

Section One. Transmittal Letter

January 4, 2021

Williamson County Purchasing Department
100 Wilco Way, Suite P101
Georgetown, TX 78626

Attn: T2444 RFQ Planning and Design of CR 201 from CR 200 to Umbrella Sky

To Whom it May Concern,

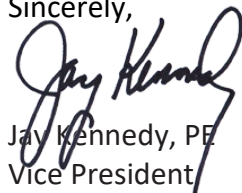
Williamson County has seen tremendous growth in the northwest section of the County. That growth is primarily driven by single family residential (SFR) construction. Multiple SFR projects have been planned or are currently under development along the County Road (CR) 201 corridor and the adjoining area. The growth will require future transportation infrastructure improvements that need to be planned now but constructed in phases. We see planning for each stage of development (from interim to ultimate) and ROW acquisition / preservation as the primary issues that separate the CR 201 project from a traditional roadway improvement project. You can be confident that we have compiled a team with the experience, dedication, and commitment to provide you with infrastructure planning and ROW identification to meet your goals for the CR 201 project.

Our team members have provided planning and design services on multiple similar projects in Williamson County. Our proposed PM Dan Rogers has served as PM and lead design engineer on two projects with the same goals as this project (CR 176 and CR 214). He also was lead roadway designer on a third similar project (CR 200). He knows the County, its goals, expectations, and residents.

Our team has proven experience planning a multi-stage CR project including environmental and Edwards Aquifer Contributing Zone planning, roadway and drainage planning, and PS&E development that maximizes future infrastructure efficiency. Additionally, our key staff has the capacity and availability to deliver on this project while simultaneously developing additional projects in Williamson County.

We appreciate your review of the information provided in the enclosed proposal. The WSB team is committed to delivering quality service consistent with your expectations. We are registered with the Texas Board of Professional Engineers as an engineering firm in the State of Texas and we have the personnel and capabilities to start work immediately. If you have any questions, please contact me at 512.518.1819 or jkennedy@wsbeng.com, or Dan Rogers at 512.554.4595 or drogers@wsbeng.com.

Sincerely,



Jay Kennedy, PE
Vice President

Section Two. Organizational Chart

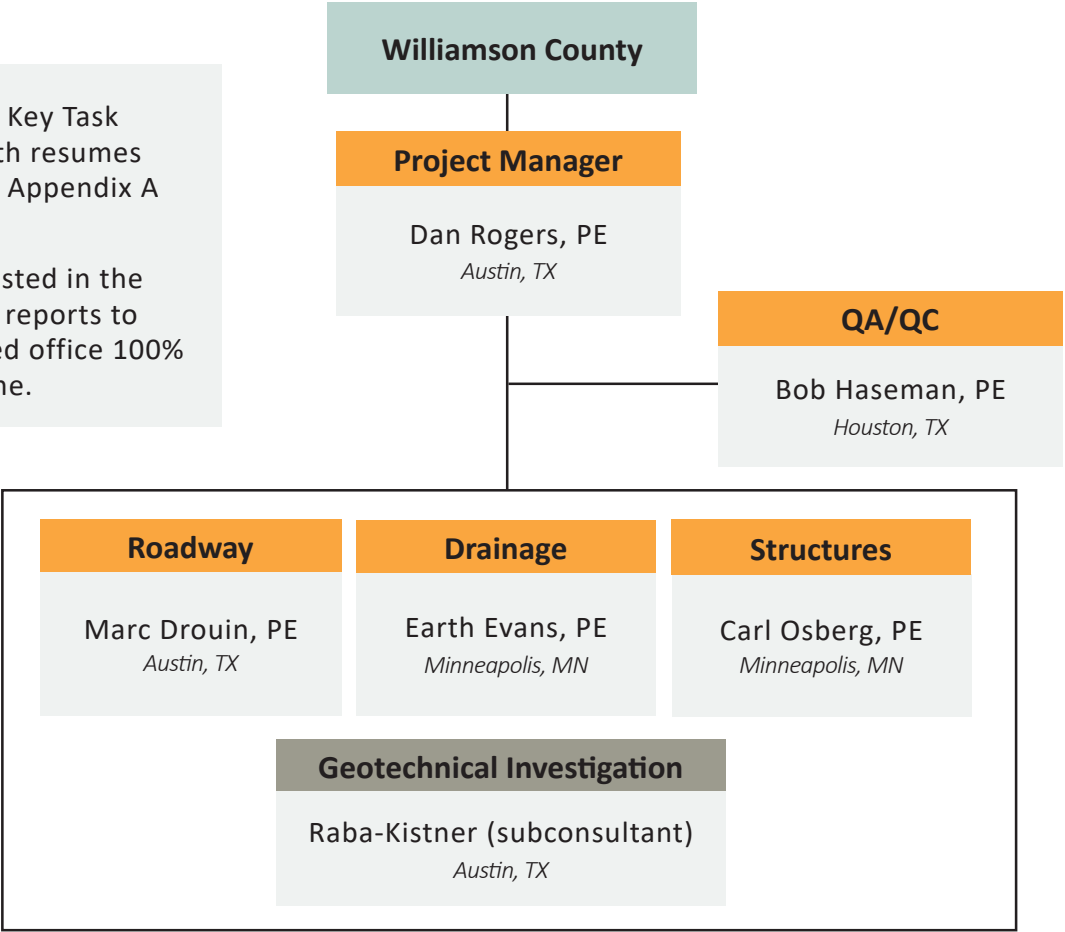


CR 176 at FM 2243, Williamson County, TX

- The WSB Team has successfully delivered very similar projects for Williamson County.
- The WSB team key staff will report directly to Dan Rogers for streamlined decision making and acceleration of the project schedule.
- Collaboration between key staff will be constant so pertinent information is shared immediately.
- Our QA/QC lead, Bob Haseman, will confirm that WSB’s strong quality assurance process and controls are in place during the design process to minimize rework during quality control.

■ Indicates Key Task Leads with resumes shown in Appendix A

All staff listed in the org chart reports to their listed office 100% of the time.



PROJECT TEAM

WSB
Project Management, Planning & Design, Environmental Documentation, Structures, Drainage, and Permitting
WSB is a design and consulting firm specializing in engineering, community planning, environmental, and construction services. Our staff of over 450 professionals improve the way people engage with communities, transportation, infrastructure, and our environment. We offer services that seamlessly integrate planning, design and implementation. Our team understands Williamson County and understands that transportation planning is not simply about planning a road, it is about designing the future of Williamson County.

- The WSB team will directly provide the following services:
- Project management, County communication, and coordination with County-selected service providers
 - Geotechnical Investigation
 - Roadway, drainage, and structural schematic planning and design
 - Right-of-way identification
 - Final design, plans, and specifications for the first project phase
 - Opinions of probable cost
 - Bidding services
 - Construction services, if requested by the County

Williamson County
Williamson County will provide a number of services for this project using County staff and/or other consulting firms, including:

- Right-of-way legal assistance
- Public Involvement
- Environmental
- Survey
- Utility coordination
- Daily construction observation

PM Dan Rogers and the WSB team have completed projects for Williamson County and other clients using this approach, and are familiar with the firms and staff that provide these services to the County. If desired by the County, we can add these providers as sub-consultants or work with them through their existing contract with the County. If the County would like for us to arrange for any or all of these services separately, we are comfortable with that approach as well.

Section Three. Project Manager's Experience/Qualifications

A project of this complexity requires a PM with a thorough understanding of the current and future project infrastructure needs. PM Dan Rogers is unique in that his 32 years of transportation engineering experience is almost exclusively in central Texas and includes proven experience in Williamson County in all aspects of designing and managing engineering projects. Dan knows what is needed for a successful team and has assembled a group of experts that mirrors his awareness of the project constraints and multi-stage goals.

Dan has developed several similar projects in Williamson County. Each of these projects included planning for future improvements and ROW needs, developing PS&E for the initial phase within the current ROW footprint, and having a strong understanding of how future phases will be developed to minimize "throw away" of improvements.

The projects also included developing a phased approach to environmental and drainage permitting, particularly related to TCEQ and the Edwards Aquifer Permitting. Dan and the team have created phased approaches for projects so that permitting requirements can be continually met as each roadway improvement phase is implemented. The following are a few examples of Dan's experience as a PM for projects similar to CR 201:

Similar Project, Location	Relevance
CR 176 at RM 2243 Williamson County, TX	Develop schematic and PS&E, existing and new alignment, multi-stage Wilco Arterial, multi-stage environmental and EARZ WPAP, ROW determination providing for ultimate infrastructure including shared use path.
CR 214 Phases II, II-A Williamson County, TX	Develop schematic and PS&E, existing and new alignment, multi-stage Wilco Arterial, multi-stage environmental and EARZ CZP, ROW determination providing for ultimate infrastructure.
CR 237 Williamson County, TX	Develop PS&E, existing alignment, multi-stage Willco Arterial, ROW determination providing for ultimate infrastructure.
CR 200 Phase I, II-A, II-B Williamson County, TX	Develop schematic and PS&E, existing and new alignment, multi-stage Wilco Arterial, ROW determination providing for ultimate infrastructure.

