

Executive Summary

Fluor Balfour Beatty Williams Brothers (FBW) was formed six years ago with specific focus on delivery and execution of the SH 99 Grand Parkway Project. The FBW team provides TxDOT with the corporate structure, experience, resources, and the local and technical knowledge to deliver the SH 99 Grand Parkway Segments H, I-1, and I-2 Project (GP H&I), (**see Figure ES-1)** on time, within budget, and with a high degree of partnering and quality instilled from day one throughout the project team.

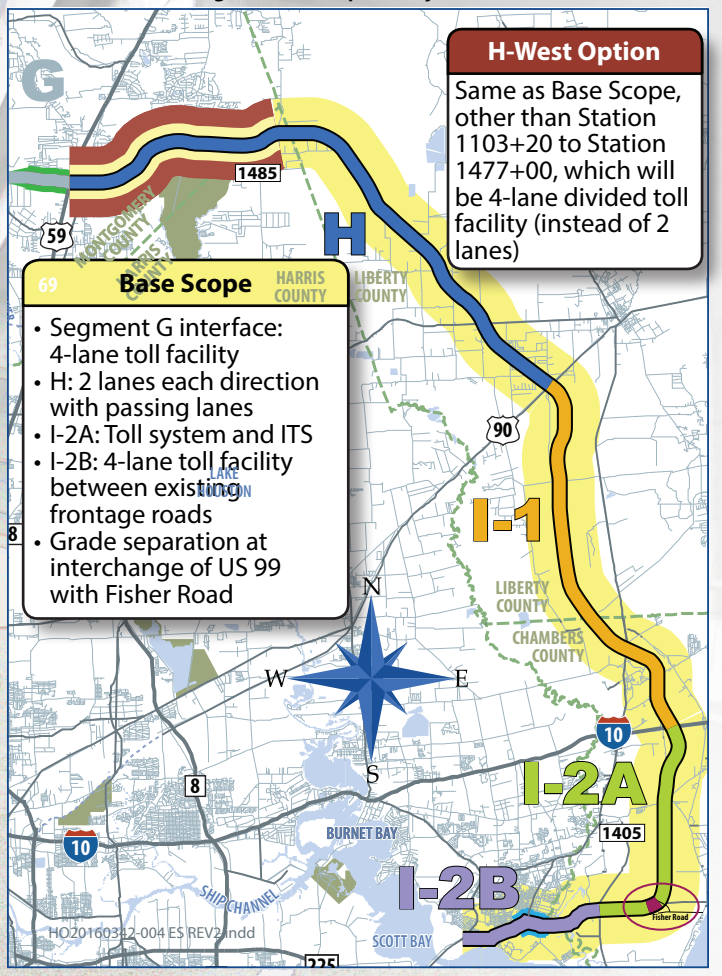
Through FBW's proposal development, our team has worked together to tackle the project challenges with an innovative design, construction, and maintenance approach that will satisfy the financial and technical requirements of the Project with minimal impact to the public.

FBW brings together three of the largest, most experienced, and most successful Design-Build (DB) transportation firms experienced in delivering safe, quality projects to TxDOT. As equal partners in our joint venture, each Equity Member brings TxDOT the benefit of a large pool of expertise, safety culture, working relationships, and critical resources (equipment and personnel) ready to address the key challenges of the GP H&I.

One entity, FBW, will design, construct, and maintain this Project. This continuity means quality and life-cycle cost analysis will be at the forefront from day one.

FBW is uniquely positioned to provide GP H&I the self-perform capability during proposal, pre-construction, construction, and maintenance – mitigating numerous interface risks, with TxDOT benefiting from our balance sheet security of three of the largest and most respected contractors in Texas and globally.

