

## **Attachment 1 to Amendment No. 1**

The parties, intending to be legally bound, agree to amend their Agreement of September 13, 2011 as follows:

1. Attachment 3, Statement of Work, is deleted in its entirety, and the following substituted therefor:

July 2012

Attachment 3

### **REVISED - STATEMENT OF WORK**

#### **Boston South Station High-Speed Intercity Passenger Rail Expansion and Layover Facility Project**

##### **I. BACKGROUND**

On July 1, 2010, the Federal Railroad Administration (FRA) issued a Notice of Funding Availability (NOFA) in the Federal Register for the High-Speed Intercity Passenger Rail (HSIPR) Program. In response, the Massachusetts Department of Transportation (MassDOT or the Grantee) submitted an application for \$32,500,000 for the Boston South Station Expansion and Layover Facility Expansion Project. FRA reviewed MassDOT's application for eligibility and ranking with the criteria outlined in the NOFA. On the basis of this evaluation, the United States Secretary of Transportation selected MassDOT for an award, through a cooperative agreement between FRA and MassDOT, of \$32,500,000 for the project.

Boston South Station is the premier passenger rail hub in New England. It serves passengers from the Northeast Corridor (NEC) and beyond, connecting them to local and intercity destinations. It is one of the most significant architectural structures in the City of Boston, and one of its most important transportation assets. South Station offers commuters and travelers not only Amtrak and Massachusetts Bay Transportation Authority (MBTA) Commuter Rail service, but also intercity bus, MBTA rapid transit, and MBTA bus rapid transit services (including direct service to Boston Logan International Airport).

At present, South Station operates above its design capacity for efficient train operations and orderly passenger queueing. When it opened to the public in 1899, South Station had 28 tracks; that number is now 13, significantly constraining current and future rail mobility not only within Massachusetts but throughout New England and the NEC. South Station also lacks comfortable, modern facilities for passenger queueing, leaving riders standing in the elements as they wait to

board their trains. In addition, South Station lacks sufficient ancillary vehicle storage capacity, constraining operations today and limiting future growth.

Several recent transportation studies and plans<sup>1</sup> have highlighted the existing limitations at South Station and the attendant limitations on the expansion of regional and NEC-wide rail service. In order to realize the cumulative 50% increase in high-speed and intercity passenger rail service to Boston called for in the *Northeast Corridor Infrastructure Master Plan* (2010), South Station and its support facilities must be expanded and improved. This project will make possible all of those improvements, to benefit not only Boston and New England but to improve connectivity with the other major destinations of the NEC.

## II. GENERAL OBJECTIVE

The objectives of the Boston South Station High-Speed Intercity Passenger Rail Expansion and Layover Facility Project are multiple, including:

- To perform an Alternatives Analysis to determine how best to expand Boston South Station and create a new layover facility in order to improve existing rail service – local, regional, and intercity – in and out of Boston. The expansion of South Station will include improvements to tracks, platforms, interlockings, passenger facilities, and other attendant infrastructure.
- To plan for the relocation of an existing U.S. Postal Service General Mail Facility in order to create an appropriate adjacent site onto which to expand Boston South Station.
- To plan and design an enhanced passenger environment at South Station through improved streetscape and pedestrian, bicycle, local transit, and vehicular facilities in and around South Station, including the re-opening of Dorchester Avenue for public use.
- To consider opportunities for joint public/private development over an expanded South Station.

Those actions will allow for the realization of the following benefits:

- To improve the performance of existing and future high-speed and intercity passenger rail service to and from Boston. Today's NEC on-time performance is approximately 85% for Acela Express and 75% for Northeast Regional trains. The 2030 target for on-time performance is 95% for Acela Express and 90% for Northeast Regional. Without expanding South Station and its support facilities, not only will these targets be missed, but on-time performance will deteriorate even further in the future.

---

<sup>1</sup> Massachusetts Bay Transportation Authority. *New Bedford/Fall River Commuter Rail Extension Supplemental Draft Environmental Impact Report*, July 2000. Vol. IV, pp. 27, F1. *Foxborough Commuter Rail Feasibility Study Final Report*, September 2010. pp. 43-46; The NEC Master Plan Working Group. *The Northeast Corridor Infrastructure Master Plan*. May 2010, p. 27.

- To enable growth in high-speed and other intercity passenger rail service in the northeastern United States, at a time when both the roadway and aviation networks are at or over capacity.
- To support sustainable economic growth and improved quality of life in NEC metropolitan areas, including Boston.
- To support a more attractive and increased MBTA Commuter Rail service, with associated benefits such as increased statewide transportation access, environmental sustainability, and improved personal mobility.

For the purposes of this cooperative agreement and statement of work, the term “Project” refers to the preliminary engineering and environmental and related activities that the Grantee has agreed to undertake and complete as funded through this cooperative agreement. The term “South Station Expansion Construction Project” means the final design and construction of improvements to Boston South Station, construction of the rail vehicle layover facility, and relocation of the U.S. Postal Service General Mail Facility, which final design and construction activities are not funded through this cooperative agreement.