Other Relevant Experience: US 79 from 5 miles east of Taylor to Milam County line (Williamson County), Cypress Creek Road at US 183 (Williamson County), US 183 at Walton Way (Williamson County), RM 967 West of FM 1626 (Hays County), RM 1826 at Darden Hill Road (Hays County), and RM 1826 at RM 967 (Hays County).

Knowledge, Skills, and Abilities to Benefit Williamson County: Dan served as the project manager and/or lead roadway design engineer on 15 Williamson County planning and/or PS&E projects. He has a thorough and complete understanding of Williamson County design criteria. Dan's knowledge of roadway geometrics, schematic and PS&E design, Williamson County geology and terrain, impact analyses, hydrologic and hydraulic studies, ROW determination and acquisition, Edwards Aquifer Contributing Zone permitting, and utility conflict resolution is essential to the success of the CR 201 Project. In addition, Dan has built a team with extensive knowledge and understanding of County and state regulations and requirements that will successfully develop the CR 201 project.

Section Four. Roadway Planning and/or Design Experience

The WSB design team has a long history of successfully developing roadway improvement projects in Williamson County. Dan Rogers has served as PM and/or lead designer for 15 Williamson County Planning and PS&E projects and will be actively engaged with the design team on this project. Marc Drouin will serve as the design task lead in the development of the design details and plans for the schematic design as well as the PS&E for the first phase. Marc has provided design details on numerous projects in central Texas, including projects in Williamson County such as the Cedar Park Turn Lanes Project, CR 272, and the Ronald Reagan Blvd Intersections Project. He has also provided design details for projects on FM 3237, RM 967 (west of FM 1626), and US 290 at Trautwein Road in Hays County.

Marc and other members of the team are proficient with Microstation and Geopak and have developed design details using Open Roads design. Marc and the team have developed 3-D designs for several projects and are currently developing paperless plans for a five-mile section of controlled access freeway in Open Roads in partnership with Bentley and Trimble. Marc and the rest of the team have extensive experience developing roadway geometrics including horizontal and vertical alignments, cross slopes and superelevation, and determining level-up requirements. Examples of our team's roadway planning and design experience similar to CR 201 include:

Similar Project, Location	Relevance
Ronald Reagan Blvd. Intersection Improvements Williamson County, TX	Developed PS&E for intersection improvements that included widening and the installation of turn lanes and a traffic signal.
CR 176 at RM 2243 Williamson County, TX	Develop schematic and PS&E, existing and new alignment, multi-stage Willco Arterial, multi-stage environmental and EARZ WPAP, ROW determination providing for ultimate infrastructure including shared use path.
US 290 at Trautwein Road Hays County, TX	Develop schematic design and PS&E for widening, intersection improvements, traffic signals, and retaining walls. The design included development of an Open Roads based 3-D model of roadway and retaining walls.
CR 272 Cedar Park, TX	Develop schematic and PS&E, existing and new alignment, multi-stage Willco Arterial, ROW determination providing for ultimate infrastructure.

Other Relevant Planning and Design Experience: CR 200 Phase I, II-A, II-B (Williamson County), Cedar Park Turn Lanes Project (City of Cedar Park), FM 3237 (Hays County), RM 967 west of FM 1626 (Hays County), CR 214 Phases II and II-A (Williamson County).

Knowledge, Skills, and Abilities to Benefit to Williamson County: Dan, Marc and the design team have successfully developed schematic design and PS&E for Williamson County. Their attention to detail and strong design skills resulted in projects delivered on time and on-budget. An example of this is the Ronald Reagan Boulevard intersection project that needed to be delivered within a compressed timeframe at the County's request. The team was able to deliver ahead of the already compressed timeframe because of their skill level and experience working together.

Section Five. Roadway Drainage Planning and/or Design Experience

Williamson County will have drainage improvements that will accommodate both interim and ultimate water quality and drainage requirements in the most efficient right-of-way (ROW) footprint. WSB's drainage facilities team has extensive experience on similar multi-stage projects in this part of Williamson County. The WSB drainage facilities team will be led by WSB's Earth Evans who has 20 years of experience leading hydraulic design. Earth will collaborate with our PM, Dan Rogers who brings 32 years of experience that includes roadway and hydraulic design projects that have necessitated permanent water quality best management practices (BMPs) and WPAP/CZP submittals in the Edwards Aquifer Recharge and Contributing zone. Our drainage facilities team brings a unique set of qualifications to the project having not only Central Texas experience conducting hydrologic and hydraulic modeling, water quality modeling and evaluation of BMPs, and hydraulic design, but also roadway and drainage improvement experience on numerous projects in Minnesota, where every project has a significant drainage design element. Below is just a sample of our team's experience with drainage/water quality design for projects similar to CR 201:

Similar Project, Location	Relevance
CR 272 Cedar Park, TX	Hydrology, hydraulic floodplain modeling of Brushy Creek to show no adverse impacts, multi-box culvert design. The design included the ability for the roadway to overtop in larger storm events.
CR 176 at RM 2243 Road Widening and Extension Williamson County, TX	TCEQ Edwards Aquifer WPAP permitting, roadway drainage design, accommodating Karst features.
RM 967 Improvements Hays County, TX	Hydrology, culvert modeling and design, TCEQ Edwards Aquifer WPAP permitting.
US183 at Walton Way Cedar Park, TX	Hydrology and culvert modeling and design.
US 290 at Trautwein Road Hays County, TX	Hydrology and culvert modeling.

Knowledge, Skills, and Abilities to Benefit Williamson County: Earth knows from her background in project management and drainage design that drainage is a key component of all projects. She is known for her collaboration with roadway and structural leads, permitting agencies and the client to ensure optimized design with no adverse hydraulic impacts. Her unique skills were used on the CR 272 Crossing of Brushy Creek project where the proposed roadway crossing was designed to over top in large storm events. In addition, the crossing was designed so that there were no adverse impacts on the FEMA floodplain upstream.

Section Six. Structures Planning and/or Design Experience

The WSB team has delivered many multi-phase planning and PS&E projects for Williamson County, and in central Texas. PM Dan Rogers and structures task lead, Carl Osberg, have experience managing and designing a wide range of structural engineering, civil engineering and transportation engineering projects that have included river crossings, interchanges, direct connectors, bridge class box culverts, and retaining walls.

There is not a major bridge structure expected within the project limits; however, there are culvert crossings that appear to overtop so there could be a need for box culverts, walls, or other minor structures as part of the design. Carl will make certain that structure designs satisfy the project criteria, as well as the needs of Williamson County. Carl will be supported by WSB's bridge and structures group that prides itself on delivering high-quality plans and calculations to provide cost-effective, timely, state-of-the-art, and context sensitive solutions that are in accordance with local requirements. Below is a list of structures planning and/or design projects similar to CR 201:

Similar Project, Location	Relevance
CR 176 Williamson County, TX	42" diameter RCP foundation design.
CR 272 Cedar Park, TX	Bridge class box culvert design – 8, 7' x 7' boxes across Brushy Creek. The crossing was designed to overtop during large storm events.
RM 967 Hays County, TX	RCP and box culvert design at nine locations.
Highway 371 Four-Lane Expansion Nisswa, MN	Bridge class box culvert design – 18' x 6'; This project also involved roadway and trail bridge design and was delivered using design/build.

Knowledge, Skills, and Abilities to Benefit Williamson County: Williamson County will benefit by having a structures team that understands preferences and lessons learned from multiple Williamson County projects that are seamlessly incorporated into any structural design. PM Dan Rogers, structures task leader Carl Osberg, and the rest of the team will apply this knowledge to ensure that the structures are well planned, feasible, economically efficient and coordinated with the Roadway and drainage task leads while accounting for impacts identified by the Environmental team.