Figure ES-1 Map of Project Area



FLUOR® Headquartered in Texas, with wholly owned operating subsidiary Fluor Enterprises, Inc. (Fluor):

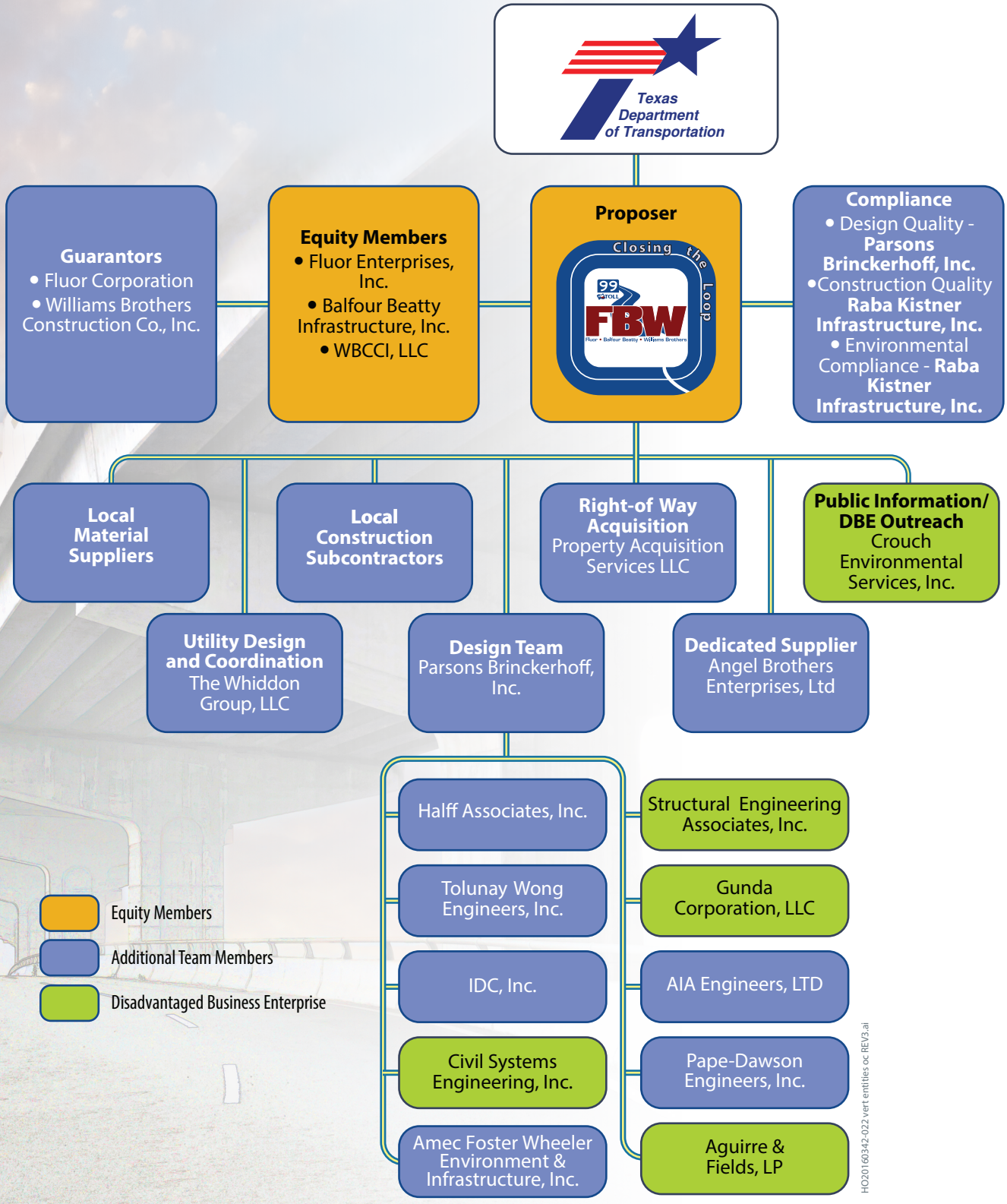
- Annual revenues of $19 billion
- Ranked as one of the world's top contractors and design-build firms by *Engineering News-Record (ENR)*
- DB Texas projects: SH 130 Segments 1-4, SH 161 Phase 4, the Horseshoe, and US 183 South
- Over 60 years of performing complex projects in Texas
- More than 6,000 engineering and construction employees in the state

Balfour Beatty Infrastructure Inc. Balfour Beatty Infrastructure, Inc. (BBII) has been one of the most successful highway contractors in Texas over the last 20 years.

