US 11 Norfolk Southern RR Overpass (HBI)

Contract No. 4400032800
State Project No. H.000688.5
Federal Aid Project No. H000688

September 9, 2025
Prepared for: Louisiana Department of Transportation and Development
Prepared by: Stantec Consulting Services Inc.

Stantec Consulting Services Inc

Stantec

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Submitted to:
Louisiana Department of Transportation and Development
1201 Capitol Access Road
Baton Rouge, LA 70802

Submission from Stantec—A Partner for Louisiana's Infrastructure Success
Stantec Consulting Services Inc.
1200 Brickyard Lane, Suite 400
Baton Rouge, LA 70802
T: 225.765.7400

COVER LETTER

It is with great enthusiasm that Stantec submits our proposal for the detailed line and grade studies to reconstruct and widen US 11 from I-12 to US 190. As a dedicated partner to Louisiana's infrastructure advancement, we understand the vital role this project will play in shaping safe, resilient, and efficient transportation networks for communities in Slidell, LA.

At Stantec, we are more than an engineering firm—we are problem solvers, collaborators, and community builders. Our team brings deep experience with Louisiana's unique geography, regulatory landscape, and infrastructure challenges. We have successfully delivered numerous transportation projects in partnership with DOTD, consistently meeting or exceeding expectations for quality, timeliness, and innovation.

What Sets Stantec Apart:

- ***Unmatched Local Experience:*** Our Louisiana-based professionals have worked alongside DOTD for decades, developing a thorough understanding of state standards, environmental conditions, and stakeholder priorities. We leverage this local knowledge to deliver robust, context-sensitive solutions.
- ***Comprehensive Project Management:*** Stantec employs a proven project management framework tailored to public transportation projects. Our structured approach ensures seamless communication, precise scheduling, transparent budgeting, and stringent quality controls.
- ***Innovative Solutions:*** Committed to continuous improvement, we integrate cutting-edge technologies and sustainable practices into every assignment—enhancing safety, operational efficiency, and long-term value for Louisiana's citizens.
- ***Community Commitment:*** We recognize that transportation infrastructure must serve residents, businesses, and visitors. Our engagement strategies foster collaboration with local stakeholders to ensure that our designs support economic vitality and environmental stewardship.

Our proposed team for this contract blends technical excellence with a passion for service. We have assembled leading experts in transportation and geotechnical engineering. Together, we are ready to meet your project's goals—and to exceed your expectations.

Stantec is eager to continue supporting DOTD in delivering visionary transportation solutions. We are committed to partnership, accountability, and measurable results. Thank you for considering our proposal; we look forward to the opportunity to help shape Louisiana's future.

Sincerely,

Brian Johnson, PE, Project Manager
brian.johnson2@stantec.com | Office (225) 215-5130 | Mobile (225) 936-5534

Sections

1-13

I-49 Lafayette Connector, Lafayette, Louisiana – Stantec

DOTD FORM: 24-102

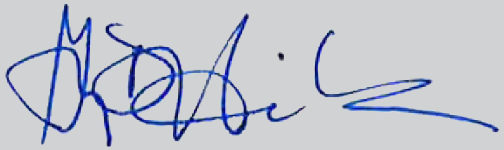
(Revised August 11, 2025)

PROPOSAL TO PROVIDE CONSULTANT SERVICES

Prime consultant shall complete the DOTD Form 24-102 without altering the Form's text; however, the instruction and/or guidance for Sections 12 through 23 can be removed but do not remove Section title and number.

ANY CONSULTANT FAILING TO SUBMIT ANY OF THE INFORMATION REQUIRED ON THE DOTD FORM 24-102, OR PROVIDING INACCURATE INFORMATION ON THE DOTD FORM 24-102, MAY BE CONSIDERED NON-RESPONSIVE.

1.	Contract title as shown in the advertisement.	**US 11 NORFOLK SOUTHERN RR OVERPASS (HBI)**
2.	Contract number(s) as shown in the advertisement	No. 4400032800
3.	State Project Number(s), if shown in the advertisement	No. H.000688.5
4.	Prime consultant name ((name must match exactly as registered with the Louisiana Secretary of State (SOS) where such registration is required by law; including punctuation; include screenshot from SOS at the end of Section 20)	Stantec Consulting Services Inc.
5.	Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	EF.0003506
6.	Prime consultant mailing address	1200 Brickyard Lane Suite 400, Baton Rouge, LA 70802
7.	Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	1200 Brickyard Lane Suite 400, Baton Rouge, LA 70802
8.	Name, title, phone number, and email address of prime consultant's contract point of contact	**Joseph 'Brian' Johnson, PE, Project Manager** (225) 215-5130 | brian.johnson2@stantec.com
9.	Name title, phone number, and email address of the official with signing authority for this proposal	**Gary Heitman, PE, Senior Principal, Operations Leader** (225) 215-5105 | gary.heitman@stantec.com