### **III. SCOPE OF ACTIVITIES**

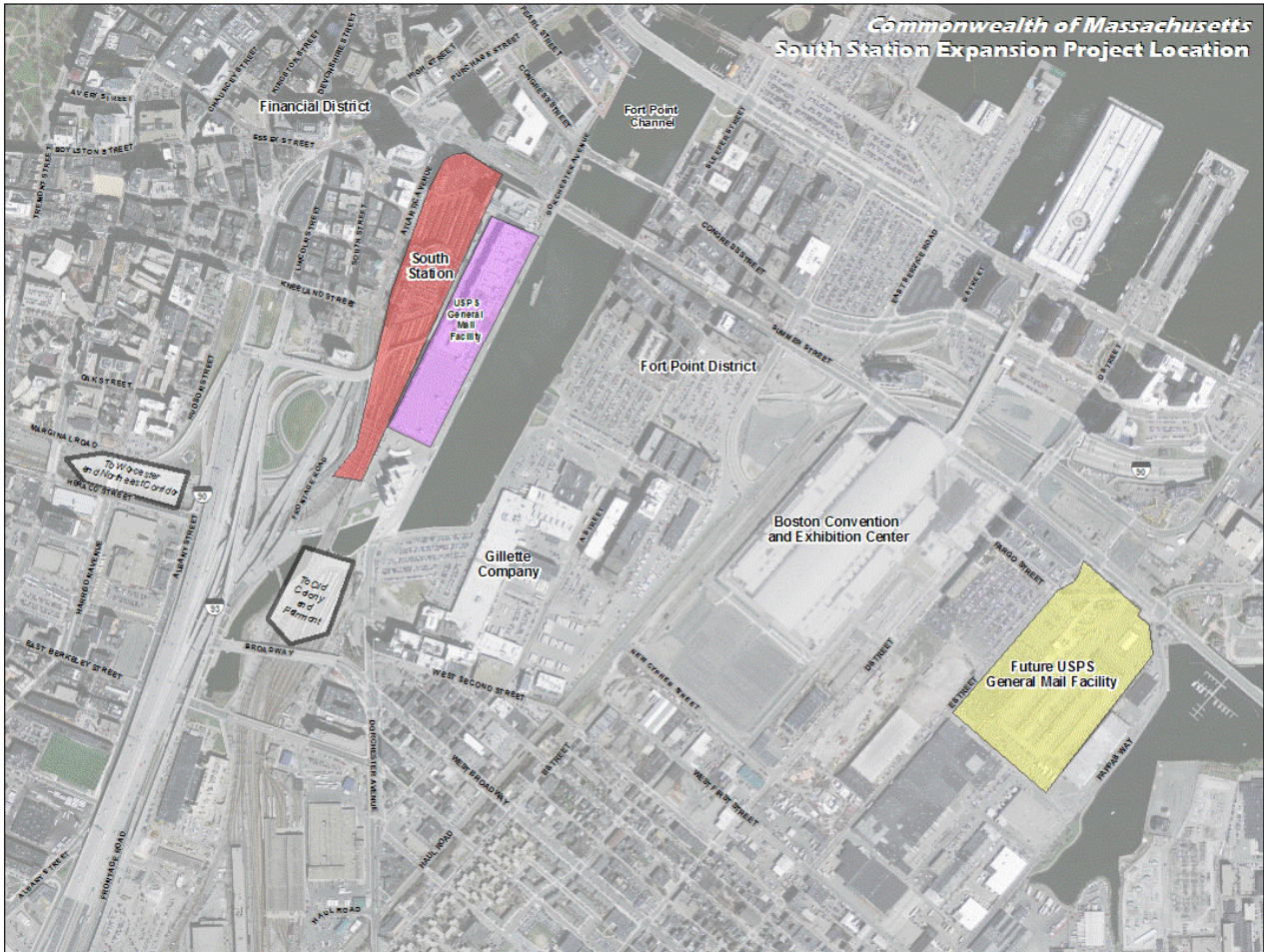
#### **a. Geographical and Physical Boundaries**

Boston South Station is located at the southern end of downtown Boston at the intersection of Atlantic Avenue and Summer Street. The more encompassing South Station site, including the current U.S. Postal Service General Mail Facility, is bounded by Atlantic Avenue, Summer Street, and Dorchester Avenue (closed to public traffic since the early 1970s). The site borders Fort Point Channel to the west and to the south.

The proposed site identified for the relocation of the U.S. Postal Service General Mail Facility is located in the South Boston area of Boston and is approximately bounded by E Street to the west, Summer Street to the north, Pappas Way to the east, and a private way to the south. A final determination on the exact boundaries of this site will be made after the South Station Expansion Construction Project is subjected to an appropriate Alternatives Analysis as part of the environmental review process.

The MassDOT and the MBTA have preliminarily identified several possible locations for a crucial new rail vehicle layover facility. These locations, as well as any other possible locations, will be subjected to a rigorous Alternatives Analysis process.

The map below shows the existing South Station site (in red), including the current U.S. Postal Service General Mail Facility (in violet). It also shows the proposed site for the relocated General Mail Facility (in yellow).



**b. Description of Work**

*General*

MassDOT, the Grantee, will complete all necessary environmental review as well as preliminary engineering (approximately 30% design) required for the successful expansion of Boston South Station and its support facilities.

This Project includes completion of an FRA-approved Environmental Assessment (EA) or Environmental Impact Statement (EIS) to enable FRA to issue an environmental decision related to the expansion of Boston South Station and its support facilities. The final determination of the appropriate documentation and the environmental impact will be made by FRA. The Grantee will prepare an EA or EIS and complete necessary studies and documentation in accordance with FRA’s *Procedures for the Consideration of Environmental Impacts* (effective May 26, 1999) and the Council on Environmental Quality Regulations Implementing the National Environmental Policy Act (NEPA), (collectively the Environmental Procedures).