- BBII's Southwest Region has worked continuously in Houston since 1994 and has constructed more than $2.9 billion in highway projects
- BBII played a key role in the construction of SH 130 1-4, a 49-mile greenfield DBM project
- 26 toll road projects in Texas, including portions of the Sam Houston, Westpark Tollway, SH 161 Phase 4 (PGBT-WE), SRT (SH 121), Dallas North Tollway, 635 Managed Lanes, and SH45 SE projects



Figure ES-2





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Williams Brothers Construction Co., Inc. doing business as WBCCI, LLC (WB) is a Texas corporation recognized nationally as an ENR Top 200 Contractor

- Nearly $6.5 billion in federal aid highway work over its 60-year history
- 1,700 construction employees working 3.5 million work hours per year
- About 40% of WB's greenfield project portfolio is in the immediate vicinity of GP H&I (SH 146 in Mont Belvieu, Sam Houston Tollway East from IH 10 to Lockwood Drive, and US 90 East from IH 10 to City of Crosby)
- 21 tollway projects for 4 different clients across Texas

Other Critical Contributors

Parsons Brinckerhoff, Inc. will be FBW's Lead Design firm.

A leader in the development and operation of infrastructure projects with a presence in Houston since 1980, having executed TxDOT projects such as the $2.8 billion reconstruction of the Katy Freeway.

Raba-Kistner Infrastructure, Inc. (RKI) has provided innovative engineering solutions and quality management services and systems for both the public and private sectors on roadway and bridge projects throughout Texas and Utah for the past 44 years.

The Whiddon Group, LLC (TWG) has provided industry-leading utility design and coordination throughout Texas on some of the most challenging projects TxDOT has procured in both DB/DBM.

Property Acquisition Services, LLC (PAS) brings not only the depth of resources to take on the challenge of acquiring GP H&I's 303 right-of-way parcels, but also the intimate knowledge and innovation gained from their role on Grand Parkway Segments F1, F2, and G.

FBW's Technical Solutions, including approved Alternative Technical Concepts, will optimize the operational life cycle performance of the Project and will feed our construction sequencing/staging plan that features concurrent work areas. The Project will be a success - when Segment I-2 is finished 6 months ahead of the Substantial Completion date, giving TxDOT the opportunity for an early opening.

A) PROPOSAL ORGANIZATION AND CONTENTS

Our proposal provides the information requested in the Instructions to Proposers (ITP) Exhibit B, C-1, and C-2. The information is organized as required by ITP Exhibit E:

- Volume 1 – Confidentiality Statement, this Executive Summary, and all Proposer Information, Certifications & Documents
- Volume 1a – Project Development Plan and Appendices D.1: Key Personnel Resumes & References (Form G) & D.2: Technical Drawings, Graphs & Data
- Volume 1b – Appendix D.2.4: Technical Rolled Scroll Mats
- Volume 1c – Appendix D.3: Preliminary Project Baseline Schedule
- Volume 2 – Financial Proposal: Copies of Forms B-1 and B-2 & Updated Financial Information
- Volume 3 – Base Scope 1 Price, H-West Option Price and Form O (Schedule)

B) FBW CHANGES SINCE QUALIFICATIONS SUBMITTAL (QS)

There have been no changes to FBW's QS other than those described in the Executive Summary Section C.

C) FBW ORGANIZATION CHANGES SINCE QS

FBW has had the following changes to our key personnel and organizational structure approved by TxDOT.

FBW has changed our Utility Manager for the project from David Whiddon to David Dillmann, P.E.

Two additional Key Personnel positions were required by TxDOT for the Maintenance phase of the Project. TxDOT has approved Leroy "Lee" Pauls, P.E., as Maintenance Manager and Chris Holdaway, as Maintenance Safety Manager for FBW.

Leroy "Lee" Pauls, P.E.
42 years experience - 28 years in proposed function
Experience: Operations Manager on the Right Honorable Herb Gray Parkway Project and VP of Operations for the maintenance of SH 130 Segments 1-4.



