July 2008
3. <u>MTA Capital Construction</u>	Cortlandt Street Station Side Letter committing to \$150 million in PA Funding for the Cortlandt Street (1-Line) Subway Station	August 2009
4. <u>Lower Manhattan Development Corporation</u>	Reimbursement of PA design (only) of early action structures for the PAC	October 2009
5. <u>City of New York</u>	Early Action Work for Performing Arts Center – Foundations and other structural work performed by the Hub project for the future Performing Arts Center	2012

<u>Agreement (between the PANYNJ and . . .)</u>	<u>Purpose</u>	<u>Date</u>
6. <u>MTA Capital Construction</u>	Design and Construction Agreement for the Cortlandt Street 1-Line Station	2012

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Resource Area / ROD Commitment	2005 FEIS Page Ref.	Submission / Reference Document	Responsible Agency	Timing	Implementation and Monitoring Commitment	Status
<p>SC-1 Ensure that access to local business is maintained to the maximum extent feasible during the construction period.</p>	5-27	Maintenance and Protection of Traffic (MPT) Plan	PANYNJ	Construction	Completed July 2006	Specific measures are detailed in ongoing monthly reports
<p>SC-2 Provide a wayfinding plan for temporary signage during the construction period.</p>	5-27	EPC Letters of Commitment (EPC LOC)	PANYNJ	Construction	Completed September 2003; April 2006	Specific measures are detailed in ongoing monthly reports
Cultural Resources						
<p>CR-1 Maintain access to cultural sites to the maximum extent feasible during the construction period.</p>	6-28	Maintenance and Protection of Traffic (MPT) Plan	PANYNJ	Construction	Completed July 2006	Ongoing (As Necessary)
<p>CR-2 Initiate public information and involvement outreach with sensitivity to local cultural resources.</p>	6-28	EPC LOC	PANYNJ	Construction	Completed September 2003; April 2006	Ongoing (As Necessary)
<p>CR-3 Communicate with the public regarding access to cultural sites during construction.</p>	6-28	Lower Manhattan Construction Command Center	LMCCC	Construction	Completed September 2003	Ongoing (As Necessary)
<p>CR-4 Consult with SHPO and LPC regarding potentially impacted, culturally sensitive sites. Monitor noise and vibration during construction.</p>	6-28	EPC LOC	PANYNJ	Construction	Completed September 2003; April 2006	Ongoing (As Necessary)
<p>CR-4 Permanent WTC PATH Terminal MOA</p>		Construction Protection Plan	PANYNJ	Design and Construction	Completed April 2005	Ongoing (Construction)
<p>CR-4 WTC Resource Protection Plan</p>		WTC Resource Protection Plan	PANYNJ	Design and Construction	Completed April 2006	Ongoing (Construction)

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<p>CR-5</p> <p>Document the WTC site and its historic features to Level II standards of the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) prior to the removal or alteration of any historic features from the WTC site.</p>	6-24	<p>Permanent WTC PATH Terminal MOA</p> <p>Implemented through PA postings</p>	PANYNJ	Design and Construction	<p>Completed April 2005</p> <p>Official HABS/HAER transmittal letter August 2005 Posting August 2005</p>	Completed 2005
<p>CR-6a</p> <p>Where Platform D will intersect the northeast corner of the North Tower footprint, the platform will be clear of vertical obstructions and architectural treatments will be used to symbolically represent the location of the footprint. A minimum of 5 to a maximum of 7 column bases of the east column line of the North Tower will be visible from Platform D. The viewing area will consist of a glass wall tilted inward from the platform combined with a mirrored wall to the west to provide a view of the column bases from this area of the platform. Appropriate signage, graphics, and lighting will complete the viewing area.</p>	6-25	<p>Perm. WTC PATH Term. MOA</p> <p>Perm. WTC PATH Term. Design Docs.</p> <p>WTC Resource Protection Plan</p>	PANYNJ	Design and Construction	<p>Completed April 2005</p> <p>September 2005</p> <p>October 2009 (FD Posting)</p>	Ongoing (Construction)
<p>CR-6b</p> <p>The locations of column remnants of the South Tower that may be removed or permanently obscured by PATH platforms B, C, and D will be symbolically represented on these platforms through architectural treatments that define and differentiate the portions of the infrastructure that are within the Tower footprint areas. These treatments may include color differentiation, texture differentiation, symbolic representation of Tower perimeter column remnants, and/or an emblematic marker designating the location of the historic resource.</p>		<p>Perm. WTC PATH Term. MOA</p> <p>Perm. WTC PATH Term. Design Docs.</p> <p>WTC Resource Protection Plan</p>	PANYNJ	Design and Construction	<p>Completed April 2005</p> <p>September 2005</p> <p>October 2009 (FD Posting)</p>	Ongoing (Construction)
<p>CR-6c</p> <p>The up to 4 column bases that could be affected by the Project foundation, those column bases that remain in situ undisturbed or are temporarily removed and returned to their original locations will be accessible following the completion of these foundations.</p>		N/A	PANYNJ	Design and Construction	Not Applicable (No Design Impact)	Not Applicable (No Design Impact)
<p>CR-6d</p> <p>Removing column bases, on either a temporary or permanent basis, will be considered only after practical engineering design options to preserve column bases in place have been exhausted. Column bases that are removed will be returned to their original locations if practical engineering design permits. Permanent removal of column bases will only take place as a last resort, and these column bases will be removed and stored in accordance with the stipulations of the MOA.</p>		N/A	PANYNJ	Design and Construction	Not Applicable (No Design Impact)	Not Applicable (No Design Impact)

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CR-6e	The east-west pedestrian concourse will be designed and built at least five (5) feet outside the North Tower footprint as measured from the center line of each projecting column base to the face of the nearest structural support wall.		Perm. WTC PATH Term. MOA	PANYNJ	Design and Construction	Completed Design April 2005	Completed Construction 2010
CR-6f	The temporary PATH track and associated ballast that will be removed upon completion of the permanent tracks and platforms to re-expose the North and South Tower perimeter column remnants and portions of the North and South Tower footprints that may be covered by the temporary track and ballast.		Perm. WTC PATH Term. MOA	PANYNJ	Design and Construction	Completed Design April 2005	Ongoing (Construction)
CR-6g	Clean rounded gravel or similar treatments will be installed to protect the footprints and column remnants from ongoing construction. Further treatments may be specified in the Project's Construction Protection Plan.		Perm. WTC PATH Term. MOA	PANYNJ	Design and Construction	Completed April 2005	Completed 2005
CR-7	Incorporate the existing E subway entrance into the new Terminal in a manner that retains existing materials and features of this entrance, including, but not limited to, the handrails, the travertine flooring, the steps and doors separating the E train from the pedestrian connection, and overhead signage, to the extent possible and in accordance with current building codes and Americans with Disabilities Act requirements. Include, at a minimum, a plaque identifying the historic features of the E subway entrance.	6-26	Permanent WTC PATH Terminal MOA WTC Resource Protection Plan Permanent WTC PATH Terminal Design Documents	PANYNJ PANYNJ PANYNJ	Design and Construction Design and Construction Design and Construction	Completed April 2005 Completed September 2005 Posting May 2006; February 2010	Ongoing (Construction) Ongoing (Construction) Ongoing (Construction)
CR-8	Provide visibility from within the Terminal to a portion of the east or west slurry wall if the following criteria are met: the condition of the slurry wall evokes the image now understood to represent the historic nature of the wall (e.g. tiebacks are part of the area to be exposed, tiebacks project beyond the re-stabilized slurry wall); the exposure provided will enable a view of the slurry wall that is clear, recognizable, and respectful of the slurry wall; and the exposure will not pose a safety hazard to the public from exposed finishes of the wall or its components. The design for the east-west pedestrian concourse shall include a location to view a plaque and photograph of the west slurry wall.	6-26	Permanent WTC PATH Terminal MOA WTC Resource Protection Plan Permanent WTC PATH Terminal Design Documents	 PANYNJ PANYNJ	 Design and Construction Design and Construction	Completed April 2005 Completed September 2005	Ongoing (Construction) Ongoing (Construction)

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CR-9 Relocate the steel column and crossbeam mounted on a concrete pedestal. The object will remain in the custody and control of PANYNJ pending final disposition in accordance with the rights of the respective owners.	6-26	Permanent WTC PATH Terminal MOA	PANYNJ	Design and Construction	Completed April 2005	Completed 2011 (Relocated Steel Beam in Cross Form back at WTC Site-NS11MM)
		WTC Resource Protection Plan	PANYNJ	Design and Construction	Completed September 2005	Completed 2011 (Relocated Steel Beam in Cross Form back at WTC Site-NS11MM)
CR-10 Develop a WTC Resource Protection Plan in consultation with SHPO and in coordination with LMDC and MTANYCT, as appropriate.	6-26	Permanent WTC PATH Terminal MOA	PANYNJ	Design and Construction	Completed April 2005	Ongoing (Construction)
CR-11a Develop and implement a plan to locate and identify intact portions of the Hudson River Bulkhead that will be affected by construction of the Permanent WTC PATH Terminal's east-west pedestrian connection in in consultation with SHPO and NYSDDOT. In the event that the intact portions of the Hudson River Bulkhead are identified, prepare a treatment plan for those portions of the Hudson River Bulkhead to be affected by the Project.	6-27	Permanent WTC PATH Terminal MOA	PANYNJ	Design and Construction	Completed April 2005	Completed April 2005
		Archaeological Resources Protection Plan			Completed July 2006	Completed (Hudson River Bulkhead Treatment Plan's bulkhead exposure documentation projected completion - 2nd Quarter 2012)
CR-11b Prior to any Project-related subsurface disturbance at any of the locations that have been determined to be sensitive for historic archaeological resources, PANYNJ will, in consultation with the SHPO, and LMDC as appropriate identify and evaluate the National Register eligibility of any archaeological resources at these locations.	6-27	Phase 1B Archaeological Testing Program	PANYNJ	Design	Completed July 2006	Completed July 2006
CR-12 Develop a Construction Protection Plan to avoid, minimize, or mitigate the project's potential construction-period vibration impacts on the Barclay-Vesey Building, Former East River Savings Bank, the Beard Building, 114-118 Liberty Street, and St. Paul's Chapel and Graveyard.	6-27	Construction Protection Plan	PANYNJ	Design	Completed February 2006	Ongoing (Construction)

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	Resource Area / ROD Commitment	2005 FEIS Page Ref.	Submittal / Reference Document	Responsible Agency	Timing	Implementation and Monitoring Commitment	Status
TT-1	Traffic and Transportation Establish a project-specific pedestrian and vehicular maintenance and protection plan.	8B-14	Maintenance and Protection of Traffic (MPT) Plan.	PANYNJ NYCDOT NYSDOT LMCCC	Design and Construction	Completed 2002	Ongoing (Construction)
			Lower Manhattan Traffic Management Plan (TMP)	PANYNJ NYCDOT NYSDOT LMCCC	Construction	Started 2006	Ongoing (Construction)
TT-2	Communicate traffic information, lane closures, access changes, and travel advisories to the public for the duration of project construction.	8B-14	Maintenance and Protection of Traffic (MPT) Plan	PANYNJ NYCDOT NYSDOT LMCCC	Construction	Started July 2002	Ongoing (Construction)
			EPC LOC			Completed September 2003; April 2006	Ongoing (Construction)
TT-3	Ensure sufficient alternate street, building and station access during the construction period.	8B-14	Lower Manhattan Traffic Management Plan (TMP)	PANYNJ NYCDOT NYSDOT LMCCC	Construction	Started 2006	Ongoing (Construction)
			Maintenance and Protection of Traffic (MPT) Plan			Started July 2002	Ongoing (Construction)
TT-4	Consult with NYCDOT to develop the MPT Plan.	8B-14	EPC LOC	PANYNJ NYCDOT NYSDOT LMCCC	Design	Completed September 2003; April 2006	Ongoing (Construction)
			Maintenance and Protection of Traffic (MPT) Plan			Started 2006	Ongoing (Construction)
TT-5	Coordinate with NYSDOT to ensure that signal timing adjustments or other provisions are implemented at the intersection of Route 9A and Liberty Street to mitigate the Project's construction-period impact at this location.	8B-14	Lower Manhattan Traffic Management Plan (TMP)	PANYNJ NYSDOT	Construction	Started 2006	Ongoing (Construction)
			Maintenance and Protection of Traffic (MPT) Plan			Started July 2002	Ongoing (Construction)
TT-6	Widen crosswalks and sidewalks at the intersection of Liberty and Church Streets. (25'-0" Sidewalks)	8D-22	Construction Contract Documents	PANYNJ LMDCC NYCDOT	Design and Construction	Completed 2005	Ongoing (Construction)
AQ-1	Air Quality Require that contractors use ULSD for all non-road vehicles that operate with diesel engines.	9-24	EPC LOC	PANYNJ	Construction	Completed September 2003; April 2006	Ongoing (Construction)
			Hub Construction Contract Specifications (Issued)			Started October 2005	Ongoing (Construction)
AQ-2	Develop a plan, in consultation with Con Ed, as appropriate, to disperse grid power throughout the contraction zone for the Preferred Alternative. PANYNJ would require all contractors and subcontractors to use electrically powered equipment for air	9-25	EPC LOC	PANYNJ	Construction	Completed September 2003; April 2006	Ongoing (Construction)

