US77

Design, Construction, and Maintenance

Executive Summary

Austin Bridge & Road, LP, joint venture partner Bay, LTD, lead designer Huitt-Zollars, and capital maintenance firm ICA have a strong local presence, years of South and Central Texas project execution, and significant previous experience on complex, fast-tracked design-build-maintain projects. This experience, and clear understanding of TxDOT Corpus Christi district standards and preferences, makes the Austin-Bay team ideally suited to successfully deliver this project.

Our management structure is des

Responsiveness to TxDOT goals —

- Maintenance of traffic to en
  traveling public and every
  the project.
- Respect fo r the environmen itments
  made to the community.
- Early completion and earl ef
  to construction.

Enhanced communication to identify and resolve potential issues quickly —

- A strong partnership between TxDOT and the Austin-Bay team.
- Austin-Bay JV executive committee available for immediate resolution of issues.
- Increased public awareness and support through a proactive stakeholder engagement.

Superior quality at each stage of the project —

- Management and control of subcontractors and suppliers.
- us performance improvement.
- Mar nt of an aggressive schedule.
- O d design for best value to TxDOT
  blic.

Austin Bay
JOINT VENTURE

Organization and Contents

Our proposal is indexed as prescribed in TxDOT's RFP: Instructions to Proposers, Exhibit E Addendum No. 6 issued December 3, 2012.

- **Technical Proposal Volume 1**
  - Section A: Executive Summary
  - Section B: Proposer Information, Certifications & Documents
  - Section D: Project Development Plan
  - Section E1: Appendices - Key Personnel Resumes and References
- **Technical Proposal Volume 2 (includes rolled drawings and plots)**
  - Section E2: Appendices - Technical Drawings, Graphs and Data
  - Section E3: Appendices - Project Schedules
- **Technical Proposal Security Envelope**
- **Financial Proposal – Financial Capacity**
- **Financial Proposal – Pricing Information**

Summary of Changes to QS

Austin-Bay has significantly advanced the technical approach originally submitted in our qualifications statement (QS). This proposal contains innovative solutions and approaches which are detailed in our Project Development Plan. Through our technical work groups we have:

- Advanced and optimized the schematic with innovative design elements.
- Conducted extensive geotechnical research.
- Created a comprehensive traffic control plan.
- Developed a detailed construction plan minimizing impacts to the traveling public.
- Compressed the schedule to reflect a substantial completion within 850 days of NTP1.

In our QS, we presented this project as being phased in four distinct sections. Through further evaluation, discussion and design, we have found that this project is best delivered in three Areas of Work, with seven distinct traffic control operations. The Areas of Work are:

- **Area of Work 1:** FM1898/E. Corral Avenue to the Kleberg/Nueces County Line.
- **Area of Work 2:** Kleberg/Nueces County Line to South of FM 70 (City of Bishop).
- **Area of Work 3:** North of FM 70 to CR 16.

