

STATEMENT OF WORK

Texas Department of Transportation

Austin to Houston High-Speed Rail

FY14 Grant Application Solicitation – Passenger Rail Corridor Investment Plan Projects

I. BACKGROUND

On July 11, 2014, the Federal Railroad Administration (FRA) issued a Notice of Funding Availability (NOFA) in the Federal Register soliciting applications for Passenger Rail Corridor Investment Plan (PRCIP) projects. The appropriations authority to fund the PRCIP projects under this solicitation was provided by Congress under the FY14 Omnibus Appropriations Act.

In response to the NOFA, the Texas Department of Transportation (TxDOT) (the “Grantee”) submitted an application for the Austin to Houston Passenger Rail Corridor Investment Plan (the “Project”). The FRA reviewed the Grantee’s application against the eligibility, evaluation, and selection criteria outlined in the NOFA. On the basis of this evaluation, the FRA selected TxDOT for an award, through a cooperative agreement between FRA and the Grantee, of \$2,600,000 for the Project.

Due to the complexity of implementing intercity passenger rail Service Development Programs, extensive pre-construction preparation is required, including service planning, environmental review, design and conceptual engineering efforts. The first phase of this process, known as the Planning Phase, should result in the development of a PRCIP. A PRCIP provides sufficient information to support a future decision to fund and implement a major investment in a passenger rail corridor and is composed of two components:

1. An environmental review to satisfy National Environmental Policy Act (NEPA) requirements (Service NEPA), in which the purpose and need of the improvements are defined and alternatives are analyzed and compared based on their environmental, socioeconomic, and transportation impacts; and
2. A Service Development Plan (SDP) that defines the service improvements, transportation network, operational and financial aspects for the passenger rail service alternative selected through the NEPA process.

Service NEPA for the Austin-Houston Corridor will be conducted in the form of an Environmental Impact Statement (EIS). Together, the Service NEPA and SDP complete the PRCIP, which will provide sufficient information to support potential future funding and implementation decisions for major investment in the Austin-Houston Corridor.

For the purposes of this Statement of Work (SOW), the term “Project” means the completion of the PRCIP for the Austin-Houston Corridor. Also for the purposes of this SOW, the term “Service Development Program” means the suite of projects to be constructed for the Austin-Houston Corridor.

The Austin to Houston corridor has consistently ranked as one of the top corridors for investment in high-speed rail in multiple prior studies. It is included in the Texas Rail Plan and would provide a connection between the South Central and Gulf Coast federally-designated, high-speed

rail corridors. There are a limited number of direct flights between Austin and Houston and no direct interstate connection with the average auto trip taking nearly 3 hours between the city-pair central business districts. High-speed rail within the Austin to Houston corridor would reduce vehicular trips along the corridor, leading to travel time savings, reduced roadway congestion, reduced automobile emissions, improved safety, and reduced roadway maintenance costs. Furthermore, Austin to Houston High-Speed Rail Service would provide a potential lower cost alternative to flying with shorter travel times between the Austin and Houston central business districts. Together, these benefits will substantially increase the productivity of the Texas and national economy.

Providing high-speed rail service between Austin and Houston, along with plans in development to provide service between Dallas and Houston and plans being evaluated in the Texas-Oklahoma Passenger Rail Study (TOPRS), would provide high-speed rail service to all of the major metropolitan regions in the state. Together, this high-speed rail network would provide access to high-speed passenger rail service to over 17 million people. TxDOT is currently completing preliminary engineering and a Project-Level EIS for the Dallas to Fort Worth Corridor as well as a Service Development Plan and Service-Level EIS for the Oklahoma City to South Texas Corridor in TOPRS, both utilizing FRA grants.

II. OBJECTIVE

The objective of the Project is to produce a PRCIP consisting of a SDP and a Tier 1 Environmental Impact Statement (EIS) for the Austin-Houston Corridor in compliance with *FRA's Procedures for Considering Environmental Impacts (64 Federal Register 28545 (May 26, 1999))* and the Council on Environmental Quality's (*CEQ*) NEPA implementing regulation (*40 CFR Part 1500 et seq.*).

