

# EXECUTIVE SUMMARY



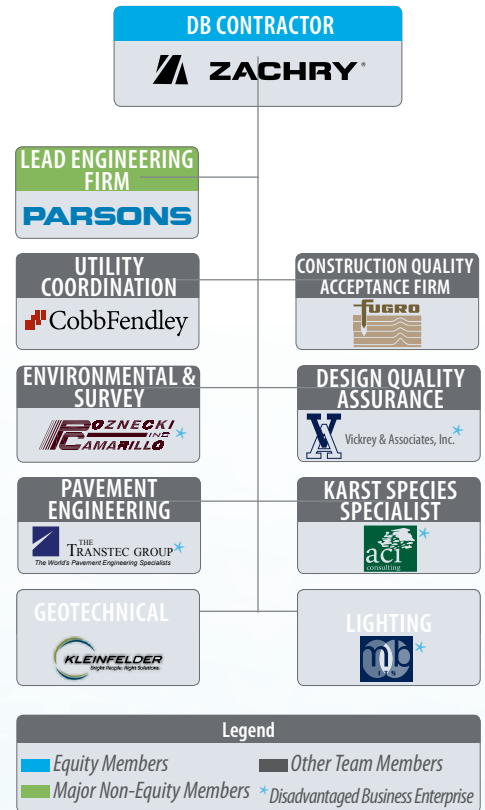


## INTRODUCTION

The Zachry Team is local to San Antonio. Not only do Zachry Team members design and build projects in San Antonio, but many of our highly experienced and dedicated employees live, work and play within and adjacent to the Loop 1604 Western Extension Project (the Project) corridor. As a result, our team considers the Project as more than just another project. The Zachry Team is composed of DB Contractor, Zachry Construction Corporation (Zachry), and Lead Engineering Firm Parsons Transportation Group Inc. (Parsons) and a select group of engineers, and environmental specialists chosen for their proven experience in successfully delivering design-build (DB) projects. Our team members were selected because of their TxDOT DB experience, their local presence in San Antonio, and extensive knowledge of the Project corridor. Our team has developed a design and construction approach that not only meets TxDOT’s goals and objectives for the Project, but in many instances exceeds them. Our overall approach to the Project:

- Reduces Project costs by \$2.6 million through ATC #2, a modified diverging diamond interchange (MDDI)
- Optimizes the use of planned right-of-way (ROW) to achieve approximately \$6 million in TxDOT-defined complexity points
- Recovers 209,000 cubic yards of on-site material through the use of biofiltration swales
- Minimizes impacts to the traveling public through Zachry’s exclusive haul route
- The proposed MDDI concept for the Option is the first of its kind in the United States and is an innovative design that modifies major ramp movements, and enhances overall operational efficiencies
- Key managers from the Loop 375 (America’s Interchange) project will transition to this project, ensuring the successes and lessons learned on that successful project are applied to this Project.

## The Zachry Team



The Zachry Team’s proposed modified diverging diamond interchange for the Loop 1604 and SH 151 interchange



## B. CHANGES TO PROPOSER'S QS

There have been no changes to the QS other than those provided in Section C, Changes in the Zachry Team.

## C. CHANGES IN THE ZACHRY TEAM

The Zachry Team members are shown in the chart on page 1; our Major Participants remain intact and engaged from those shown in the QS. All changes in organization and Key Personnel were submitted to TxDOT on July 1, 2013. TxDOT approval letters are provided in Section B of the Technical Proposal. These changes are summarized below.

- To meet the requirements of the Technical Provisions, the Independent Design Quality Assurance firm, Vickrey & Associates, reports directly to Zachry.
- Zara Environmental was proposed in the QS as the Karst Species Specialist. During the proposal phase, TxDOT subsequently conflicted this firm out and we have replaced them with aci consulting, a division of aci group, LLC. In addition, the Karst Species Specialist now reports directly to Zachry.
- James Holt, PE, is the Construction Quality Control Manager (CQCM).

## D. SUMMARY OF PROPOSED MANAGEMENT, DECISION MAKING AND OPERATION STRUCTURE

Zachry, with a partnering approach and commitment to team building, will work closely with, and consider TxDOT a partner, in order to achieve the goals and objectives outlined throughout the RFP.