Section Seven. Current Workload/Availability of Project Team



Dan Rogers, PE
PROJECT MANAGER

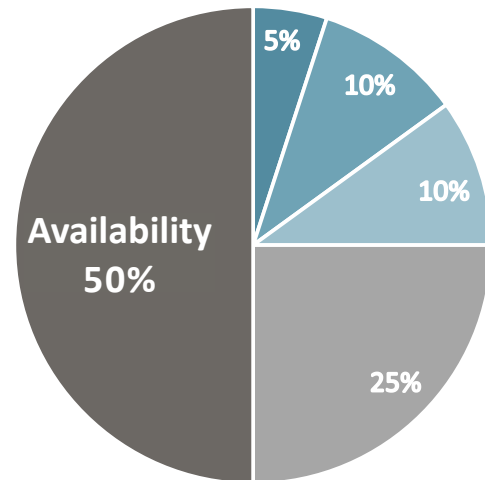
Current Projects (Completion)

- RM 967 (Mar 2021)
- US 290 (May 2021)
- FM 2770 Project (May 2021)

Current Proposals

- Ronald Reagan Boulevard Planning Project

Williamson County Time Commitment



Availability as of March 2021



Marc Drouin, PE
ROADWAY

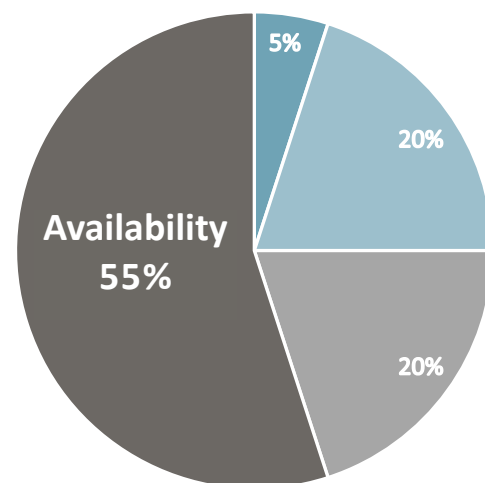
Current Projects (Completion)

- RM 967 (Mar 2021)
- TH 169 Elk River (June 2021)

Current Proposals

- Ronald Reagan Boulevard Planning Project

Williamson County Time Commitment



Availability as of March 2021





Earth Evans, PE

DRAINAGE

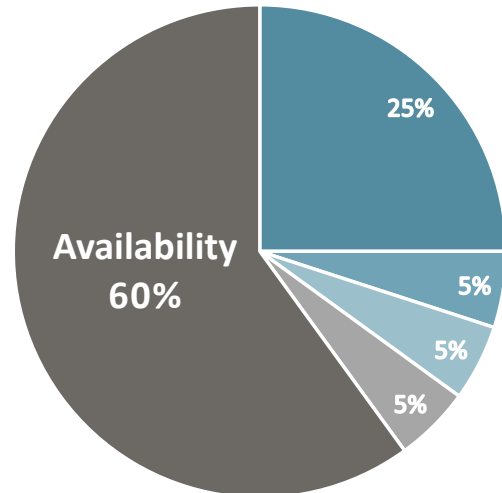
Current Projects (Completion)

- TH 169 Elk River (June 2021)
- I-94 Maple Grove to Rogers (Oct 2021)
- Hwy 14 (Oct 2021)

Current Proposals

- Ronald Reagan Boulevard Planning Project

Williamson County Time Commitment



Availability as of March 2021



Carl Osberg, PE

STRUCTURAL

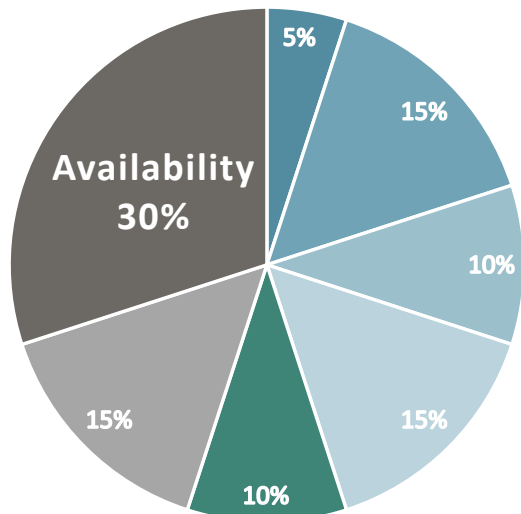
Current Projects (Completion)

- Hays County at Trautwein Road (Mar 2021)
- MnDOT CMGC TH 169 Elk River Bridge & Walls (July 2021)
- Fillmore County Bundled Bridges (May 2021)
- Melrose County Bridge Replacement and Dam Repair (Oct 2021)
- Hormel Dam Evaluation and Improvement Alternatives (Mar 2021)

Current Proposals

- I-494 Minnesota River Bridge Rating and Rehabilitation
- Cook County Bridge Replacements

Williamson County Time Commitment



Availability as of March 2021



Bob Haseman, PE
QA/QC

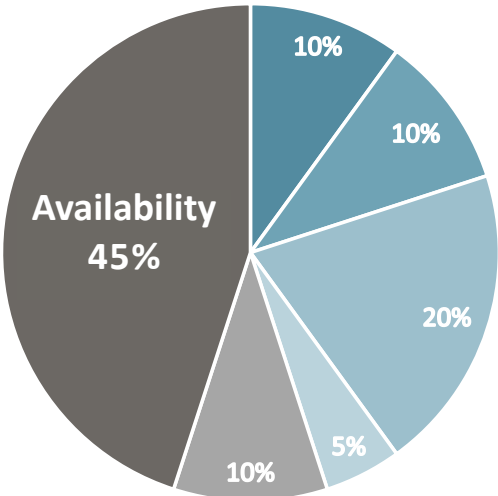
Current Projects (Completion)

- Aldine Westfield Phase II (TBD)
- Salt Water Ditch Improvements Phase I (Mar 2021)
- 48" & 36" Large Diameter Watermain Improvements (Dec 2021)
- TSU Corridor Improvements at Blodgett St., Tierwester St. and Rosewood St. (Apr 2021)

Current Proposals

- City of Houston Sewer Rehabilitation Program

Williamson County Time Commitment



Availability as of March 2021

Section Eight. Understanding of the Project

The County can be confident that the WSB team will deliver a plan for interim and ultimate project improvements that meet Williamson County goals and provide a blueprint for the community and landowners as they plan for future development. After the improvements are identified, the team will set the right-of-way (ROW) footprint needed for development to the ultimate configuration. WSB will also coordinate with the County's environmental consultant related to necessary documentation and clearances needed including Edwards Aquifer permitting. To meet these project goals, WSB has assembled a team with proven Williamson County design and permitting experience led by a trusted PM that knows what it takes to deliver successful projects.



The WSB team has provided extensive engineering services for Williamson County. We have firsthand knowledge of challenges of the CR 201 Project and understand the County's expectations. The WSB team is dedicated, available, and equipped to address the CR 201 project constraints that include Edwards Aquifer Contributing Zone permitting.

The following outlines our understanding of the various project needs, as well as highlighting our approach:

Design: The project will be developed as an ultimate urban MAD 6 arterial. Planning for an initial MAU2 that transitions to a MAD 4 prior to MAD 6 will be part of the development process. Roadway geometrics, environmental permitting, TCEQ EACZ permitting, and utility relocation be accounted for to allow efficient multi-stage project development. The project will be designed in compliance with Williamson County design requirements and will account for current and expected development within the corridor.

Right of Way: The Williamson County Design Criteria Manual indicates a 136' wide ROW for typical MAD 6 urban facilities. Dan and the team used a 130' ROW footprint on recent similar projects and understand how to design the required phased improvements into the corridor. If the project will ultimately include a shared use path, additional ROW (typically an additional 10') will be included.

Drainage and Water Quality: There are two CMP cross drainage culverts that have evidence of frequent overtopping. These will be analyzed to determine a configuration that meets the interim and ultimate County drainage requirements without unnecessary replacement. Existing ditches are not well defined, so appropriate drainage facilities will be designed in coordination with TCEQ approved BMPs. Culverts will be designed for intersecting driveways and cross streets. We will analyze the potential impacts related to cross-drainage features to determine if detention or grading is required. If the ultimate configuration requires filtration and retention ponds, we will identify additional ROW or easement needs if required.

Survey: We will coordinate with the County's selected surveyor to collect the required topography, utility information, and asset inventory. We will also coordinate with the surveyor to provide the necessary right-of-way mapping.

Environmental Documentation and Clearance: A constraints map of key items will be used to foster open communication to "avoid, minimize, and mitigate". The necessary environmental documentation required to clear the project will be coordinated with the County's selected environmental consultant.

Estimates of Probable Cost: Project cost estimates will be provided at each milestone submittal. Capacity improvements for the corridor will be phased to identify cost-effective solutions that can be built in the near term and can be expanded as traffic increases and funding becomes available.

Stakeholder Coordination: We will coordinate with the County's Public Involvement (PI) service provider and will support these efforts, as necessary. We will provide graphics and details related to the schematic design and be available for public and other stakeholder meetings as well.

**EXPERIENCE:**

32 years

REGISTRATION:Professional
Engineer -
Texas #88794**EDUCATION:**Bachelor of
Science in Civil
Engineering, Texas
A&M University**OFFICE****LOCATION:**

Austin, TX

Dan Rogers, PE**PROJECT MANAGER**

Dan has over 32 years of transportation engineering experience in Central Texas. He has developed schematic layouts and plans, specifications, and estimates (PS&E) for county roads, city streets, arterials, highways, major highways, and freeways. His experience primarily focuses on roadway design, but he is also experienced with surveying, planning, traffic engineering, environmental permitting, construction engineering, utility conflict resolution and design, hydraulic design, cost estimating, and bidding. Dan has served as a Project Manager and Lead Designer for projects at the state, county, and municipal level.

