

EXECUTIVE SUMMARY

IH 35E MANAGED LANES PROJECT

INTRODUCTION

Dallas to Denton Constructors (D2d) is a fully integrated joint venture between Zachry Construction Corporation (Zachry), as managing partner, and SNC-Lavalin as partner. This joint venture combines the talents, resources and capabilities of two of the most respected, national and international companies in the construction industry.

D2d recognizes the strategic importance of IH 35E as a national trade corridor between Mexico and Canada, and a daily route for thousands of commuters. D2d's execution plan and alternative technical concepts (ATCs) are focused on mitigating any impacts to this vital link. We have focused our efforts to develop a design and project approach that transforms TxDOT and the SB1420 committee's goals and objectives for the IH 35E Managed Lanes Project (the Project) into a success. Our management and technical solutions:

- ▶ Achieve an enhanced Work Package 4 (WP4)
- ▶ Minimize planned right of way (ROW) acquisitions by six parcels, providing approved TxDOT savings and reducing the schedule duration.
- ▶ Improve the Belt Line Road interchange through D2d's ATC 10. This provides considerable cost savings, reduces the schedule duration and includes the new IH 35E bridge over Belt Line Road, thus constructing more of the base project and the Ultimate Project. It also eliminates two pump stations, which decreases initial construction costs and future maintenance requirements.
- ▶ Realign and simplify the Interim Project through Conditionally Approved ATCs that will minimize inconvenience to businesses and surrounding communities.
- ▶ Leverage ATCs to avoid utility relocation costs and reduce Project schedule risk created by these relocations.
- ▶ Incorporate ATCs that reduce and avoid impacts to railroads by eliminating six new railroad bridges and deferring track relocation risk to our delivery schedule. This will be accomplished while minimizing disruptions to the railroads and traveling public.
- ▶ Minimize future TxDOT inspection and maintenance costs by reconfiguring and reducing bridge lengths.
- ▶ Achieve an improved schedule through our innovative solutions, as D2d team members have accomplished on the Dallas County IH 635 High Five (completed more than a year ahead of schedule) and will accomplish on the DFW Connector (projected to complete nine months early).

1 PROPOSAL CONTENTS

D2d has organized its Proposal according to Exhibit E in the Instructions to Proposers:

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D. APPENDICES

- Key Personnel Resumes and References
- Technical Drawings, Graphs and Data
- Preliminary Project Baseline Schedule
- ATC Approval Letters