10.	This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response. Pursuant to Act No. 581 of the 2024 Louisiana Legislature Regular Session, proposer further certifies that it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association based solely on the entity's or association's status as a firearm entity or firearm trade association. In addition, proposer certifies it will not discriminate against a firearm entity or firearm trade association during the term of the contract based solely on the entity's or association's status as a firearm entity or firearm trade association.	 Signature above shall be the same person listed in Section 9: Date: September 9, 2025
11.	If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal and each firm(s)' percentage.	**Firms(s)** **Firm(s)' %:** **N/A**

12. **Discipline Table:**

As indicated in the advertisement, insert a completed table here. The percentages for the prime and sub-consultants must total 100% for each discipline, as well as the overall total percent of the contract.

The only disciplines to be used are listed in the drop down in each row (Appraiser, Bridge, CE&I/OV, CPM, Data Collection, Environmental, Geotech, ITS, Other (must specify), Planning, Right-of-Way, Road, Survey, and Traffic). Remove rows as needed.

Discipline(s)	% of Overall Contract	Stantec Consulting Services Inc. (Prime)	GeoEngineers, Inc.					Each Discipline must total to 100%
Bridge	44%	100%						100%
Road	44%	100%						100%
Traffic	1%	100%						100%
Geotech	10%		100%					100%
Environmental	1%	100%						100%
Identify the percentage of work for the **overall contract** to be performed by the prime consultant and each sub-consultant.								
Percent of Contract	100%	90%	10%					100%

13. **Team Size:**
For all firms that are part of this team, indicate the approximate number of personnel to be committed to this contract, by DOTD Job Classification and the total number of personnel within the firm that could provide support, if needed. If a specialized job classification is required and not included on the DOTD job classification list, specify “Other (must specify)” and include the classification title inside the parentheses.
The DOTD Job Classification(s) to be used can be found at the following link: https://bit.ly/DOTDJobClassifications

Firm Name	DOTD Job Classification	Number of personnel committed to this contract *	Total number of personnel available in this DOTD Job Classification (if needed)
Stantec Consulting Services Inc.	Principal	2	6
Stantec Consulting Services Inc.	Supervisor - Eng	2	4
Stantec Consulting Services Inc.	Supervisor - Other		2
Stantec Consulting Services Inc.	Engineer	4	13
Stantec Consulting Services Inc.	Engineer - Other	1	7
Stantec Consulting Services Inc.	Engineer Intern	2	8
Stantec Consulting Services Inc.	Senior Technician	1	4
Stantec Consulting Services Inc.	CADD Technician	1	4
Stantec Consulting Services Inc.	Environmental Manager		1
Stantec Consulting Services Inc.	Accountant	1	3
Stantec Consulting Services Inc.	Clerical	1	2
GeoEngineers, Inc.	CADD Technician	1	1
GeoEngineers, Inc.	Driller	2	3
GeoEngineers, Inc.	Engineer	4	9
GeoEngineers, Inc.	Engineer- Other	0	7

GeoEngineers, Inc.	Engineer Intern	1	3
GeoEngineers, Inc.	Principal	2	6
GeoEngineers, Inc.	Senior Technician	1	1
GeoEngineers, Inc.	Technician	1	11

*For evaluation purposes only, and as referenced in the Scope of Services on page 2 of IDIQ advertisements only, the consultant shall assume the number of concurrently active task orders specified in the advertisement and shall identify the number of committed personnel accordingly.

Sections

14-16

John James Audubon Bridge over the Mississippi, St. Francisville to West Feliciana Parish, LA – GeoEngineers, Inc

14. **Organizational Chart:**
Provide an organizational chart showing ALL **relevant** prime consultant and sub-consultant (if applicable) personnel assigned to the contract, area of project responsibility for each, and reporting lines for the purposes of this contract. An individual's role does not necessarily have to match their DOTD job classification identified in Section 13. If applicable, identify all personnel performing traffic engineering analysis and/or QC of traffic engineering analysis by placing an asterisk next to their name. Include the certificates required by the Traffic Engineering Process and Report Training Requirements article of the Advertisement in Section 20. It is acceptable to use an 11x17 format for Section 14.