Our Key Personnel shown on the organizational chart were carefully chosen, based on their DB experience, experience with TxDOT, knowledge of the local area, and unique qualifications for this particular Project. The Zachry Team commits each of these individuals to the Project. Commitment letters for the Key Personnel are found in Section B of the Technical Proposal.

## ORGANIZATIONAL APPROACH

With full access to local and national resources of both Zachry and Parsons, the Zachry Team commits all the required personnel, equipment, material and financial resources to successfully deliver the Project. The Zachry Team will participate with TxDOT in the partnering process and will remain current on the Project's status and progress. Our management structure has clear lines of authority and communications. Our team is led by Project Manager, Willie Kramer, III, and supported by Design Manager Russell Clark, PE, CFM, and Construction Manager, Brian Smith – who will facilitate cross-discipline coordination, collaboration and integration. Project design discipline leads will manage discipline-specific activities, providing direction and coordination between teams to ensure consistency of delivery, and serving as liaisons with their construction counterparts. Our Design Quality Assurance Manager, Steven Horvath, PE, RPLS, and our Construction Quality Control Manager, James Holt, PE, will have dual reporting to TxDOT and Willie, as well as to Zachry's San Antonio-based executive management. The entire Project team will be accountable for ensuring that we exceed the quality expectations of the Project. We

## A. PROPOSAL CONTENTS

The Proposal has been organized according to the Instruction to Proposers, Exhibit E. The Zachry Team has included a reference copy of Exhibit E as requested.

### A. Executive Summary

### B. Proposer Information, Certifications & Documents

- Form A
- Organizational and Authorization Documents
- Form B-1
- Form B-2
- Form B-3
- Form C
- Form D
- Form E
- Key Personnel Statements of Availability
- Safety Manager Qualifications Commitment Statement
- Copies of TxDOT Letter(s) Approving Changes in Key Personnel
- Copies of TxDOT Letter(s) Approving Changes in Proposer's Organization
- Form F
- Form G
- Form H
- Form I
- Form J
- Form P
- Form Q
- Form R
- Guarantor Letter
- Surety Information
- Exhibit H

### C. Proposal Security

- Form K

### D. Project Development Plan

- Technical Solutions
- Project Management Plan
- Quality Management Plan

### E. Substantial Completion Dates

- Form O

### F. Appendices

- Key Personnel Resumes and References
- Technical Drawings, Graphs and Data
- Preliminary Project Baseline
- Schedule for Base Scope
- Preliminary Project Baseline Schedule for Option



will utilize a proven partnering approach with internal team members, TxDOT, utility agencies and other stakeholders to establish key counterparts and lines of communication to address potential challenges. Our integrated project team will manage coordination of the all project elements and the wide range of disciplines involved through weekly task force and cross-discipline workshops, and through informal daily interactions. Managers for health and safety, environmental compliance, project schedule and controls report directly to Willie. The process for major decision-making among the team includes consultation with and guidance from Zachry executive management.

## E. PROJECT DEVELOPMENT PLAN

### TECHNICAL SOLUTIONS

#### DESIGN AND CONSTRUCTION PLAN

The Zachry Team challenged our design and construction professionals to develop a design and construction approach that is innovative and tailored to the Project’s needs while also exceeding TxDOT’s goals. Our team evaluated multiple ATCs and submitted three to TxDOT for review. Of those three, two were conditionally approved, and our team ultimately selected one — ATC #2 — that meets all of the conditions requested by TxDOT. The ATC selected is an emerging interchange concept that is gaining acceptance in the U.S., called a diverging diamond interchange. The our innovative modified diverging diamond interchange (MDDI) design and its benefits are shown graphically on page 6.

Our design efforts did not stop with ATC #2. More than 14 value-added concepts were developed for the Base Scope and Option, saving construction dollars, improving geometry, addressing environmental issues, and developing construction strategies that minimize inconvenience to the traveling public. Notable value-added improvements include the following:

1. Providing embankment material and developing green infrastructure practices through the use of biofiltration swales
2. Minimizing impact to mainline traffic during construction through the use of existing culvert barrels
3. Using the proposed culvert headwall as part of the retaining system when a retaining wall is needed
4. Using improved culvert entrance geometry to mitigate the addition of new barrels
5. Optimizing roadway profiles

### PROJECT MANAGEMENT PLAN

**Management of the Project** – Partnering and communication with TxDOT will be critical to the success of this Project. The Zachry Team’s Project Management Plan (PMP) is comprised of communication and coordination methods and strategies, such as co-location, task force meetings and document management, to control design and construction activities and to ensure the overall success of the Project.