E. WORK PACKAGE IDENTIFICATION

- Form T-1

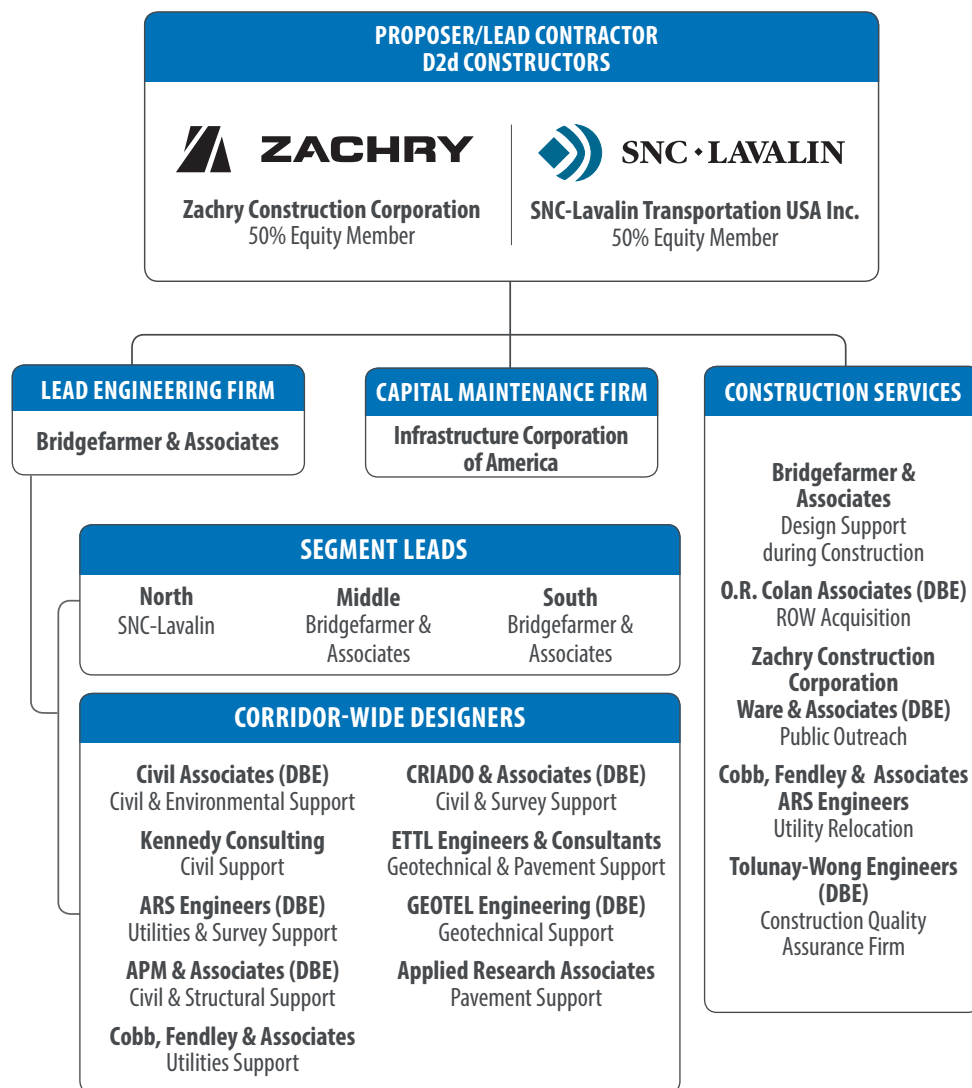
2 CHANGES TO PROPOSER'S QS

Aside from the organizational revisions described below in *Changes to the Dallas to Denton Constructors Team*, there are no other modifications to the QS submitted on March 23, 2012, and the subsequent responses to Request for Clarifications submitted on March 28, April 2, April 4 and April 26 of 2012.

3 CHANGES TO THE DALLAS TO DENTON CONSTRUCTORS TEAM

Exhibit 1 depicts D2d's team organization. All changes to our team's Equity Members, Major Participants and Key Personnel have been submitted to and approved by TxDOT prior to the Proposal submission. Letters confirming TxDOT's approval can be found in Section B; these changes are summarized in the adjacent column.

Exhibit 1: Teaming Arrangements



ORGANIZATIONAL CHANGES

- ▶ SNC-Lavalin Transportation USA Inc. amends SNC-Lavalin Inc. as Equity Member and joint venture partner
- ▶ URS Corporation and Golder Associates are no longer part of the D2d team
- ▶ Infrastructure Group Texas, LLC will provide Civil and Structural Engineering Support
- ▶ Applied Research Associates, Inc. will provide Pavement Support

KEY PERSONNEL CHANGES

- ▶ Kyle Wallis, PE as Superintendent
- ▶ Danny Kahler, PE as Lead Quality Manager
- ▶ Tzu Jui (Megan) Tang, PE as Lead Bridge Design Engineer
- ▶ Stephen Smiley, PE as Professional Services Quality Control Manager
- ▶ Joe Graff, PE, as the Alternate Maintenance Manager

KEY PERSONNEL ADDITIONS

- ▶ Charles (Chuck) Royko as Maintenance Quality Control Manager; Gerald (Jerry) Lansaw as the alternate
- ▶ Tara Snowden as Public Information Coordinator
- ▶ Todd Salvatore as Right of Way Acquisition Manager

4 PROPOSED MANAGEMENT, DECISION MAKING AND DAY-TO-DAY OPERATION OF PROPOSER

The D2d joint venture will be fully backed by the resources of the Equity Members and Major Participant firms. With a commitment to team building and a partnering approach, we will work in concert with TxDOT to achieve the goals and objectives outlined in the RFP.