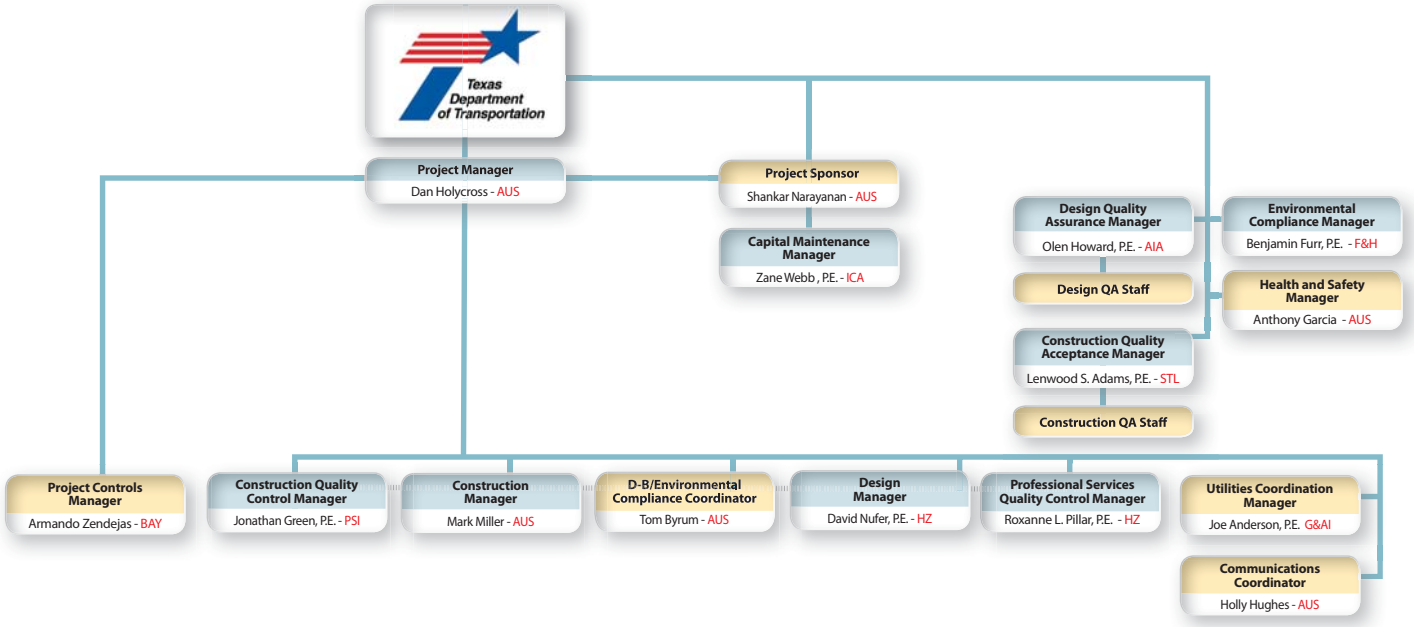
Changes in Our Organization, Equity Members, Other Major Participants and Key Personnel

We have strengthened our team by adding South Texas contractor Bay, LTD. We have also added staff to meet requirements set forth in addendum #2 and to augment the Capital Maintenance Contractor. These additions and changes will benefit the project with increased experienced staff dedicated to bringing innovative solutions. TxDOT has approved changes and modifications to our organization from the accepted QS. These changes are presented in table A.1 below.

Table A.1| Changes in Organization, Equity Members, Other Major Participants, and Key Personnel

Description of Change	Project Role	Explanation and Added Value
Created JV by adding Bay, LTD as equity partner.	40% Equity Member of JV	Addition – strengthens team with local resources and knowledge.
Added Roxanne L. Pillar, P.E (Huitt-Zollars).	Professional Services Quality Control Manager	Addition per addendum #2 -- Ms. Pillar brings 34 years' experience in highway/bridge engineering oversight and plan development.
Added Jonathan Green, P.E (Professional Services Industries, Inc.).	Construction Quality Control Manager	Addition per addendum #2 -- Mr. Green has 14 years' experience and is currently Deputy CQAM on the DFW Connector project.
Replaced Stan Reece (aci) with Benjamin Furr (Florence & Hutcheson)	Environmental Compliance Manager	Previous ECM named in QS was replaced due to the environmental sub consultant (aci) executing an exclusive arrangement with another team after we submitted the QS. Mr. Furr brings 12 years' experience in transportation-related environmental compliance.

Figure A.1 Management Organization



Proposed Management, Decision Making and Day to Day Operations Structure

Management Structure

Austin-Bay's management structure, authority and communications is described in full in the Project Development Plan and illustrated in the organization chart, figure A.1, Management Organization. The design, construction and maintenance teams will co-locate together at the project office near the job site.

Project Manager Dan Holycross will be responsible for overall design, construction and contract administration for the project and the single point of contact for TxDOT. Design Manager David Nufer, Construction Manager Mark Miller, D-B/Environmental Compliance Coordinator Tom Byrum, Project Controls Manager Armando Zendegas, Utilities Coordination Manager Joe Anderson and Communications Coordinator Holly Hughes will report directly to Mr. Holycross.