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

PRINCIPAL-IN-CHARGE
- Cindy Hall, PE * ᵀ #1, 2, 3

PROJECT MANAGER
- Joseph 'Brian' Johnson, PE #4

DEPUTY PROJECT MANAGER
- Nick Prudhomme, PE ᵀ

QA/QC TEAM LEAD
- Gary Heitman, PE ᵀ

QC OFFICERS
- Joe Cains, III, PE * ᵀ *(Roadway)*
- Taylor Perkins, PhD, SE, PE *(Structures)*

STRUCTURES ENGINEERING

TEAM LEAD
- John Krebs, PE ᵀ
- Kunal Malpani, PE
- Robert Smith, PE
- Maggie Ye, PE ᵀ
- Michael Brodnax, PE ᵀ

ROADWAY/DRAINAGE ENGINEERING

TEAM LEAD
- Mary Frances O'Rourke, PE ᵀ
- Michael Neumann, PE ᵀ
- Hannah Krebs, PE ᵀ
- Destiny Armstrong, PE ᵀ

GEOTECHNICAL ENGINEERING

TEAM LEAD
- Larry D. Sant, PE #6, 7
- Brenda Novoa, PE #6
- James "Jim" Aronstein Jr., PE, PLS #5, 7

SUPPORT SERVICES

ENVIRONMENTAL & PERMITTING
- Scott Hoffeld, CEP *
- Josh McEnany

RAILROAD LIAISON
- Omer Champion, (PE)

TRAFFIC ENGINEERING
- Joseph 'Joey' Lefante, PE, PTOE * ᵀ

COST ESTIMATING
- Julia Rouse

Legend
- Stantec Consulting Services Inc.
- GeoEngineers, Inc.

\# Denotes MPR No.
ᵀ ATSSA Traffic Control Training
* Traffic Engineering Process and Report Training
(PE) Registered as PE outside of Louisiana

15. **Minimum Personnel Requirements:**

MPR No.	Personnel Being Used to Meet the MPR *(Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the Advertisement)*	Firm Employed By	Type of License and Discipline Meeting MPR/ Certification & Number *(Ex: PE # - Civil)*	State of License	License/Certification Expiration Date
1.	Cindy Hall PE	Stantec Consulting Services Inc.	PE # 27073 - Civil	LA	9/30/2025
2.	Cindy Hall PE	Stantec Consulting Services Inc.	PE # 27073 - Civil	LA	9/30/2025
3.	Cindy Hall PE	Stantec Consulting Services Inc.	PE # 27073 - Civil	LA	9/30/2025
4.	Joseph “Brian” Johnson, PE	Stantec Consulting Services Inc.	PE # 31273 - Civil	LA	9/30/2026
5.	James “Jim” Aronstein Jr., PE	GeoEngineers, Inc.	PE #11794 - Civil/Environmental	LA	3/31/2027
6.	Brenda Novoa, PE, MSCE Larry D. Sant, PE	Geo-Engineers, Inc. Geo-Engineers, Inc.	PE #33665 - Civil PE #35625 - Civil	LA LA	3/31/2026 9/30/2026
7.	Larry D. Sant, PE James “Jim” Aronstein Jr., PE	Geo-Engineers, Inc. Geo-Engineers, Inc.	PE #35625 - Civil PE #11794 - Civil/Environmental	LA LA	9/30/2026 3/31/2027

16. **Staff Experience:**

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**		
NAME	**Cindy Hall, PE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**33**
TITLE	**Senior Principal, Transportation Infrastructure Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 1992 | Civil Engineering**		
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 27073 | LA | 09/30/2025**		
YEAR REGISTERED: **1997**	DISCIPLINE: **Civil Engineer**		