Our Key Personnel shown on the organization chart in Section C were chosen based on their experience and unique qualifications for this Project. **D2d commits each of these individuals to the success of the Project.** Commitment letters for the Key Personnel are found in Section B of the Technical Proposal.

ORGANIZATIONAL APPROACH

D2d's three-member JV Executive Committee represents the Equity Members who have been delegated full authority for the affairs of the Project by their respective firms. The JV Executive Committee will support and commit the resources necessary to ensure the success of the Project team.

Project Manager, Gary Doty, is the manager of the JV and has been delegated the full authority to carry out the plans and decisions regarding the Project. He will supervise and manage the day-to-day, on-site operations as he did on the Dallas High Five and the SH 130. In this capacity, Gary will maintain an open-door policy with direct Project staff and have the final say over any internal disputes that may arise, with the exception of those involving quality. The Design-Build Coordinator will assist Gary in resolving these issues. Gary will oversee all administrative functions and task leaders for utilities, ROW acquisition, environmental compliance and public information.

Superintendent, Kyle Wallis, PE, is responsible for safety, quality, labor, equipment, materials, cost and schedule. The Area Managers will report to Kyle. Our management team will work together to coordinate Project resources. Design-Build Coordinator, Mike Lichtensteiger, is responsible for design-build coordination, project engineering, task force leads, constructability and design schedule. He will work with Design Manager, Shahriar Azad, PE, to ensure the design meets all technical requirements. The D2d Maintenance Coordinator will lead the capital maintenance activities. Maintenance Manager, Zane Webb, PE, will be involved in both the design and construction phases, ensuring a smooth transition to the capital maintenance phase.

The Lead Quality Manager, Danny Kahler, PE, reports directly to the JV Executive Committee. The quality control team under Danny will be independent from the production team. The Construction Quality Acceptance Firm, Tolunay-Wong Engineers, reports to TxDOT and through Danny to the JV Executive Committee, providing TxDOT with an independent evaluation of D2d's work.

GARY DOTY PROJECT MANAGER

Gary's 32 years of Texas heavy civil experience includes the SH 130 and the Dallas High Five, which was recognized for its complexity, utility challenges and early completion a year ahead of schedule.

KYLE WALLIS, PE SUPERINTENDENT

Kyle's 14 years of heavy civil construction experience features two recent Metroplex projects: the \$224-million SH 114/Loop 12 and the \$121-million President George Bush Turnpike.

MIKE LICHTENSTEIGER DESIGN-BUILD COORDINATOR

Mike's more than 30 years of international, design-build coordination experience includes the \$1.9-billion Canada Line Project and the \$2-billion Southeast Stoney Trail Project.

DANNY KAHLER, PE LEAD QUALITY MANAGER

Over Danny's 27 years of experience, he has independently monitored, overseen, and audited design-build projects totaling more than \$6.5 billion.

5A SUMMARY OF TECHNICAL SOLUTIONS

DESIGN AND CONSTRUCTION PLAN

D2d's design, construction and capital maintenance team focused on TxDOT's goals, with our primary and guiding principle being to deliver as much of the Project as possible while achieving TxDOT's goals. The team tested each of our technical solutions to fully maximize the base scope and meet TxDOT's goals. Our technical solutions not only involve innovative approaches to designing and building the Project, but also draw from our experience and expertise working on similar projects to craft a coordinated and successful plan.