III. PROJECT LOCATION

The Austin-Houston PRCIP is a study of service to be located between Austin, TX and Houston, TX, a distance of approximately 165 miles. Two freight railroads operate in this corridor, the Austin Western Railroad which operates over a line owned by Capital Metro from Austin, TX to Giddings, TX and the Union Pacific Railroad which operates a line from Hempstead, TX into downtown Houston. To ensure that planning considers the interrelationships of the broader intercity passenger rail network, the following route(s) beyond the Austin-Houston Corridor will be considered to the degree necessary to fully inform service development planning and Service NEPA environmental work for the Austin-Houston Corridor:

1. Austin-Bryan/College Station-Houston Corridor
2. Austin-Bastrop-Columbus-Houston Corridor

IV. DESCRIPTION OF WORK

This SOW is divided into four major tasks. Task 1 includes project set-up. Task 2 includes NEPA scoping, preliminary service planning, and the preparation of other technical information to identify and develop alternatives for the Service NEPA document. The deliverables resulting

from this phase will be used in Task 3, the development of the Service NEPA document. Tasks 2 and 3 will often overlap, require close coordination, and be conducted through an iterative analytical process. Task 4 is the development of the SDP. The Grantee will perform the tasks in close coordination with FRA and all approvals by FRA must be in writing.

Task 1: Detailed Project Work Plan, Budget, and Schedule

For this initial task, the Grantee will prepare a detailed Project Work Plan, Budget, and Schedule for Tasks 2, 3, and 4. The project work plan will describe, in detail, the activities and steps necessary to complete the tasks outlined in the statement of work. The Grantee shall contact FRA and obtain preliminary direction regarding the appropriate environmental documentation. The Grantee will describe the Tier 1 Service NEPA approach proposed and reflect this in the level of effort for related tasks. The project work plan will also include information about the project management approach (including team organization, team decision-making, roles and responsibilities and interaction with FRA), as well as address quality assurance and quality control procedures. In addition, the work plan will include the project schedule (with grantee and agency review durations) and a detailed project budget. If the Grantee needs to secure an agreement with host a railroad to access the railroad's property and perform the conceptual engineering and/or NEPA work, the executed agreement should be included with the work plan. The work plan shall identify studies to be conducted as part of the NEPA evaluation process for the Service Development Program. The Detailed Work Plan, Budget, and Schedule will be reviewed and approved by the FRA, who will make the final decision regarding the class of action and if tiering will be used in the NEPA process.

The Grantee acknowledges that work on subsequent tasks will not commence until the Detailed Project Work Plan, Budget, and Schedule has been completed, submitted to FRA, and the Grantee has received approval in writing from FRA. The FRA will not reimburse the Grantee for costs incurred in contravention of this requirement.

Task 1 Deliverables:

- Detailed Project Work Plan, Budget, and Schedule
- Project Agreements (if applicable)

Task 2: NEPA Scoping, Preliminary Service Planning, and Alternatives

The fundamental starting point of any transportation planning effort is the identification of the purpose and need for an improvement to the transportation system service in the market. The Grantee will prepare a preliminary Purpose and Need Statement to support the Service Development Program for FRA review. The Grantee will conduct NEPA Scoping and Outreach. Following scoping, the Grantee will identify all possible alternatives for the Service Development Program, including the “no-build or no action alternative,” and from this list, conduct a feasibility analysis to identify the reasonable alternatives for inclusion in the Service NEPA document in Task 3.

Subtask 2.1 NEPA Scoping and Outreach

The Grantee will conduct the scoping process, in coordination with FRA, to initiate the development of the Service NEPA document, which will include:

- Identification of the Corridor study area

- Development of a Notice of Intent (for EIS only)
- Development of an Agency and Stakeholder Involvement Plan
- Holding scoping meetings with the public, stakeholders, and other agencies
- Preparation of a Scoping Report
- Final Purpose and Need
- Definition of Alternatives Report/ Conceptual Engineering
- Conceptual O&M/Financial Report
- Technical Memo on Travel Forecasting – Preliminary Ridership
- Technical Memo on Operations Planning
- Alternatives Analysis Report

For an EIS, the Grantee will prepare a draft Notice of Intent (NOI) to prepare an EIS and submit to FRA for review. FRA will then publish the NOI in the *Federal Register* to initiate the scoping process.

The Grantee will prepare and implement, in coordination with FRA, an Agency and Stakeholder Involvement Plan. The Plan will outline the public and agency involvement program and will identify key contacts within agencies, public officials, affected Native American Tribes, and other key stakeholder groups and the public. The Plan will also identify key contacts within civic and business groups, relevant interest groups, present and potential riders/users, and private service providers/shippers. The Plan will identify how involvement activities will be linked to key milestones in the planning/engineering and environmental analytic process, including public hearings. This process will include Tribal coordination to fulfill FRA’s Section 106 responsibilities. The Grantee will submit the Agency and Stakeholder Involvement Plan for FRA review.

