EXECUTIVE SUMMARY

Upon the successful completion of TxDOT's Oak Hill Project (the Project), the Oak Hill community will experience ***reduced congestion, improved mobility and connectivity, and increased capacity to meet current and future travel demands.*** *The Flatiron Lane Oak Hill Joint Venture (Flatiron Lane JV) will execute an* ***innovative and practical approach*** *to design and construction with a* ***primary focus on minimizing impacts to the public.*** *Our core team of experts including Project Manager, James Cannon, and Design Manager, Chase Myers, have been* ***exclusively dedicated to the Project since the onset of the Proposal phase*** *and are well versed in the intricacies of all Project elements. We will operate with* ***full transparency and collaborate with your team and stakeholders*** *to* ***safely deliver a high-quality Project on schedule—providing substantial relief in the corridor.***

a) ORGANIZATION & CONTENTS OF TECHNICAL PROPOSAL

A. EXECUTIVE SUMMARY

B. PROPOSER INFORMATION, CERTIFICATION, AND DOCUMENTS

C. TECHNICAL SOLUTIONS

- C.1 Project Management
- C.2 Quality Management
- C.3 Design and Construction Plan

All of the above is submitted in 8.5x11-inch binders, with the Proposal Bond and Organizational Documents submitted in a separate envelope.

D. APPENDICES

- Appendix 1 | Concept Drawings
  Submitted on Roll Plots or in the 11x17-inch binders.
- Appendix 2 | Preliminary Project Baseline Schedule
- Appendix 3 | Proposer Surveys, Investigations & Technical Documents

Appendix 2 & 3 are included in the 11x17-inch binders.

b-c) SUMMARY OF CHANGES TO PROPOSER'S QS

Changes in the Flatiron-Lane Oak Hill Joint Venture (Flatiron-Lane JV) organization since the submission of our QS are reflected in the organizational chart, provided below.

d) PROPOSED MANAGEMENT, DECISION MAKING, & DAY-TO-DAY OPERATION STRUCTURE

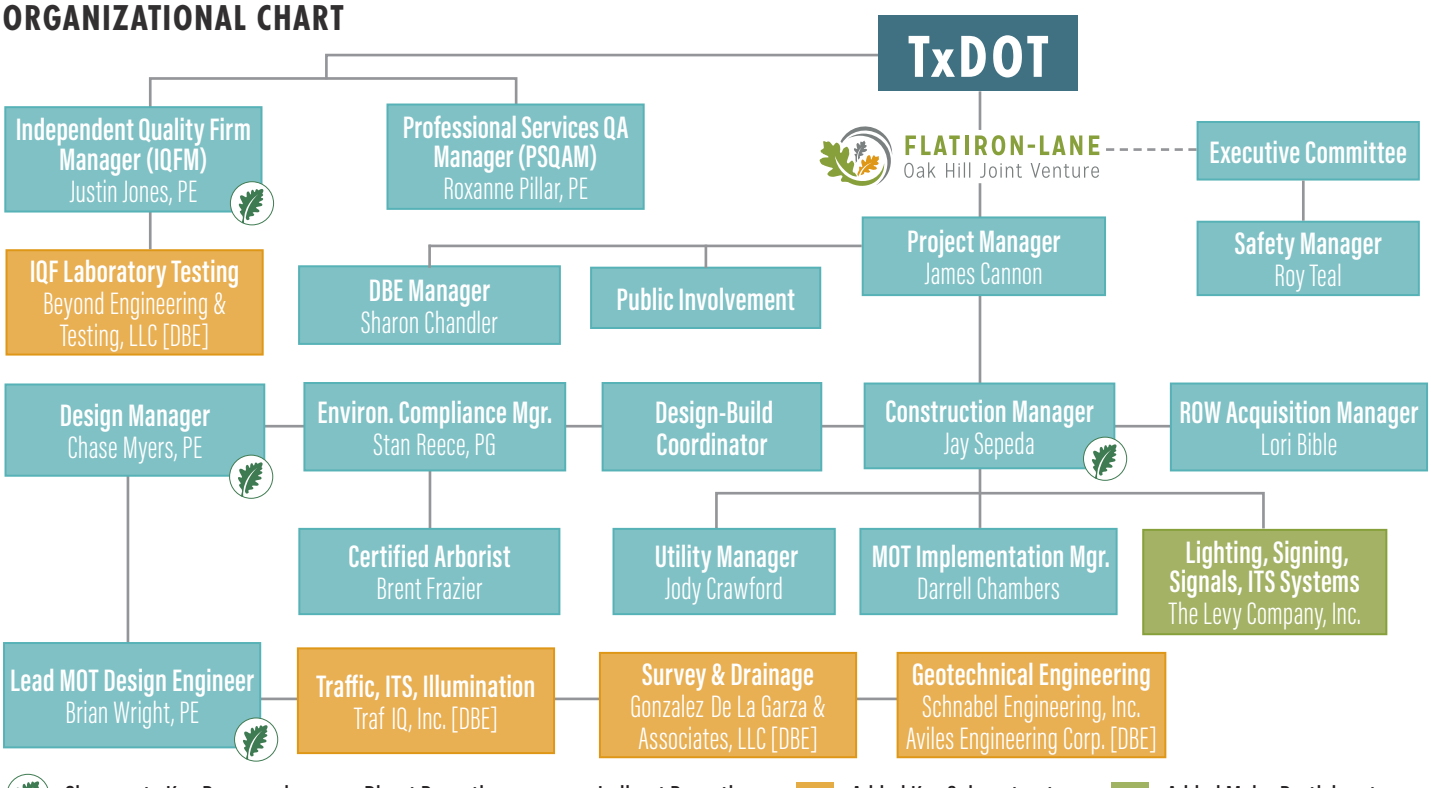
Flatiron and Lane have formed the Flatiron-Lane JV to serve as the Proposer and the Lead Contractor for the Project. We will lead all aspects of the Project with support from Bridgefarmer & Associates serving as our Lead Engineering Firm, as well as additional local, specialized subcontractors that bring relevant experience on major highway projects in the Central Texas region.