After thoroughly evaluating TxDOT's Preliminary Plans, D2d submitted 19 ATCs, 12 of which were Conditionally Approved. D2d has included seven ATCs in our Technical Proposal that are a part of Work Package 4 (WP4). D2d has provided TxDOT and Stakeholders an enhanced solution that significantly reduces the ROW requirements at the SH 121 interchange. Our solution provides TxDOT the opportunity to construct the SH 121 connector ramps within the budgetary limits of WP4 if desired. Our solution also:

- ▶ Expedites Project delivery, minimizes risks and provides more of the Ultimate Project
- ▶ Reduces ROW acquisitions by six parcels and saves construction and utility relocation costs that can be applied to maximize the Project
- ▶ Eliminates 60% of the utility relocations at Belt Line Road
- ▶ Provides grade-separated railroad crossings and minimizes delays due to railroad coordination
- ▶ Reduces schedule by 61 days from the required completion date, which allows D2d to minimize impacts to traffic and the local community

Central to our overall Project approach is the dramatic simplification of the required work at Belt Line Road. D2d's ATC 10 brings into this work package the new IH 35E bridge over Belt Line Road. This solution streamlines the overall approach to work in this area, allows D2d to build more of the Ultimate Project and provides significant economic and functional benefit to the community, while shortening construction time, increasing schedule certainty, eliminating six railroad bridges, removing substantial utility relocations and significantly reducing costs. In addition, by implementing ATC 10, we will achieve significant savings by reductions in future maintenance costs.

D2d has developed significant ATCs to meet TxDOT's goals with an added objective to implement the Ultimate Project scope wherever possible. The Belt Line interchange has the greatest overall risk and impact to the public, and more specifically, affects the Carrollton community, local businesses, utilities and traveling public with very high risks associated with constructing the depressed roadways within this interchange.

Our Conditionally Approved ATCs 8, 10 and 18 will eliminate impacts, construction risks and schedule uncertainty, and will provide added value to the Carrollton community; this has been measured against our sizeable cost savings, simplified Traffic Management Plan, and a 12-month improvement to our schedule when compared to the original Interim Schematic.

Exhibit 2 depicts our solution to the Belt Line Road intersection and is included in our Proposal.

To deliver the Project on schedule successfully, the plan to execute the work is driven by the following key schedule components:

- ▶ Environmental compliance and permits
- ▶ Acquisition of critical parcels within the Project ROW
- ▶ Completion of utility relocations

This plan not only supports TxDOT's goals to complete the Project ahead of schedule but also, more importantly, ensures turn-over of the Managed Lanes to the toll integrator six months prior to Substantial Completion. Furthermore, based on the complexity and duration of the work and the known utility conflicts, we have prioritized our work sequencing as follows:

Critical Areas. Critical areas on the Project include the Belt Line Road area work and the work in the Lake Lewisville Area. The Belt Line Road area is in a high priority due to the railroad agreement, ROW acquisition, utility relocations and the complexity of work. The Lake Lewisville Area is on the Project's Critical Path, and is a high priority due to volume, complexity of work and USACE permitting, combined with the limited window to connect the ATMOS 16" gas line. Additionally, Section 4-f Mitigation, which includes developing parks and trails, has to be completed within 12 months of NTP1.

Other Key Areas. The Project's other key areas include work at FM 407 and the Managed Lanes. The work in these areas have specific drivers that require special attention and include:

- ▶ FM 407 - the community wants it early, required to start six months after NTP1
- ▶ Managed Lanes on the Project - required six months before Substantial Completion