In addition, the Grantee will lead the scoping process, in cooperation with FRA, inviting participation from federal, state, and local agencies, Native American tribes, other interested parties, and the public, as identified in the Agency and Stakeholder Involvement Plan. The Grantee will record the process and provide a summary of comments, responses, and conclusions in a Scoping Report for FRA review.

Subtask 2.1 Deliverables:

Environmental Impact Statement Deliverables

- Draft Notice of Intent
- Agency and Stakeholder Involvement Plan
- Scoping Report

Subtask 2.2 Definition of Alternatives

The Grantee will prepare a Technical Memo on Service Planning for FRA review, which includes: identification of all possible alternatives, an outline of the proposed approach for alternatives analysis (including identification of the criteria to be used in the alternatives analysis), and an outline for the SDP and overview of the proposed methodologies to be used in preparing the SDP components (See Task 4 for additional information). After FRA review and

approval of the Technical Memo, the Grantee will conduct the analysis and prepare a Definition of Alternatives Report for FRA review and approval.

The Technical Memo will address how alternatives will be determined to be reasonable and feasible. The alternatives developed for the Service Development Program must address the NEPA purpose and need. The memo will describe the criteria to be used in the analysis that reflect:

- The purpose and need for the action
- Technical feasibility (physical route characteristics, engineering constraints, capacity-constrained existing facilities or infrastructure, safety)
- Economic feasibility (market potential and/or ridership, capital and operating costs)
- Major environmental concerns

The alternatives analysis will include preliminary service planning elements such as:

- A description of the infrastructure improvements including stations, parking facilities, land acquisition, maintenance facilities, any new facilities or upgrades required for intercity passenger rail operational control
- Capital cost estimates for each alternative (including unit cost and quantities relating to core track structures and other project components), management, design and construction management allowances, and contingencies
- An operating plan for each alternative, including railroad operation simulations, equipment options, and crew scheduling analyses, which in turn reflect such variables as travel demand and rolling stock configuration
- Ridership and travel demand forecasts for each alternative, including origin-destination trip tables suitable as input for other elements of the planning and environmental assessment process, pricing assumptions (including a rationale for pricing strategy), and travel time-related assumptions (including frequency, reliability, and schedule data for the service alternatives)
- Estimates of operating, maintenance, and capital renewal costs for a 40-year period
- Potential phased implementation plans for the alternatives that can result in service improvements that have independent utility and reflect constructability considerations

As part of preparing the Definition of Alternatives Report, the Grantee will develop conceptual engineering to a level sufficient to identify necessary infrastructure improvements and determine the cost estimates for each reasonable route alternative. Conceptual engineering will include developing design criteria, typical track sections, track plans with vertical profiles, structural concepts, roadway crossing recommendations, layover and storage/maintenance facility requirements, and unit cost data. The Grantee will coordinate with FRA, and as appropriate with railroad owners and operators, on this task. The conceptual engineering designs will form the basis of the Service NEPA analysis conducted in Task 3.

Subtask 2.2 Deliverables:

- Public, Agency and Stakeholder Involvement Plan
- Draft Purpose and Need Statement
- Draft Evaluation Methodology Report

- Draft Travel Forecasting Methodology Report
- Technical Memo on Service Planning
- Draft and Final NOI
- Scoping Report

Task 3: Service NEPA Document

The Grantee will complete a Tier 1 Service NEPA EIS document for the Service Development Program in close coordination with FRA, considering the various alternatives for implementing the proposed train service, the conceptual engineering for construction projects necessary to implement those service alternatives, and the potential environmental impacts that may be associated with those projects at a level of detail appropriate for the Service Development Program.

The Grantee will prepare a Tier 1 Service NEPA EIS and focus on the likely environmental effects for the entire Service Development Program relating to the type of service being proposed for the identified range of reasonable alternatives. The analysis of impacts will be based upon the conceptual engineering prepared in Task 2. The Grantee will prepare the Tier 1 EIS as per CEQ guidance and in accordance with FRA’s Procedures for Considering Environmental Impacts (64 Fed. Reg. 28545 (May 26, 1999)). The Grantee will propose a methodology for impact analysis and an annotated outline of the proposed Tier 1 EIS to FRA for review and comment prior to commencing the work. Any required documentation for compliance with other laws (historic preservation, clean water, etc.) will be identified and outlined. The Grantee will include impacts for the Service Development Program associated with:

- Route alternatives
- Cities and stations served
- Train service levels
- Train technology
- Train operating speeds
- Ridership projections
- Major infrastructure components

Studies to be conducted as part of the NEPA evaluation process for the Service Development Program may include the following. A final list will be determined in conjunction with FRA in the Detailed Work Plan, Budget, and Schedule:

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| • Air quality | • Use of energy resources |
| • Water quality | • Use of other natural resources, such as water, minerals, or timber |
| • Noise and vibration | • Aesthetic and design quality impacts |
| • Solid waste disposal | • Possible barriers to the elderly and handicapped |
| • Ecological systems | • Land use, existing and planned |
| • Impacts on wetlands areas | • Environmental Justice |
| • Impacts on endangered species or wildlife | • Public health |
| • Flood hazards and floodplain management | • Public safety, including any impacts due to hazardous materials |
| • Coastal zone management | |

- Recreational opportunities
- Historic, archeological, architectural, and cultural
- Use of 4(f)-protected properties
- Socioeconomic
- Transportation
- Construction period impacts

The Grantee, in conjunction with FRA, will also identify strategies to avoid, minimize or mitigate identified impacts. This will include coordination with appropriate resource agencies throughout the NEPA process for impacts identified during the development of the Service NEPA document. Specific avoidance, minimization and mitigation strategies will be developed and included as necessary by resource area, based on the following approaches:

- Avoiding the impact altogether by not taking a certain action or parts of an action
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action
- Compensating for the impact by replacing or providing substitute resources or environments

Preparation of an EIS

For an EIS, the Grantee will then prepare an Administrative Draft EIS for FRA review and comment. Modifications to the Administrative Draft EIS requested by FRA will be incorporated to produce a Draft EIS for circulation. If requested, the Grantee will prepare and submit to FRA a draft Notice of Availability (NOA) for the Draft EIS. The Grantee will distribute the Draft EIS to agencies and stakeholders, as outlined in the Agency and Stakeholder Involvement Plan and conduct the public comment process.

After the close of the public and agency comment period on the Draft EIS, the Grantee, in close coordination with FRA, will respond to comments and prepare the Final EIS. The Grantee will prepare an Administrative Final EIS for FRA review and comment. Modifications to the Administrative Final EIS requested by FRA will be incorporated to produce a Final EIS for circulation. Upon request, the Grantee will prepare and submit to FRA a draft Notice of Availability (NOA) for the Final EIS. The Grantee will also distribute the Final EIS to agencies and stakeholders, as outlined in the Agency and Stakeholder Involvement Plan.

Additionally, the Grantee, in coordination with FRA, will identify the next steps required in the environmental process. The commitments agreed upon by the agencies throughout the NEPA process will be included in the draft Record of Decision (ROD), which the Grantee will submit to FRA for review and approval. If directed by FRA, a combined Final EIS and ROD may be issued. A constant line of communication between the Grantee and FRA will be maintained throughout the entire NEPA process.

Environmental Impact Statement Deliverables

- Section 106 Documentation
- Section 4(f) Documentation (if applicable)
- Clean Air Act Conformity Documentation (if applicable)

- Endangered Species Act Documentation (if applicable)
- Annotated Outline and Methodology Overview
- Administrative Draft Environmental Impact Statement
- Draft Environmental Impact Statement
- Administrative Final Environmental Impact Statement
- Final Environmental Impact Statement
- Draft Notice of Availability
- Draft Record of Decision

Task 4: Service Development Plan

The Grantee, in coordination with FRA, will produce a SDP focused on the selected alternative identified through Tasks 2 and 3, which should follow the outline approved in Technical Memo on Service Planning under Task 2. The SDP will lay out the overall scope and approach for the proposed service by clearly demonstrating the rationale, goals and objectives for new or improved intercity passenger rail service; identifying alternatives considered for the proposed new or improved intercity passenger rail service and analyzing the selected alternative that addresses the identified rationale, goals and objectives; demonstrating the operational and financial feasibility of the alternative that is proposed to be pursued; and describing how the implementation of the SDP will be divided into discrete phases.