Relevant Project Experience:**US 79 | Williamson County, TX | Williamson County | Role: Project Manager and Lead Roadway Designer**

Dan served as the project manager and lead designer for a 17-mile schematic for approval by TxDOT and FHWA. Dan developed horizontal and vertical alignments and all roadway geometrics, including crossover locations and dimensions for converting a 4-lane 44' highway to a 4-lane divided highway expandable to a 6-lane facility. Dan also developed all roadway design details for PS&E for 5 miles of the corridor from Taylor to East of Thrall.

Ronald Reagan Intersections | Williamson County, TX | Williamson County | Role: Project Manager and Lead Design Engineer

Dan served as the project manager and lead design engineer. In this role he led a traffic operations study to identify proposed intersection safety and operational improvements and developed PS&E to construct those improvements at the Silver Spur Blvd. and Sun City Blvd. intersections on Ronald Reagan Blvd. Dan was responsible for developing roadway geometrics including horizontal and vertical alignments, and for developing/obtaining the TCEQ Edwards Aquifer Recharge Zone permit. The project is currently under construction.

CR 214 Phase II | Williamson County, TX | Williamson County | Role: Project Manager and Lead Roadway Designer

Dan served as the project manager and lead designer on this project which included a 3.5-mile route study and schematic for interim and ultimate conditions. Dan developed horizontal and vertical alignments and all roadway geometrics needed to improve a 2-lane 20' road to a 2-lane road with shoulders that is expandable to a 6-lane divided facility.

**CR 214 Phase II-A | Williamson County, TX |
Williamson County | Role: Project Manager and
Lead Roadway Designer**

Dan served as project manager and developed all roadway design details, including horizontal and vertical alignments, traffic control plan, signing and striping, and cross sections for widening the existing CR 214 roadway from Rolling Hills Road to San Gabriel Ranch Road.

**CR 176 at RM 2243 Road Widening and
Extension | Williamson County, TX |
Williamson County | Role: Project Manager and
Lead Roadway Designer**

Dan served as the project manager and lead designer for extending CR 176 approximately 2,000 feet on a new alignment and adding paved shoulders to 1500' of the existing roadway.. The project also included notch and widen construction to provide a left-turn lane and wider shoulders on RM 2243. Dan was actively involved in every aspect of PS&E development. Dan's team was responsible for all aspects of design, including roadway, traffic control plan, signing and striping, and temporary/permanent erosion control/ Edwards Aquifer Recharge Zone permitting. One of the project's complexities involved developing sufficient interim and ultimate design details needed to meet interim and ultimate TCEQ EARZ permitting requirements. The design resulted in an inverse crowned roadway that will utilize vegetative filter strips in the first and second phases of project development, then convert to storm sewer drainage and filtration basins for the ultimate design. The project is under construction and Dan is providing services as needed.

**SH 130 Project | Williamson County, TX |
TXDOT TTA DIVISION | Role: Lead Roadway
Designer**

Dan served as the lead designer for a 10-member design team. Dan directed the team in developing a geometric design schematic and PS&E for 11 miles of tolled freeway on a new alignment from IH35 to US 79. Dan developed initial horizontal and vertical alignments and related roadway geometrics. Dan and his team

were responsible for all roadway design details needed for design-build construction. Dan also developed the project-wide specification package which included specifications, special provisions, special specifications, and general notes for the entire 49-mile project.

**City of Cedar Park 4b Turn Lane Project |
Williamson County, TX | City of Cedar Park |
Role: Project Manager and Lead Roadway and
Drainage Designer**

Dan served as the project manager and lead roadway/drainage designer, and was responsible for developing all horizontal and vertical alignments, cross sections, drainage design and hydrology/hydraulics, signing and striping details, and temporary and permanent erosion controls. The project added safety improvements at nine intersections. Four of the locations were on TxDOT facilities and five were on City of Cedar Park roadways. One of the project's challenges was using both TxDOT and City of Austin specifications in a single bidding document. PS&E development is complete, and the project under construction.

**Cypress Creek Road at US 183 | Williamson
County, TX | City of Cedar Park | Role: Project
Manager and Lead Roadway and Drainage
Designer**

Dan served as the project manager and lead roadway/drainage designer. He was responsible for developing all horizontal and vertical alignments, cross sections, drainage design and hydrology/hydraulics, ADA compliant pedestrian facilities, illumination, and traffic signal modifications.

**Riviera Drive Emergency Access Road |
Williamson County, TX | City of Cedar Park |
Role: Project Manager and Lead Roadway and
Drainage Designer**

Dan served as the project manager and lead roadway/drainage designer. He developed all horizontal and vertical alignments, drainage design and hydrology/hydraulics, traffic control plan, cross sections, and tree well design details.

CR 200 at SH 29 | Williamson County, TX | Williamson County | Role: Lead Roadway Designer

Dan served as the lead roadway design engineer on this project, developing horizontal and vertical alignments and related roadway design details and cross sections. Dan was also responsible for traffic signal revision design.

CR 200 from CMTA RR to Stagecoach Drive | Williamson County | Williamson County | Role: Lead Roadway Designer

Dan served as the lead roadway design engineer, developing all horizontal and vertical alignments and related roadway design and cross sections.

CR 237 | Williamson County, TX | Williamson County | Role: Project Manager and Lead Roadway Designer

Dan served as project manager and lead designer and developed all roadway design details, including horizontal and vertical alignments, traffic control plan, signing and striping, and cross sections for widening CR 237 from Reagan Blvd. to IH35.

CR 424 | Williamson County, TX | Williamson County | Role: Roadway Task Lead

Dan served as the roadway task lead for this off-system bridge project. Dan developed horizontal and vertical alignments, roadway design details, traffic control plan, and cross sections.

CR 406 | Williamson County, TX | Williamson County | Role: Roadway Task Lead

Dan served as the roadway task lead for this off-system bridge project. Dan developed horizontal and vertical alignments, roadway design details, traffic control plan, and cross sections.

CR 200 at Bold Sundown | Williamson County, TX | Williamson County | Role: Lead Roadway Designer

Dan served as lead roadway design engineer, developing all horizontal and vertical alignments and related roadway design details and cross sections.

IH 35 | Hays County, TX | TxDOT | Role: Project Manager and Lead Roadway Design

Dan served as the project manager and lead roadway design engineer on this project that added a third main travel lane in each direction from Yarrington Road to Loop 82 (north). Dan was responsible for all roadway design, including all horizontal and vertical alignments for all main lane, ramp, and frontage road improvements. Several ramps were converted from diamond approach to X ramp pattern and a new main travel lane overpass was added at River Ridge Parkway. The frontage roads were also converted from 2-way traffic to one-way. Dan developed the Interchange Justification Report that was used to obtain approval for the new overpass and diamond interchange. Dan also developed the TCP traffic control plan and illumination details.

IH 35 | Hays County, TX | TxDOT | Role: Project Manager and Lead Roadway Design

Dan served as the project manager and lead roadway design engineer on this project that added a third main travel lane in each direction on IH35 from Loop 82 (north) to SH 123. Dan was responsible for all roadway design, including all horizontal and vertical alignments for all main lane, ramp, and frontage road improvements. All the ramps along this segment were converted from diamond approach to X ramp pattern. New bridge structures were constructed over the San Marcos River and Willow Branch Creek. Dan also developed the TCP traffic control plan and illumination details. As part of this project a schematic was developed for the corridor from Yarrington Road to SH 123. Dan led the coordination and schematic approval effort for FHWA coordination and approval of the schematic.

Loop 1 (Mopac) at FM 734 (Parmer Lane) | Austin, TX | TxDOT | Role: Project Manager

Dan served as the project manager for widening the FM 734 bridge and its approaches over Loop 1. A collector-distributor bridge was constructed for SB Loop 1 traffic and a bypass of the FM 734 signal was added for the NB Loop 1 traffic. Dan

coordinated staff activities for structural, traffic control, signing and striping, drainage, ITS, and traffic signal designs and utility conflict resolution. He also coordinated with surveying and roadway design subcontractors. One of the complexities of this project was coordinating with the CMTA RR to construct a new bridge over the railroad. Dan actively pursued CMTA approval so that the project schedule was not seriously impacted by the railroad's approval process.

US 183 at Walton Way | Cedar Park, TX | City of Cedar Park | Role: Project Manager and Lead Roadway and Drainage Designer

Dan was project manager and lead roadway and drainage designer on this project that improved intersection geometrics by converting a left turn lane to a dual left turn lane and adding a right turn lane. He developed all horizontal and vertical alignments, drainage design and hydrology/hydraulics, signing and striping, cross sections, and intersection details.