Exhibit 2: ATC 10 – Belt Line Road Intersection



Exhibit 3: Corridor Map with Proposed ATCs for the IH 35E Managed Lanes Project

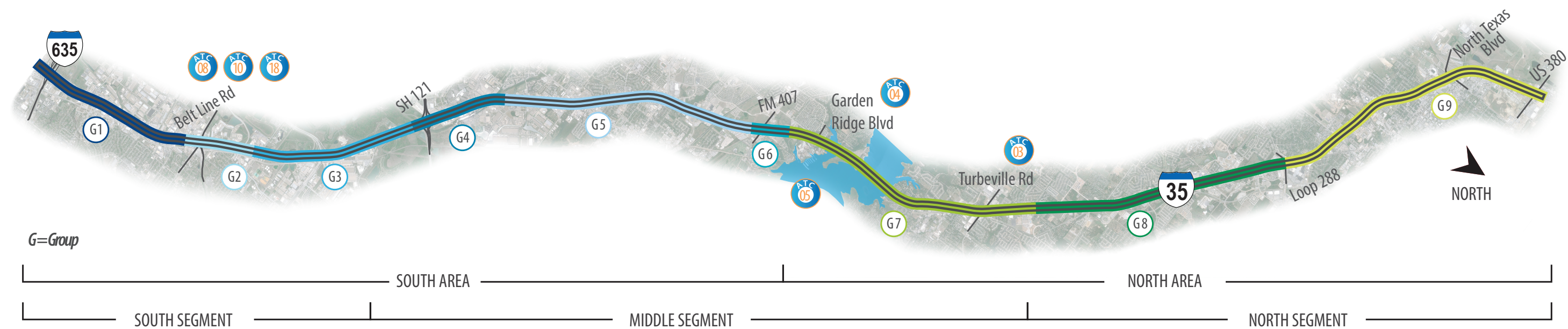


Exhibit 3 demonstrates how we will divide the Project’s construction into North and South Areas to expedite the work. D2d has separated the work into nine Groups: six in the South Area and three in the North Area. The work is scheduled and executed according to these Groups to achieve maximum flexibility, taking into consideration the ROW acquisitions and utility relocations that must be accomplished within each Group.

ATC	BENEFIT TO TXDOT AND PUBLIC	
	<ul style="list-style-type: none">- Eliminates two ROW parcel takings, improves property development opportunities and reduces construction impacts	<ul style="list-style-type: none">- Reduces capital maintenance costs- Reduces construction cost to provide for the Ultimate Project
	<ul style="list-style-type: none">- Reduces maintenance costs- Reduces impacts on traffic and community during construction	<ul style="list-style-type: none">- Reduces construction cost to provide for the Ultimate Project- Provides grade-separated crossing to DCTA tracks
	<ul style="list-style-type: none">- Reduces maintenance costs- Reduces construction cost for the Ultimate Project	<ul style="list-style-type: none">- Enables the construction of the Highland Village IH 35E crossing, prior to the construction of the Ultimate Project
	<ul style="list-style-type: none">- Reduces ROW acquisitions- Reduces construction cost	<ul style="list-style-type: none">- Reduces environmental impacts resulting from in-stream work

ATC	BENEFIT TO TXDOT AND PUBLIC	
	<ul style="list-style-type: none">- Reduces ROW acquisition- Expedites Project delivery by over 12 months- Reduces impact on traffic during construction and reduces construction impacts to local businesses	<ul style="list-style-type: none">- Optimized access for existing businesses and allowance for pedestrian path access to DART Station and Belt Line Road interchange
	<ul style="list-style-type: none">- Maintains connection between Broadway and Belt Line Road, which improves access to downtown Carrollton- Provides the option for developing downtown Carrollton parking under IH 35E- Eliminates six railroad bridges and impacts to operations- Reduces maintenance costs	<ul style="list-style-type: none">- Eliminates the need for a new pump station- Improves vehicle line of sight- Eliminates the need to relocate 29 utilities by elevating roadway- Eliminates the costs of moving the 66 in. water main adjacent to DART crossing- Reduces impact to future 72 in. water main construction at the same crossing location
	<ul style="list-style-type: none">- Reduces ROW acquisitions- Reduces impacts on existing business	<ul style="list-style-type: none">- Expedites Project Delivery- Provides for the Ultimate Project

The D2d team has developed a plan for the execution of the work that results in achieving Substantial Completion 1,217 days after NTP1. Our plan addresses the most significant schedule challenges by:

- We have detailed our plan for the execution of the work in the Preliminary Project Baseline Schedule included in Appendix D.3 and summarized in **Exhibit 5** below.