Specifically, the Grantee will include within the SDP:

- Rationale, Goals, and Objectives including a description of the transportation challenges and opportunities faced in the markets to be served by the proposed service
- Service justification to demonstrate how the proposed service can cost-effectively address transportation and other needs, based on current and forecasted travel demand and capacity condition
- Planning methodology used in developing the SDP
- Identification of alternatives considered in the planning and environmental review process, including intercity passenger rail improvements, improvements to other modes, and a no-action alternative, as well as the selected alternative
- Operations modeling, including railroad operation simulations, equipment and crew scheduling analyses, and terminal, yard and support operations, which in turn reflect such variables as travel demand and rolling stock configuration. If the proposed service shares facilities with rail freight, commuter rail, or other intercity passenger rail services, the existing and future characteristics of those services will be included
- Station and access analysis to address the location of the stations to be served by the proposed service, how these stations will accommodate the proposed service, how passengers will access the stations, and how the stations will be integrated with connections to other modes of transportation. Refer to the FRA Station Area Planning recommendations at <http://www.fra.dot.gov/eLib/Details/L03759> and undertake the activities described in Section 2. Transportation
- Travel demand and revenue forecasts, including the methods, assumptions, and outputs for travel demand forecasts, and the expected revenue from the service, including ridership/revenue forecasts that specify the number of passengers and boarding/disembarking at stations

- Financial performance and projections for each phase of service, including operating costs and revenues, capital replacement costs, and other institutional arrangements affecting the system finances. The SDP will address the methods, assumptions and outputs for operating expenses for the train service including maintenance of way, maintenance of equipment, transportation (train movement), passenger traffic and services such as marketing, reservations/information, station, and on-board services, general/administrative expenses, cost-sharing arrangements, and access fees
- Conceptual engineering and capital programming, to include equipment, infrastructure improvements, facilities, and other investments required for each discrete phase of service implementation
- Benefit-cost analysis, including a description and quantification of benefits, whether operational, transportation output-related, and economic in nature, with particular focus on job creation and retention, “green” environmental outcomes, potential energy savings, and effects on community livability

The Grantee will develop a draft Service Development Plan for FRA review and approval utilizing the agreed upon outline and methodology. The Grantee will incorporate FRA comments into the Final Service Development Plan for the Corridor Program.

Task 4 Deliverables:

- Draft Service Development Plan
- Final Service Development Plan
- Final Performance Report (the final deliverable listed in the “description of work” section of the SOW must be the Final Performance Report. This report must be submitted within 90 days of the end of the grant’s period of performance and should describe the cumulative activities of the project, including a complete description of the Grantee’s achievements with respect to the project objectives and milestones)

V. PROJECT SCHEDULE AND DELIVERABLES

The period of performance for all work will be approximately 33 months, from June 2015 to March 2018. The deliverables associated with this Grant/Cooperative Agreement are listed below and shown in Figure 1. The Grantee must complete these deliverables to FRA’s satisfaction in order to be authorized for funding reimbursement and for the Project to be considered complete.

#	Deliverable	Due Date:
Task 1: Detailed Work Plan, Budget, and Schedule		
1	Detailed Project Work Plan, Budget, and Schedule	October 2015
2	Project Agreements (if applicable)	
Task 2: NEPA Scoping, Preliminary Service Planning, and Alternatives		
3	Public, Agency and Stakeholder Involvement Plan	October 2015
4	Draft Purpose and Need Statement	November 2015
5	Draft Evaluation Methodology Report	November 2015
6	Draft Travel Forecasting Methodology Report	November 2015
7	Technical Memo on Service Planning	December 2015
8	Draft NOI	November 2015
9	Publish NOI	December 2015
10	Scoping Report	February 2016
11	Final Purpose and Need	February 2016
12	Definition of Alternatives Report/ Conceptual Engineering	February 2016
13	Conceptual O&M/Financial Report	June 2016
14	Technical Memo on Travel Forecasting – Preliminary Ridership	June 2016
15	Technical Memo on Operations Planning	June 2016
16	Alternatives Analysis Report	July 2016
Task 3: Service NEPA Document		
17	Annotated Outline and Methodology Overview	November 2015
18	Section 106 Documentation	October 2016
19	Section 4(f) Documentation	December 2016
20	Clean Air Act Conformity Documentation	December 2016
21	Endangered Species Act Documentation	December 2016
22	Administrative Draft Environmental Impact Statement	February 2017
23	Draft Environmental Impact Statement	June 2017
24	Administrative Final Environmental Impact Statement	September 2017
25	Final Environmental Impact Statement	December 2017
26	Draft Notice of Availability	January 2018
27	Draft Record of Decision	March 2018
Task 4: Service Development Plan		
28	Stations Analysis	August 2016
29	Operations Modeling	December 2016
30	Travel Demand and Revenue Forecasts	December 2016
31	Capital and Operations/Maintenance Costs	December 2016
32	Business Model/Financial Plan	January 2017
33	Benefit-Cost Analysis	January 2017
34	Draft Service Development Plan	February 2017
35	Final Service Development Plan	May 2017
36	Final Performance Report	June 2018

STATEMENT OF WORK

VI. PROJECT ESTIMATE/BUDGET

The total estimated cost of the Project is \$4,000,000, for which the FRA grant will contribute up to 65% of the total cost, not to exceed \$2,600,000. Any additional expense required beyond that provided in this grant to complete the Project shall be borne by the Grantee.