**Organizational Structure and Key Personnel Roles** – Zachry will be the principal DB Contractor. The commencement of the Project coincides with the conclusion of several large

Willie began his career with Zachry working on the Eastbound I-10 Segmental Bridge Project for TxDOT in 1989 and has since then overseen the construction of several TxDOT projects in San Antonio. In that time, he worked directly with the San Antonio District personnel as well as personnel from the San Antonio area offices.

#### MODIFIED DIVERGING DIAMOND INTERCHANGE



*The Zachry Team’s innovative MDDI design enhances operational efficiencies while saving money and accelerating the construction schedule.*

projects for Zachry, making available the resources needed to support the Project at every level. Many of the same managers from the Loop 375 (America's Interchange) project, like Willie Kramer, III, the Project Manager, Brian Smith, the Construction Manager, and Tom Couling, AICP, the Environmental Compliance Manager, will transition to the Loop 1604 Western Extension Project.

**Risk Management** – Our team has thoroughly analyzed the Project risks and developed a detailed mitigation strategy. The application of the mitigation strategies identified, together with our extensive experience in dealing with these types of risks enables our team to maintain them to a manageable level.

**Construction and Traffic Management During Construction Period** – A detailed plan, schedule, and sequence of construction plan will be developed and used as the basis of our Traffic Management Plan (TMP). At each of the major phases and stages of construction, traffic management software (Synchro/SIM) has been used to evaluate traffic operations during construction.

**Schedule Management** – The Zachry Team will develop a critical path method (CPM), resource-loaded schedule for the Base Project and Option. The schedule will be used to manage the Project timelines and resource needs, prioritize material deliveries, and determine the overall progress of the work. Zachry will update the schedule weekly, provide a three-week look-ahead of upcoming tasks which will be

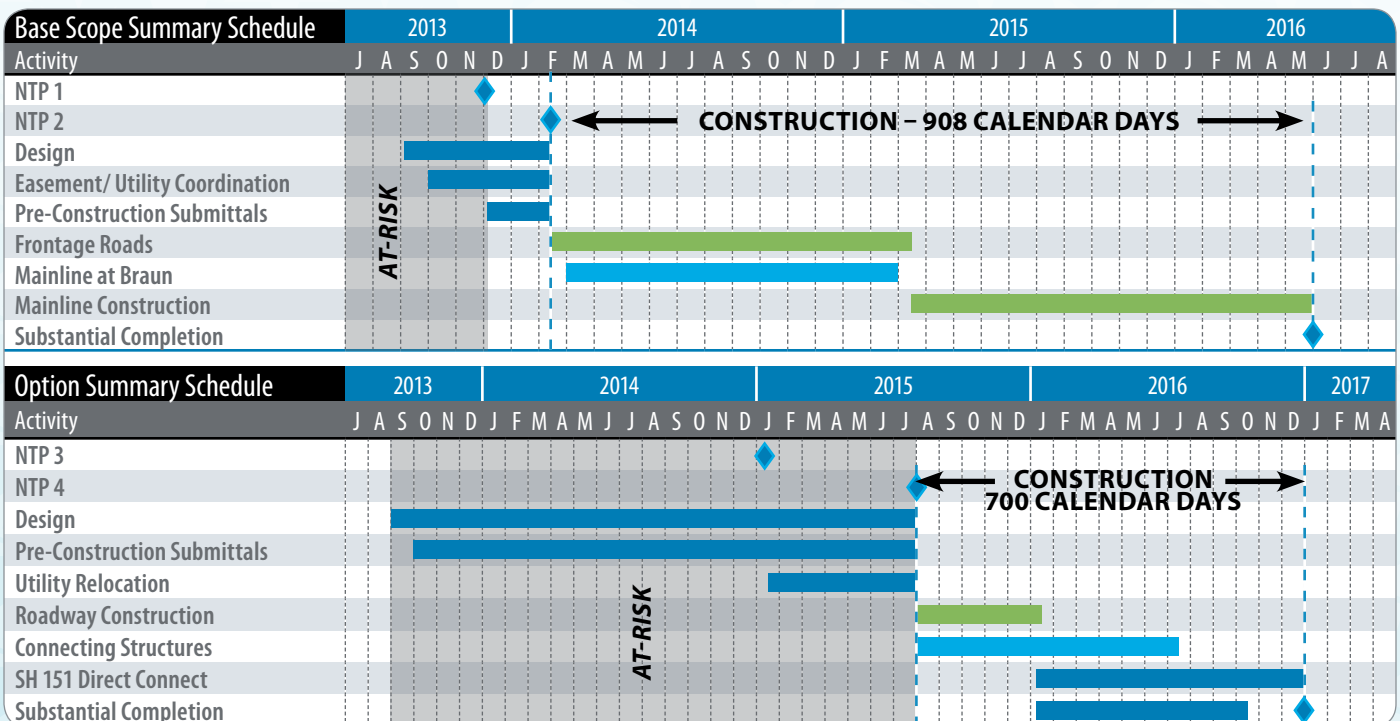
used to communicate any production issues to the senior management team, our partners, and TxDOT.