Project Manager, James Cannon, will lead our day-to-day operations and serve as TxDOT's single point of contact. He will have full responsibility for all work and will be supported by our Executive Committee to allocate the necessary resources to deliver the Project.

James will work closely with Design Manager, Chase Myers, and Construction Manager, Jay Sepeda, to facilitate quick and effective decision-making amongst our internal team, TxDOT, and key stakeholders. Our on-site management personnel are empowered to make decisions in the best interest of the Project and will resolve issues at the lowest organizational level.

Our Major Participants and Key Subcontractors have committed to provide the specified people and sufficient resources for the successful delivery of the Project.

ORGANIZATIONAL CHART



e) SUMMARY OF TECHNICAL SOLUTIONS

The Flatiron-Lane JV has developed technical solutions to Project elements such as traffic sequencing, utilities, drainage, roadways, and structures, which will significantly enhance our ability to achieve TxDOT's Project Objectives.

PROJECT MANAGEMENT (PM)

We have included seven VARs that we will use in conjunction with proven management systems our firms have implemented successfully on previous similar projects, to enhance our Project Management Plan (PMP). These measurable and beneficial commitments will help us to manage/mitigate risk, improve communication, and facilitate effective collaboration within our internal team, TxDOT and its consultants, key stakeholders, and the public. A few of our PM VARs described in *Section C.1* include:

- Exceeding the goal for DBE professional services participation
- Formal partnering sessions and surveys
- Linear scheduling

QUALITY MANAGEMENT (QM)

We will deliver a high quality Project and eliminate rework by designing and constructing quality every step of the way through the meticulous execution of our work. Our QM Plan (QMP) will serve as the foundation for continuous improvement in all aspects of the Project. Our QM VARs, based on best practices from design-build (DB) projects in Texas and nationwide, are further detailed in *Section C.2* and include the following:

- On site AASHTO accredited IQF Field Laboratory used solely for the Project
- External Independent Auditor to perform annual compliance audits
- Web-based quality documentation system

> *"I have been working with our Project team on a full-time basis for more than a year and fully understand the importance of successfully completing the Project for TxDOT, stakeholders, and the Oak Hill community. I will lead our team in a transparent and collaborative manner to ensure we achieve all Project Objectives, relieve traffic congestion in the corridor, minimize impacts to the public, and ultimately deliver a first-class highway system that TxDOT, stakeholders, and the community deserve."*