Note: FRA will consider salvaged rail and materials as program income under 49 C.F.R. 18.25. The Grantee will apply the deductive method as described in 49 C.F.R. 18.25 unless otherwise instructed by FRA. The Grantee will report program income quarterly as part of the SF-425 Federal Financial Report.

Project Estimate by Task

Task Number	Task Name	Total Cost
1	Detailed Work Plan, Budget, and Schedule	\$ 50,000
2	NEPA Scoping, Preliminary Service Planning, and Alternatives	\$ 1,650,000
3	Service NEPA Document	\$ 1,800,000
4	Service Development Plan	\$ 500,000
Total Project Cost		\$ 4,000,000

Project Estimate Contributions

Funding Source	Project Contribution Amount	Percentage of Total Project Cost
FRA Grant	\$ 2,600,000	65 %
Grantee	\$ 1,000,000	25 %
Project Partner 1: H-GAC	\$ 400,000	10 %
Total Project Cost	\$ 4,000,000	100 %

The Grantee will prepare the detailed Project budget as outlined in Task 1 which, when approved by FRA, will constitute the Approved Project Budget. Revisions to the Approved Project Budget shall be made in compliance with Attachment 2, section 4 of the Cooperative Agreement.

VII. 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, including:

- Capital Area Metropolitan Planning Organization (CAMPO)
- Houston-Galveston Area Council (H-GAC)
- Bryan/College Station Metropolitan Planning Organization (BCSMPO)
- Texas Central Railway (TCR)
- Union Pacific Railroad (UPRR)
- Capital Metropolitan Transportation Authority (CapMetro)
- Metropolitan Transportation Authority of Harris County (METRO)
- Federal Railroad Administration (FRA)

VIII. PROJECT MANAGEMENT

The Grantee is responsible for facilitating the coordination of all activities necessary for implementation of the Project. Upon award of the Project, the Grantee will monitor and evaluate the Project's progress through regular progress meetings scheduled throughout the Project's duration. The Grantee will:

- Participate in a project kickoff meeting with FRA
- Complete necessary steps to hire a qualified consultant/contractor to perform required Project work
- Hold regularly scheduled Project meetings with FRA
- Inspect and approve work as it is completed
- Review and approve invoices as appropriate for completed work
- Perform Project close-out audit to ensure contractual compliance and issue close-out report
- Submit to FRA all required Project deliverables and documentation on-time and according to schedule, including periodic receipts and invoices
- Comply with all FRA Project reporting requirements, including, but not limited to:
 - a. Status of project by task breakdown and percent complete
 - b. Changes and reason for change in project's scope, schedule and/or budget
 - c. Description of unanticipated problems and any resolution since the immediately preceding progress report
 - d. Summary of work scheduled for the next progress period
 - e. Updated Project schedule

Tools that will be used to manage and monitor the progress of this Project will be included in the overall Project Management structure. The following items will be set up and used to report progress:

- Detailed Work Plan: Listing of individual tasks identified for the execution of each phase of the work as identified in the Statement of Work of this application. The Work Plan will be monitored weekly, with work progress updates provided monthly.
- Detailed Schedule: A detailed project schedule will be developed to monitor progress of individual tasks and milestones. The schedule will be submitted concurrently with the Work Plan. The schedule will also be monitored weekly, with monthly updates provided (See Statement of Work for preliminary project schedule).
- Program Budget: A detailed Project Budget will be developed, monitored weekly and an update will be provided monthly. Project Billings and reimbursement from FRA will be processed monthly.
- Quality Control Program: A QA/QC plan for the execution of this work will be provided within 60 calendar days of initiation.
- Document Control: the SDP/ NEPA consultant will be responsible for Document Control and providing an information exchange/ document storage application.
- Communications and Outreach Program: the SDP/ NEPA consultant will develop a Outreach and Communications program and will be responsible for providing relevant progress information for the project that is required as part of NEPA.

Additional details regarding the project management approach for the Austin to Houston PRCIP are contained in the *Project Implementation and Project Management* section of the Project Narrative submitted with this grant application.