Project Sponsor Shankar Narayanan will provide independent oversight to the quality, health, safety and environmental organizations of the project. Design Quality Assurance Manager Olen Howard, Construction Quality Acceptance Manager Lenwood Adams, Environmental Compliance Manager Benjamin Furr, and Health and Safety Manager Anthony Garcia will all report directly to Mr. Narayanan. He will also oversee Capital Maintenance Manager Zane Webb, PE. Maintenance Quality Control Manager Joe Graff, PE will report directly to ICA executives and provide regular updates to Mr. Narayanan during the CMA period. An Austin-Bay JV Board, composed of senior executives from each of the major participants will provide additional, independent review and auditing of the project, as well as corporate oversight to ensure adequate resources are available for rapid completion. This group of senior executives will be available to immediately address any TxDOT concerns with the project.

Decision Making and Day to Day Operations

Communication is the key to all projects, and the Austin-Bay team has a proven meeting process designed to facilitate sharing of information and structured decision making. The full description, list of participants and frequency of these meetings can be found in the Project Management Plan in the General Project Management section and in table D.9. These meetings are designed to:

- Gain a full understanding of TxDOT's goals.
- Integrate design, construction, and maintenance teams with TxDOT staff and other stakeholders.
- Foster interdisciplinary coordination.
- Assure that design incorporates adequate allowance for construction means and methods and long term durability of assets.

- Resolve project issues early incorporating solutions into design.
- Expedite review comments and resolution periods.
- Guarantee lines of communication are open among individual team members, TxDOT, and other key stakeholders.

Decision-making will start with partnering to establish teamwork, trust and a system to problem resolution. During the design phase, day to day activities will be planned and managed according to design discipline by the respective design discipline lead. Design will be developed in technical work groups with safety, quality and maintenance team members being fully involved from the beginning. Design and constructability reviews will ensure that the design being advanced is the best solution for the best value.

During the construction phase, each area of work will be assigned to a foreman who will supervise the tasks to be done on a daily basis. These foremen will have daily meetings with construction superintendents who will coordinate the work across the entire project and report to Construction Manager Mark Miller.

All project personnel and TxDOT will have access to a central content management system, eManagers, which will provide document control and configuration management. Drawings, meeting minutes, follow-up assignments, policies and procedures will all be housed within this system. Throughout the project, status and look-ahead meetings will monitor progress and ensure that the project is staying on schedule.

All personnel described in the proposal and illustrated in our organization chart have been committed to this project by their respective organizations. We have included copies of letters of commitment for all key personnel in the Proposer Information, Certifications & Documents section of this proposal.

Summary of Project Development Plan

Technical Solutions

The success of this project depends on the design-build-maintain team's ability to manage traffic and deliver a low cost solution that meets all of TxDOT's goals. Austin-Bay has analyzed all available information on geotech conditions, drainage, bridge and wall types, roadway and surface alternatives, life-cycle and maintenance costs and overall roadway geometry in our technical work groups to develop optimum solutions that exceed the project's goals and requirements.

ATCs and Added Value Components

The Austin-Bay team developed 18 potential ATCs for this project, and submitted 14 for TxDOT's consideration. Five of these ATCs were approved and are included in this proposal. These ATCs will improve pavement design and performance, reduce life-cycle costs, reduce retaining walls, accelerate design and construction schedules and eliminate some maintenance items.

Design and Construction Plan

As mentioned earlier, we have divided this project into three "Areas of Work". We plan to advance construction of these areas simultaneously. We have developed seven distinct traffic control plans for these Areas of Work, which are detailed in the Technical Solutions section of this proposal.

Bridge and Surface Structures

There are 11 major structures and 26 retaining walls on the project. MSE walls are a key component of the project, and through the innovative concept of ATC-ABR-013, we have reduced the square footage of MSE wall required. This will allow for standard industry construction methods to be used and require less working space to erect these shorter walls.