**Environmental Management** – Our environmental compliance program will be staffed with environmental professionals working under the Project's comprehensive environmental management program (CEMP). Tom Couling, AICP, will serve as the Environmental Compliance Manager. Tom will assist our partner, TxDOT, with the remaining permitting efforts of the Option area.

**Design Management** – Our Design Principal-in-Charge, Jack Meifert, PE; Design Manager, Russell Clark, PE, CFM; Deputy Design Manager John Perez, PE, CFM; and Design-Build Coordinator Mark Jurica, PE, will work together on a daily basis to organize design activities and design priorities, direct design leads, and coordinate with subconsultants to ensure project scope and goals are being addressed.

**Safety and Health Plan** – Don Stephens, CSHO, will be the Safety Manager and with the backing of Zachry's corporate safety department, will be responsible for promoting and supporting the Project management team in maintaining a proactive, safe, healthy and productive work environment.

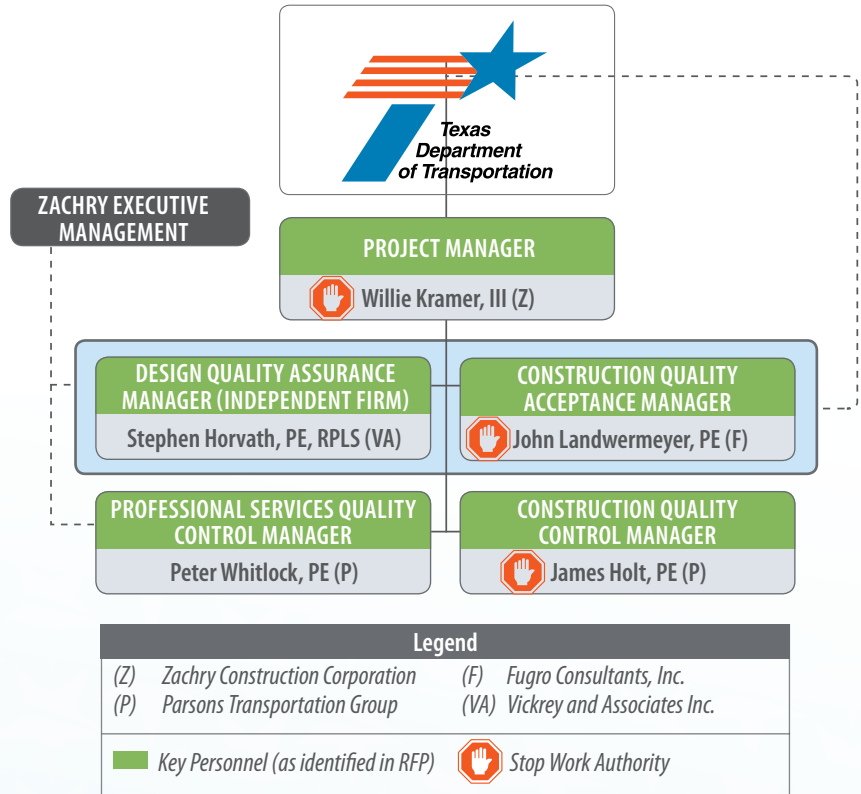
**Mentoring and Job Training** – Zachry will provide opportunities and assist and encourage qualified and certified DBEs to participate in the project execution process so that they can compete fairly and pursue and perform work on the Project.