RM 967 West of FM 1626 | Hays County, TX | Hays County | Role: Project Manager and Lead Roadway Designer

Dan is the project manager and lead designer for this project. The project includes shoulder widening and adding a center turn lane. Dan is actively involved in every aspect of PS&E development. Dan's team is responsible for all design elements including roadway, traffic control plan, drainage, signing and striping, and temporary/permanent erosion control/Edwards Aquifer Recharge Zone permitting. PS&E is in the final design stage.

US 290 at Trautwein Road | Hays County, TX | Hays County | Role: Project Manager and Lead Roadway Designer

Dan is the project manager and lead designer on this project that is widening US 290 to provide a right turn deceleration lane and widening the travel lanes on Trautwein Road and adding paved shoulders. Dan is actively involved in every aspect of PS&E development. Dan's design team is responsible for all design, including roadway, traffic control plan,

drainage, signing and striping, and temporary/permanent erosion control/Edwards Aquifer Recharge Zone permitting. WSB is designing both temporary and permanent traffic signals for this intersection and related safety geometric improvements. PS&E is at 90 percent design.

US 290 at Roy Rivers Road | Elgin, TX | Malone Wheeler Inc. | Role: Project Manager and Lead Roadway Designer

Dan served as the project manager and lead designer for this project. The project provided a right-turn deceleration lane, shoulders, drainage improvements, and widened Roy Rivers Road. Dan was responsible for developing horizontal and vertical alignments, roadway, drainage, traffic control, signing and striping, erosion control, and cross section design. Dan also provided construction phase services.

RM 1826 at RM 967 | Hays County, TX | Hays County, TX | Hays County | Role: Project Manager and Lead Roadway and Drainage Designer

Dan served as the project manager and lead designer for developing dedicated turn lanes at the intersection and paved shoulders on both roads. Dan was responsible for developing horizontal and vertical alignments and roadway geometrics. Dan developed all drainage design, traffic control plan, erosion control, and signing and striping details for the project.

Darden Hill Road at RM 1826 | Hays County, TX | Hays County | Role: Project Manager and Lead Roadway Designer

Dan served as the project manager and lead designer on this project. The project provided a right-turn deceleration lane, a center left-turn lane, shoulders, and drainage improvements. The project also realigned an intersecting roadway to improve sight distance on RM 1826. Dan was responsible for all designs, including horizontal and vertical alignments, roadway, drainage, traffic control, signing and striping, erosion control, and cross sections. Dan also provided construction phase services.

**FIRM:**

WSB

EXPERIENCE:

7 years

REGISTRATION:Professional
Engineer -
Texas #131636**EDUCATION:**Bachelor of
Science in Civil
Engineering, Texas
A&M University**OFFICE****LOCATION:**

Austin, TX

Marc Drouin, PE**ROADWAY DESIGN LEAD**

Marc has more than five years of experience working as a consultant in transportation engineering. He has project experience at the schematic and plans, specifications, and estimates (PS&E) design levels for various facilities ranging from rural roadways to multi-lane freeways. He has worked on numerous successful projects with multiple stakeholders that required detailed attention to both local city and state design criteria. His background working for multiple clients and jurisdictions in Texas, including the Harris County Toll Road Authority, Montgomery County Toll Road Authority, Harris County, Hays County, City of Cedar Park, City of College Station, Texas Department of Transportation (TxDOT) Dallas District, TxDOT Austin District and TxDOT Fort Worth District, has given him an appreciation for various client needs.

Relevant Project Experience:**Ronald Reagan Intersections | Williamson County, TX | Williamson County | Role: Roadway Design**

Marc provided design support for this project, which included a traffic operations study to identify proposed intersection safety and operational improvements and developed PS&E to construct those improvements at the Silver Spur Blvd. and Sun City Blvd. intersections on Ronald Reagan Blvd. Marc developed roadway geometrics including horizontal and vertical alignments, and for developing/obtaining the TCEQ Edwards Aquifer Recharge Zone permit. The project is currently under construction.

Krienke Ranch Roach (CR 272) Creek Crossing | Cedar Park, TX | Role: Roadway Design

This project involved the replacement of a low water crossing at Brushy Creek and Krienke Ranch Road and the necessary roadway improvements. Hydraulic analysis of the proposed structure was required to determine the culvert size, layout, and design, without inundating the roadway up to the two-year storm event, requiring a LOMR, or a Nationwide Permit. During PS&E design, Marc designed mortared rock riprap around the limits of the proposed culvert safety end treatment to protect the sloped embankment and roadway against another potential washout. Marc also provided plans detailing roadway, signing and pavement markings, traffic control, drainage, erosion control, utility, and required easements and ROW.

**Cedar Park Turn Lanes Project | Cedar Park, TX
| City of Cedar Park | Role: Roadway Design**

The Cedar Park Turn Lanes Project involved the design of intersection improvements at nine total intersections along Lakeline Boulevard, Whitestone Boulevard, and Ronald Reagan Boulevard. The addition of (primarily) right turn deceleration lanes, the extension of a left turn lane, the modification of pedestrian facilities including sidewalk and curb ramps, traffic signal improvements, and utility relocation were the focus of the design. Marc took over design efforts to detail the intersection improvements and assemble the PS&E package. With facilities along the three roadways owned by both the City of Cedar and TxDOT, two plans sets were developed to follow each entity's design standards and bid codes. For each of the intersections, Marc provided plans detailing their roadway improvements, signing and pavement markings, traffic control, drainage, erosion control, utility, and traffic signal, as required on each of the nine intersections.

**US 290 at Trautwein Road | Hays County, TX
| Hays County | Role: Roadway Design & 3D Modeling**

Marc provided design support for this project, which includes widening US 290 to provide a right turn deceleration lane and widening the travel lanes on Trautwein Road and adding paved shoulders. Marc developed designs, including roadway, traffic control plan, drainage, signing and striping, and temporary/permanent erosion control/Edwards Aquifer Recharge Zone permitting. This project includes both temporary and permanent traffic signals for this intersection and related safety geometric improvements. Marc developed a 3D model for this project, which included a number of retaining walls and significant grading. The model was critical to minimizing the number of retaining walls in the design. The PS&E are at 90 percent design

**RM 967 Widening | Buda, TX | Hays County |
Role: Roadway Design**

This project was a 3R safety project to add a continuous two-way left turn lane, pavement shoulders, and add several right turn deceleration lanes at three schools within the project limits. Notch and widen construction was used for most of the 1.9 miles of roadway improvements within the project limits, with 1,100 feet utilizing full-depth reconstruction for profile adjustment. For this project, Marc lead the development of the Traffic Control Plan (TCP) and assisted in the development and design of the roadway details, driveway design, and erosion control plans. Marc also developed and detailed intersection plan and profile sheets for the six intersections within the project limits. Marc developed and detailed intersection plan and profile sheets for the six intersections within the project limits. An additional intersection detail plan sheet at a smaller scale was also generated to provide finer details to the proposed intersection improvements.

2017 Whitestone Blvd and Lakeline Blvd Turn Lanes | Cedar Park, TX | Role: Roadway Design

The project included the addition of right turn deceleration lanes, extension of a left turn lane, modification of pedestrian facilities, including sidewalk and curb ramps, traffic signal improvements, and utility relocations were the focus of the design. Marc took over design efforts mid-project to finalize the intersection improvements and assemble the PS&E package. For each of the intersections as required, Marc provided plans detailing their roadway, signing and pavement markings, traffic control, drainage, erosion control, utility, and traffic signal improvements. Marc also assembled all the required documents on behalf of the client to initiate a RAS review process and worked with the RAS during their plan review to update the plans accordingly, required by TDLR.

Schuelke Road | Niederwald, TX | Caldwell County | Role: Roadway Design

Marc served as a design engineer on the Schuelke Road project, responsible for the development of the Traffic Control Plan (TCP). One of four SH 130 Concession Funded Caldwell County projects, the Schuelke Road project involved removing and replacing the existing pavement structure from the top of the existing subgrade, for the 6.2- mile roadway that varied in width from 14 to 20 feet within a 60-foot right-of-way (ROW) and widened it to 24 feet in width. Marc initiated an 811 call for the buried utilities to be located, coordinated efforts with survey to locate those marked lines, and performed quality Level D Subsurface Utility Engineering (SUE) efforts to locate existing utilities. All located existing utilities within the project were detailed on a utility conflict table.

Fagan Lane Project | Tomball, TX | Role: Roadway Design

Project involved both schematic and PS&E levels of design for a new two-lane concrete roadway approximately 5,800' long built in Precinct 4 of NW Harris County. During the schematic phase, Marc initiated an 811 call for existing buried utilities located and coordinated efforts with the survey subconsultant. Marc performed additional quality Level D SUE research to identify buried utilities and detailed them in a utility conflict table. During the PS&E stage, quality Level A SUE was scoped to exactly locate the depth of multiple buried shallow pipelines.