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compressors, pumps, mixing, desanding and grout plants, welding machines, and any other diesel powered equipment that can be replaced with an electrically powered version. However, this does not apply to the east-west pedestrian concourse beneath Route 9A if the concourse is built by NYSDOT.		Hub Construction Contract Specifications (Issued)	PANYNJ	Construction	Started October 2005	Ongoing (Construction)
AQ-3 Require the use of DPFs or other measures with equivalent PM removal efficiency for all nonroad diesel engines of 50 horsepower or greater wherever the implementation of such a device is feasible. However, where DPFs would not be feasible, the contractor would submit a request for an exception for review and approval by PANYNJ prior to implementation, and in these cases, DOCs may be used. In cases where, for technical reasons, neither DPFs or DOCs can be used effectively, and where the operation cannot be performed by another engine or other means, would the use of diesel engines greater than 50 horsepower be allowed without tailpipe reduction measures.	9-25	EPC LOC	PANYNJ	Construction	Completed September 2003; April 2006	Ongoing (Construction)
AQ-4 Require the use of post-1995 fuel injection engines, which meet the Tier II engine emissions standards. Exceptions will be made only for specific engines that are not yet commercially available as Tier II, and where the task cannot be reasonably accomplished using alternative engines or means which do comply with these demands. In such cases, the contractor would submit a request for an exception for review and approval by PANYNJ prior to implementation.	9-26	EPC LOC	PANYNJ	Construction	Completed September 2003; April 2006	Ongoing (Construction)
AQ-5 Continue to investigate means to reduce NOx (NO and NO ₂) emissions, but it is not yet known whether these measures would reduce the effectiveness of the above described mitigation. If this investigation results in additional means to reduce NOx without jeopardizing the PM reduction measures and if other constraints such as technological availability are resolved, then PANYNJ would implement these additional mitigation techniques, as appropriate.	9-27	EPC LOC	PANYNJ	Construction	Completed September 2003; April 2006	Ongoing
AQ-6 Require the Project's contractors to prepare a Diesel Emission Mitigation (DEM) Plan that shall address the control of emissions from all engines and vehicles including those that are not equipped with emission control devices.	9-26	EPC LOC	PANYNJ	Construction	Completed September 2003; April 2006	Ongoing (Construction)
		Hub Construction Contract Specifications (Issued)	PANYNJ	Construction	Started October 2005	Ongoing
		Hub Construction Contract Specifications (Issued)	PANYNJ	Construction	Started October 2005	Ongoing (Construction)

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AQ-7	Contractors must submit a Dust Control (DC) Plan, which contains protocols and procedures for the spraying of dust piles, containment of fugitive dust, and appropriate adjustment measures to accommodate changes in meteorological conditions.	9-26	EPC LOC	PANYNJ	Construction	Completed September 2003; April 2006	Ongoing (Construction)
AQ-8a	Verification procedures would be implemented through construction specifications and contract documents. PANYNJ would verify mitigation and would identify opportunities to expand its implementation as part of its ongoing oversight and auditing of the Project's construction. Verification procedures would also be implemented in accordance with decisions of the Lower Manhattan Construction Command Center, including procedures for reporting updates to the public.	9-26	Hub Construction Contract Specifications (Issued) EPC LOC	PANYNJ	Construction	Started October 2005	Ongoing (Construction)
AQ-8b	Closely manage construction activities adjacent to the Route 9A walkway/bikeway to ensure that PM2.5 concentrations from construction equipment and extreme meteorological conditions are prevented from occurring concurrently.	9-28	Hub Construction Contract Specifications (Issued)	PANYNJ	Construction	Started October 2005	Ongoing (Construction)
Noise and Vibration							
NV-1	Require as part of contract documents that contractors use specific equipment during phases of construction to reduce noise levels below the FTA impact criteria. Require that as applicable, contractors use impact wrenches with noise emission level of 82 dBA at 50 ft2 and mufflers on pavement breakers during the permanent track, platform, and mezzanine construction and during the construction of the east-west concourse, require contractors to place air operated grout drills inside acoustical enclosure.	10-16	Hub Construction Contract Specifications (Issued)	PANYNJ	Design and Construction	Started October 2005	Ongoing
NV-2	Coordinate the scheduling and staging of construction activities through the Lower Manhattan Construction Command Center. The Command Center will review PANYNJ's plans in conjunction with other planned activities and will recommend schedule adjustments, as appropriate.	10-18	EPC LOC	PANYNJ LMCCC	Construction	Started April 2006	Ongoing
NV-3	Through the ongoing coordination efforts of the LMCCC, adverse noise and vibration effects on sensitive receptors will be minimized through scheduling and routing of deliveries, as well as coordination of street closures and placement of truck/equipment staging areas.	10-18	EPC LOC	PANYNJ LMCCC	Construction	Started April 2006	Ongoing
NV-4	Procure the services of a qualified acoustical firm (INCE certified or licensed Professional Engineer) to assist in the implementation of a Noise Control and Abatement Plan, which will include on-site noise monitoring during construction, and implementation of mitigation measures to ensure compliance with applicable noise exposure thresholds.	10-18	Hub Construction Contract Specifications (Issued)	PANYNJ	Design and Construction	Started October 2005	Ongoing

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NV-5 Develop a Construction Protection Plan (CPP) to set forth measures for the protection and avoidance of structural and architectural damage to historic properties within 90 feet of the construction zone.	10-18	Construction Protection Plan	PANYNJ	Design and Construction	Completed February 2006	Ongoing
NV-6 Incorporate design measures to reduce airborne noise from PATH trains within the WTC Memorial. Achieve at least 25 dBA of attenuation within the Memorial. Mechanical equipment will either be specified to have low noise levels, placed in acoustically shielded enclosures, or placed at locations where noise from equipment would not exceed 50 dBA at receptor locations.	10-17	Permanent WTC PATH Terminal Design Documents	PANYNJ	Design	N/A (No Design Impact)	N/A
NV-7 If its design guidelines specify an ambient noise level within the Memorial that is below 40 dBA, PANYNJ will explore ground-borne noise mitigation measures that will meet or exceed the desired attenuation for the Memorial.	10-18	Permanent WTC PATH Terminal Design Documents	PANYNJ	Design	N/A (No Design Impact)	N/A
Infrastructure and Energy						
IE-1 Coordinate utility relocation with local utility operators.	11-5	Permanent WTC PATH Terminal Design Documents	PANYNJ	Design and Construction	Final Design Completed October 2009; WTC Transportation Hub Report on Status of Implementation of PANYNJ Sustainable Design Guidelines at Final Design Vol. 1 of 2 Completed January 2011	Ongoing (Construction) (Utility services (electric, water, steam, gas) for the Hub project will be provided through WTC site-wide connections that have been coordinated with utility operators - ConEd, DEP)

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IE-2 Prepare and implement a comprehensive resource management plan for the integrated consideration of water, materials, and energy resources with the goal of identifying, evaluating, and optimizing the use of all resources on the site.	11-8	Comprehensive Water Management Plan	PANYNJ	Design and Construction	Final Design Completed October 2009; WTC Transportation Hub Report on Status of Implementation of PANYNJ Sustainable Design Guidelines at Final Design Vol. 1 of 2 Completed January 2011	Ongoing (Construction)
IE-3 Prepare a comprehensive water management plan	11-8	Comprehensive Resource Management Plan	PANYNJ	Design	Final Design Completed October 2009; WTC Transportation Hub Report on Status of Implementation of PANYNJ Sustainable Design Guidelines at Final Design Vol. 1 of 2 Completed January 2011	Ongoing (Construction)
IE-4 Use Hudson River water for the cooling of the Terminal's HVAC system.	11-8	State Pollution Discharge Elimination System Permit	PANYNJ	Design	SPDES issued January 2007	Ongoing (Construction) Plant is currently 95% complete - Projected completion 2nd Quarter 2012)

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Resource Area / ROD Commitment	2005 FEIS Page Ref.	Submittal / Reference Document	Responsible Agency	Timing	Implementation and Monitoring Commitment	Status
IE-5 Collect stormwater from surfaces of the Terminal Hall and adjacent plaza, and store it in a tank with a capacity to accommodate a 2-year/24-hour storm. Use collected water for year-round flushing supply to urinals and toilets within the Terminal; year-round washing of the adjacent plaza and sidewalks; irrigation of plantings in summer months; and occasional use for façade washing.	11-8	Comprehensive Water Management Plan	PANYNJ	Design	Final Design Completed October 2009; WTC Transportation Hub Report on Status of Implementation of PANYNJ Sustainable Design Guidelines at Final Design Vol. 1 of 2 Completed January 2011	Ongoing (Construction)
IE-6 Provide for the collection of stormwater from surfaces of the Terminal's Transit Hall and adjacent plaza for reuse on-site, and filter this water to remove 80 percent of the total suspended solids.	11-8	Comprehensive Water Management Plan	PANYNJ	Design	Final Design Completed October 2009; WTC Transportation Hub Report on Status of Implementation of PANYNJ Sustainable Design Guidelines at Final Design Vol. 1 of 2 Completed January 2011	Ongoing (Construction)

Attachment 8 - Record of Decision Checklist
 WTC Permanent PATH Terminal Construction Agreement
 Measures to Mitigate Environmental Impacts

Revised and Restated Construction Agreement
 September 2012

	Resource Area / ROD Commitment	2005 FEIS Page Ref.	Submittal / Reference Document	Responsible Agency	Timing	Implementation and Monitoring Commitment	Status
IE-7	Strive to further reduce solid waste through an active, on-site recycling program.	11-9	Comprehensive Resource Management Plan	PANYNJ	Design	Final Design Completed October 2009; WTC Transportation Hub Report on Status of Implementation of PANYNJ Sustainable Design Guidelines at Final Design Vol. 1 of 2 Completed January 2011	Ongoing (Construction)
IE-8	Employ the abundant use of natural light within the Terminal to reduce daytime demand for energy. Implement control and monitoring methods to regulate energy consumption.	11-9	Comprehensive Resource Management Plan	PANYNJ	Design	Final Design Completed October 2009; WTC Transportation Hub Report on Status of Implementation of PANYNJ Sustainable Design Guidelines at Final Design Vol. 1 of 2 Completed January 2011	Ongoing (Construction)

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Resource Area / ROD Commitment	2005 FEIS Page Ref.	Submittal / Reference Document	Responsible Agency	Timing	Implementation and Monitoring Commitment	Status
IE-9 Set aside a portion of the Terminal's mechanical area to accommodate future technologies that will provide for efficient, on-site, renewable energy sources.	11-10	Permanent WTC PATH Terminal Design Documents	PANYNJ	Design	Final Design Completed October 2009; WTC Transportation Hub Report on Status of Implementation of PANYNJ Sustainable Design Guidelines at Final Design Vol. 1 of 2 Completed January 2011	Ongoing (Construction)
Contaminated Materials						
CW-1 Require contractors to prepare a Health and Safety Plan (HASP) as part of contract documents.	12-13	Construction Contract Documents	PANYNJ	Design and Construction	Completed PA HASP Plan January 2007; Revision Completed May 2008 HASP converted into SHEP Completed May 2010	Ongoing (Construction)
Natural Resources						