Detailed information on the expansion of the South Station terminal is included within the specific tasks listed below. In addition, two other major Project elements – a new rail vehicle layover facility and the relocation of a U.S. Postal Service General Mail Facility – are part of the overall South Station Expansion Construction Project, and are described below.

#### *Rail Vehicle Layover Facility*

To effectively expand South Station for present and future rail needs (both intercity and regional) will require not only the physical expansion of South Station and its immediate ancillary infrastructure but also the creation of a new rail vehicle layover facility.

This new facility will allow for MBTA rail vehicles to be stored during off-peak times. This will, in turn, free up storage space at the existing Southampton Street Yard (SHSY) into which Amtrak can expand its own storage facilities, making it possible to expand intercity rail in Boston. Presently, Amtrak and the MBTA both store trains during the midday period at the SHSY, a short distance south of South Station. Amtrak owns the facility, but the MBTA has a right and easement for daytime layover, Monday through Friday, on four tracks. Amtrak also uses this yard to store Acela and Regional trains between arrival and departure for cleaning and servicing.

Some Amtrak Acela trains are cleaned and restocked on the platform at South Station, before returning to New York and Washington. As demand for tracks and platform space at South Station is expected to increase with expanded Amtrak and MBTA service levels, it may be necessary to eliminate this practice in order to maximize station efficiency and utilization.

Therefore, without the creation of a new layover facility for the MBTA, Amtrak will continue to be limited to the storage areas it currently uses within the SHYS, which it couples with daytime cleaning and servicing of some Acela trains at South Station. This current situation is likely to become unsustainable if either Amtrak or MBTA Commuter Rail service is to grow as is planned and desired by MassDOT, Amtrak, and the Federal Railroad Administration.

#### *U.S. Postal Service General Mail Facility*

This Project also includes environmental review and preliminary engineering for the demolition and relocation of an existing U.S. Postal Service General Mail Facility, currently located adjacent to Boston South Station. As with the development of a new vehicle layover facility, the relocation of the U.S. Postal Service General Mail Facility is integral to the successful expansion of South Station.

This component of the Project includes completion of an FRA-approved EA or EIS to enable FRA to issue an environmental decision related to the construction of a new U.S. Postal Service General Mail Facility. The final determination of the appropriate documentation and the environmental impact will be made by FRA. The Grantee will prepare an EA or EIS and complete necessary studies and documentation in accordance with the Environmental Procedures.

#### *Project Elements*

Major elements of the Project, as funded by this cooperative agreement, include all necessary environmental review processes (local, state, and federal) and preliminary engineering for the following components:

- Expansion of Boston South Station
  - Installation of new platforms and new terminal tracks.
  - Re-working of existing interlockings to accommodate new tracks and enable faster, more efficient and reliable train operations.
  - Construction of new passenger facilities, including a potential new headhouse and/or waiting area, to serve the new platforms and tracks and connect them to (1) the existing platforms and tracks and (2) the existing adjacent South Station Bus Terminal.
  - Demolition of the existing U.S. Postal Service General Mail Facility, currently located adjacent to the east side of South Station.
- Development of a rail vehicle layover facility
  - To be located within close proximity of South Station.
  - To provide needed rail vehicle storage for the MBTA Commuter Rail system, so as to make available more rail vehicle storage capacity to Amtrak at the existing Southampton Street Yard.
- Construction of a new U.S. Postal Service General Mail Facility
  - To be planned and designed collaboratively with the U.S. Postal Service.
  - To be sited on land owned by the Massachusetts Port Authority and the U.S. Department of Defense.<sup>2</sup>
- Pedestrian, Bicycle, Public Transit, and Vehicular Access Improvements
  - Reconstruction of Dorchester Avenue and an extension of the Boston Harborwalk to create better multi-modal connections along the eastern edge of South Station.
  - The use of architecture and urban design to integrate an expanded South Station into the surrounding urban landscape, with emphasis on the importance of integrating any new development with the surrounding historic resources.

In addition, this Project also includes the following activities, which are neither environmental review nor preliminary engineering but are intrinsically related to both and to the future expansion of South Station:

- Execution of an operational analysis for rail activities at an expanded South Station and a new vehicle layover facility.
- Execution of travel demand modeling for all relevant modes and alternatives.

---

<sup>2</sup> The General Services Administration shares responsibility for the Department of Defense parcel.

- Conceptual design necessary to ensure that the expanded South Station is designed and constructed in a manner that maximizes the potential for development of adjacent land and airspace, with particular emphasis on the importance of siting foundational infrastructure – as has been done in the past at South Station – to support potential future overbuild.