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MAINTENANCE PLAN

Our approach to successfully transitioning into capital maintenance is to engage and integrate key capital maintenance personnel into the design and construction phases. We will incorporate their experience, lessons learned and best management practices, including innovative techniques that improve maintenance efficiency and effectiveness. This approach will serve as the foundation for the Maintenance Management Plan.

The D2d team includes Infrastructure Corporation of America (ICA) to provide the capital maintenance services under D2d's direction. ICA is a pioneer in transportation maintenance services in the United States and currently manages and maintains over 3,700 lane miles of roadway and 3,187 structures.

Our capital maintenance team will be led by our Maintenance Manager, Zane Webb, PE, a veteran of the TxDOT maintenance program. Other features of the Maintenance Management Plan include:

- ▶ Proven processes for inspections, audits, repairs and reporting
- ▶ A traffic management and safety plan that ensures maintenance activities progress safely and with minimal hindrance to the traveling public
- ▶ A communication plan that facilitates partnering with TxDOT and local agencies to inform Stakeholders
- ▶ Procedures that responsibly and easily turn over maintenance activities to TxDOT at the completion of our obligation

The Maintenance QC Manager, Charles (Chuck) Royko, will oversee the development, implementation and overall effectiveness of the Maintenance Services QC Plan during the capital maintenance phase. The Maintenance Services QC Plan will describe the system, policies and procedures that assess and document compliance with the contract documents.

5B SUMMARY OF THE PRELIMINARY PROJECT MANAGEMENT PLAN

GENERAL PROJECT MANAGEMENT

Communications: D2d takes a partnering approach to project management, as we did on the Dallas High Five and DFW Connector projects, and believes communication is key to the overall success of the Project. D2d team members, TxDOT and Stakeholders will receive frequent updates current on design and construction progress through methods such as co-location, constructability reviews, task force meetings, schedule reviews and document management.

Subcontractors: D2d believes in partnering and that design and construction are team efforts that require broad involvement to gather the ideas and work necessary to optimize the work. Critical subcontractors and suppliers will be involved during the design and planning process. D2d will use training, kick-off meetings and close supervision to integrate subcontractors into our team and to manage the quality and timeliness of their work to ensure safety and quality of every operation.

TxDOT/Local Agency: D2d will coordinate with TxDOT and local agencies to establish processes and procedures that ensure communication and coordination, and then work in a collaborative manner with all Stakeholders through Task Force Groups. This effort will include regular partnering sessions; co-locating with TxDOT on the Project site; and incorporating TxDOT, its consultants, and relevant agencies into appropriate management meetings to ensure full communications and coordination.

Utility Coordination: For permitting, third party approvals, utility and railroads coordination, D2d has identified each required activity as part of our Project schedule and will assign managers to be responsible for critical tasks to ensure full coordination and communication. For the critical task of providing ROW acquisition, our team is utilizing the extensive experience and support of our sub-consultant, Cobb Fendley & Associates, Inc. D2d will also work at risk to prepare the ROW packages to expedite the ROW acquisition process, a process we are very familiar with from our experience on the DFW Connector.

Key Personnel/Project Organization: The personnel committed to the Project were carefully selected based on their extensive experience and ability to work collaboratively with TxDOT and all Stakeholders to achieve the Project goals with a minimal learning curve. D2d has divided the Project into North and South Areas and has built its organization around working simultaneously in both Areas with Area Managers allowing us to control work in both areas and to quickly identify any issues and resolve them at the lowest level.

Risk Management: Our team has thoroughly analyzed the Project risks and developed a specific and detailed strategy to mitigate each risk. The mitigation strategies identified in our Proposal, together with our extensive experience in managing these types of risks in the Metroplex area, will enable our team to identify, plan for and ultimately mitigate identified and new risks as they are encountered. Our risk management approach will ensure that we prioritize significant risks that could impact the Project schedule, such as ROW acquisition and utility relocations.