James Cannon
PROJECT MANAGER

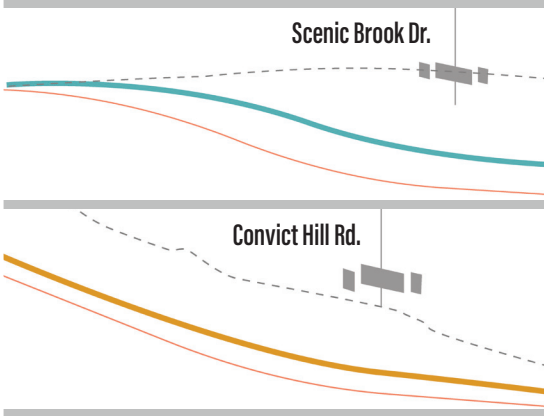
DRAINAGE DESIGN BENEFITS

- Reduces flooding risk for adjacent businesses near the Scenic Brook Tributary
- Eliminates increased flow to Devil's Pen Creek/Wheeler Branch
- Designed the depressed Mainlane outfall to raise the low point so it can outfall sooner reducing cost and schedule

ROADWAY DESIGN BENEFITS

- Profile design avoids flooding to the roadways during their respective rainfall design events
- Raised the profile of the alignment reducing excavation volume by 40,000 CYs resulting in a shorter schedule and decreased risk for encountering karst features and/or hazardous materials

OPTIMIZED PROFILES



REDUCED EXCAVATION BY 40,000 CYs

We compared the durations of utility relocations in each of our eight utility zones to our TCP to identify the critical utilities.

UTILITIES

During the Proposal phase, we met with key Utility Owners to establish POCs, identify long-lead relocation items, and to explore schedule acceleration opportunities. We will use a Utility Conflict Matrix (UCM), which lists all utilities that affect the Project, to better track coordination efforts.

We have identified challenges with utilities and have developed the following solutions to ensure we meet the schedule:

- Sequenced our work and included sufficient resources in our PBS1 to account for these challenges
- Explored using temporary tie ins in portions of critical utility relocation areas to accelerate Texas Commission on Environmental Quality (TCEQ) approvals so construction can commence early
- Included CobbFendley on our team due to their capabilities and experience in self-performing utility relocation design, which we can leverage, if needed to accelerate the schedule

SAFETY & HEALTH PLAN (SHP)

We will develop a comprehensive SHP and implement participation based programs to instill a safe-performance culture. We have eliminated hazards to workers and the public through design refinements including:

- Selecting conventional structure types
- Considered the steepness of side slopes and grading to avoid hazards
- Ensured safe working distances to minimize the risk of traffic incidents
- Smoothed out horizontal alignments to increase sight distance for drivers

Additionally, we have identified the following VARs to enhance safety on the Project:

- Videos of our work zones to determine the effectiveness of our TCP and SHP
- Work zone training for local first responders to reduce emergency response times
- Completing specific shared use paths (SUPs) to give pedestrians/cyclists a paved path away from live traffic 2+ years early

TREE PRESERVATION PLAN

Our Tree Preservation Plan (TPP), work plans, and site controls will ensure the safety, health, and protection of the Protected Trees.

In addition to protecting the Iconic Trees and Tree Preservation Areas, our team will increase the Tree Preservation Amount by a minimum of 10% from the required 2,750 DBH inches, to 3,025 DBH inches. We have accounted for permanent design elements in areas near Protected Trees. We also commit to the following value added tree preservation strategies:

- Protecting trees originating outside the ROW yet extending into the ROW, or within temporary easements
- Enforcing Tree Protection Awareness Training, based on our TPP, for all personnel, subcontractors, and suppliers
- Providing additional deep watering of 3 inches per 15 days when rainfall is less than 1 inch per 30 days for the Protected Trees

"The Oak Hill Parkway Project has been a long time coming and is greatly needed to enhance safety and relieve traffic and congestion in the Oak Hill area. I am excited to see finally see it come to fruition! Having lived in the Austin area since 2003, I recognize the importance and priority of this Project. As your Design Manager, I am committed to ensuring Project success by delivering a safe and reliable roadway for TxDOT and the public."