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Resource Area / ROD Commitment	2005 FEIS Page Ref.	Submittal / Reference Document	Responsible Agency	Timing	Implementation and Monitoring Commitment	Status
NR-1 Explore all feasible, cost effective, and practical measures for reducing bird strikes.	13-25	Permanent WTC PATH Terminal Design Documents	PANYNJ	Design	Final Design Completed October 2009; WTC Transportation Hub Report on Status of Implementation of PANYNJ Sustainable Design Guidelines at Final Design Vol. 1 of 2 Completed January 2011	Ongoing (Construction)
NR-2a Prepare a Stormwater Pollution Prevention Plan (SWPPPs) to minimize potential impacts to floodplains, groundwater, water quality, and aquatic resources.	13-26	Stormwater Pollution Prevention Plan	PANYNJ	Design	Final Design Completed October 2009; WTC Transportation Hub Report on Status of Implementation of PANYNJ Sustainable Design Guidelines at Final Design Vol. 1 of 2 Completed January 2011	Ongoing (Construction)

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Resource Area / ROD Commitment	2005 FEIS Page Ref.	Submission / Reference Document	Responsible Agency	Timing	Implementation and Monitoring Commitment	Status
NR-2b Implement flood protection measures.	13-26	Permanent WTC PATH Terminal Design Documents	PANYNJ	Design and Construction	Final Design Completed October 2009; WTC Transportation Hub Report on Status of Implementation of PANYNJ Sustainable Design Guidelines at Final Design Vol. 1 of 2 Completed January 2011	Ongoing (Construction)
Cumulative Effect						
CE-1 Continue to investigate sustainable strategies consistent with the United States Green Building Council (USGBC) Leadership in Energy Efficiency (LEED) Guidelines 2.1 and requirements of New York State Executive Order 111.	N/A	Permanent WTC PATH Terminal Sustainable Design Guidelines	PANYNJ	Design	Final Design Completed October 2009; WTC Transportation Hub Report on Status of Implementation of PANYNJ Sustainable Design Guidelines at Final Design Vol. 1 of 2 Completed January 2011	Ongoing (Construction)
CE-2 Implement EPCs in concert with the other Recovery Projects, and a project-specific Construction Protection Plan (CPP) will be implemented consistent with the Lower Manhattan Environmental Analysis Framework.	N/A	EPC LOC	PANYNJ	Design and Construction	Completed September 2003; April 2006	Ongoing (Construction)

Attachment 8 - Record of Decision Checklist
 WTC Permanent PATH Terminal Construction Agreement
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Revised and Restated Construction Agreement
 September 2012

Resource Area / ROD Commitment	2005 FEIS Page Ref.	Submission / Reference Document	Responsible Agency	Timing	Implementation and Monitoring Commitment	Status
CE-3 Request that all agencies constructing projects within the WTC site submit preliminary and pre-final design documents to PANYNJ. PANYNJ and its designated historic preservation consultant will consult with SHPO and the Lower Manhattan Emergency Preservation Fund to assess whether there will be potential for a cumulative adverse effect from the Permanent WTC PATH Terminal and other WTC site projects. If SHPO and PANYNJ, agree that planned or completed activities will result in cumulative adverse effects on the WTC site, then PANYNJ will consider measures with respect to the Permanent WTC PATH Terminal to mitigate or minimize these effects, including technical or financial measures for the protection, stabilization, or repair of resources and/or modifications to the design. PANYNJ will make its documentation of potential cumulative effects and accompanying mitigation plans available for review by the Section 106 consulting parties.	15-19	Construction Protection Plan Permanent WTC PATH Terminal MOA Quarterly Cumulative Effects Updates	PANYNJ PANYNJ	Design and Construction Design	Completed February 2006 Started April 2005	Ongoing
CE-4 Continue coordination with the other Recovery Projects on project development, effects and commitments, particularly those related to construction scheduling, and environmental commitments in the Permanent WTC PATH Terminal FEIS and ROD are met.	N/A	EPC LOC	PANYNJ LMCCC	Design and Construction	Completed September 2003; April 2006	Ongoing

**World Trade Center Transportation Hub
FTA Lower Manhattan Recovery Office Funds
Attachment 9**

WTC PATH Terminal (PANYNJ)	\$2,872,034,051
WTC Vehicular Security Center (PANYNJ)	\$19,915,949
Fulton Street Transit Center (MTACC)	\$847,000,000
South Ferry Terminal Station (MTACC)	\$420,000,000
Route 9A (NYSDOT)	\$287,300,000
Lower Manhattan Construction Command Center (LMCCC)	\$17,000,000
Management and Oversight (FTA and PMOC)	\$86,750,000

Total FTA LMRO Funds	\$4,550,000,000

**U.S. DOT/FEDERAL TRANSIT ADMINISTRATION
PROJECT MANAGEMENT OVERSIGHT PROGRAM
LOWER MANHATTAN RECOVERY OFFICE**

**Contract No. DTFT60-09-D-00008
Project No. FTA-08-0338
Task Order No. 002**

Grantee: Port Authority of New York and New Jersey

**Permanent World Trade Center
Port Authority Trans-Hudson (PATH) Terminal Project**

**Spot Report 2024
World Trade Center PATH Hub
Project Execution Plan (Negotiated)**

September 2012

**David Evans and Associates, Inc.
17 Battery Place, Suite 1328
New York, NY 10004**

**World Trade Center
Transportation Hub**

Project Execution Plan (Negotiated)



THE PORT AUTHORITY OF NY & NJ

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1.0 Purpose

The Project Execution Plan (PEP) documents management strategies that will be used by the Port Authority of New York and New Jersey (PANYNJ) World Trade Center Construction (WTCC) Department in completing the World Trade Center (WTC) Transportation Hub project (WTC Hub project).¹ The primary goal of the PEP is to identify management strategies and risk mitigation tools designed to provide assurance that the WTC Hub project can proceed through the final construction and start-up phases with adequate funding and an achievable schedule. It also documents report deliverables that will be used by the Federal Transit Administration (FTA) and its Project Management Oversight Consultant (PMOC) to monitor the PANYNJ's implementation of the management strategies.

This PEP has been developed by the FTA and its PMOC in collaboration with WTCC to supplement the PANYNJ's Project Management Plan (PMP).

The management strategies and related actions in the PEP are intended to ensure that sufficient budget and an achievable schedule are available to complete the WTC Hub project, while meeting the project commitments in the Revised and Restated Construction Agreement (RRCA), and recognizing the cost and schedule risks inherent in the project. The requirements of this PEP do not replace the management and reporting requirements associated with the federal grant for the WTC Hub project.

This PEP uses the RRCA Required Completion Date (RCD) as the major construction milestone in lieu of the revenue operations date, because the existing (temporary) WTC Port Authority Trans-Hudson (PATH) station is and will remain in operation through completion of the WTC Hub project.

2.0 Background

The WTC Hub facility is an intermodal passenger terminal serving the PATH electrified heavy rail system, facilitating connections to 11 New York City Transit (NYCT) subway lines. It will be a permanent replacement of the original WTC PATH Terminal complex destroyed by the terrorist attacks on September 11, 2001, and is being constructed while maintaining operation of the Temporary WTC PATH Station (which reopened in December 2003).

The WTC Hub project is being implemented within an extremely complex urban environment on a site with other major construction projects, requiring extensive coordination. In addition to the WTC Hub project, the overall WTC redevelopment plans for the site include five office towers (totaling approximately 10 million square feet of office space), a memorial and museum, a performing arts center, a vehicular security center, streets, utilities, public open spaces, and other shared infrastructure. An integrated design was developed for the foundations and other underground features throughout the WTC site. Successful completion of the WTC Hub project depends on the effective management of interfaces with the many other entities and projects working at and near the site.

¹ This project is also referred to in various documents as the Permanent WTC PATH (Port Authority Trans-Hudson) Terminal and Pedestrian Connections.

Funding for the WTC Hub project is provided under the “2002 Supplemental Appropriations Act for Further Recovery from and in Response to Terrorist Attacks on the United States.” This act appropriated \$2.75 billion to the Federal Emergency Management Agency (FEMA) and \$1.8 billion to the FTA. The FTA is the lead federal agency responsible for administration and oversight of these combined federal funds (Recovery Funds). The FTA tailored and streamlined the project delivery system for the WTC Hub project by using a Construction Agreement (CA) to identify the final scope, schedule, and budget of the project prior to the initiation of construction. The CA for the project takes the place of the Full Funding Grant Agreement (FFGA) typically used on FTA-funded “New Starts” projects. The original CA for the WTC Hub project was executed on April 25, 2006. The RRCA is consistent with the PANYNJ’s August 2009 project Recovery Plan.

The WTC Hub project’s Baseline Cost Estimate (BCE) in the original CA was \$2.201 billion. In addition, a federal (FTA) risk retainage of \$280 million was established that reflects the result of a March 2006 risk workshop. The WTC Hub project was originally being delivered through a Construction Manager/General Contractor (CM/GC) strategy in which a single joint venture contractor was acting as the construction manager and general contractor for the project. The intent of this project delivery strategy was to negotiate a guaranteed maximum price (GMP) with the CM/GC during the design phase of the project, thereby controlling project costs. Due to a number of factors, agreement on a GMP was not achieved. To advance the project work, many construction packages were initiated using a variety of payment methods. Major components of the work were subcontracted by the CM/GC, which received payments for general and administrative costs, general conditions costs associated with its activities at the site, and a fee. The CM/GC also self-performed portions of the construction.

The project cost and schedule were impacted by unexpected conditions, delays, and major increases in construction prices that led to cost increases and schedule delays to the project. In 2008, PANYNJ conducted an assessment of the overall WTC development, including the WTC Hub project, and prepared updated project cost estimates and schedules reflecting the progress on the WTC Hub project and the existing construction market conditions and associated costs. In October 2008, PANYNJ published the *World Trade Center Report, A Roadmap Forward*, which projected that the project would be completed on or before June 30, 2014, at a cost of \$3.2 billion, or approximately \$983 million more than the original CA budget.

In late April 2009, WTCC and the CM/GC jointly agreed to modify their contract to enable the agency to competitively bid future work for the WTC Hub project, while ensuring that the CM/GC would complete the work that had been awarded as of that date. This modification occurred because the parties did not reach agreement on a GMP and market conditions emerged that favored other approaches. The change in project delivery strategy was accompanied by changes in contract packaging to maximize competition and provide flexibility to address constantly changing conditions that have resulted from revisions in project plans and progress by other stakeholders at the WTC site. On February 24, 2011, the PANYNJ Board reauthorized the PATH Hub budget of \$3.44 billion, up from \$3.2 billion. The additional funds will primarily cover increased insurance costs and other trade contracts associated with the PATH Hub project.

FTA maintains a risk retainage of \$280 million (the FTA Risk Retainage). With the addition of the FTA Risk Retainage, the available project funds for the PATH Hub total \$3.72 billion. At its sole discretion, the FTA will release portions of the FTA Risk Retainage if PANYNJ can demonstrate:

- provision of the deliverables as defined in this PEP,
- achievement of the project milestones represented by completion of construction activities as specified in this PEP,
- maintenance of adequate cost and schedule contingency, and
- proper management of the residual risks and confirmation that no new risks have surfaced that could jeopardize the achievement of subsequent PEP milestones and the project completion.

3.0 Scope of Agreement

This document reflects the PEP and resultant Project Execution Strategy that the FTA will monitor and WTCC will use to manage the risk associated with delivering the WTC Hub project consistent with the available project funds and the RRCA RCD for the project. The PEP establishes a framework for effectively and efficiently managing risk throughout project implementation, while relying on the Technical Capacity and Capability (TCC) of WTCC as the mechanism for ensuring that those actions are implemented. The PEP also identifies the strategies that WTCC will use to manage the project, as well as WTCC's deliverables to FTA. The FTA will use the PEP to monitor WTCC's implementation of those strategies.