Environmental Permitting, Mitigation and Impacts

Our team has thoroughly studied the project's environmental documents to identify the key environmental issues. Three jurisdictional streams and associated wetlands and two federally endangered species are present within the project boundaries. We have identified all of the areas for which a permit will be necessary and have detailed these in the Technical Solutions section of this proposal. While developing our construction phasing and traffic control plans we have taken into account best management practices for environmental protection and have considered mitigation for noise, vibration, light, dust and erosion as well as damage to local roads.

Roadway

Hot-mix asphalt is the proposed pavement type for this project. Where applicable and appropriate we have included recycled asphalt pavement in the design.

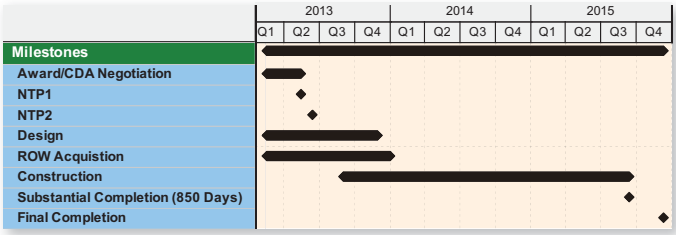
Maintenance Plan

We will design and construct this project always keeping life cycle sustainability in mind. Our maintenance management plan will be prepared and submitted to TxDOT for approval and will include provisions for maintenance, inspection, performance, response times, procedures and records management. Items to be maintained will include pavements and shoulders, structures including bridges, non-bridge class culverts and retaining walls, embankment and cut slopes. ICA will manage our capital maintenance plan and will regularly inspect, and provide preventative and replacement maintenance for each maintained element.

Preliminary Baseline Schedule

We are progressing the three construction areas of this project concurrently, and will complete this project **60 days ahead of schedule** through careful traffic management, an experienced management team and adequate labor, materials and equipment. See figure A.2.

Figure A.2 | High Level Project Schedule



Utilities

We will have all utility work for the project completed within the first year of NTP 1. Our utility coordination team member, Gorrondona & Associates, Inc. will create a proactive utility management plan that will eliminate schedule impacts.

Project Management Plan

We will manage this project through co-location and constant communication. Our team will provide the necessary personnel, equipment, materials, supplies and subcontractors to exceed the project goals and complete the project. Our processes are designed to integrate TxDOT into all aspects of project management and to expedite permitting and coordination with federal, state and local agencies.

Safety

Safety is an integral part of the design-build-maintain process. Safety team members will be present at technical work groups, constructability reviews and preconstruction conferences. Our Safety and Health plan includes project-specific policies and procedures tailored to the possible safety risks associated with completing the work required for this job. This includes site-specific fall protection and job hazard analysis. All project personnel will receive orientation and training. Safety training will be reinforced through weekly toolbox talks monthly job-site meetings, quarterly safety stand-downs and quarterly training.

Risk Management

We will use our four-step approach to risk management — identify, assess, respond and control — throughout the project. We have developed a preliminary risk matrix, Table D.13 included in the Project Management Plan section of this proposal. We have identified potential risks associated with the design, construction and maintenance phases of the project and suggested solutions for each. We know that the biggest risk factor for all phases of the project is poor communication. By implementing our communication approach – based on co-location, cross-disciplinary reviews, partnering, and problem resolution – we will eliminate the majority of potential risks associated with design delays, design errors, constructability, safety, quality and compliance.

Construction and Traffic Management During Construction

The division and simultaneous progression of this project in three "areas of work" will allow us to efficiently develop design, coordinate utility relocations and build the work in the least disruptive manner to the traveling public. Our staging areas and construction sequencing are illustrated in the Project Management Plan, figure D.7, US 77 Upgrade Project Depicting Proposed Construction Facilities Sites.