Chase Myers, PE
DESIGN MANAGER

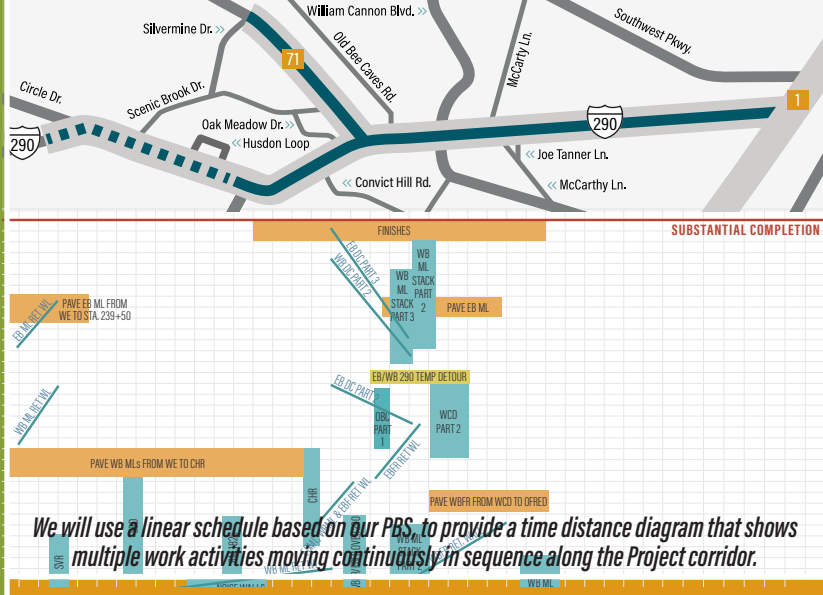
BRIDGES & WALLS DESIGN BENEFITS

- Reduced deck areas at Old Bee Caves Rd. and William Cannon Dr. bridges by 8,000+ SF lessening future maintenance costs and efforts
- Reduced column footprint minimizing impacts to Overbank Mitigation Area
- Selected TxGirders to provide familiarity for TxDOT's maintenance personnel upon Project completion
- Optimized soil nail/rock anchor grid patterns to shorten and reduce quantities and cost

STAGING, SEQUENCING & TRAFFIC MANAGEMENT

Maintaining connectivity along US 290, SH 71, and the communities, as well as minimizing disruptions to the traveling public, were the primary factors in the development of our Traffic Control Plan (TCP). We validated our TCP with modeling software, to confirm that our plan can meet the travel times specified in the *DB Specifications*. Our approach includes the following innovative solutions to accelerate construction and/or minimize disruptions to the traveling public and nearby communities:

- Phased construction to maintain access to residential/business properties by constructing driveways in stages where there is only one access point
- Developed a plan to secure a temporary construction easement (TCE) at the South View Rd. bridge to shorten the schedule, limit the number of traffic switches, and limit disruptions to the traveling public
- Maintained the existing number of lanes with fewer disruptive night time and weekend lane closures
- Increased the safe zone between construction activities and the traveling public, which will reduce queuing and traffic incidents



We will use a linear schedule based on our PBS, to provide a time distance diagram that shows multiple work activities moving continuously in sequence along the Project corridor.

PRELIMINARY PROJECT BASELINE SCHEDULE

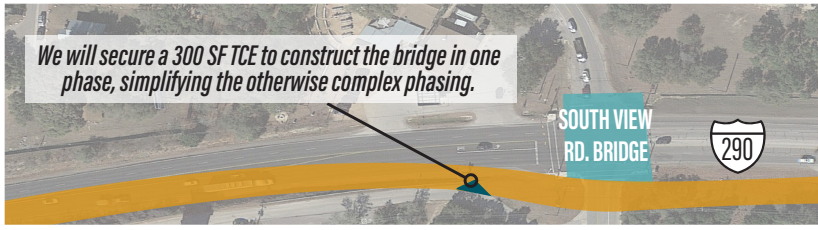
Our Preliminary Project Baseline Schedule (PBS1) is realistic and reliable and incorporates the following:

- Accurate utility task durations and time frames for Utility Owners' approval processes
- Three Segment approach to determine the accurate type, quantity, and sequencing of resources needed to meet the schedule
- Alignment of design requirements with constructability to optimize our TCP and PBS1

We will use the following scheduling tools, which are extrapolated from the PBS, to communicate progress updates and allocate the necessary resources for each work activity:

- **120 DAY** — Focus on identifying long lead items
- **5 WEEK** — Allocate necessary resources for disciplines
- **PLAY-OF-THE DAY** — Conveys daily tasks
- **MONTHLY PROGRESS** — Monthly summary of status to date

We will use the HCSS Safety Module software in the field, which is an interactive tool that gives crews access to pertinent safety-related documents electronically, through mobile devices.