3.1 Requirements for WTCC Technical Capacity and Capability (TCC)

In support of the general requirement that PANYNJ have the technical capacity to carry out a project, the FTA and PANYNJ have agreed that PANYNJ, inclusive of the WTCC, will implement and maintain a governance and organization structure applying the principles listed below. These principles will ensure that project management, engineering, and organizational and support processes, plans, and procedures, inclusive of resources and authority, are defined, implemented, and maintained. The organization and its various components that execute those principles shall be sufficient to support PANYNJ's ability to engage stakeholders to produce positive outcomes, allocate resources, perform project activities, monitor progress, and make adjustments, as required. With the proper organizational structure, decisions will be made at the appropriate time and level based on available information, thereby ensuring continuous administrative and management direction of project operations.

- PANYNJ management will make program- and project-level decisions based on available information, using processes designed to allow all material decisions to be made with adequate consideration of relevant risks and impacts. Management principles are meant to address these issues as a common element under all of the proposed specific risk mitigation measures, and to ensure that decisions are made at the appropriate level within the organization.
- Key points for program- and project-level decision processes include documented business decisions that establish a way to assess and allocate risk, demonstrate management control of project deliverables, provide for internal control validation, categorize specific scope management techniques, and identify senior management officials with responsibility for PEP conformance.

Implementation of the specific management and risk handling strategies in this PEP should ensure that PANYNJ has the required TCC to deliver the WTC Hub project, and is a requirement for the FTA funding.

3.2 Integration of the PEP into the Project Management Plan

The PEP will be implemented through the integration of the PEP requirements into the WTC Hub PMP. In addition to the above technical capacity requirements, Sections 4 through 9 of this PEP (below) identify specific actions and requirements that WTCC must meet in the submissions of identified deliverables related to those requirements and within the required frequency for completion of those deliverables. Some of the requirements and related deliverables are included in PANYNJ's current PMP. Other requirements and deliverables supplement the PMP. Deliverables are to be provided to the FTA at the frequency stated. The form of the deliverables will be mutually determined by the FTA and PANYNJ (Exhibit 1).

As part of the requirement for an acceptable PMP, WTCC shall implement and maintain, throughout the project, a formal PMP and sub-plan revision process that accurately reflects the WTCC organizational structure needed to meet the FTA's TCC requirements. Changes that may be needed to reflect additional requirements for the organization or the PMP sub-plans shall be identified. Revisions or improvements to the PMP will be identified through various means that will be tracked and reported as part of the quarterly project review process and should include, but not be limited to, process improvement proposals, measurement of the processes, lessons learned in implementing the processes, and the results of process appraisal and deliverable evaluation activities. The revision process shall identify the process for obtaining approval of the revisions within WTCC and PANYNJ.

4.0 Design and Construction Management

4.1 Quality Management (QM)

PANYNJ shall establish and maintain a Quality Management System (QMS) that ensures that appropriate construction inspections are conducted, that construction work is accepted only if it passes the required inspections, and that all project participants have the latest project documents. The requirements in Exhibit 1.1 will apply to the project's QMS (as described in the WTCC Project Quality Assurance Plan (PQAP)).

4.2 Design Support during Construction (DSC)

PANYNJ shall establish and maintain design services during construction to ensure that required design modifications are implemented with minimal delays. Drawings of record shall be assembled and available for use in the preparation of plans and specifications for subsequent construction contracts. PANYNJ shall also establish and maintain procedures to ensure that all design modifications developed in the field are consistently and properly documented and reviewed. In addition, key assumptions and design objectives that identify major tasks for the package shall be provided to management. Packages should include justification for design changes, description of work, and design coordination requirements. The requirements in Exhibit 1.2 will apply to the DSC for the project.

4.3 Procurement and Construction Management (PCM)

PANYNJ shall establish and maintain procedures to ensure that responses to submittals occur in a timely manner and shall provide documentation to trace the scope, schedule, and cost for construction packages as the contract packaging strategy for the project evolves. PANYNJ shall also obtain sufficient information on potential implementation problems and issues from consultant progress reports in order to make effective decisions and thereby manage risk. The requirements in Exhibit 1.3 will apply to the PCM, so that timely documentation of procurement activities will be provided to FTA.

5.0 Cost and Schedule Management

5.1 Cost Management (CM)

PANYNJ shall implement and maintain a cost model to develop, update, track, forecast, and manage project cost by utilizing established estimates, award amounts, and actual expenditures to monitor contract package costs on a continuous basis. The cost model should serve as a decision tool for PANYNJ to take early action when estimated total project costs are projected to exceed the budget. In order to increase the reliability and timeliness of cost information, PANYNJ shall establish and maintain a Cost Management System that clearly documents the reasons behind changes in forecast costs and explicitly documents executed Change Order (CO) amounts for each construction contract and soft cost element. PANYNJ shall also establish and maintain a system for tracking (pending) Post-Award Contract Changes (PACCs) and resolved claims, and their impact to contract and total project costs. (Unresolved claims are to be addressed as part of ongoing project risk analyses; see Section 8.) PANYNJ shall establish and maintain a process to track and report on the status of cost sharing agreements and the expected payments by other stakeholders. The specific requirements in Exhibit 1.4 will be met.

5.2 Schedule Management (SM)

PANYNJ shall implement and maintain a schedule for the WTC Hub project, as part of an overall Integrated Master Schedule (IMS), to develop, update, track, forecast, and manage the WTC Hub project. The IMS comprises various working schedules that can be used to monitor WTC Hub contract package schedules on a continuous basis. The IMS should serve as a decision tool for PANYNJ to take early action when the forecasted WTC Hub project substantial completion exceeds the baseline. WTCC shall establish and maintain a process for documenting changes in the IMS and the WTC Hub project schedule and its strategies to address schedule slippage to keep the WTC Hub project on schedule. The IMS shall incorporate updated information from third parties and schedules prepared by the construction managers and construction contractors for each WTC Hub contract. The WTCC will maintain a process for forecasting and reporting on the projected achievement of major WTC Hub project milestones, including consideration of construction resource requirements and logistics to avoid delays. The specific requirements in Exhibit 1.5 will be met.

6.0 Cost Contingency Management

PANYNJ shall develop and implement a Cost Contingency Management (CCM) Plan that ensures there is sufficient total contingency (including both extra work allowance and the project-wide contingency described below) available at key milestones for completion of the project and that ensures the distribution of available total contingency is subject to appropriate restrictions and required management approvals.

PANYNJ identifies Extra Work Allowances (EWA) and Project-Wide (PW) Contingency in its cost model, with the following definitions:

- EWA is assigned to each construction contract package and is freely available to cover the cost of COs for the respective contract package.
- PW Contingency is a line item in the cost model that is not associated with any specific construction contract package or other specific cost element, and can be released at PANYNJ's discretion to cover unanticipated project requirements or cost increases within the overall project.

The total PANYNJ contingency amount calculated for use pursuant to this PEP and the CCM Plan includes both the EWA and the PW Contingency. The FTA Risk Retainage represents a portion of the total available contingency funds for the project in addition to the total PANYNJ contingency. At its sole discretion, FTA will release portions of the FTA Risk Retainage as the physical achievement of project milestones occurs and based on other factors, and, as a result, as project risk declines. The planned release of the FTA Risk Retainage is described in the Project Execution Strategy and is predicated on providing a sufficient total cost contingency at each milestone to provide reasonable assurance that adequate funds will be available to complete the remaining work.

This PEP document reflects the PANYNJ classification method for EWA and PW Contingency. The CCM Plan shall describe the PANYNJ's processes for distribution and use of EWA and PW Contingency. The Project Execution Strategy (see Section 9) defines the minimum and target values for total cost contingency for each of several FTA Milestone Review Points. The CCM Plan, inclusive of subsequent WTCC procedures, will address the requirements in Exhibit 1.6.

7.0 Schedule Contingency Management

FTA and WTCC agree that a Schedule Contingency Management (SCM) Plan is required to ensure sufficient schedule contingency (float) for completion of the project. The SCM Plan, inclusive of procedures, will address the requirements in Exhibit 1.7.

8.0 Risk Management (RM) Plan

The FTA and PANYNJ will work in partnership to ensure that the PANYNJ's management processes are focused around timely, sound decision-making, based on accurate and complete information and driven by a thorough understanding of project risks and potential mitigation strategies. PANYNJ will create a WTC Hub project risk register to provide a means for identifying and thereby managing project risks and to provide tools that allow PANYNJ to quickly and

consistently track and address poor contractor performance. An effective risk management approach is crucial to demonstrating the TCC required to implement the project, as demonstrated in the WTCC PMP. The requirements in Exhibit 1.8 will apply to the RM Plan.

The risk management process documented in the required RM Plan shall systematically track, evaluate, and document the performance of risk mitigation actions relative to the project schedule and budget. Additionally, any and all other risks that are identified as a result of periodic risk updates, including risk identification workshops, will be documented as a part of the project risk register update.

At this stage of the project development, a significant amount of secondary cost mitigation capacity is no longer available to PANYNJ for this PEP; nevertheless, PANYNJ shall continue to make its best effort to identify further secondary mitigation opportunities and use good judgment in deciding on the use of such opportunities to maintain the available contingency above the minimum.

In addition, due to the characteristics of the WTC Hub project, the geotechnical risk is no longer widely applicable. At the current stage of the WTC Hub project development, the major excavations have been completed.

9.0 Project Execution Strategy

The Project Execution Strategy sets forth the critical cost and schedule management actions that are required to maximize the likelihood that the WTC Hub project will be completed within the available project funds and on or before the RRCA RCD. The primary strategy is to maintain sufficient cost and schedule contingency amounts and risk mitigation capacity throughout the life of the project that are acceptable to both PANYNJ and the FTA and are sufficient to ensure that the federal investment results in a completed project.

The strategy establishes minimum contingency amounts that PANYNJ must maintain as the implementation of the project proceeds, and also establishes target or desirable contingency and risk mitigation capacity amounts. FTA Milestone Review Points have been established (Exhibit 2) to include milestones of major project elements (PEP Milestones) that reflect the completion of key procurement activities and the achievement of key construction milestones that represent major reductions in project risk. The FTA Milestone Review Points also trigger reviews of the project status.

The FTA and WTCC agree that risk mitigation activities and plans need to be coordinated with contingency activities and plans. As part of the ongoing project management process, including reviews of the project status at the FTA Milestone Review Points and the annual update or review of PANYNJ's PMP, the minimum and target contingency curves (Exhibit 3 and 4) will be adjusted to reflect the current status of project risks, and the cost and schedule status and trends for the project.

At the FTA Milestone Review Points, if PANYNJ meets the following requirements, it is FTA's sole discretion to consider releasing a portion of FTA Risk Retainage based on the amount set forth at each FTA Milestone Review Point, with the actual release amounts subject to FTA's sole assessment of the project cost and progress. The requirements are:

- PANYNJ completes all or some PEP Milestones defined at each FTA Milestone Review Point (Exhibit 2).
- Total available contingency funds are above the FTA minimum contingency requirement (Exhibit 3), and likely to remain above the minimum contingency requirement for the remainder of the project.
- Total schedule contingency leading to the RRCA RCD is above the FTA minimum contingency requirement (Exhibit 4), and likely to remain above the minimum contingency requirement for the remainder of the project.
- PANYNJ provides proper management of the residual risks and no new risks have surfaced that could jeopardize the completion of subsequent PEP Milestones and the project completion.

9.1 FTA Risk Retainage and Cost Contingency Management

FTA is holding a risk retainage of \$280 million for the WTC Hub project to ensure that the project is completed. FTA will consider releasing portions of the risk retainage at the FTA Milestone Review Points, as defined in this document, to PANYNJ for use on the project. The FTA Milestone Review Points are defined in terms of physical completion of procurement actions for construction (contract awards) and the successful physical completion of components of the project. At each FTA Milestone Review Point, WTCC and the FTA will conduct a joint review of the status of PEP Milestones, the actual cost compared to planned cost, and the actual progress compared to the project schedule to evaluate the cost contingency. Based on PANYNJ's demonstration that the required activities have been completed, that the residual risks are properly managed, and that the actual costs are within the forecast amounts, FTA at its sole discretion will consider releasing portions of the risk retainage. Release of the risk retainage will also be dependent on PANYNJ's demonstration that it is maintaining the minimum contingency amounts specified in this PEP. It is anticipated that updates of the risk baseline would occur at the FTA Milestone Review Points and that a probabilistic evaluation of achieving the subsequent PEP Milestones would also be conducted. Through the risk update, if PANYNJ can demonstrate sufficient risk mitigation capacity (in the form of primary or secondary mitigation), at its sole discretion, FTA may consider releasing additional portions of the risk retainage beyond those indicated in this section.