Accordingly, the Grantee agrees to complete the following tasks:

### **Task 1: Project Management and Administration**

- Develop a Project Procedures Manual, including a Project Work Plan (see below), to guide all aspects of the execution of the Project.
- Prepare a detailed Project Work Plan, itemizing the tasks necessary to complete the scope of work. The Project Work Plan will include information on the Project team organization, team decision-making, roles and responsibilities and interaction with Federal Railroad Administration (FRA), communication standards, invoicing and progress reporting methods and procedures, match documentation and the scope of work. In addition, the Project Work Plan will include the Project schedule and a detailed Project budget. The Project Work Plan will be submitted to FRA for its review and approval. The Project Work Plan should be submitted for FRA’s approval within 30 days of the notice to proceed for the consultants.
- Develop a Quality Assurance/Quality Control Manual.
- Monitor, organize, and control assignments, work effort, submission of deliverables, schedules, and spending for all Project tasks.
- Work collaboratively and cooperatively with the consultant team responsible for the relocation of the U.S. Postal Service General Mail Facility.
- Fulfill all reporting requirements of the FRA and other agencies, as appropriate.
- Prepare agreements for complying with railroad liability and insurance requirements.
- As needed, prepare a public solicitation for final engineering and/or construction of the South Station Expansion Construction Project.

### **Task 2: Civic Engagement**

- Execute an interactive, collaborative, and credible public process that is creative and innovative.
- Fulfill all obligations under Title VI of the Civil Rights Act.

### **Task 3: Existing Conditions Analysis**

- Gather information on existing conditions and site status of the entirety of the current South Station facility as well as the current U.S. Postal Service General Mail Facility.
  - Base survey
  - Major utility survey
  - Subsurface geologic/seismic exploration
  - Soils

- Site/field reviews
- Existing structural analysis/inspection
- Transportation
  - Analyze existing and future transportation conditions as they apply to the vehicular, public transit, bicycle, and pedestrian networks.

#### **Task 4: Environmental Review**

Under direction from FRA, the Grantee plans to prepare an environmental review and analysis to evaluate alternatives and potential impacts associated with the expansion of South Station and the development of a new rail vehicle layover facility. The Grantee plans that the environmental document will be an Environmental Assessment.

The Grantee shall document the FRA decision for the class of action determination in an Environmental Review Strategy memo, which will be submitted to FRA for review and approval. The memo will also include methodologies of the required state and municipal environmental analysis, required review processes, and suggestions on how the State and City of Boston environmental processes can harmonize with the NEPA process.

The Grantee will submit the draft environmental analysis document to the FRA for review and approval. Each analysis document will include, but is not limited to, the following: definition of the Project and existing conditions, identification of the purpose of and need for the Project, identification and analysis of build alternatives and a no-action alternative, and an analysis of existing conditions in comparison to the impacts of the proposed action and alternatives. The Grantee will follow FRA direction in the preparation of the environmental analysis document, including submission of administrative draft environmental documents, for FRA for review and comment. The Grantee will circulate any draft environmental documents for public agency review and comment in accordance with the Environmental Procedures and FRA's guidance.

Through consultation with FRA, the Grantee will produce either a draft Finding of No Significant Impact (FONSI) or a draft Record of Decision (ROD) for each action, and submit it to the FRA for review and issuance. The Grantee shall also be responsible for compliance with the Massachusetts Environmental Policy Act (MEPA). To the extent possible, and in coordination with FRA and the MEPA Office, the NEPA and MEPA processes will be combined for the purposes of consistent documentation and public outreach.

In addition, the Grantee will perform any necessary local/municipal environmental review.

#### **Task 5: Preliminary Engineering (30% Design)<sup>3</sup>**

A preliminary engineering report will be prepared for all elements of the Project in parallel with the execution of all environmental review tasks. The preparation of preliminary designs will

---

<sup>3</sup> The preliminary engineering supporting this Project shall comply with all requirements and include all elements as defined in Appendix 2.2, Preliminary Engineering of the FRA-published *High-Speed Intercity Passenger Rail Interim Program Guidance* (Federal Register, June 23, 2009).



assist and support the environmental review tasks.

Unless otherwise indicated, the tasks and sub-tasks listed below pertain to all three elements of the Project: the expansion of South Station, the relocation of the U.S. Postal Service General Mail Facility, and the creation of a rail vehicle layover facility.

Topics to be covered by the preliminary engineering process include:

#### Architecture/Engineering

- Track (for South Station Expansion and layover only)
  - Prepare designs to the preliminary engineering level in order to expand South Station; to include additional platforms, tracks, safety infrastructure, and necessary rail infrastructure.
- Systems (for South Station Expansion and layover only)
  - Prepare designs to the preliminary engineering level for train control/signaling systems, including:
    - Wayside signal
    - Cab signaling systems
    - Dispatching and operations controls
- Buildings/structures
  - Prepare designs to the preliminary engineering level for on-site structures, catenary (as appropriate), and signage.
  - Prepare designs to the preliminary engineering level for any on-site buildings and their surrounding site components, including access and landscaping/buffering needs.
- Utilities
  - Develop a comprehensive survey plan of major utilities within the study area.
- Site/civil
  - Prepare site/civil plans for the following elements:
    - Demolition of the U.S. Postal Service General Mail Facility
    - Demolition of any existing structures on the selected site of the layover facility
    - New tracks
    - New passenger concourse/headhouse
    - Drainage/utility
    - Grading
    - Landscape
    - Erosion and sedimentation control
- Passenger Amenities (for South Station Expansion only)
  - Prepare preliminary architectural plans relative to the proposed new headhouse area and concourses that include:
    - Program development
    - Elevations
    - Floor plans
    - Roof plans
    - Ceiling plans
    - Vertical access plans