### Quality Management Organization

#### QUALITY MANAGEMENT PLAN

Our team is committed to managing the quality program in a professional, collaborative, and responsible manner that ensures the Project is successfully built in accordance with the contract. Our team has structured its quality organization to manage the process in an efficient and effective manner and has successfully implemented quality plans for TxDOT DB projects, including the DFW Connector, Loop 375 (Americas Interchange) and SH 130 Segments 5 & 6. The quality staff will maintain autonomy from the production and scheduling teams to enforce compliance with the contract obligations, including stop work authority regarding matters of quality. The Quality Management Plan (QMP) will be centered on principles of ISO 9001, and will enable TxDOT to monitor, audit and measure our performance throughout the design and construction phases of the Project.



**Design** – The Design Quality Management Plan (DQMP) defines the design review, submittal, and revision processes and technical requirements. We will engage in a series of informal and formal design reviews to ensure compliance with the contract and review compliance, constructability, usability, reliability, maintainability, operability, and safety of the design. We will control and track design changes through a systematic approach which ensures the Project is built using the most current design plans.

**Construction** – The Construction Quality Management Plan (CQMP) will focus on plan design adherence and prevent deficiencies and noncompliance of work. Our CQMP includes detailed preventative processes based on planning and communication to promote immediate action so that deficiencies are avoided. In the event they occur, our CQMP contains processes for immediate corrective action, issue tracking and reporting, and process changes to prevent repeat noncompliance or defective work. Our quality staff will provide TxDOT with adequate notice and access to the site to facilitate TxDOT’s oversight responsibilities.

## F. APPROACH TO SATISFYING THE DBE REQUIREMENTS

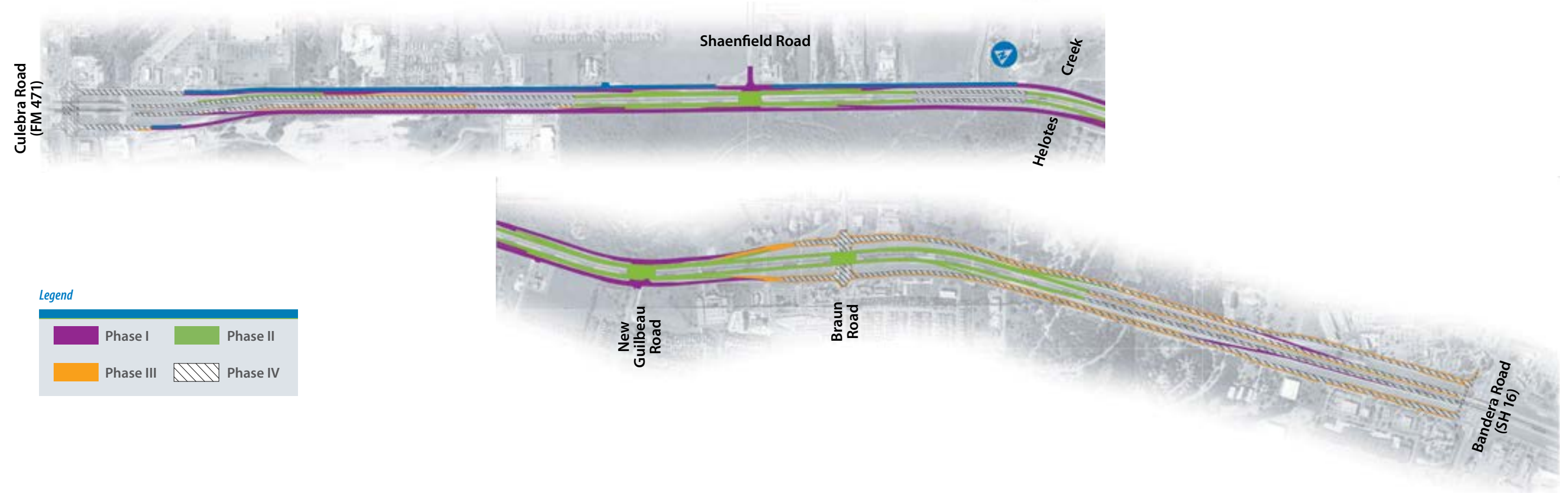
Zachry has consistently demonstrated an unyielding commitment to the growth and development of DBEs. Zachry received TxDOT’s “Small Business Advocacy Award,” the first award of its kind to be presented by TxDOT for Supplier Diversity and Mentor Protégé Programs. As with all of our projects, our team will be proactive in exceeding the level of participation identified by TxDOT. We have an in-depth understanding of the local DBE subcontractor and vendor markets. We commit to providing maximum opportunity for these businesses to participate in the execution of the work.