WTCC and the FTA agree that the FTA Risk Retainage shall be maintained up to the remaining FTA Risk Retainage amounts associated with the FTA Milestone Review Points, as depicted in Exhibit 2. The actual amounts of the FTA Risk Retainage that FTA may release are subject to change upon FTA's assessment based on actual project cost and progress. It is anticipated that a formal review of all FTA Milestone Review Points and FTA Risk Retainage amounts will be conducted at each FTA Milestone Review Point.

The release of the FTA Risk Retainage is also predicated on maintaining the total available contingency funds of at least the FTA minimum contingency requirement amounts depicted in Exhibit 3, as well as the fulfillment of the requirements specified in Section 9.2, Schedule Contingency (Float) Management. The amount of the FTA minimum contingency requirement is based on WTCC's Independent Cost Consultant (ICC) report dated May 15, 2008. Should the Total Available Contingency Funds fall below the Minimum Cost Contingency, and PANYNJ is

unable to bring the Total Available Contingency Funds up above the minimum contingency before the next FTA Milestone Review Point, PANYNJ shall conduct a full project review and implement a Contingency Mitigation Plan within 90 days.

The forecasted contingency and risk retainage amounts cited above are based on the IMS that is current at the time of the subject FTA Milestone Review Point. As the project progresses and the FTA Milestone Review Points evolve throughout the life of the program, the time periods and amounts included in the exhibits may change.

9.2 Schedule Contingency (Float) Management

The FTA and PANYNJ agree that in order to ensure sufficient schedule contingency for the completion of the WTC Hub project on or before the RRCA RCD, the distribution or consumption of float shall be managed through a sound scheduling tool. If the schedule float leading to the RRCA RCD is less than the FTA's Desired Minimum Float, PANYNJ shall immediately implement appropriate mitigation strategies to bring the subject float to the agreed-upon levels before the next FTA Milestone Review Point. Should the implementation of these mitigations fail, PANYNJ will revise its schedule to reflect the changes to the critical path and provide an impact assessment within 90 calendar days. If this impact assessment indicates that the float will fall below the Desired Minimum Float, PANYNJ shall initiate a full project review and immediately notify the FTA of the amount of and the reason for the difference. Further, PANYNJ shall also provide the FTA with a plan that demonstrates that PANYNJ is taking and will take every reasonable measure to recover the difference, in conformance with the PEP requirements, within 90 days.

10.0 PANYNJ and FTA Roles and Responsibilities

10.1 PANYNJ Roles and Responsibilities

PANYNJ agrees to use this PEP as a supplement to the PMP as part of its ongoing responsibilities to develop and maintain an acceptable PMP that addresses the needs of the project as the needs evolve over the life of the project. Required PEP-related PMP sub-plans include Cost and Schedule Contingency Management Plans (including the provisions in the Project Execution Strategy) and a Risk Management Plan.

PANYNJ agrees to provide documentation of its compliance with the requirements defined in this PEP using a reporting template to be jointly developed by the FTA and PANYNJ. This template will track the provision of each individual requirement.

As part of its overall budget control process, WTCC will review the estimated cost for individual construction contracts at each remaining design deliverable (90 percent and 100 percent) to see how the most current estimates compare with budget values. These reviews will be ongoing and will take place between FTA Milestone Review Points.

10.2 FTA Roles and Responsibilities

The FTA and its PMOC will monitor and evaluate PANYNJ's update of its PMP to include the provisions of this PEP. The FTA and the PMOC also will monitor PANYNJ's implementation of the Project Execution Strategy for the WTC Hub project as well as the effectiveness of its integration of risk mitigation activities and contingency management in conformance with the requirements of this PEP. Timely implementation of the requirements of this plan will be a consideration in the FTA's determination of whether PANYNJ is maintaining adequate TCC to implement the project.

10.3 FTA Programmatic Decisions

Ongoing, satisfactory conformance by WTCC with this PEP, within the implementation time frames established in this document, and with the PMP, will serve as the basis for future FTA programmatic decisions relating to the RRCA, Recovery Plans, release of risk retainage, and ongoing determinations about whether WTCC continues to possess the TCC to carry out the WTC Hub project. WTCC acknowledges that conformance with this PEP will assist WTCC in keeping the project within the budget and on schedule.

10.4 Joint PANYNJ and FTA Roles and Responsibilities

In order to implement the Project Execution Strategy and to assess the effectiveness of the PEP, the following steps have been agreed to:

- As a part of the FTA Quarterly Meeting, WTCC will report on the level of available contingency as compared to the predicted levels on the minimum contingency balance curves. Such reporting shall be timely and current, and shall include forecasting and trend analysis of all contingency elements.
- At each FTA Milestone Review Point, WTCC and the PMOC will review the risk model to examine potential risks remaining and to update the project execution curves.

Attachments

Exhibit 1 – WTCC PEP Deliverables

- Exhibit 1.1 – Quality Management (QM)
- Exhibit 1.2 – Design Support during Construction (DSC)
- Exhibit 1.3 – Procurement and Construction Management (PCM)
- Exhibit 1.4 – Cost Management (CM)
- Exhibit 1.5 – Schedule Management (SM)
- Exhibit 1.6 – Cost Contingency Management (CCM)
- Exhibit 1.7 – Schedule Contingency Management (SCM)
- Exhibit 1.8 – Risk Management (RM)

Exhibit 2 – PEP Milestones and FTA Milestone Review Points

Exhibit 3 – FTA Risk Retainage and Minimum Contingency Requirement

Exhibit 4 – FTA Desired Minimum Float Requirement

Exhibit 1 – WTCC PEP Deliverables

Exhibit 1.1 Quality Management (QM)

QM	Exhibit 1.1 Requirements	Deliverables	Frequency
QM-1	<p>Scheduling of construction inspections shall be coordinated by construction management staff among all parties, including the contractors and Port Authority Materials Engineering Unit (MEU). Timely notices of scheduled inspections shall be provided to ensure adequate staffing and coverage. Certain field inspections occur continuously (i.e., they are not scheduled); certain on-site special inspections are adequately scheduled upon 24 hours notice, while off-site inspections may require 10 days notice to MEU.</p> <p>Provide for periodic audits by WTCC Quality Assurance (QA) of the construction inspections scheduling.</p>	<p>Records of construction inspections.</p> <p>Status of WTCC QA audits of construction inspections/scheduling process.</p> <p>Copies of WTCC QA audits to be provided to the FTA/PMOC.</p>	<p>Available upon request.</p> <p>Monthly.</p> <p>Following completion of WTCC QA audit.</p>
QM-2	<p>Demonstrate that only work that has passed the required inspections and tests has been accepted by the Port Authority.</p> <p>WTCC QA staff and their agents shall perform audits of construction inspection processes, including review of inspection and special testing records.</p>	<p>Records of construction inspections.</p> <p>Status of WTCC QA audits of construction inspections process.</p> <p>Copies of WTCC QA audits to be provided to the FTA/PMOC.</p>	<p>Available upon request.</p> <p>Monthly.</p> <p>Following completion of WTCC QA audit.</p>
QM-3	<p>Demonstrate that there is comprehensive distribution of current project documents among all parties involved in implementing the project.</p> <p>This project documentation includes (among other items):</p>	<p>Up-to-date drawing lists and other construction scope documentation.</p>	<p>Available upon request.</p>

QM	<u>Exhibit 1.1 Requirements</u>	<u>Deliverables</u>	<u>Frequency</u>
	<ul style="list-style-type: none"> ▪ current contract documents and drawings, including contract addenda and supplements ▪ contractor submittals including shop drawings and sketches, and all Request for Information (RFI) documentation ▪ design change and CO documentation, including CO drawings and bulletins 	Up-to-date document distribution lists for project information.	Available upon request.
	Grantee shall implement an auditing process to confirm that all parties have the latest information.	Status of WTCC QA audits of drawings lists and other construction document control and distribution processes.	Monthly.
		Copies of WTCC QA audits to be provided to the FTA/PMOC.	Following completion of WTCC QA audit.

Exhibit 1.2 Design Support during Construction (DSC)

DSC	<u>Exhibit 1.2 Requirements</u>	<u>Deliverables</u>	<u>Frequency</u>
DSC-1	<p>Provide a procedure for production of drawings of record and documents to be compiled by the Architect/Engineer (A/E) of Record based on contractor submittals (e.g., approved shop drawings) and other design changes.</p> <p>Provide for field verification (surveys) of critical construction elements (such as main structural members) to confirm design coordination at project and/or package interfaces. Such verification of field conditions shall be performed in a timely manner to avoid impacting critical activities, such as fabrication.</p>	Processes for compiling, distributing, and maintaining drawings of record will be outlined in the updated PMP.	PMP.
		Drawings of record will be available following completion of each construction contract.	Monthly.
		A status log for (receipt of) drawings of record for completed construction contracts.	

DSC	Exhibit 1.2 Requirements	Deliverables	Frequency
		Documentation of performance of field verifications (surveys).	Available upon request.
DSC-2	Design modifications or sketches prepared for permanent construction shall be documented as a CO, and records shall be kept by the A/E of Record, construction management staff, and WTCC Document Control.	Requirements for preparation and distribution of up-to-date construction documents (correlating DSC-2 to QM-3) shall be outlined in the PMP. Log of field sketches transmitted to A/E of Record reflected in up-to-date drawing lists. Maintain file of signed/approved field change sketches as part of the RFI and CO records.	PMP. Available upon request. RFI status log shall be provided on a quarterly basis. PACC status log shall be provided on a monthly basis.

Exhibit 1.3 Procurement and Construction Management (PCM)

PCM	Exhibit 1.3 Requirements	Deliverables	Frequency
PCM-1	Respond to all RFIs and process PACCs in a timely manner to mitigate contractors' claims. The schedule impacts should be considered and evaluated with each CO review (PACC) and reflected in schedule forecasts.	Logs of all RFIs and PACCs, documenting dates of receipt and status of the related responses.	RFI status log shall be provided on a quarterly basis. PACC status log shall be provided on a monthly basis.
PCM-2	For the bid packages that are compiled from two or more design packages, or when a single package is being split into a number of smaller packages, prepare a Design-Cost-Schedule Cross-Walk (using the 2009 Package 20 PATH Hall Transit Hall as a basis for comparison) that shows the original scope, cost, and activity schedule and any revisions to scope, cost, and schedule for the impacted activities.	Establish formats and tools including a Work Breakdown Structure (WBS) for correlating revisions or adjustments in contract/package scope, cost, and schedule. PMP to be updated to include sample formats and tools for configuration management, including cross-walks.	PMP. A Scope Cross-Walk will be provided one month after a significant repackaging is transmitted.
PCM-3	Provide executed award letters and conformed contracts to the FTA for each contract awarded.	Provide a contract packaging plan and subsequent updates, including explanation of adjustments in contract/package scope.	Updated as needed, before construction packages released for bid.
		Copies of award letters and/or executed conformed contracts to be provided to the FTA/PMOC.	Upon conformance of the contract documents and the (contractor's) final execution of the contract.

PCM	Exhibit 1.3 Requirements	Deliverables	Frequency
PCM-4	PANYNJ's staff handling the procurement process (including Procurement and WTCC) should conduct a bid analysis (at minimum a comparison of bids received and the Engineer's Estimate) following bid submission, as part of the award process. Bid analysis needs to be shared with the FTA.	Copies of bid analysis or evaluation used for the basis of award shall be available for FTA/PMOC review.	List of bids received shall be provided to the FTA/PMOC within three (3) days after each final bid opening.
PCM-5	Define procurement responsibilities between PANYNJ staff and the Construction Manager.	Updated PMP to describe current procurement processes, roles, and responsibilities.	PMP.