- Building sections
  - Typical wall sections
  - Renderings
- Prepare multiple alternatives for extending the existing South Station pedestrian concourse to a new headhouse and reopened Dorchester Avenue (for South Station Expansion only).
- Prepare multiple alternatives for connecting the existing MBTA intercity bus facility to an expanded South Station and reopened Dorchester Avenue (for South Station Expansion only).
- Transportation
  - Prepare plans for improvements to future transportation conditions as they apply to the vehicular, public transit, bicycle, and pedestrian networks.
- Urban Design (for South Station Expansion only)
  - In keeping with existing area master plans, develop a set of urban design standards to guide the design of redeveloped public ways adjacent to the South Station Construction Project area.
- Future Overbuild (for South Station Expansion only)
  - Prepare conceptual plans necessary to ensure that the expanded South Station is designed and constructed in a manner that maximizes the potential for development of adjacent land and airspace over the station, while prioritizing transportation access improvements.
- Construction Phasing
  - Develop phasing plans to mitigate construction impacts, particularly impacts on pedestrians, bicyclists, vehicles, existing Amtrak and MBTA (Commuter Rail, rapid transit, and bus) operations, and U.S. Postal Service operations.

#### **Task 6: Rail and Transit Operational Analysis**

- Develop operational simulations to model future rail operations at an expanded South Station.
- Develop operational simulations to model future rail operations at a new rail layover facility.
- Analyze the existing and future capacity of the mass transit connections at South Station – rapid transit and bus rapid transit – to evaluate whether an expanded South Station, with and without an overbuild scenario, will require additional transit capacity.

#### **Task 7: Project Cost and Schedule**

- Cost Estimating
  - Develop rigorous cost estimate documents in preparation for the final design and construction of an expanded South Station, including the relocation of the U.S. Postal Service General Mail Facility.
  - Develop rigorous cost estimate documents in preparation for the final design and construction of a new vehicle layover facility and ancillary facilities.
  - Develop financing strategies in preparation for the eventual final design and construction of the South Station Expansion Project, including the relocation of the U.S. Postal Service General Mail Facility.

- Project Scheduling
  - Develop rigorous schedule documents in preparation for the final design and construction of an expanded South Station, including the relocation of the U.S. Postal Service General Mail Facility.
  - Develop rigorous schedule documents in preparation for the final design and construction of a new vehicle layover facility and ancillary facilities.

**c. Deliverables**

Unless otherwise indicated, the deliverables listed below pertain to all three elements of the South Station Expansion Construction Project: the expansion of South Station, the relocation of the U.S. Postal Service General Mail Facility, and the creation of a new rail vehicle layover facility.

#	Deliverable Name	Deliverable Description	Related Task
1.1	Project procedures manual	Manual of procedures for tracking scope/schedule/budget progress and other items. To include the Project work plan (see below)	Task 1: Project Management and Administration
1.2	Project work plan	Plan which includes information on Project team organization, team decision-making, roles and responsibilities and interaction with the FRA, communication standards, invoicing and progress reporting methods and procedures, and the scope of work	Task 1: Project Management and Administration
1.3	Project quality assurance/quality control manual	Manual for ensuring that the proper quality of product and process is maintained throughout the duration of the Project	Task 1: Project Management and Administration
1.4	Project schedule and budget	Detailed schedule and budget, to include all Project elements	Task 1: Project Management and Administration
1.5	Federal funding support materials	Reporting documents, submittals	Task 1: Project Management and Administration
1.6	Railroad liability and insurance requirements	Documentation allowing for access onto an active railroad right-of-way	Task 1: Project Management and Administration

#	Deliverable Name	Deliverable Description	Related Task
1.7	Prepare a public solicitation for final engineering and/or construction	All procurement documents needed to solicit public bids for the final design and construction of the South Station Expansion Construction Project	Task 1: Project Management and Administration
2.1	Project branding materials, mailing list, and website content	Materials to ensure meaningful public outreach and civic engagement	Task 2: Civic Engagement
2.2	Public meetings	Meetings and services to offer full and equal public outreach	Task 2: Civic Engagement
3.1	Comprehensive survey plans for the entirety of the site	Base survey, major utility survey, subsurface geologic/seismic exploration, soils, site/field reviews, existing structural analysis/inspection	Task 3: Existing Conditions Analysis
3.2	Memo detailing structural integrity of identified structures	Documentation of existing structures	Task 3: Existing Conditions Analysis
3.3	Traffic counts, including bicycle and pedestrian counts	Data for roadways within and adjacent to the study area	Task 3: Existing Conditions Analysis
3.4	Vehicular traffic model networks and report	Documentation of existing traffic network	Task 3: Existing Conditions Analysis
3.5	Public transit report	Documentation of existing public transit network	Task 3: Existing Conditions Analysis
4.1	Environmental review strategy memo	Outline of the steps to be taken to complete environmental review(s) at the local, state and federal levels	Task 4: Environmental Review
4.2	Environmental Notification Form(s)	Initiation of Commonwealth of Massachusetts environmental review process(es)	Task 4: Environmental Review
4.3	Proposal of agency action(s)	Initiation of federal environmental review process	Task 4: Environmental Review
4.4	Article 80 documentation	Initiation of City of Boston environmental review process(es)	Task 4: Environmental Review