OUR APPROACH TO EXCEEDING THE DBE REQUIREMENTS

The Flatiron-Lane JV will **exceed TxDOT's 12.6% DBE goal for professional services by reaching 15%** and **exceed the 7% goal for construction work by achieving 9%.** Our approach to exceeding the DBE requirements includes the following proven strategies:

1 EFFECTIVE OUTREACH. DBE Coordinator, Sharon Chandler, will continue outreach efforts begun during the Proposal phase throughout the Project. Efforts will include hosting DBE outreach events similar to the one held in December, using Central Texas DBE resources to identify interested firms, and participating in DBE-focused events.

2 RIGHT SIZE BID PACKAGES TO CREATE MORE OPPORTUNITIES FOR DBEs. To give DBEs manageable scopes of work, we will create work packages which align to their capabilities. We can also develop distinct packages for smaller DBEs that consolidate several disciplines into one package.

3 TRAINING AND DEVELOPMENT. We will conduct educational workshops for DBEs for topics like contracts, contract negotiation, bonding, DB delivery, construction law, scheduling, QA/QC, labor compliance, and CUF requirements.

4 SELF-MANAGE TRUCKING CONSORTIUM. Instead of awarding trucking work to just one DBE, we will evaluate all interested trucking DBEs who can meet the insurance limits required by us and TxDOT, to offer multiple trucking firms an equal opportunity to participate in the Project.

The Flatiron Lane JV hosted 50+ DBE subcontractors and suppliers on December 12, 2019 at the Omni Barton Creek in Austin, TX. This type of forum allowed us to introduce our team to the local DBE community and provide an opportunity for interested firms to sign up to receive more information, Project updates, and bid packages.

ACHIEVING YOUR PROJECT OBJECTIVES

MOBILITY

We will minimize impacts to the traveling public by constructing away from traffic with fewer traffic shifts and nighttime lane closures. Our design was developed to meet the projected traffic demands for the year of 2040 by allowing for continuous traffic flow, thereby decreasing congestion in the Project corridor.

LONG-TERM SOLUTIONS

Our successful execution of the Project will decrease congestion throughout the corridor, resulting in seamless commutes for residents and patrons of the Oak Hill, southwest Travis County, and Texas Hill Country communities.

MINIMIZING ECONOMIC BARRIERS

We will ensure consumers have continual access to the affected businesses throughout construction and will address property owners' questions/concerns with full transparency. The Project will diminish traffic congestion which will encourage travelers to use the improved roadways to visit local businesses, thus contributing to economic growth.

ENVIRONMENT

We will use our TPP to preserve all Protected Trees and will increase the Tree Preservation Amount by a minimum of 10%. Additionally, our Environmental Compliance Manager, Stan Reece, has extensive experience managing karst features within the Project corridor and will employ mitigation strategies to avoid impacts to the environment.

SAFETY

We will incorporate safety across all Project disciplines and empower personnel to speak up if they observe unsafe acts. Through refinements like designing cross streets to meet ADA requirements and selecting familiar structure types, we have minimized potential hazards and will continue to enhance safety throughout design and construction.

SCHEDULE & QUALITY

Utility challenges uncovered during the Proposal phase drove the development of our PBS1. We sequenced the work and included sufficient resources to account for these challenges to provide a realistic schedule. We will deliver a high-quality Project and avoid rework by designing and constructing quality into each element of the Project.

COMMUNITY ENGAGEMENT

We will communicate openly and honestly to the public and stakeholders through a Public Information Task Force comprised of TxDOT and key stakeholders to keep all parties informed and to address any concerns head-on. Our effective outreach efforts will keep the community connected and promote a positive perception of the Project.