Exhibit 1.4 Cost Management (CM)

CM	Exhibit 1.4 Requirements	Deliverables	Frequency
CM-1	Provide a report documenting the reasons for changes in the Estimate at Completion (EAC) for any construction contract or soft cost element of the project. Major changes in the cost of any specific construction contract/package (in excess of 10 percent) will be analyzed and evaluated to identify potential strategies to maintain the overall project budget.	An updated EAC/Cost Variance report documenting changes in amounts (by construction packages/contracts and soft cost elements). This report will include further analysis and evaluation of contract/package cost changes exceeding 10 percent (from established baseline).	Monthly.

CM	Exhibit 1.4 Requirements	Deliverables	Frequency
CM-2	<p>Explicitly incorporate all executed COs as part of the committed costs in the cost model. Executed construction COs should generally be accompanied by a concurrent reduction in EWA assigned to respective contracts/packages.</p> <p>In addition, pending COs should be evaluated with the forecast of remaining EWA in the cost model. This information should be communicated within the entire WTCC Hub management group as well as submitted to the FTA.</p>	<p>Construction Change Order Ledgers (currently a PA WINTRAK system report) for each contract/package. Each ledger indicates both executed COs (COs with actual amounts) and pending PACCs (PACCs with estimated amounts).</p> <p>An executed CO log for professional services contracts.</p>	Monthly.
CM-3	<p>Provide a summary of unresolved contract claims estimated at greater than \$100,000 in value, and evaluate the potential impact of such unresolved claims as a project risk item.</p>	<p>Updated PMP describing the PANYNJ cost control/management system and associated processes, including how executed COs are reflected in the EAC for all contracts and other cost elements in the WTCC cost model.</p>	PMP.
CM-4	<p>Provide documentation of the status of cost sharing agreements that also reflects the basis for determining the cost shares (cost allocations and cost reimbursements), and the current estimate of expected funding contributions for each of the contributing entities.</p>	<p>Summary of unresolved claims.</p> <p>A cost allocation report indicating the current EAC status of cost sharing and cost reimbursement amounts (associated with the WTC Hub project that is attributable to other stakeholder projects).</p>	Quarterly. Monthly.

CM	Exhibit 1.4 Requirements	Deliverables	Frequency
		An agreement and funding report that tracks the status of WTC funding/interagency agreements (including expected funding contributions and the status of stakeholder approvals).	Monthly.
		Copies of executed external agreements or internal PANYNJ Board authorizations that are applicable to the WTC Hub project budget and associated cost sharing.	Within two weeks of full execution of the third-party agreement or PANYNJ Board action.

Exhibit 1.5 Schedule Management (SM)

SM	Exhibit 1.5 Requirements	Deliverables	Frequency
SM-1	<p>Provide a regular IMS analysis, documenting substantive changes in the durations of major tasks or the completion dates for major milestones (see below).</p> <p>When the forecasted completion date for major milestones slips more than 30 days, further evaluation and analysis shall be undertaken and reported to indicate the reason for the slippage and the potential recovery actions that may be taken to maintain the contractual milestone dates.</p>	WTC Hub Schedule and IMS, and Schedule Variance Report that documents changes in forecasted schedule activities. The schedule narrative will include further analysis and evaluation of critical activities (major milestones) that exceed the established baseline.	Bimonthly, with bimonthly briefing meetings between IMS updates.

SM	Exhibit 1.5 Requirements	Deliverables	Frequency
SM-2	<p>PANYNJ should further develop and maintain logic-driven schedules, with monthly updates from non-WTCC stakeholders, and use the schedule to manage successful stakeholder coordination.</p> <p>If non-WTCC schedules are not available, WTCC should provide its forecast based on the best available information in the IMS with respect to the WTC Hub project, and document the basis for its forecasts for third-party schedules.</p>	<p>WTC Hub Schedule and IMS, and Schedule Variance Report that includes information from other (non-WTCC) project stakeholders.</p>	<p>Bimonthly, with bimonthly briefing meetings between IMS updates.</p>
SM-3	<p>Maintain an accurate and effective IMS to manage work on the WTC site. The IMS should:</p> <ul style="list-style-type: none"> ▪ Incorporate the construction managers' and contractors' schedules when they are approved or available. ▪ Eliminate unnecessary constraints. ▪ Provide clear, accurate, and complete information on available schedule float. ▪ Document the assumptions behind schedule decisions that were made to meet the project objectives and describe the conditions and methods chosen by PANYNJ to meet those objectives, including changes in assumptions. 	<p>WTC Hub Schedule and IMS, and Schedule Variance Report that includes a schedule narrative documenting the sources of information and assumptions included in the schedule.</p>	<p>Bimonthly, with bimonthly briefing meetings between IMS updates.</p>
SM-4	<p>Consider contractor crew productivity, resource allocations, and assumptions to assess whether durations are adequate.</p>	<p>WTC Hub Schedule Risk Analysis that includes consideration of whether contractor productivity and assumptions are major risk factors to be addressed in the IMS.</p>	<p>Quarterly.</p>

SM	Exhibit 1.5 Requirements	Deliverables	Frequency
SM-5	Analyze critical path activities to identify changes to the critical path and to support the development of mitigation strategies to avoid delays.	WTC Hub Schedule and IMS, and Schedule Variance Report that includes analysis of the critical path activities. The schedule narrative will include further analysis and evaluation of critical activities (major milestones) that exceed the established baseline.	Bimonthly, with bimonthly briefing meetings between IMS updates.
SM-6	Monitor and report the status of PEP milestones included in Exhibit 2.	WTC Hub Schedule and IMS, and Schedule Variance report that includes analysis of the progress and forecasts of the project's major milestones.	Monthly.
SM-7	Conduct constructability and coordination reviews to address critical interfaces for each new construction contract. In addition, incorporate evaluation of construction managers' and construction contractors' schedules and the evaluation of activity durations as part of routine updates to the IMS.	Construction Interface Matrix.	Bimonthly, with bimonthly briefing meetings between IMS updates.
SM-8	4D model update.	Demonstration of 4D model.	Available upon request.

Exhibit 1.6 Cost Contingency Management (CCM)

CCM	Exhibit 1.6 Requirements	Deliverables	Frequency
CCM-1	<p>Provide an estimate of minimum total contingency based on the procurement and construction status of each construction package and soft cost element, plus the potential impacts of third-party actions, delays or influences.</p> <p>Compare the minimum contingency with available contingency. Provide documented procedures for the release of EWA and PW Contingency and, if required, provision of additional contingency in the project budget.</p>	<p>CCM Plan, including EWA and PW Contingency.</p> <p>Calculation of the minimum contingency, available contingency, and target contingency applicable to the project.</p>	<p>Draft CCM Plan – Third Quarter 2012.</p> <p>Updated quarterly.</p>
CCM-2	<p>Develop and implement procedures to document and evaluate trending of the total PANYNJ contingency, as part of its overall budget and progress reporting effort. All changes in EWA and PW Contingency shall be clearly and completely documented, including:</p> <ul style="list-style-type: none"> ▪ Transactions that are sufficiently documented in a timely manner to tie reductions in PW Contingency to specific increases in construction contracts/packages or other line items in the cost model. ▪ Documentation of changes in contingency that result from construction bids different from the Engineer’s Estimate, contract under-runs, and/or value engineering. 	<p>CCM Plan.</p> <p>Calculation of the minimum contingency, available contingency, and target contingency applicable to the project.</p>	<p>Draft CCM Plan – Third Quarter 2012.</p> <p>Updated quarterly.</p>

CCM	Exhibit 1.6 Requirements	Deliverables	Frequency
	<ul style="list-style-type: none"> ▪ Results of any secondary mitigation (e.g., reductions in scope or requirements), showing where the resulting savings are reflected in increased total project contingency or other line items in the cost model. 	Contingency Utilization Report.	Monthly.
CCM-3	Maintain total contingency above the minimum amounts at the defined FTA Milestone Review Points, as specified in the Project Execution Strategy section.	Contingency Utilization Report.	Monthly.
CCM-4	Develop a process for distributing, maintaining, and utilizing the FTA Risk Retainage at the FTA Milestone Review Points, as specified in the Project Execution Strategy section.	FTA Risk Retainage Utilization Report.	At FTA Milestone Review Points.

Exhibit 1.7 Schedule Contingency Management (SCM)

SCM	Exhibit 1.7 Requirements	Deliverables	Frequency
SCM-1	Establish and implement procedures to track schedule durations and the resulting available schedule float, analyze trends in float, and forecast the required float as part of its overall progress reporting effort.	Float Utilization Report.	Bimonthly, with bimonthly briefing meetings between IMS updates.
SCM-2	Ensure that schedule float that may be created by means of shortened critical path activities (such as workarounds) or changes in project scope or requirements (secondary mitigation) are identified and accounted for in the estimate of total schedule float in a timely manner.	Float Utilization Report.	Bimonthly, with bimonthly briefing meetings between IMS updates.

SCM	Exhibit 1.7 Requirements	Deliverables	Frequency
SCM-3	Keep the available schedule float above the minimum floats at the FTA Milestone Review Points, as specified in the Project Execution Strategy section. If insufficient float is available, identify mitigation measures or adjust the schedule to reflect a realistic completion date.	Float Utilization Report.	Bimonthly, with bimonthly briefing meetings between IMS updates.

Exhibit 1.8 Risk Management (RM)

RM	Exhibit 1.8 Requirements	Deliverables	Frequency
RM-1	<p>The WTCC's project risk management program and processes should include the following:</p> <ul style="list-style-type: none"> ▪ A process to identify and quantify the potential impacts of project risks, with updates at appropriate time intervals. Risk updates should include the impacts of potential COs, unresolved construction claims, and other known contractual issues for both construction and soft costs. ▪ A process to identify and implement project risk management strategies, including primary risk mitigation and secondary mitigation. ▪ Monitor risks to determine how project risks have been handled or changed. ▪ Document and report to the FTA the progress of WTCC's project risk management program. 	Project RM Plan.	<p>Draft Project RM Plan – Third Quarter 2012.</p> <p>Updated as needed, but no less frequently than at the defined FTA Milestone Review Points.</p>
RM-2	<p>Develop and update a Project Risk Register incorporating the following classifications of risk and identifying risk mitigation strategies and the status of the implementation:</p> <ul style="list-style-type: none"> ▪ Requirements risks. ▪ Design and pre-construction risks. ▪ Project delivery method risk (including market risk). 	Project Risk Register update report.	Monthly.

RM	Exhibit 1.8 Requirements	Deliverables	Frequency
	<ul style="list-style-type: none"> ▪ Early construction risk. ▪ Mid-range construction risks. ▪ Start-up/substantial completion of construction risks. 		