**EXPERIENCE:**

20 years

REGISTRATION:Professional
Engineer -
Texas #129722**EDUCATION:**Master of Civil
Engineering,
University of
Minnesota, 2007Bachelor of Science
in Civil Engineering,
University of North
Dakota, 1997**OFFICE****LOCATION:**

Minneapolis, MN

Earth Evans, PE**DRAINAGE TASK LEAD**

As a project engineer and project manager for technically diverse projects in water resources, Earth takes projects from planning and preliminary engineering through design and construction. She is a technical expert in hydrologic and hydraulic modeling, flood damage reduction and floodplain modeling, water quality modeling and evaluation of best management practices (BMPs), permitting, and hydraulic design. Earth has in-depth knowledge of Texas Department of Transportation (TxDOT) and state requirements. In her experience, she has coordinated extensively with local, regional, and state permitting agencies on numerous linear projects. This process has been invaluable in facilitating designs that meet requirements and streamline the permitting process.

Relevant Project Experience:**Cedar Park 272 Crossing of Brushy Creek | Cedar Park, TX | City of Cedar Park | Role: River Hydraulics Lead**

Earth led the bridge hydraulic analysis for the Cedar Park 272 crossing of Brushy Creek. The creek is a designated FEMA Zone AE floodplain and the hydraulic design conveys the 2-year flow in the proposed series of box culverts while meeting conditions of a No Rise. The existing culverts are significantly undersized, resulting in frequent overtopping and washout of the roadway. During design, Earth evaluated multiple conditions to provide additional conveyance capacity while minimizing the impacts to reduce permit requirements and meet the project schedule.

RM 967 Improvements | Hays County, TX | TxDOT | Role: Water Resources Task Lead

Earth led the drainage design for the proposed improvements to RM 967 in Hays County, TX. The project consists of widening and reconstruction of the existing roadway, grading, and drainage improvements. A hydraulic and hydrologic analysis was performed on existing culvert crossings within the project limits to determine if they meet current TxDOT standards. New culverts are proposed at locations where the existing culverts do not meet current standards. HY-8 was used for the analysis and design of the culverts.

Willmar Wye | Willmar, MN | MnDOT District 8 | Role: Hydraulics Task Lead

Earth was the hydraulics lead for the preliminary drainage design for the Willmar Wye project. This project required extensive coordination with Burlington Northern Santa Fe railroad, MnDOT, Kandiyohi County and the city of Willmar. The proposed trunk highway and county roads are primarily

rural section which required close coordination with the roadway team to design the ditch section to maintain existing drainage patterns. The drainage design included temporary and permanent BMP design, multiple culverts, FEMA floodplain analysis for Hawk Creek for four proposed bridges, and several existing bridges including risk assessments and hydraulic analysis, and assistance with the environmental documents.

TH 169/TH 41 (TIGER) Project | Jackson Township, MN | Scott County | Role: Hydraulics Task Lead

Earth was the hydraulics lead responsible for drainage design, including 30%, 60% and final design plans, quantities, hydrologic/hydraulic modeling, bridge hydraulic analysis and risk assessments, assistance with environmental documentation, and temporary drainage design. The project required detailed drainage cost splits for multiple funding sources. The project includes a diverging diamond interchange (DDI) at TH 16/TH 41/CSAH 78, a CSAH 14 overpass at TH 169, ramps, roadway realignments, and numerous frontage roads.

Corridors of Commerce: Preliminary Scoping | MN | MnDOT Central Office | Role: Hydraulics Task Lead

Earth was the hydraulics lead for drainage cost estimates for the project. The drainage team utilized historical MnDOT construction costs to determine drainage percentage of the total cost for rural, urban, and interchanges. The team also estimated risk for permitting complexity and right-of-way needs for BMPs. These methods allowed for rapid and transparent drainage estimates.

I-35W MnPASS | Roseville to Lino Lake, MN | MnDOT Metro | Role: Drainage Task Lead

Earth is leading the team that is completing oversight for the 35W MnPASS North Design Build project between Roseville and Blaine. Earth's team is responsible for reviewing for compliance with MnDOT requirements and the

contract requirements. The project is located entirely within Rice Creek Watershed District and requires extensive coordination with the permitting agency to address temporary construction impacts, jurisdictional ditch crossings, floodplain impacts and water quality compliance. Earth's team is also responsible for reviewing drainage infrastructure videos and providing replacement recommendations based on condition.

I-494/Rockford Interchange | Plymouth, MN | City of Plymouth | Role: Drainage Task Lead

Earth was responsible for managing the team that designed preliminary and final drainage infrastructure, BMPs, permitting and temporary drainage systems required for phasing. The project is located within BCWMC and SCWMC and required extensive agency coordination. Additional reviewers included State Aid, MnDOT Water Resources, Hennepin County and the City of Plymouth. Storm sewer design for I-494 to avoid the new bridge footings and abutments was required. Close coordination was required for staging to reduce the construction schedule due to the high traffic volumes at this interchange. The proposed drainage system connects into the City's existing storm sewer system. WSB reviewed videos of the existing system, determined what improvements were needed to the existing infrastructure, and designed the improvements.

I-94 Unbonded Overlay | Maple Grove to Rogers, MN | MnDOT Metro | Role: Hydraulics Task Lead

Earth was the hydraulics lead for the preliminary drainage design and permitting for the project. The drainage design includes temporary and permanent BMP design, existing and proposed hydraulic/hydrologic modeling, identify right-of-way impacts for BMPs, utility coordination, culvert video inspection and ratings based on MnDOT's HydInfra, FEMA floodplain analysis, bridge risk assessments and hydraulic analysis, assistance with environmental documents, evaluation and minimizing wetland and DNR impacts, coordination and submittals to the

permitting agencies. Earth's thorough evaluation and extensive coordination for this project facilitated streamlined permitting approvals.

Southwest Light Rail Transit (SWLRT) | Hopkins, Minnetonka, and Eden Prairie, MN | Metro Transit | Role: Hydraulics Task Lead

Earth is managing the water resources team completing the erosion and sediment control design, storm sewer design, permitting, bridge and wall drainage to meet MnDOT requirements. The project consists of construction of approximately 14.5 miles of light rail, paved trails, road reconstruction, and park-and-rides and light rail stations.

TH 169 Reconstruction | Champlin, MN | City of Champlin | Role: Hydraulics Lead

This project consists of approximately 4,000 lineal feet of reconstruction of TH 169 in Champlin, including replacement of the two existing bridge crossings of Elm Creek, storm sewer improvements, and reconstruction of portions of Dayton Road, Miller Road and West River Road. The project required extensive permit agency coordination with WMWMC, ECWMC, DNR for public water impacts, floodplain impacts within a FEMA floodplain, storm water management requirements and erosion and sediment control. The design also included a complicated temporary drainage design to facilitate staging of TH 169 to maintain traffic during construction.

Mill Pond Improvements | Champlin, MN | City of Champlin | Role: Hydraulics Task Lead

Earth led multiple phases of the Mill Pond Improvements including the hydraulic modeling and FEMA CLOMR and LOMR permitting for the dam, levee, box culvert and other flood control improvements; presentations to residents, City Staff and Council regarding the FEMA process and impacts; levee design to meet FEMA requirements; assistance with environmental documentation; drainage design and DNR and Watershed permitting for TH 169 improvements adjacent to Mill Pond; coordination with the

DNR regarding lake drawdown requirements and schedule; evaluation of floodplain impacts due to the TH 169 improvements and identification of alternatives, preliminary and final design of compensatory floodplain storage; TH 169 bridge hydraulic analysis and risk assessments; design of water quality BMPs as feasible upstream of Mill Pond; hydraulic analysis and DNR Dam Safety permitting for the Elm Creek Dam; concept level evaluation of Mill Pond habitat restoration and bathymetric mapping; coordination of Mill Pond sampling; evaluation of historical aerials to estimate sediment loading; support in preparing grant application materials and meeting with agency members to garner support for the project; and quality control review of shoreland and habitat restoration quantities.

I-35W Minnesota River Bridge | Burnsville, MN | MnDOT Metro | Role: Drainage Task Lead

Earth assisted with oversight of this project, including review of the 2D modeling of the Minnesota River, review of temporary drainage including scupper spacing on the bridge deck, and review for compliance with the contract related to catch basin spacing, culvert design, BMPs, and storm sewer design.