FBW's QS stated that FBW would form a project-specific Limited Liability Company at award of the Project. Since FBW's QS submittal, FBW shall form an unincorporated Joint Venture at project award. Williams Brothers Construction Co., Inc., will be doing business as WBCCI, LLC, a wholly-owned subsidiary of Williams Brothers Construction Co., Inc.

D) FBW MANAGEMENT, DECISION-MAKING, AND DAY-TO-DAY OPERATIONAL STRUCTURE; MAJOR PARTICIPANT COMMITMENT

FBW's seasoned Project Manager Scott Risley, acts as the Chief Executive Officer of FBW, and will lead day-to-day operations with delegated authority from the Executive Board. **Scott will be TxDOT's single point of accountability.**

Scott Risley, P.E.
29 years experience - 11 years in proposed function
Experience: Project Manager for two award-winning DB projects: UDOT I-15 CORE and MINDOT TH 212. Under Scott's leadership, the I-15 project was the fastest billion-dollar DB highway project ever completed in the U.S.

Scott will be supported by a team of experienced managers: Jeff Berger as Construction Manager and Bob Brown as Design Manager, with the subject matter expertise and experience necessary to direct work to their respective disciplines, and to work in partnership with TxDOT and Stakeholders.

Jeff Berger
28 years experience - 8 years in proposed function
Experience: More than 28 years of Houston-area construction experience in highways and bridges. His two most recent TxDOT projects were I-10 Project No. 0271-07-242 and I-10 Katy Freeway Expansion.

The integrated matrix organization established for the execution of the Project allows for project issues to be identified and resolved quickly at the lowest possible level, with authority delegated to the appropriate level, and FBW and TxDOT paired together during early alignment and kick-off meetings. Scott's direct reports are shown in **Figure ES D-1**.

Robert "Bob" Brown, P.E.
34 years experience - 26 years in proposed function
Experience: Former TxDOT CDA Director for the North Texas area, Bob has led design for $5 billion in DB, DBM, and P3 projects.

FBW has divided the project into three segments for effective decision-making and operational control. Each Work Area will have a dedicated management team, all reporting to FBW leadership who will drive consistency, safety, and quality across the Project.

FBW, its Equity Members, and its Major Participants have committed to providing the specified Key Personnel, resources, and people required to execute the Project.

E) PROJECT DEVELOPMENT PLAN SUMMARY

FBW's Project Development Plan (PDP) is the umbrella document that combines the Equity Member processes and procedures with practical project experience gained from executing projects in Texas for TxDOT for more than 60 years. The basic tenant of FBW's PDP and management philosophy is to develop a detailed execution strategy through exhaustive due diligence to mitigate impacts on cost and schedule to the Project.

This philosophy is central to FBW's Project Management Plan (PMP), Quality Management Plan (QMP), and Technical Solutions, illustrated by the following key components:

- A commitment to actively integrate TxDOT, third parties, and Stakeholders
- Comprehensive Public Information Plan to ensure the public are informed and supportive of the Project
- A comprehensive strategy built on a foundation of open and frequent communication to manage design approvals, safety, training, and construction and maintenance activities
- A quality management system that provides TxDOT with ready access to testing/inspection data
- A mandate to innovate that began during the proposal phase's Technical Work Groups and will continue to produce dividends for TxDOT and the Project through design, construction, and maintenance