Exhibit 2 – PEP Milestones and FTA Milestone Review Points

PATH Hub FTA Milestone Review Point & PEP Milestones

Dates from IMS #62

FTA Milestone Review Point	2013			
	November	March	August	December
PEP Milestone	<ul style="list-style-type: none"> - Platform A Beneficial Use (Operational) [10/12] - Structural Steel to Grade Area 3 Steel Complete [10/12] - Oculus Steel Erection Start [11/12] 	<ul style="list-style-type: none"> - All Oculus A Elements and Lower Portals Steel Fabrication Complete [03/13] - East-West Connector Turnover to Retail [03/13] - Last Baintub Weatheright @ EL 274 [03/13] 	<ul style="list-style-type: none"> - Oculus Glazing Installation Start [05/13] - Oculus Steel Erection Complete [05/13] 	<ul style="list-style-type: none"> - Systems Operational (Control Plant) [10/13] - Platform B Beneficial Use (Operational) [11/13] - Oculus Glazing Fabrication Complete [12/13] - Oculus Skylight Field Measurement & Fabrication Complete [12/13]
FTA Milestone Review Point	2014		2015	
	April	August	February	May
PEP Milestone	<ul style="list-style-type: none"> - Oculus Weatheright [04/14] - Major Systems Complete & Ready for Integration and Testing [04/14] 	<ul style="list-style-type: none"> - Platform C/D Mezzanine Structure (Pre-cast) Complete [05/14] - Structural Steel to Grade Contract Closeout [03/14] 	<ul style="list-style-type: none"> - Vertical Circulation Elements Meet A/C/A Compliances [1/14] - Oculus / Transit Hall Temporary Permits Occupy/Use [02/15] 	<ul style="list-style-type: none"> - Platform C/D Complete [05/15] - Hub Substantiality Complete [05/15]

Exhibit 3 – FTA Risk Retainage and Minimum Contingency Requirement

PMOC Risk Assessment Baseline: November 2011

Assessment Update through June 2012

Basis of Update:

Revision	Data Date	Total Available Project Funds (\$)/ RRCRA RCD	Total Available Contingency Funds (\$)/ Float
WTCC Cost Model Rev. 11	April 30, 2012	\$3.72 billion	\$551 million
WTCC IMS #62	April 1, 2012	December 17, 2015	212 days

FTA Risk Retainage Release

- The FTA will maintain the FTA Risk Retainage at \$280 million until the beneficial use of Platform A, the completion of Structural Steel to Grade Area 3 Steel, and Start of Oculus Steel Erection. Currently, these are forecast to occur during the fourth quarter of 2012. At completion of these milestones, the FTA will consider releasing approximately \$51 million of the FTA Risk Retainage, pending review of the project cost and available contingency.
- The remaining FTA Risk Retainage amount (\$229 million) would be held until the completion of Oculus Abutments and Lower Portals Steel Fabrication, turnover of East-West Connector to Retail, and East Bathub Weathertight at elevation 274. Currently, these are forecast to occur during the first quarter of 2013. Upon achievement of these milestones, the FTA will consider the release of approximately \$38 million of the FTA Risk Retainage.
- The remaining FTA Risk Retainage amount of \$191 million would be held by the FTA until the completion of the Oculus Steel and the start of Oculus Glazing Installation. Currently, these are forecast to occur during the third quarter of 2013. The FTA will consider releasing approximately \$61 million of the FTA Risk Retainage at the completion of these milestones.
- The remaining FTA Risk Retainage amount of \$130 million would be held until the operation of Systems at Central Plant, the beneficial use of Platform B, the completion of Oculus Glazing Fabrication, and the completion of Oculus Skylight Field Measurement and Fabrication. Currently, these are forecast to occur during the fourth quarter of 2013. Upon completion of these milestones, the FTA will consider releasing approximately \$27 million of the FTA Risk Retainage.
- The remaining FTA Risk Retainage amount of \$103 million will be held until the achievement of the Oculus Weathertight and the completion of Major Systems and Ready for Integration and Testing. Currently, these are forecast to occur during the second quarter of 2014. Upon completion of these milestones, the FTA will consider releasing approximately \$41 million of the FTA Risk Retainage.

- The remaining FTA Risk Retainage of \$62 million will be held until the closeout of the Structural Steel to Grade contract and Platform C/D Mezzanine Structural Steel. Currently, these are forecast to occur during the third quarter of 2014. The FTA will consider releasing approximately \$23 million of the FTA Risk Retainage at the completion of these milestones.
- The remaining FTA Risk Retainage of \$39 million will be held until the completion of the vertical circulation elements that comply with the Americans with Disabilities Act (ADA) requirement and the achievement of temporary permit to occupy/use for Oculus/ Transit Hall. Currently, these are forecast to occur during the first quarter of 2015. The FTA will consider releasing approximately \$25 million of the FTA Risk Retainage at the completion of these milestones.

FTA Minimum Contingency Requirement

- The FTA minimum contingency requirement is \$87 million at the beneficial use of Platform A, the completion of Structural Steel to Grade Area 3 Steel, and Start of Oculus Steel Erection, which are currently forecast to occur during the fourth quarter of 2012.
- Thereafter, the minimum shall be lowered incrementally each period, but not below \$61 million, until the completion of Oculus Abutments and Lower Portals Steel Fabrication, Turnover of East-West Connector to Retail, and East Bath tub Weather tight at elevation 274, which are currently forecast to occur during the first quarter of 2013.
- Thereafter, the minimum shall be lowered incrementally each period, but not below \$41 million, until the completion of the Oculus Steel and the start of Oculus Glazing Installation, which are currently forecast to occur during the third quarter of 2013.
- Thereafter, the minimum shall be lowered incrementally each period, but not below \$33 million, until the operation of Systems at Central Plant, the beneficial use of Platform B, the completion of Oculus Glazing Fabrication, and the completion of Oculus Skylight Field Measurement and Fabrication, which are currently forecast to occur during the fourth quarter of 2013.
- Thereafter, the minimum shall be lowered incrementally each period, but not below \$20 million, until the achievement of the Oculus Weather tight and the completion of Major Systems and Ready for Integration and Testing, which is currently forecast to occur during the second quarter of 2014.
- Thereafter, the minimum shall be lowered incrementally each period, but not below \$12 million, until the completion of the Structural Steel to Grade contract and Platform C/D Mezzanine Structure, which are currently forecast to occur during the third quarter of 2014.

Contingency Draw-down Curves

In addition to above curves, the following additional curves shown on the graph (Exhibit 3.1) below are defined as follows:

- FTA Mitigation Target: This updated curve is based on the targeted draw-down rate of the FTA Mitigation Target established during the November 2011 Assessment that equates to the amount of contingency required to cover 80 percent of the difference

between the FTA's P90 cost estimate and PANYNJ's forecasted cost, including PANYNJ's contingency. The mitigation target provides the basis for the release of FTA Risk Retainage at each FTA Milestone Review Point. If PANYNJ can demonstrate primary or secondary risk mitigation capacity, the FTA would consider increasing the FTA Risk Retainage amounts to be released.

- Targeted Total Available Contingency Funds Draw-Down: A planned draw-down curve of the total available contingency funds currently included in the total available project funds..

Exhibit 3.1 Contingency Draw-down Curve

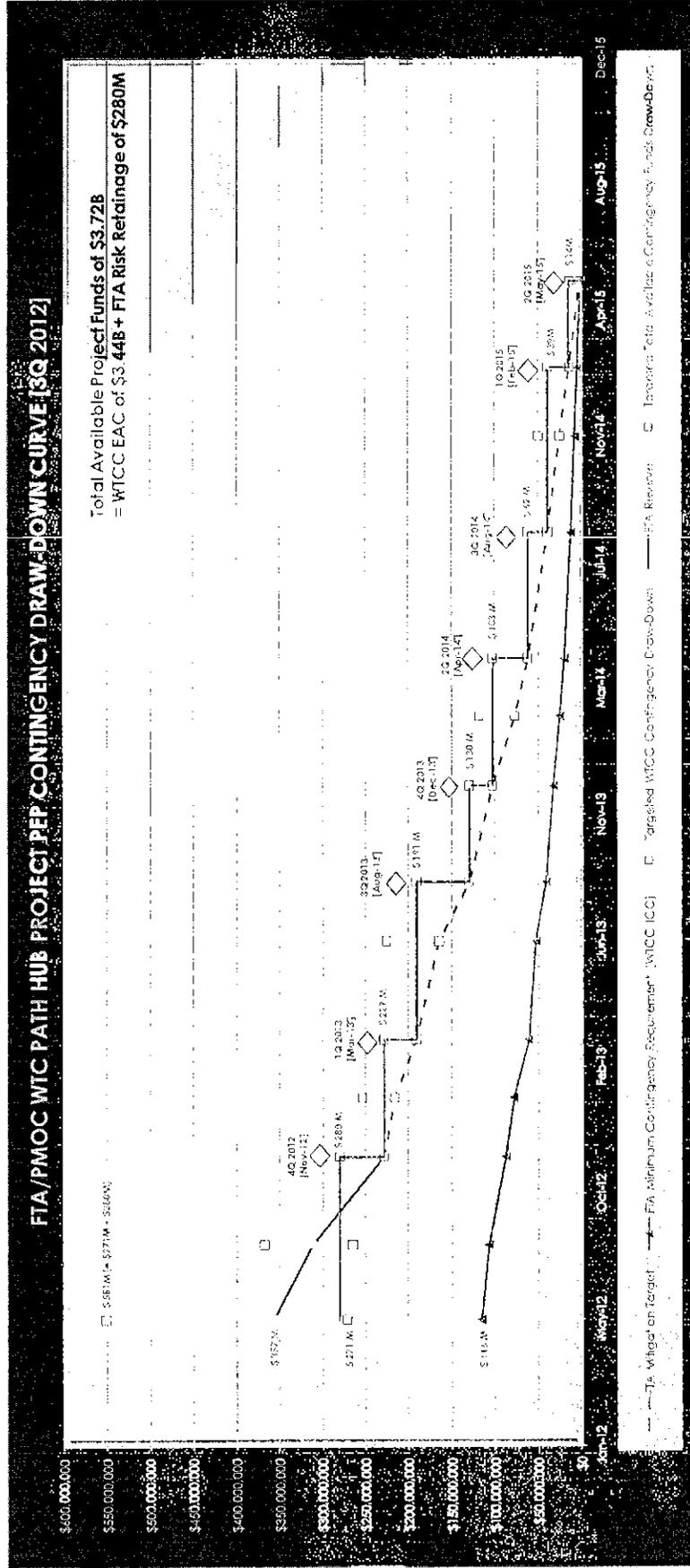


Exhibit 4 – FTA Desired Minimum Float Requirement
PMOC Risk Assessment Baseline: November 2011
Assessment Update through June 2012

Basis of Update:

	Revision	Date	Total Available Project Funds (\$)/ RRCA RCD	Total Available Contingency Funds (\$)/ Float
WTCC Cost Model	Rev. 11	April 30, 2012	\$3.72 billion	\$551 million
WTCC IMS	#62	April 1, 2012	December 17, 2015	212 days

FTA Desired Minimum Float

The most recent IMS 62 (with a data date of April 1, 2012) shows that there is a 212 days of float on the project's critical path leading to the RRCA RCD. The FTA Desired Minimum Floats are cited below at the following FTA Milestone Review Points.

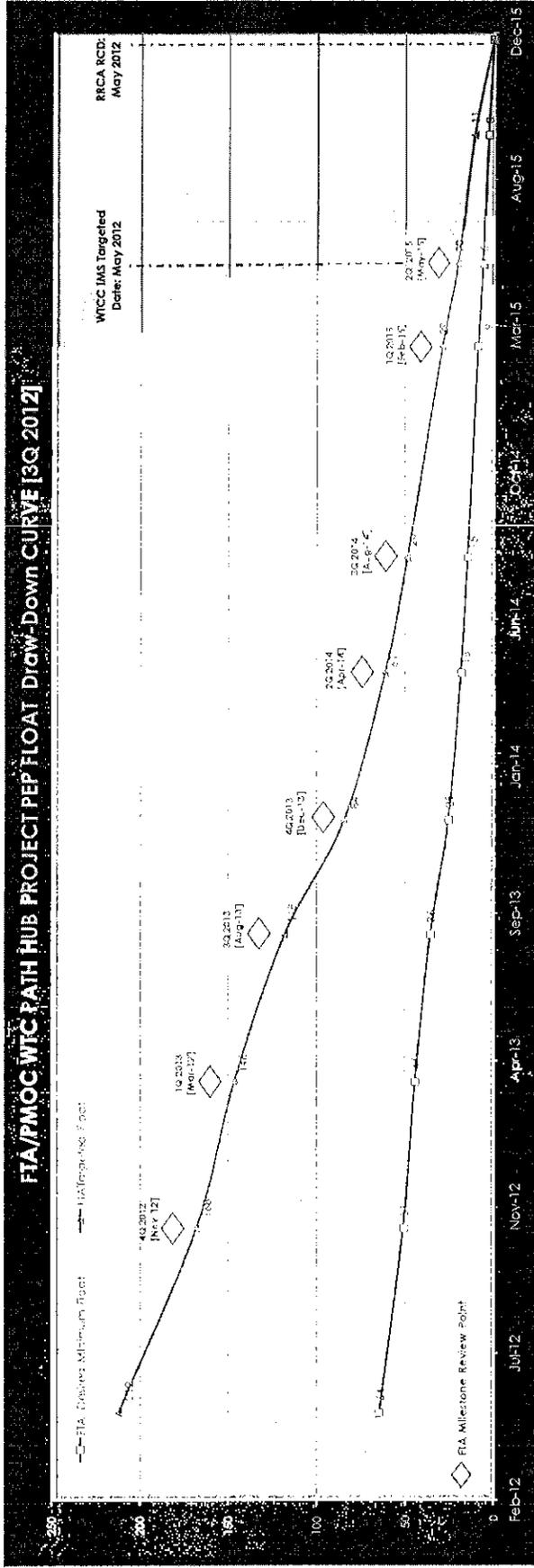
- 51 calendar days through the completion of the Structural Steel to Grade Area 3. Currently, this is forecast to occur during the fourth quarter of 2012. Before this date, the following milestones are anticipated to be completed:
 - The Beneficial Use of Platform A; and
 - The start of Oculus Steel Erection.
- 44 calendar days through the completion of Oculus Abutments and Lower Portals Steel Fabrication. Currently, this is forecast to occur during the first quarter of 2013. Before this date, the following milestones are anticipated to be completed:
 - The turnover of East-West Connector to Retail; and
 - The East Bathhub Weathertight at elevation 274.
- 25 calendar days through the Beneficial Use of Platform B. Currently, this is forecast to occur during the fourth quarter of 2013. Before this date, the following milestones are anticipated to be completed:
 - The operation of Systems at Central Plant;
 - The completion of Oculus Glazing Fabrication; and
 - The completion of Oculus Skylight Field Measurement and Fabrication.