#	Deliverable Name	Deliverable Description	Related Task
4.5	Draft environmental document(s)	Project(s) Documentation for federal, Commonwealth of Massachusetts, and municipal environmental review processes	Task 4: Environmental Review
4.6	Final environmental document(s)	Project(s) Documentation for federal, Commonwealth of Massachusetts, and municipal environmental review processes	Task 4: Environmental Review
5.1	Track diagrams	Plans including a variety of alternatives for various track layouts  Applicable only to South Station expansion and layover	Task 5: Preliminary Engineering
5.2	Track structure plans	Plans for structures to be constructed alongside or above the tracks  Applicable only to South Station expansion and layover	Task 5: Preliminary Engineering
5.3	Track system plans	Plans for track-related mechanical, electrical and signal systems  Applicable only to South Station expansion and layover	Task 5: Preliminary Engineering
5.4	Safety and security plans	Overall site security and inter-site safety plans	Task 5: Preliminary Engineering
5.5	Mechanical plans	Mechanical system plans	Task 5: Preliminary Engineering
5.6	Site/civil plans	Grading and site-specific plans for civil work	Task 5: Preliminary Engineering

#	Deliverable Name	Deliverable Description	Related Task
5.7	Egress evaluation report	Assessment of station-area evacuation to be in compliance with applicable laws and regulations  Applicable only to South Station expansion	Task 5: Preliminary Engineering
5.8	Transportation plans	Plans for the vehicular, public transit, bicycle, and pedestrian networks	Task 5: Preliminary Engineering
5.9	Architectural plans for new passenger facilities	Plans for teadhouse, waiting area, walkways, concourse, etc.  Applicable only to South Station expansion	Task 5: Preliminary Engineering
5.10	Site/civil plans for new passenger facilities	Plans for the headhouse, waiting area, walkways, concourse, etc.  Applicable only to South Station expansion	Task 5: Preliminary Engineering
5.11	Mechanical/electrical/plumbing plans for new passenger facilities	Plans for the headhouse, waiting area, walkways, concourse, etc.  Applicable only to South Station expansion	Task 5: Preliminary Engineering
5.12	LEED report	A report outlining steps to be taken to obtain LEED certification for any appropriate structures	Task 5: Preliminary Engineering
5.13	Architectural concepts for future overbuild development	Conceptual designs for potential future overbuild  Applicable only to South Station expansion	Task 5: Preliminary Engineering

#	Deliverable Name	Deliverable Description	Related Task
5.14	Preliminary site/civil plans for future overbuild development	Plans, assuring that the foundations and site are prepared for a potential future overbuild  Applicable only to South Station expansion	Task 5: Preliminary Engineering
5.15	Economic feasibility study of future overbuild development	A study evaluating the economic feasibility of a potential future overbuild  Applicable only to South Station expansion	Task 5: Preliminary Engineering
5.16	Transportation plans to support future overbuild development	Plans that analyze and mitigate the impacts of any future development on auto, bus, rapid transit, and rail systems  Applicable only to South Station expansion	Task 5: Preliminary Engineering
5.17	Urban design guidelines	Guidelines for the area around an expanded South Station, including access to the Fort Point Channel  Applicable only to South Station expansion	Task 5: Preliminary Engineering
5.18	Preliminary designs for streetscape improvements and public areas	Designs to provide for an improved streetscape design	Task 5: Preliminary Engineering
5.19	Construction phasing plan	Plans to provide for coordination of all future construction activities to provide the least impact	Task 5: Preliminary Engineering
5.20	Architectural concepts for relocated U.S. Postal Service General Mail Facility	Design concepts for use by U.S. Postal Service facility designers  Applicable only to the U.S. Postal Service relocation	Task 5: Preliminary Engineering

#	Deliverable Name	Deliverable Description	Related Task
5.21	Preliminary site/civil plans for relocated U.S. Postal Service General Mail Facility	Plans for use in evaluating site locations for U.S. Postal Service relocation  Applicable only to U.S. Postal Service relocation	Task 5: Preliminary Engineering
5.22	Transportation plans to support relocated U.S. Postal Service General Mail Facility	Plans that analyze and mitigate the impacts of the relocation on the surrounding transportation network  Applicable only to U.S. Postal Service relocation	Task 5: Preliminary Engineering
6.1	Railroad operations report	A report that evaluates the operation of proposed new railroad infrastructure  Applicable only to South Station expansion and layover	Task 6: Rail and Transit Operational Analysis
6.2	Intercity bus operations report	A report that evaluates new ridership on intercity bus operations  Applicable only to South Station expansion	Task 6: Rail and Transit Operational Analysis
6.3	Public transit operations report	A report that evaluates new ridership on the existing public transit network  Applicable only to South Station expansion	Task 6: Rail and Transit Operational Analysis
6.4	Passenger flow report	An analysis of pedestrian flow in the expanded South Station  Applicable only to South Station expansion	Task 6: Rail and Transit Operational Analysis



#	Deliverable Name	Deliverable Description	Related Task
6.5	Public transit capacity report	An analysis of the impact of South Station expansion on the existing public transit network  Applicable only to South Station expansion	Task 6: Rail and Transit Operational Analysis
7.1	Develop cost estimate for the execution of the South Station Expansion Construction Project	Robust cost estimate for eventual South Station Expansion Construction Project construction (all elements)	Task 7: Project Cost and Schedule
7.2	Develop a schedule estimate for the execution of the South Station Expansion Construction Project	Robust schedule estimate for eventual South Station Expansion Construction Project construction (all elements)	Task 7: Project Cost and Schedule
7.3	Develop a funding strategy for the eventual construction of the South Station Expansion Construction Project	Analysis of alternatives for obtaining funding for eventual South Station Expansion Construction Project construction	Task 7: Project Cost and Schedule