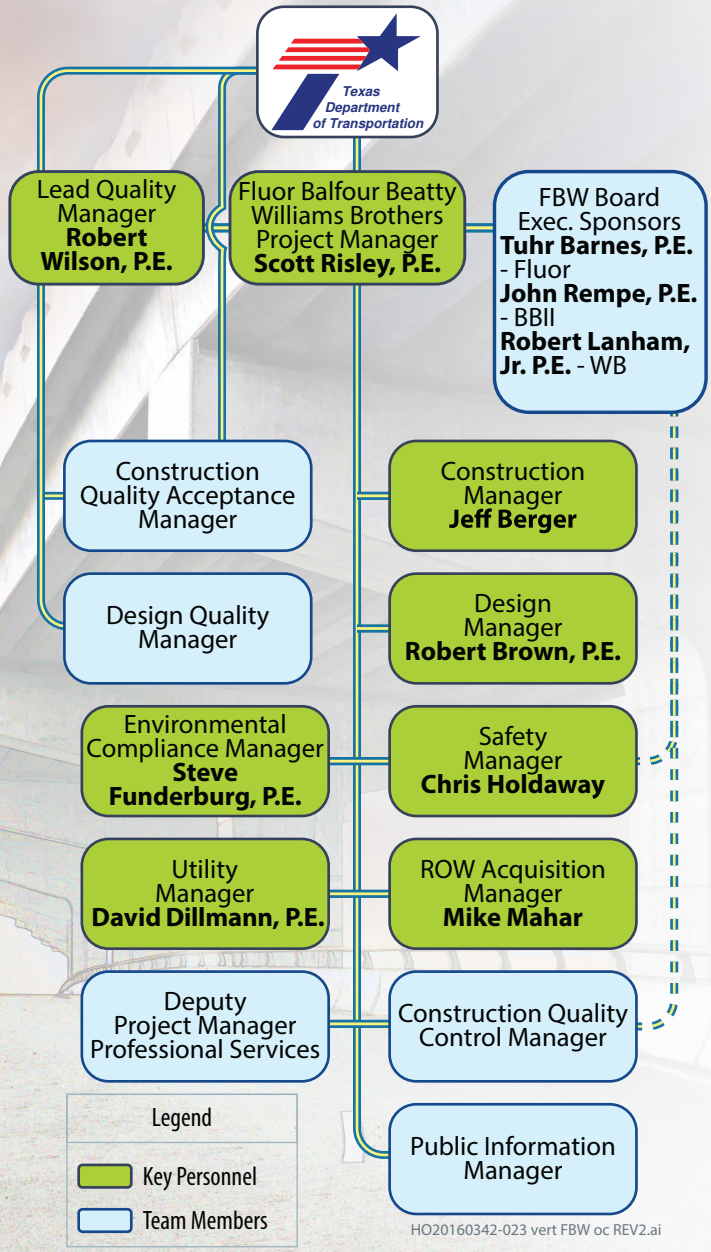


Project Management Plan (PMP)

FBW's PMP is a living document that has been successfully implemented and continuously improved upon in multiple DB projects. FBW's PMP incorporates the best practices from three Equity Members with the knowledge and resources to successfully execute this Project.

FBW's organization, shown in **Figure ES D-1**, includes structured lines of communication and responsibility and a team of seasoned Key Personnel equipped with the experience and skills to manage their respective disciplines. Empowered to make decisions and required to establish and maintain clear communication channels with TxDOT, FBW team members are well-versed in the needs of TxDOT, the Project, third parties, and other Project Stakeholders.

Figure ES D-1



Note: Scott Risley is a P.E. in California and Florida; Tuhr Barnes is a P.E. in California. All other P.E.s are Texas.

FBW's organization chart will map directly with TxDOT's Project organization, further establishing clear lines of communication and opportunities for efficient and innovative project execution.

FBW's PMP will help us deliver the following critical success factors to TxDOT:

- **Safety** - robust program with our personnel empowered with the ability to stop work, providing a safe environment for all project personnel and traveling public
- **Partnering** with TxDOT, Utility Owners, third parties, and other Stakeholders from day one to facilitate frequent, open communication and critical decision-making
- **MOT** - Effective segmentation, phasing, and sequencing to maximize safety and mobility of the traveling public through the corridor
- **Quality** - transparent design and construction that improves the life cycle cost of the Project
- **Schedule** - early construction completion (Segment I-2 six months before the required Substantial Completion date)
- **Risk Mitigation** - Identification and mitigation of major risk categories and mitigations. One example would be FBW's decision to add bridges over pipelines, which mitigated the schedule and cost risks associated with impacting those pipelines
- **Environmental compliance** led by Raba Kistner Infrastructure, Inc., a part of FBW's teams on Texas projects for the past 15 years
- **DBE** - Meeting or exceeding the Project's Disadvantaged Business Enterprise (DBE) goal of 10%
- **Life-cycle and future maintenance costs** will be designed and constructed into the Project. One entity, FBW, will self-perform both construction and maintenance, mitigating additional interface(s) needed if an outside entity was brought in to perform the maintenance



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FBW's PMP provides the tools to solve this Project's challenges as shown in **Table ES E-1**.