Schedule Float Draw-down Curves

The following additional curves shown in the graph below are defined as follows:

- FTA Target Float: The FTA's targeted float curve based on the RRCA RCD.

Exhibit 4.1 Schedule Float Draw-down Curve



LIST OF ABBREVIATIONS & ACRONYMS

ADA	Americans with Disabilities Act	QMS	Quality Management System
A/E	Architect/Engineer	RCD	Required Completion Date
BCE	Baseline Cost Estimate	RFI	Request for Information
CA	Construction Agreement	RM	Risk Management
CCM	Cost Contingency Management	RRCA	Revised and Restated Construction Agreement
CM	Cost Management	SCM	Schedule Contingency Management
CM/GC	Construction Manager/General Contractor	SM	Schedule Management
CO	Change Order	TCC	Technical Capacity and Capability
DSC	Design Support during Construction	WBS	Work Breakdown Structure
EAC	Estimate at Completion	WTC	World Trade Center
EWA	Extra Work Allowances	WTCC	World Trade Center Construction (Department)
FEMA	Federal Emergency Management Agency		
FFGA	Full Funding Grant Agreement		
FTA	Federal Transit Administration		
GMP	Guaranteed Maximum Price		
ICC	Independent Cost Consultant		
IMS	Integrated Master Schedule		
MEP	Mechanical, Electrical, and Plumbing		
MEU	Materials Engineering Unit		
NYCT	New York City Transit		
PACC	Post-Award Contract Change		
PANYNJ	Port Authority of New York and New Jersey		
PATH	Port Authority Trans-Hudson		
PCM	Procurement and Construction Management		
PDC	Power Distribution Center		
PEP	Project Execution Plan		
PMOC	Project Management Oversight Consultant		
PMP	Project Management Plan		
PQAP	Project Quality Assurance Plan		
PW	Project-Wide		
QA	Quality Assurance		
QM	Quality Management		

MMWBE PARTICIPATION STATUS BY CONTRACT
 Report on: ARCHIVED KENNEDY INT'L AIRPORT Contracts
 As of: 05/19/15

Contract	Title	General Contractor	Phone	Participation			Certified Credits							
				MMWBE Status	Plan Amount	SAR Date	SAR Amount	MBE	WBE	LBE	SBE	DBE	PAID	
JFK 1020	RUNWAY 13R-31L RECONSTRUCTION AND ACCESS IMPROVEMENTS	TUTOR PERINI CORPORATION 1000 MAIN STREET NEW ROCHELLE, NY 10801	(914)739-1908					ORIG PLAN	0.0 %	0.0 %	0.0 %	0.0 %	10.0 %	
	000-	PERINI CORPORATION				/ /								
	001-NON-HAZARDOUS MATERIAL	GREEN EARTH SOLUTIONS, INC.	D			07/16/09	3,600,000							
	002-SAWCUTTING, SEALING &	ATLANTIC CONCRETE CUTTING INC.	W SD	1,676,390		07/08/09	1,300,000							
	003-LANDSCAPING	BOHEMA GARDEN CENTER, INC.	D			07/08/09	1,512,233							
	004-TESTING (ELIMINATED FROM	AMERICAN STANDARD TESTING & CN	M SD			/ /								
	005-ON/OFF SITE TRUCKING	REDWOOD CONTRACTING CORP.	D			07/13/09	500,000							
	006-ON/OFF SITE TRUCKING	FLORENCE CONSTRUCTION CORP.	W D			/ /								
	007-ON/OFF SITE TRUCKING	GLOBAL ENV. TECHNOLOGIES, INC.	D	4,001,541		07/22/09	1,200,000						4,884,351	4,884,351
	008-ON/OFF SITE TRUCKING	BLACKRIDGE CONSTRUCTION	D	2,902,710		07/16/09	1,400,000						2,769,372	2,769,372
	009-SECURITY	ISS ACTION, INC.	D			/ /								
	010-ELECTRICAL SUPPLIER	D.B.E. ELECTRIC CORP.	M D			/ /								
	011-ELECTRICAL	BEL-AIR ELECTRIC CONSTRUCTION,	W SD	18,652,600		07/08/09	18,500,000						20,543,750	20,543,750
	012-RUNWAY GROOVING	CARDINAL INTERN'L GROOVING				07/08/09	437,500							
	013-MARINE SURVEY, BARGE &	WEEDS MARINE, INC.				07/15/09	3,000,000							
	014-SOIL TRANS & DISPOSAL	IMPACT ENVIRONMENTAL CONSULTI.				07/09/09	8,560,000							
	015-MILLING & PAVING	INTERCOUNTRY PAVING ASSOC. LLC				08/03/09	14,289,460							
	016-FENCE & GATES	NATIONWIDE CONSTRUCTION GROUP				08/05/09	983,615							
	017-SURVEY	GARDEN STATE ENGRG. SURVNG & PL				08/17/09	100,000							
	018-FENCE & GATES	GENESEE FENCE & SUPPLY CO.				08/24/09	313,678							
	019-TRENCH & KERF	TRENCH TECHNOLOGIES, INC.				09/09/09	100,000							
	020-UTILITY & DRAINAGE	CRUZ CONTRACTORS, LLC.				09/09/09	100,000							
	021-INSTALLATION OF SYNTHETIC	THE LANDTEK GROUP, INC.				09/16/09	907,500							
	022-INSTALLATION OF SYNTHETIC	WILD WOMAN COMPANY, INC.	W			09/16/09	255,000							
	023-CONTROLLED INSPECTIONS	TWIN PEAKS				09/16/09	1,000,000							
	024-PLUMBING	FRANK LOMBARDI				09/28/09	50,000							
	025-LINE STRIPING	SAFETY MARKING, INC.				10/07/09	257,112							
	026-SEEDING & COMPOST	SWEET HOLLOW MANAGEMENT	W	3,728,910		12/22/10	3,751,500						4,619,362	4,619,362
	027-CONCRETE PAVING	KINBLEY CONSTRUCTION, INC.				02/03/10	148,956							
	028-MATERIAL TESTING	TECTONIC ENGINEERING & SURVEY				04/19/10	396,000							
	029-PLACEMENT OF PCC	PETER SCALAMANDRE & SONS, INC.				04/23/10	500,000							
	030-ASPHALT PAVING	TULLY CONSTRUCTION CO. INC.	L			04/30/10	1,000,000							
	031-SECURITY SERVICES	SUNMIT SECURITY SERVICES, INC.				06/02/10	2,700,000							
	032-TRANSPORT & DISPOSAL OF	SHAMROCK MATERIALS LLC				07/13/10	4,000,000							
	033-SUPPLIER	RIZZO ASSOCIATES, INC.	W D	93,633		/ /							72,612	121,021

MWBE PARTICIPATION STATUS BY CONTRACT
 Report on: ARCHIVED KENNEDY INT'L AIRPORT Contracts
 As of: 05/19/15

Contract	Title	General Contractor	Phone	MWBE Status	Plan Amount	Participation		SAR Amount	Certified Credits				
						SAR Date	SAR Amount		MBE %	WBE %	LBE %	SBE %	DBE %
JFK 1020	RUNWAY 13R-31L RECONSTRUCTION AND ACCESS IMPROVEMENTS	TUTOR PERINI CORPORATION 1000 MAIN STREET NEW ROCHELLE, NY 10801 (914)739-1908				10/01/10	184,807	0.0 %	0.0 %	0.0 %	0.0 %	10.0 %	
	034-GRINDING	SAFETY GROOVING & GRINDING LP				12/22/10	900,000	0.0 %	11.6 %	0.0 %	9.8 %	13.1 %	
	035-SWEEPING	LIBERTY II SWEEPING & MAINTENANCE				12/23/11	45,000	0.0 %					
	036-MARINE CONSTRUCTION PILING	MARINE BULKHEADING INC				/ /							
	037-MATERIAL SUPPLIER	AXELA SERVICES, LLC		W D									
							386,780	0	27,347,450	0	22,468,695	30,581,811	644,634
							0					35,507,435	
Award													
06/25/09	Classified	45,070,062	Classified	45,116,764	Authorized	24,151,533	23,806,500	0.0 %	11.4 %	0.4 %	9.5 %	14.0 %	
Start	Unclassified	163,065,750	Unclassified	163,065,750	DBE	27,326,874	29,212,233	0.0 %	13.2 %	0.0 %	10.7 %	14.6 %	
08/03/09	Work Order	0	Work Order	0	LBE	0	1,000,000	0.0 %					
	Paid to G/C	208,135,812	Contract Amt	208,182,514	SBE	20,328,990	19,800,000	0.0 %	13.2 %	0.0 %	10.7 %	14.6 %	

MMWBE PARTICIPATION STATUS BY CONTRACT

Report on: ARCHIVED PATH Contracts
As of: 05/21/15

Contract	Title	General Contractor	Phone	Participation				Certified Credits						
				MMWBE Status	Plan Amount	SAR Date	SAR Amount	MBE	WBE	LBE	SBE	DBE	PAID	
PAT 024 063	PATH-HARRISON STATION INTERMODAL IMPROVEMENTS	RML CONSTRUCTION INC. 500 13TH STREET CARLSTADT, NJ 07072 (201)842-0013	M	000-	RML CONSTRUCTION INC.	/ /	125,000	1,134,603	0.0 %	0.0 %	0.0 %	0.0 %	12.0 %	1,134,603
				001-ELECTRICAL WORK	RAYMOND ELECTRICAL CONTRACTOR M SD	08/15/11	178,600	145,806	0.0 %	0.0 %	0.0 %	0.0 %	145,806	145,806
				002-GLASS & GLAZING &	GSR ARCHITECTURAL INC	08/12/11	50,000	7,500	0.0 %	0.0 %	0.0 %	0.0 %	7,500	7,500
				003-ROOF WATERPROOFING	MARSPAT CONSTRUCTION CORP.	10/14/11	108,900	8,732	0.0 %	0.0 %	0.0 %	0.0 %	8,732	8,732
				004-STRUCTURAL	STRUCTURES UNLIMITED INC	05/21/12	0	0	0.0 %	0.0 %	0.0 %	0.0 %	0	0
				005-	ANS CONSULTANTS INC.	/ /	0	0	0.0 %	0.0 %	0.0 %	0.0 %	0	0
006-	ABLE EQUIPMENT RENTAL, INC.	W	0	0	0.0 %	0.0 %	0.0 %	0.0 %	0	0				
							1,289,142	946	0	145,806	154,538	1,290,088		
Award				MBE	178,600		125,000							
08/02/11	Classified	0	Authorized	0	178,600	125,000	SAR	10.9 %	0.0 %	0.0 %	10.9 %	10.9 %		
Start	Unclassified	1,134,603	Unclassified	1,136,635	178,600	125,000	AUTH	113.4 %	0.0 %	0.0 %	12.8 %	13.5 %		
08/06/11	Work Order	0	Work Order	0	0	0	PAID	113.6 %	0.0 %	0.0 %	12.8 %	13.6 %		
	Paid to G/C	1,134,603	Contract Amt	1,136,635	178,600	125,000								