#### IV. PROJECT SCHEDULE

##### a. Estimated Period of Performance

The estimated period of performance for the entirety of the work described above is expected to be approximately 40 months<sup>4</sup>, including a period of approximately six months at the initiation of the Project for the completion of consultant procurement. The period of performance will commence on September 1, 2011 – with Project management activities and public outreach as the first Project activities to commence – and thus will be completed on January 1, 2015. MassDOT will initiate consultant procurement immediately following the obligation of funds. The first major milestone for MassDOT will be the procurement of a multidisciplinary technical consultant team to support MassDOT and its partnering agencies in the execution of the Project. The last months of the Project will include miscellaneous tasks, including responding to public comment, obtaining the necessary permits, and preparing a solicitation for further design and construction services.

<sup>4</sup> MassDOT had originally proposed a project schedule of approximately 26 months, but greater analysis and understanding of the complexity of the Project – particularly of the interactions required with the U.S. Postal Service and the U.S. Department of Defense – has led to a 40-month projection.

In order to allow time to complete development of baseline engineering data, it is anticipated that the preliminary engineering phase of the Project will require approximately 28 months to complete and will be initiated within approximately ten months of the signing of this cooperative agreement (including approximately six months from the signing of the agreement for the completion of the consultant procurement process). It is anticipated that the Environmental Review phase of the Project will require approximately 28 months to complete and will be initiated within approximately seven months of the signing of this cooperative agreement (including approximately six months from the signing of this agreement for the completion of the consultant procurement process).

MassDOT expects that many of the tasks necessary to complete the Project can and will happen in parallel, thereby increasing the efficiency and overall coordination of the Project.

#	Task Name	Estimated Duration to Complete <sup>5</sup>
1	Project Management and Administration	40 months September 1, 2011-January 1, 2015
2	Civic Engagement	40 months September 1, 2011-January 1, 2015
3	Existing Conditions Analysis	8 months February 1, 2012-October 1, 2012
4	Environmental Review	28 months March 1, 2012-August 1, 2014
5	Preliminary Engineering	28 months June 1, 2012-October 1, 2014
6	Operational Analysis	8 months March 1, 2012-November 1, 2013
7	Project Cost and Schedule	6 months January 1, 2014-July 1, 2014

## V. PROJECT ESTIMATE/BUDGET

The total estimated cost of the Project is \$43,000,000, for which the FRA through this cooperative agreement will contribute a maximum of 75.5814% of the total cost but not more than \$32,500,000. Any additional Project costs required to complete the Project beyond that provided for in this cooperative agreement shall be borne by the Grantee (MassDOT).

Attachment 2, section 4 of the cooperative agreement requires submission by the Grantee and approval by the FRA of an Approved Project Budget which for this Project will be accomplished through the preparation and submission by the Grantee of a detailed Project Work Plan and FRA's approval of that Plan as described in Task 1 of this statement of work. FRA approval of

<sup>5</sup> These durations will be revisited and refined once the consultant procurement process is complete.

the Approved Project Budget is a predicate to reimbursement of Project costs pursuant to Attachment 2, section 7(c) of the cooperative agreement. Any revisions to the Approved Project Budget must be reviewed and approved by the FRA in compliance with Attachment 2, Section 4 of the cooperative agreement, which requires prior FRA approval.

**a. Cost Summary**

<b>Project Cost by Task</b>		
<b>#</b>	<b>Task Name</b>	<b>Total Cost</b>
<b>1</b>	Project Management and Administration	\$1,840,000
<b>2</b>	Civic Engagement	\$460,000
<b>3</b>	Existing Conditions Analysis	\$5,250,000
<b>4</b>	Environmental Review	\$11,290,000
<b>5</b>	Preliminary Engineering	\$18,120,000
<b>6</b>	Operational Analysis	\$4,530,000
<b>7</b>	Project Cost and Schedule	\$1,510,000
	<b>PROJECT TOTAL COST</b>	<b>\$43,000,000</b>

**b. Funding Sources**

<b>Project Cost by Funding Source</b>		
<b>Funding Source</b>	<b>Project Contribution Amount</b>	<b>Percentage of Total Project Cost</b>
<b>Federal Contribution</b>	\$32,500,000	75.5814%
<b>Non-Federal Contribution</b>	\$10,500,000	24.4186%
<b>TOTAL</b>	<b>\$43,000,000</b>	<b>100%</b>

**c. Non-Federal Contribution**

The \$10.5 million non-federal match will be provided from Commonwealth of Massachusetts Appropriation No. 6620-0884, per Chapter 303 of the Act of 2008, Section 2C. MassDOT will be meticulous in documenting the funds expended, so that it will be clear and reportable to FRA that the Commonwealth is contributing 24.4186% of the costs of the overall Project.