Zachry will implement mentor-protégé relationships and on-the-job training programs to facilitate the development of the DBEs in their field of expertise. As part of the mentor program, we will host educational workshops, provide assistance and support, and maintain an open door policy with DBEs to ensure their success on the Project.

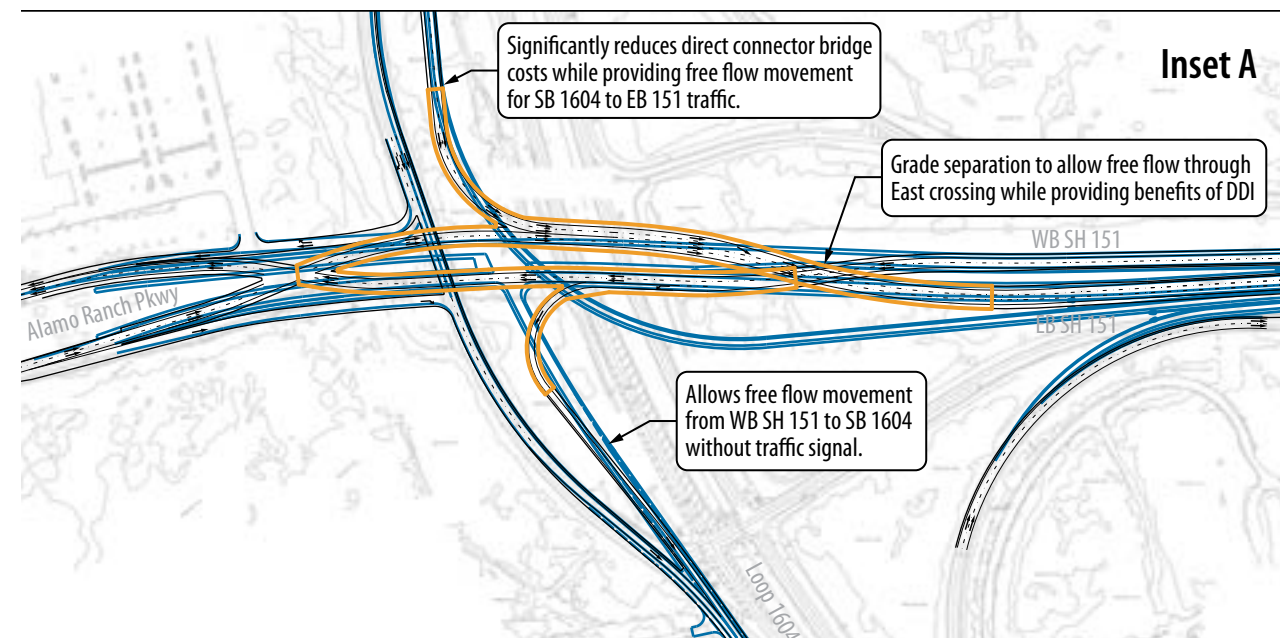
It is our firm commitment to exceed the Project’s goals of 8 percent DBE participation.



BASE SCOPE CONSTRUCTION PHASING



MDDI SCHEMATIC



BENEFITS OF THE MDDI

- Enhances the interchange by adding and modifying major ramp movements.
- Enhances overall operational efficiencies of the interchange, including adjacent frontage roads.
- Simplifies the traffic handling during construction, resulting in reduced traffic impacts.
- Increases project safety during construction by reducing construction-related impacts.
- Reduces overall project costs by \$2.6 million.
- Reduces the project costs, particularly structures costs, without increasing long-term maintenance costs.
- Mitigates environmental impacts by reducing the number of bridge foundations that would be required for a longer direct connector bridge structure.
- Allows for easy future expansion of the interchange to include ramps from northbound Loop 1604 to westbound SH 151 and from eastbound SH 151 to northbound Loop 1604.