77th Street Underpass | Richfield, MN | MnDOT | Role: Drainage Task Lead

Earth was responsible for managing the team that designed preliminary and final drainage infrastructure, BMPs and permitting. The project included design of an underground chamber system to mitigate storage volume lost in the public park, drainage improvements for the park facilities, design of the underpass drainage system to meet spread requirements and conveyance for the 100-year design storm event, and re-routing of the MnDOT TH 77 drainage system around the proposed underpass. The MnDOT TH 77 system discharges into the I-494 storm sewer which is undersized. The project incorporated surge basins and backflow preventers to improve the conveyance of the TH 77 system and prevent backflow from the downstream system from flooding the underpass.

**CSAH 3 Reconstruction | Sauk Rapids, MN
| Benton County | Role: Hydraulics Task Lead**

This project consisted of approximately 4,700 lineal feet of road reconstruction in a fully developed urban corridor. Earth was responsible for managing the team that designed preliminary and final drainage infrastructure, BMPs and permitting. The hydraulic design required connection to several existing storm sewer systems with capacity limitations. Earth's team sized BMPs to meet water quality requirements using MIDS and to meet rate control requirements to not impact the downstream system.

**CSAH 24 Reconstruction | St. Francis, MN
| Anoka County | Role: Hydraulics Task Lead**

This project consisted of approximately 2,000 lineal feet of road reconstruction and widening, construction of two roundabouts and storm sewer improvements. The roadway is located in a fully developed corridor, adjacent to several wetlands, with limited existing storm sewer infrastructure. Earth assisted with preliminary and final drainage design, sizing of BMPs and permitting. The project is located upstream of the Rum River, a designated Scenic and Recreational River Segment, and therefore required additional erosion and sediment control measures and a more stringent water quality BMP design.

**EXPERIENCE:**

21 years

REGISTRATION:Professional
Engineer

TX #127227

MN #42732

WI #43120-6

SD #11586

ND #PE-8314

NE #E-14420

IA #21330

CO #56206

EDUCATION:Master of Science
in Structural
Engineering,
University of
Minnesota, 1999Bachelor of Science
in Civil Engineering,
South Dakota
School of Mines &
Technology, 1997**OFFICE****LOCATION:**

Minneapolis, MN

Carl Osberg,**STRUCTURAL TASK LEAD**

Carl has over 21 years of structural studies, design and management experience with bridges, tunnels, walls, dams, facilities and buildings from concept through construction – including new design, rehabilitation/retrofit, monitoring, cost estimating. He has studied or designed over 100 bridges, 30 culverts, 500 retaining walls, 300 noise walls, 10 tunnels, and 50 facilities. As Structural Engineering Lead, he will organize and coordinate the alternatives study and design tasks, as well as perform quality checks. Carl will frequently and clearly communicate progress and issues with the project manager and team. He will make certain he is available on short notice for work requests, reviews, meetings/site visits.

Relevant Project Experience:**Cedar Park 272 Crossing of Brushy Creek | Cedar Park, TX | City of Cedar Park | Role: Structural Lead**

Carl developed the structural design for the Cedar Park 272 crossing of Brushy Creek. The creek is a designated FEMA Zone AE floodplain and the hydraulic design conveys the 2-year flow in the proposed series of box culverts while meeting conditions of a No Rise. The existing culverts were replaced with a series of box culverts designed to overtop in larger storm events. The hydraulic and structural design accounted for the planned overtopping.

US 290 at Trautwein Road | Hays County, TX | Hays County | Role: Structural Lead

Carl is serving as Lead Structural Engineer for the alternatives study and final design of three retaining walls constructed to minimize right-of-way impacts caused by widening and improvement to Trautwein Road and US 290. Two of the walls are 20' tall concrete drilled shaft for top down construction. The third wall is a 5' tall unreinforced prefabricated large block wall. Carl has submitted his 60% plan review for comments. PS&E is at 90 percent design.

Historic Zumbro Dam Rehabilitation | Mazeppa, MN | Rochester Public Utilities | Role: Project Manager & Lead Structural Engineer

Carl performed the analysis and design, as well as created the construction documents for the rehabilitation of this 100-year-old historic concrete powerhouse and walkway facilities. All repair details were reviewed by the State Historic Preservation Office/ followed Secretary of Interior (SOI) Standards.

Swedish Immigrant Trail | Chisago County, MN | Chisago County | Role: Lead Structural Engineer

Carl performed final design and construction administration activities for these single span pedestrian truss bridges carrying the Swedish Immigrant Trail over

Lawrence Creek, gorges and other unnamed streams. The span lengths vary from 115'-0" to 160'-0".

Historic Union Depot Renovation | St. Paul, MN | RCRRA | Role: Lead Structural Engineer

Carl was the Lead Structural Engineer for this project which included the inspection, assessment, retrofit design and construction administration of this 100-year-old train station. This project encompassed over 1 million ft² and consisted of inspecting and improving the existing concrete train deck slab, substructures, as well as, adding many new structural components including: structural deck, columns, parapets, micropile and composite footings, retaining walls, train platforms, a 3-span pedestrian bridge, a 5-span bus ramp bridge; and a 5-span train bridge.

Steele County Bridges | Owatonna, MN | MNDOT District 6 | Role: Lead Structural Engineer

Carl served as Structure's Lead for the design and construction of eight prestressed girder bridges (Bridge Nos. 74821, 74822, 74823, 74824, 74839, 74840, 74841, and 74842), and two heavily skewed steel plate girder bridges (Bridge No. 74843 and 74844) carrying I-35 and TH 14 over railroads and rivers. Carl oversaw all structural design components of these bridges.

Southwest Light Rail Transit (SWLRT) Bridge and Walls | Eden Prairie, MN | Metropolitan Council | Role: Structural Engineer

Carl was the engineer for the preliminary design and preliminary plans of five tie-back soldier pile retaining walls along the SWLRT corridor. Carl also performed quality reviews and checking of the design for the Southwest Station Bridge in Eden Prairie.

Lake Wobegon Trail Bridge (R0665) | Waite Park, MN | Stearns and Todd county | Role: Structural Engineer

Carl performed the final design activities for this single span pedestrian truss bridge carrying the Wobegon Trail over the Sauk River. The span length

is 200'-0" - one of the longest pedestrian bridge spans in Minnesota. Due to the soil condition, one abutment is on piles while the other is on a spread footing socketed into bedrock.

Vermillion River Trail Bridge | Hastings, MN | City of Hastings | Role: Structural Engineer

Carl performed the preliminary and final design activities for this two-span kinked truss pedestrian bridge along the Vermillion River gorge. Geotechnical conditions were a challenging aspect due to adjacent gorge and sinkholes.

Midtown Greenway Historic Bridge Rehabilitations | Minneapolis, MN | City of Minneapolis | Role: Lead Bridge Engineer

Carl served as lead bridge engineer for the rehabilitation of three historic concrete slab bridges along the Midtown Greenway Trail near Lake of the Isles as a part of a larger trail improvement project. The work included conducting bridge inspections and preparing bridge repair details in compliance with the Secretary of the Interior (SOI) Standards for Historic Structures.

Highway 371 Four-Lane Expansion | Nisswa to Jenkins, MN | MNDOT | Role: Structural Design Manager

Carl was structure's design manager for the design and construction of two prestressed girder bridges (Bridge Nos. 18002 and 18009 – carrying Paul Bunyan Trail) over TH 371, a two-span truss bridge (Bridge No. R0727) carrying Paul Bunyan Trail over wetlands and a three-sided precast culvert (Bridge No. 18X06) carrying TH 371 over Cullen Brook Stream. Project challenges included an aggressive project schedule and a strong emphasis on architectural treatments.

Opus Area Trail Bridge Improvements | Minnetonka, MN | City of Minnetonka | Role: Lead Bridge Engineer

Carl served as the lead bridge engineer for the preliminary and final design and construction of 10 single span bridges using ABC technologies. The bridge type selected for all the bridges was a concrete slab superstructure with innovative

Geosynthetic Reinforced Soil (GRS) abutments. These abutments have been designed using a GRS structural system and consist of large modular blocks with closely spaced layers of geosynthetic reinforcement and compacted granular fill material. GRS has been used for a variety of earthwork applications since the U.S. Forest Service first used it to build walls for roads in steep mountain terrain in the 1970s. Since then, the technology has evolved into the GRS Integrated Bridge System (IBS), a fast, cost-effective method of creating bridge support that blends the roadway into the superstructure. This method has significant value when employed for small, single-span structures such as the Opus bridges. Carl's responsibilities included structures quality review and documentation, structural design and design checking, and collaboration with other disciplines (design staff). This project was on time and under budget.

CSAH 101 Improvements: Bridge, Causeway and Walls | Wayzata, MN | Hennepin County | Role: Lead Structural Engineer

Carl performed preliminary and final design activities for a replacement bridge carrying CSAH 101 over BNSF tracks and historic corridor. The single-span precast girder bridge utilized short rectangular prestressed beams in lieu of post-tensioned concrete to accommodate speedy construction, avoid formwork, increase clearance and minimize disruption of railroad service. The design included a causeway trail design and multiple retaining walls.