Schedule and Cost Control Management

All scheduling for this project will be maintained in P6 by our project scheduler, Larry Schneider. The Project Controls Manager will gather and cross-reference data and information from daily reports, design package submittal logs, utility matrices, superintendents' daily reports, foremen's daily logs, time sheets, delivery tickets, as-builts and site visits.

Environmental Management

Austin-Bay will ensure compliance with all environmental laws, rules, and regulations. Our Comprehensive Environmental Protection Program (CEPP) will stress avoidance and mitigation measures to prevent and minimize any impacts and continue our history of zero

violations. The CEPP will provide a training program for all design and construction personnel, including subcontractors, covering storm water, hazardous materials, and endangered species protection.

Design Management

We will use design task protocols, standardized design hardware and software, plan and detail sheet templates, and our co-location and communication approach to ensure integrated, coordinated, consistent and quality design.

Maintenance and Traffic Management During CMA Term

We will submit a maintenance traffic management plan within 60 days after maintenance NTP1. Mr. Webb will coordinate with TxDOT and all stakeholders. We will minimize lane closures associated with planned maintenance and emergency response operations and our maintenance personnel will be available 24 hours per day, seven days per week to respond to traffic control issues.

Mentoring and Job Training

Our mentoring and job training plan, subject to TxDOT's review, comments and approval, will be incorporated into the executed DBA documents as Exhibit 8 and CMA documents as Exhibit 5. Our plan includes a nationally-recognized mentor-protégé program and on the job training based on the AGC apprentice training program.

Quality Management Plan

Our quality management plan (QMP) is based on continuous improvement and preventative action through process evaluation, training and implementation. Our QMP meets the requirements of ISO 9001:2008 and the processes set forth in TxDOT's Design-Build Quality Assurance Program Implementation Guide. It describes the roles and responsibilities of quality management from design through construction and capital maintenance. Our quality management team and their support staff will ensure the QMP is implemented and adhered to with the authority and obligation to stop work should a quality-related issue warrant such action.

Design quality will proceed in the following three phases:

- Internal peer reviews – to encourage new and innovative ideas and ensure all design criteria are followed.
- PSCQM reviews – to ensure documents are checked in accordance with accepted engineering practices in the state of Texas and the methods and procedures contained in the DQMP.
- DQAM reviews – to perform a back check of the submittals reviewed by the PSCQM staff to ensure that all comments have been addressed.

Construction quality will also proceed in three phases as follows:

- Preparatory meetings – to review approved submittals, plans and specifications, safety and testing requirements.
- Initial inspections – to review workmanship quality and any deficient or nonconformance issues and to accept or reject the initial segment of work.
- Follow-up inspections – to ensure compliance with the plans and specifications, document any deficient and/or nonconforming work and identify corrective action needed for final acceptance.

Capital maintenance quality will develop the maintenance services QC plan and submit the plan for TxDOT approval. This will include an annual report summarizing the actual versus planned maintenance services completed, along with an assessment of compliance with traffic control requirements.

Approach to Satisfying DBE Requirements

On November 9, 2012 Austin-Bay conducted a DBE outreach event in Corpus Christi where we presented scope elements of the project that we have exclusively reserved for DBE participation. We will continue outreach activities throughout the life of the project. Our team is committed to exceeding the 6% participation goal as we have done multiple times on other projects. We are currently achieving 54% DBE participation on the DART Blue Line Extension to Rowlett project. Our DBE program is successful because it includes a critical mentor-protégé component. We do not just wish to meet a goal. We want to partner with DBE businesses to help them increase their capacity, learn best practices, and develop long-lasting relationships in the industry. All subcontractors, including DBE businesses, are integrated into our team and receive the same training in safety and quality. They are also held to the same high standards for performance, ethics and compliance that we hold for ourselves.

Austin-Bay is pleased to submit this proposal to design, construct and maintain the US 77 Kingsville to Driscoll project for TxDOT. We look forward to being your contractor of choice, and to delivering a project that will bring mobility and economic growth to South Texas for years to come.