**VI. PROJECT COORDINATION**

The Grantee shall perform all tasks required for the Project through a coordinated process, which will involve affected railroad owners, operators, and funding partners, as well as other pertinent entities. The Grantee anticipates that the successful execution of this Project will require coordination with the following agencies and entities, as well with as the general public:

<b>Role</b>	<b>Jurisdiction</b>	<b>Agency</b>	<b>Responsibility</b>
Grantee	State	MassDOT	Project execution
Grantor	Federal	Federal Railroad Administration	Project oversight
Project Partner		Amtrak	Coordination – Intercity rail operations, scheduling, station facilities, midday vehicle storage, potential future overbuild
Project Partner	Regional	Boston Region MPO	Coordination – Federal funding programming, regional ridership forecasting
Project Partner	Local	City of Boston	Coordination – Transportation impacts, urban design, potential future overbuild, midday vehicle layover, environmental impacts
Project Partner	Federal	Department of Defense	Coordination – U.S. Postal Service General Mail Facility relocation planning and land ownership
Project Partner	Federal	Federal Transit Administration	Coordination – NEPA review
Project Partner	Federal	General Service Administration	Coordination – U.S. Postal Service General Mail Facility relocation planning and land ownership
Project Partner	State	Massachusetts Department of Energy & Environmental Affairs	Environmental oversight
Project Partner	State	Massport	Coordination – U.S. Postal Service General Mail Facility relocation planning
Project Partner	State	MBTA	Coordination – South Station ownership and management, Commuter Rail operations, midday vehicle layover, potential future overbuild, rapid transit connections and capacity
Project Partner	Federal	US Postal Service	Coordination – U.S. Postal Service General Mail Facility relocation planning

## **VII. PROJECT MANAGEMENT**

The Grantee (MassDOT) will assume lead Project Management responsibilities for the successful execution of the overall Project. MassDOT will oversee a competitively-procured consultant team, which will perform the preliminary engineering and environmental review tasks associated with the South Station expansion and layover facility elements of the overall Project. MassDOT will also provide Project funding and oversight to the Massachusetts Port Authority (Massport) – an agency within MassDOT – which will in turn be responsible for performing the Project tasks associated with the relocation of the U.S. Postal Service General Mail Facility. To accomplish this, Massport will oversee a competitively-procured consultant team which will be responsible for the preliminary engineering and environmental review tasks associated with the site to which the General Mail Facility will be relocated. In addition, MassDOT – through Massport – will provide support and limited funding to the U.S. Postal Service to perform preliminary engineering and other work associated with the design of the new General Mail Facility.

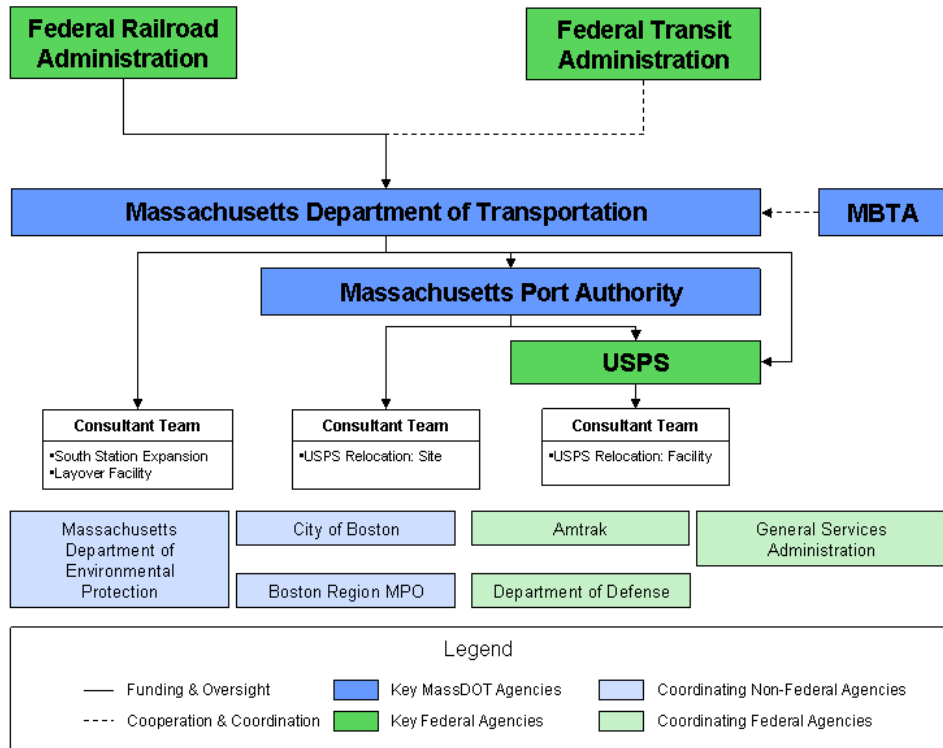
In all of its efforts, the Grantee will be overseen by the FRA, the lead federal agency for this Project. The Federal Transit Administration will also participate as a cooperating agency.

A number of other agencies will be involved in a cooperative or partnering fashion, as listed in *Section VI – Project Coordination*.

All three key agencies – MassDOT, Massport, and the U.S. Postal Service – have assigned Project Managers to lead their portions of the overall Project. The consultant teams selected to support the key agencies will be subject to all of the standard contracting and management procedures in place at MassDOT, Massport, and the U.S. Postal Service, as well as any requirements of the FRA.

The Grantee submitted a thorough project management plan as part of the original application for funding. That plan will be revised and submitted to FRA at the initiation of the Project once the contractor is on board, and revised and submitted to the FRA based on an agreed upon revision and submission schedule between the FRA and MassDOT (Task 1).

The management approach described here is illustrated in the organizational chart below:



2. Except as specifically amended hereby, all terms, conditions, and attachments of the original Agreement will remain in full force and effect, and the parties hereto agree thereto.