Quality Management Plan (QMP)

FBW's customized QMP builds on the successful relationship established over the past 15 years between FBW team members and Raba Kistner Infrastructure, Inc. (RKI) on projects such as the Horseshoe, SH 161, US 281/Loop 1604 Interchange, and SH 130 Segments 1-4. RKI provides industry-leading Key Personnel for the Project who will lead the quality effort with direction and support from FBW management.

Robert Wilson, P.E.
44 years experience - 14 years in proposed function
Experience: Quality Manager for 2 award-winning DB projects: UDOT I-15 CORE and SH 130 Segments 1-4. Robert couples his experience in quality management and oversight with 30 years at TxDOT.

Steve Funderburg, P.E.
31 years experience - 12 years in proposed function
Experience: Environmental Compliance Manager on the Horseshoe Project and Water Quality Specialist, Corridor-Wide Storm Water Compliance Coordinator, and Hazardous Materials Manager on SH 130 Segments 1-4.

FBW's QMP will:

- Integrate TxDOT early and continuously throughout the Project
- Deliver a program that has been implemented by Equity Members on TxDOT Design-Build projects
- Enable TxDOT to monitor and measure FBW's performance throughout design, construction, and comprehensive maintenance of the Project
- Provide effective systems compatible with TxDOT's TRM system
- Efficient transition of data at the end of the Project, which will enable TxDOT to perform cost-effective life-cycle management

FBW's Design Quality Management Plan, led by Parsons Brinckerhoff (which will govern design quality), has been customized for this Project and incorporates best practices from the Horseshoe and DFW Connector projects. Construction QA inspections and tests will be captured in a proprietary web-based data management system, Engineering and Laboratory Vital Information System (ELVIS). ELVIS was developed in conjunction with TxDOT's I2MS system and will provide TxDOT with ready access to inspection/testing data.

Technical Solutions

This Project may appear on its surface to be a straightforward, largely greenfield Project; however, there are multiple significant risks along the 52-mile alignment that FBW has identified and will mitigate in partnership with TxDOT make the Project successful and meet Project commitments.

Table ES E-1

Project Challenge	FBW's Solution	Benefits to TxDOT
Managing 530 utility crossings, including relocating, protecting in place, or avoiding 336 utilities for 56 Owners	• Continue open communication begun with Owners during proposal phase • Local knowledge and experience with impacted Owners	• Improved cost control and schedule certainty • Positive relationships with Utility Owners
Acquiring 317 ROW parcels in a sequence that will support orderly and timely construction	• Leverage our local relationships via Property Acquisition Services, LLC and our past work with TxDOT in the area	• Positive Stakeholder relations • Efficient review and approval process
Establishing and maintaining effective third-party communication	• Early and frequent contact • Establishment of a partnering culture at all levels of the Project	• Positive Stakeholder relations and public perception of the Project
Managing logistics (e.g., crews and equipment) on a 52-mile long Project	• Use of computer tablets and similar technology to keep crews up to date • Consistent and mandatory safety, quality, and production goals across the Project	• Continuous access to up-to-date information • Consistent quality, on-time delivery, and efficient resource management • Safe haul routes minimize impact on the traveling public



Figure ES E-2 summarizes the main project risks by location.

FBW has developed innovative design, construction, and maintenance Technical Solutions related to:

- Conflicts with pipelines, where the cooperation and buy-in of the Owner and advanced planning are critical
- Massive earthwork quantities and the need to carefully plan and sequence these operations to not impact neighborhoods and local traffic
- Drainage that require solutions that not only address the final design and how it facilitates effective drainage, but how construction can continue even in wet weather common to this area
- Up-front planning of construction and maintenance of traffic at key intersections to maintain mobility during construction

Extensive Technical Due Diligence during Proposal Phase

FBW has performed the due diligence that allows us to stand behind our price and schedule. We understand the project and have advanced our plans so that we can identify and deliver solutions to TxDOT and the Project from day one. Representative Technical Solutions for each area requested in the ITP are included below. More detailed information and additional Technical Solutions can be found in FBW's Technical Proposal.