Minot Air Force Base Hanger Remodel | Minot, ND | City of Minot | Role: Lead Structural Engineer

Lead Structural Engineer for this B-52 hanger remodeling project (10,000 sft changed to three-story offices, locker rooms, classrooms).

Wright-Patterson Air Force Base, Auto Hobby Center | Dayton, OH | City of Dayton | Role: Lead Structural Engineer

Lead Structural Engineer for the design and construction of this community hobby center (framing, classrooms, auto maintenance, wood shop, car wash and vacuum center), managed

the specifications, design and detailing for the foundations, steel framing, precast walls and roof planks, as well as the lateral bracing. In addition to the IBC and ASCE codes, used the military UFC codes, and a blast force of 175 psf was included in the design.

Fort Stewart Automated Sniper Range Complex | Savannah, GA | City of Savannah | Role: Lead Structural Engineer

Lead Structural Engineer for the design and construction for this seven-building facility (control tower, aerated latrine, covered mess bldg, covered bleacher bldg, office bldg, ammunition bldg, administration bldg).

Fort Carson Buildings | Colorado Springs, CO | City of Colorado Springs | Role: Structural Engineer

Structural Engineer for the design and construction of this design-build project encompassing 6 buildings (6 company operations facilities - COFs) totaling 300,000 sft.

Fort Lewis Buildings | Tacoma, WA | City of Tacoma | Role: Structural Engineer

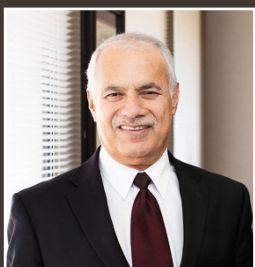
Structural Engineer for the design and construction of this design-build project encompassing 12 buildings (5 HQs, 4 COFs, and 3 other structures) totaling 500,000 sft.

Beal Air Force Base, Car Wash | Sacramento, CA | City of Sacramento | Role: Structural Engineer

Lead Structural Engineer for the design and construction of this car wash and vacuum center, designed and detailed the foundations, steel and concrete.

Minnesota Valley Transit Authority – Parking Garage Rehabilitation | Burnsville, MN | Minnesota Transit Authority (MVTA) | Role: Project Manager & Structural Engineer

Carl performed final design activities for the rehabilitation of an existing three-story stair structure servicing a post-tensioned concrete parking ramp that was severely deteriorated. The work involved inspecting, designing, and administering construction of repairs to the steel structure and post-tensioned concrete.

**EXPERIENCE:**

34 years

REGISTRATION:Professional
Engineer -
Texas #68184**EDUCATION:**Bachelor of Science
in Civil Engineering,
University of
Houston, 1985**OFFICE****LOCATION:**

Houston, TX

Bob Haseman, PE**QA/QC**

Bob has over 34 years of progressive experience as a design engineer, project engineer, project manager, and Chief Engineer. He has worked on both transportation and public works type projects. His engineering activities have included the design of large and small diameter waterlines, storm water drainage, urban water transmission lines, streets, roadways, interchanges, signing and pavement markings, traffic control, site grading, and general civil engineering assignments. His attention to detail and the level of his accomplishments have received high praise from clients, including State and local government agencies. Throughout his years of continued development, Bob has demonstrated outstanding engineering competence and understanding of client needs.

Relevant Project Experience:**Broadway Reconstruction IH-45 to Airport Blvd. | Houston, TX | City of Houston | Role: Project Manager**

Provided roadway design for 10,000 LF of reconstruction of Broadway Street; a 4-lane divided boulevard, including drainage and storm sewers evaluation, design of new waterlines, new storm sewer laterals, inlets adding new 48" – 60" RCP main trunk, new 12" – 48" sanitary sewer lines, traffic control plan, SWPPP, new traffic signals, street lighting, and pavement markings and signing design. The Broadway project was selected as an APWA Texas Chapter project of the Year for 2017.

Broadway Street Paving & Drainage IH-45 to Old Galveston Road | Houston, TX | City of Houston | Role: Project Manager

Provided roadway design for the reconstruction of Broadway Street—a distance of 1.7 miles. Project limits intersect 21 streets, 13 tree-leg intersections, 8 four-leg intersections, and tributaries of Sims Bayou, IH-610 frontage road, and Market Rail Road. Scope included improved utilities, new storm sewer trunk lines, new storm sewer laterals and inlets, replacement of existing water lines, wheel chair ramps, curbs and sidewalks, new traffic signals, traffic control plan, SWPPP, and street lighting.

60-Inch Waterline Along Glen Valley | Houston, TX | City of Houston | Role: Project Manager

As Project Manager, Bob designed 7,400 LF of 60-inch waterline—including 900 LF by tunneling method; existing 8-inch water lines were upgraded / upsized to 8-inch and 12-inch water lines; 11,000 LF; sanitary sewer lines, 8-inch and 15-inch; 2,500 LF; and entire storm systems were improved to include inlets and RCP ranging from 24-inch to 48-inch. The project also

consisted of the total reconstruction of roadway, 9,000 LF.

Coastal Water Authority Dual 96" Pipeline | Houston, TX | City of Houston | Role: Project Manager

As Project Manager for this effort, Bob designed approximately 1 mile of the dual 96-inch RWTP, prepared plan and profile and details, calculated steel pipe wall thickness, prepared site grading plan along the project limits to balance cut and fill, reviewed specifications and details, and assisted with procurements.

60-Inch Waterline Along Glen Valley | Houston, TX | City of Houston | Role: Project Manager

As Project Manager, Bob designed 7,400 LF of 60-inch waterline— including 900 LF by tunneling method; existing 8-inch water lines were upgraded / upsized to 8-inch and 12-inch water lines — 11,000 LF; sanitary sewer lines, 8-inch and 15-inch — 2,500 LF; and entire storm systems were improved to include inlets and RCP ranging from 24-inch to 48-inch. Project also consisted of the total reconstruction of roadway, 9,000 LF.

WHCRWA 84" and 66" Diameter Pipeline, Section C | Houston, TX | City of Houston | Role: Project Manager

As Project Manager, Bob designed approximately 1 mile of 84-inch surface water supply pipeline (SWSP), 1 mile of 66-inch CIP Waterline, and 2,000 LF of total neighborhood roadway reconstruction. Scope of work also included pavement removal and replacements, regrading roadside ditches, site restoration (removal and replacement of parking lots and walkways/bikeways), TCP, public utility adjustments, and SW3P for the entire length of the project.

State Highway 99, Grand Parkway Segment D | Houston, TX | City of Houston | Role: Project Manager

Provided roadway design for Fort Bend Toll Road (SH 99) Segment D, Section 9 —a distance of 0.9 mile. Scope included widening of existing mainlanes, new mainlanes, new mainlane bridge over Bellaire Boulevard, twin 3-span prestressed concrete girder bridges with Tx-54 girders, bridge layouts, superstructure and substructure design, and construction documents.

Coastal Water Authority (CWA) Luce Bayou Interbasin Transfer Project; Interim Access Road Design at Capers Ridge Site | Houston, TX | City of Houston | Role: Project Manager

Provided roadway design for approximately 5.5 miles of roadway, Construction Management, and Inspection Services. Roadway geometry design was implemented to ensure the access road would survive heavy traffic loads of the Construction Phase of the access road and during CWA's ongoing Luce Bayou Interbasin Transfer Project in Liberty County, TX.

Shepherd and Durham Paving & Drainage; From Dickson to Washington | Houston, TX | City of Houston | Role: Project Manager

Provided roadway design reconstruction for 2,300 LF of Durham and 2,200 LF of Shepherd. Scope included total reconstruction, new sidewalks and wheel chair ramps; construction of a bike lane; new storm sewer trunk lines; new storm sewer laterals and inlets; replacement of existing water lines; removal/replacement of sanitary sewer lines and manholes; utility adjustments; removal/replacement of traffic signals; traffic control plan; SWPPP; street lighting; and pavement markings and signing design.

CONFLICT OF INTEREST QUESTIONNAIRE

For vendor doing business with local governmental entity

FORM CIQ

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 Name of vendor who has a business relationship with local governmental entity.

N/A

2 ☐ Check this box if you are filing an update to a previously filed questionnaire. (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 Name of local government officer about whom the information is being disclosed.

Name of Officer

4 Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes

☐ No

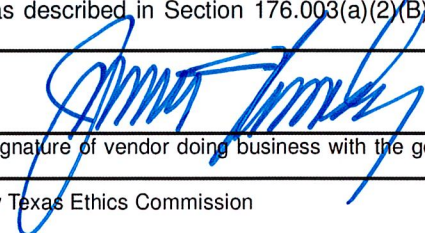
B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes

☐ No

5 Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7


Signature of vendor doing business with the governmental entity

1/4/2021

Date