Scheduling and Cost Control: Our Project Controls team will monitor the status and performance of all Project activities. Under the leadership of the Project Manager, the Area Schedulers and project controls staff will closely monitor and update Project schedule and cost while working closely with the Project Superintendent to coordinate all activities. We will use a cross-functional team approach, with an emphasis on ROW acquisitions, utility relocations and the identification of long-lead items to prepare the Project schedule. Subcontractor activities will be fully integrated and progressed with each schedule update. The team will use established meetings to monitor and adjust activities and maintain the overall schedule.

Design Management: Our Design Manager, Shahriar Azad, PE, and our Design-Build Coordinator, Mike Lichtensteiger, will work together daily to organize design activities and priorities. Their joint collaboration will ensure that constructability issues and construction priorities are incorporated into the design schedule. D2d will continue using the proven task force approach to integrate design, construction and appropriate TxDOT staff.

5C SUMMARY OF THE 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. The objectives of our Quality Program include:

- ▶ Establishing controls and protocols to ensure contract requirements are met and fully comply with ISO 9001
- ▶ Establishing a process that encourages continual improvements
- ▶ Developing, training and focusing personnel to achieve a culture of quality
- ▶ Creating an environment that encourages and recognizes teamwork, leadership, problem solving and a commitment to a high standard of quality

Functionally Independent Team: Our team has structured its quality organization to manage the process in an efficient and effective manner. The quality staff will maintain autonomy from the production team to enforce compliance with the contract obligations, including stop work authority regarding matters of quality. Our Lead Quality Manager, Danny Kahler, PE, will lead all quality activities. While he will coordinate closely with the Project Manager and the Superintendent, he will report to and receive his directly from the JV Executive Committee.

Design: The Design Quality Management Plan 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 constructability, usability, reliability, maintainability, operability and safety of the design. Formal design reviews will take place at 30%, 60%, 90%, and Released for Construction stages. Information reviews will include task force meetings, TxDOT over-the-shoulder reviews and constructability reviews. We will control and track design changes through a systematic approach that ensures the Project is built using the most current design plans.

Construction: Our construction team's goal is to prevent deficiencies and non-compliant work. Our Quality Management Plan (QMP) includes detailed preventative processes based on planning and communication to promote immediate action to avoid deficiencies. In the event a deficiency occurs, our QMP contains processes for immediate corrective action, issue tracking and reporting, and process changes to prevent repeat non-compliant or defective work. Our quality staff will provide TxDOT with adequate notice and full access to the site to facilitate its oversight responsibilities. D2d will utilize Tolunay-Wong Engineers as our Construction Quality Assurance Firm (CQAF) and they will work closely with our quality staff while reporting independently to TxDOT.

Capital Maintenance: Our Maintenance Services Quality Management Plan is based on the same principles as the design and construction quality plans, and implements the same processes for preventing and correcting deficiencies and non-compliant work. As with construction, quality and audit standards will be consistent with ISO 9001 and will include measures for control of quality records, management reviews, internal audit protocols and means of continual improvement.

In all of the above quality management processes, D2d will utilize independent auditing, full integration of TxDOT into the inspection process from scheduling to documentation of results, and utilize a document control system that documents, tracks and makes readily available all quality activities. Finally, D2d utilizes a proactive approach to review and correct deficiencies in a continuous learning environment to ensure repeat mistakes are avoided.

6 SUMMARY OF PROPOSER'S APPROACH TO SATISFYING DBE REQUIREMENTS

D2d brings a genuine commitment to TxDOT as we are driven by accountability that does not diminish when this contract concludes. This commitment extends beyond the terms of this contract and embraces local participation, especially Disadvantaged Business Enterprises (DBEs). We commit to providing maximum opportunity for these businesses to participate in the execution of the work. The IH 35E Project provides significant participation opportunities for local DBEs and firms listed in the Texas Unified Certification Program. In addition to our commitment to workforce diversity and our active apprenticeship program, D2D has implemented an aggressive Mentoring and Job Training Plan to maximize DBE involvement and exceed the DBE goal.