Alternative Technical Concepts (ATCs)

TxDOT approved ATCs include:

- Innovative approach at Goose Lake
- Protect-in-place utilities
- Rigid/flexible pavement testing
- ITS duct banks
- Girder depths

FBW has included numerous added value components in its proposal.

Construction Staging, Sequencing, and Traffic Management

FBW's approach is based on our desire to minimize impacts to the traveling public, businesses, and other Stakeholders and to provide for the safe and efficient movement of people, goods, and services through and around the Project. Our approach makes use of TxDOT early acquisition ROW parcels, minimizes on-road hauling, and meets or exceeds requirements for effective Public Information. This segmentation approach, coupled with FBW's effective and transparent Public Information and Communication Plan, will result in strong Public support and acceptance of the Project.

Right-of-Way Acquisition Plan

Linear parcel acquisition will provide for efficient construction. FBW is committed to open and transparent communication with parcel owners and TxDOT. FBW has Property Acquisition Services, LLC (PAS) on its team, with extensive local experience, including Segments F&G of SH 99. FBW investigated 459 parcels and through due diligence minimized the impact to 317 as detailed in **Table ES E-2.**

Table ES E-2 ROW Parcel Information

ROW Parcel Acquisition	
Total Parcels Investigated	459
Not Required	142
To Be Acquired	317
TxDOT-Acquired Parcels	28
FBW-Acquired Parcels	289
ROW Parcel Classification	
Residential	66
Small Commercial	15
Large Commercial	11
Vacant	200

Utilities

As detailed in **Table ES E-3**, FBW spent more than 27 months researching and identifying 530 utilities comprising 56 individual Owners. We have incorporated numerous Technical Solutions into our design and construction approach.

Table ES E-3 Utility and Pipeline Information

Overall Utilities		Overall Pipelines	
Total Utilities	530	Total Pipelines	176
Utilities Avoided by FBW	194	Pipelines Avoided by FBW	97

Drainage

FBW knows from experience on DB projects that quality detailed drainage design is a key success factor in keeping projects on schedule and



Figure ES E-2 Significant Risk Categories During Design, Construction, and Maintenance

Construction Impacts - noise, dust, light, etc.
Risk Allocation: FBW
Mitigation Measures:
- Develop clear mitigation plans
- Provide training to all field personnel
- Monitor performance continuously
- Effective public information Program

Failure to Meet Environmental Commitments
Risk Allocation: FBW, Raba, Parsons Brinckerhoff
Mitigation Measures:
- Incorporate all commitments into the design and construction planning
- Provide sensitivity training to all project personnel
- Continually monitor performance the field

Impacts to Pipelines
Risk Allocation: FBW
Mitigation Measures:
Relocating, protecting in place, or avoiding 97 pipelines for 49 Owners

Impacts to Local Business Access During Construction
Risk Allocation: FBW
Mitigation Measures:
- Sequence work to minimize impacts during high-volume traffic periods
- Provide clearly marked and controlled detours to minimize any confusion in construction zones
- Provide early warning of construction and suggest alternate routes to avoid construction
- Engage business owners to understand concerns prior to implementing traffic plans

Traffic Impacts During Construction
Risk Allocation: FBW
Mitigation Measures:
- Sequence work to minimize impacts during high-volume traffic periods
- Provide clearly marked and controlled detours to minimize confusion in construction zones
- Provide early warning of construction and suggest alternate routes to avoid construction
- Utilize project website, social and traditional media to keep stakeholders and traveling public aware of project phasing, activities, and potential impacts

Construction Conflict with Public or Stakeholder Activities
Risk Allocation: FBW
Mitigation Measures:
- Provide the public and stakeholders the opportunity to understand the plans and coordinate with the stakeholders on scheduling and sequencing of the work
- Utilize project website, social and traditional media to keep stakeholders and traveling public aware of project phasing, activities, and potential impacts

HO20160342-010 mitigation map.ai



eliminating costly rework. One of FBW's Technical Solutions related to drainage was to lower the roadway profile, which significantly reduced the borrow material necessary for the Project. Additional drainage solutions provided by FBW's design include:

- Linear detention
- Wider ditches
- Equalizers
- Culverts

Roadway

FBW has optimized our roadway design generating numerous ATCs and added value solutions for TxDOT and the Project including:

- Positive impact on lifecycle costs in numerous areas, including providing a pavement design with many elements meeting a 35-year design life. (TxDOT requirement was for a 30-year design life.)
- FBW's Base Scope 1 and H-West Option will require 80,000 fewer cubic yards of 'cut,' and almost 1.3 million fewer cubic yards of 'fill.'

Maintenance

FBW brings the corporate resume of experience, the key maintenance personnel, and the balance sheet security to optimally deliver the maintenance phase to TxDOT. Efficiency of FBW's single entity structure means that life-cycle cost analysis is an inherent part of every project decision throughout all developmental and execution phases of Project delivery.

Preliminary Project Baseline Schedule

Extensive work during the proposal period coupled with the strength of FBW's team members and local knowledge, will allow FBW to complete Segment I-2 six months early.

F) FBW'S APPROACH TO SATISFYING DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS

FBW is committed to exceeding TxDOT's 10 percent DBE participation goal and to meeting the other objectives for DBE participation and development outlined in the RFP. As a member of the Houston business community for more than six decades, we understand the importance of these goals to the Project's overall success and the success of the region. Beyond that, we believe that DBE firms bring the local knowledge and diversity of thought that lead to better solutions. Our member firms have won awards for our efforts working with the DBE business community.

Through extensive DBE Outreach and engagement and our advanced knowledge of and experience with the local market for DBE vendors, subcontractors, and consultants, FBW will make sure the DBE goals will be met while keeping the project-on schedule and on-budget. Our commitment to maximize DBE participation entails:

- Packaging work into units that present opportunities for DBE vendors, consultants, and suppliers to bid and be competitive
- Hosting targeted educational workshops
- Regularly meeting with local business associations to raise awareness of Project subcontracting opportunities
- Regularly evaluating program effectives to confirm continual improvement

Providing opportunities to qualified firms is premised by maximizing the project information available to the DBEs as they bid on work, negotiating fairly with successful bidders, and providing business mentoring to maximize the success of the DBEs.

FBW's goals for DBEs participation will flow down to all tiers of consultants, contractors, and suppliers to maximize opportunities for DBEs. We have already made substantial progress toward meeting these goals. The following minority and small business professional services firms are already confirmed to the team during the proposal phase, and assisted us in the development of our solutions and proposal:

- Aquirre & Fields, LP
- Civil Systems Engineering, Inc.
- Crouch Environmental Services, Inc.
- Gunda Corporation, LLC
- Structural Engineering Associates, Inc.

CONCLUSION

FBW brings together three of the strongest companies in Texas with the resources and capabilities to deliver the GP H&I Project. After working together for more than six years, FBW has the internal alignment and institutional knowledge to deliver the Project.



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FBW team members have performed the extensive due diligence necessary to accurately understand the technical challenges and risk management necessary to develop a dependable schedule and aggressive, lump-sum price that can be relied on by TxDOT.

One entity, FBW, will be responsible for the Project from design through construction and maintenance. FBW will build on the mutual trust it has developed with TxDOT during the procurement and will focus on two major tenets:

1. Working with TxDOT, third parties, and other Stakeholders in the true spirit of partnering and transparency to deliver a quality Project with positive public support.

2. Providing the competency and dependability required to manage and mitigate the Project challenges and deliver a successful Project to TxDOT.

FBW stands ready to partner with TxDOT to deliver this exciting project and "close the loop" for the SH 99 Grand Parkway.

The Strength of Three

FLUOR®

Balfour Beatty Infrastructure Inc.

WILLIAMS BROTHERS CONSTRUCTION CO., INC.