Contract role(s) / brief description of responsibilities	Cindy's 33 years of experience include the design and project management of various civil and transportation projects. As Roadway Division Manager, Cindy manages the productivity of the roadway staff and oversees the quality of the plans and specifications developed by the Roadway Division. She has also served as project manager on many transportation projects including interstate and interchange improvements, rural arterials, and urban roadways with subsurface drainage and traffic signalization. Cindy has been involved in numerous projects implementing innovative geometric solutions including continuous flow intersections, a diverging diamond interchange, and roundabouts. She has also recently been involved in four Design-Build projects for LADOTD. Additionally, Cindy has designed and managed many wastewater pipeline, pump station projects, and utility relocations over the course of her career. **Cindy will serve as PRINCIPAL IN CHARGE for this contract. Cindy meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement: 1, 2, 3**
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
08/19 - 04/24	**I-10/LOYOLA INTERCHANGE DESIGN-BUILD | LADOTD | Kenner, LA** Design Manager. Cindy managed this multimillion-dollar project that improves access and traffic operations to and around the new Northfield Terminal of the New Orleans Airport. Cindy oversaw the design and plan preparation efforts to add two directional flyover ramps, I-10 Westbound to Loyola Southbound, and Loyola Northbound to I-10 Eastbound. The D-B Team recommended an alternative technical concept which recommended a Diverging Diamond Interchange and required the completion of the Interchange Modification Report (IMR) and a Reevaluation of the Environmental Assessment. Cindy assisted Stantec's traffic engineers with the IMR by evaluating critical geometry, signing, striping, and providing documentation. Cindy and her project team provided exhibits and traffic models that were used during the public meeting and assisted DOTD with costs and documentation of the impacts for the reevaluation. Cindy worked with the contractor to develop phased construction plans and design unit plan sets to construct critical path items first. She worked with the D-B team to implement cost/schedule savings through design modifications and alternative material selections. She worked with numerous stakeholders during the execution of this project including DOTD, FHWA, City of Kenner, Jefferson Parish, and the Airport.
04/11 - 06/15	**I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT | LADOTD | Lake Charles, LA** Roadway Engineer. Cindy was responsible for the sequence of construction and maintenance of traffic plans for this complex, tight diamond interchange which required ramps elevated on MSE walls, two new bridges, and surface street improvements including a new roundabout. Cindy was also responsible for the Level 2 Transportation Management Plan required for the project including safety and traffic analyses and traffic management strategies.
10/09 - 06/11	**US 90 AT LA 85 INTERCHANGE DESIGN-BUILD | LADOTD Contract No. 424-04-0032 | Iberia Parish, LA** Design Quality Control Manager. Cindy led the design QC effort for this project to elevate the rural arterial to urban interstate standards. The Design-Build Team designed upgrades involving construction of a concrete girder span bridge over Louisiana 85 along the US 90 corridor, an extensive rehabilitation of frontage roads and ramps, and the installation and upgrade of permanent drainage structures. As Design Quality Control Manager, Cindy was responsible for developing the Design Quality Control Manual, managing the Design Quality Control Reviews, responding to comments, holding design review meetings, distributing plan submittals, and documenting quality control records. During construction, she was responsible for adherence to the construction plans and the resolution of design non-conformance reports. Construction was completed, and the interchange opened to the public, in June 2011.

09/23 - 04/24	**I-10 BAYWAY PROGRESSIVE DESIGN-BUILD | ALDOT | Mobile, AL** Maintenance of Traffic (MOT) Engineer. The I-10 Bayway project increases the capacity of I-10 and enhances local/regional mobility by 1) rebuilding I-10 Bayway across Mobile Bay across eight lanes and raising the elevation to accommodate a 100-year storm surge, and 2) constructing two modified interchanges (Mid-Bay and Eastern Shore). Stantec is a major subconsultant providing MOT, bridge, coastal engineering, riverine hydrology, and environmental permitting services. Cindy has assisted with MOT planning and TTCP traffic analysis through the 30% planned submittal.
05/15 - 06/18	**US 90 AT LA 318 INTERCHANGE DESIGN-BUILD | LADOTD | St. Mary Parish, LA** Design Manager. Cindy managed the design for this Design-Build project which improved the intersection of US 90 at LA 318 to a grade-separated interchange and brought US 90 up to interstate standards as a part of the Future I-49 Corridor. The project included dual overpass bridges, ramps, and frontage road relocations. The new frontage roads were used to maintain traffic during the construction of the overpass bridges. Stantec proposed an alternative technical concept to the proposed alternative in the RFP. This ATC conserved ROW, lessened impacts to the community and the environment, and saved construction cost. Stantec was also responsible for acquiring the ROW while construction was ongoing. Cindy also managed the relocation of utilities during construction and designed water and sewer relocations for St. Mary Parish. Stantec remained involved throughout construction and participated in resolving design and construction non-conformance issues and requests for information. Construction was complete in January of 2018.
11/09 - 08/12	**I-12 WIDENING DESIGN-BUILD | LADOTD Contract No. 454-02-0071 | Livingston Parish, LA** Lead Roadway Engineer. Cindy was responsible for Stantec's roadway design efforts to widen a four-mile stretch of Interstate, from the Amite River to the Juban Road interchange. The design included widening, removal, overlay and replacement of various pavement sections, ramp deceleration lane improvements, and widening of the Gray's Creek Bridge and the 4-H Club Road and Range Avenue overpasses. The project required extensive maintenance of traffic and traffic control plans on this heavily traveled stretch of urban interstate. In addition to designing the construction plans, Cindy was actively involved in the construction phase, assisting the contractor by developing quality, cost-effective solutions that met or exceeded contract scope requirements.
07/19 - Ongoing	**MOVEBR PROGRAM MANAGEMENT | City of Baton Rouge | Baton Rouge, LA** Quality Control Project Reviewer. Cindy serves as QC Project Reviewer concentrating on Roadway and Complete Streets reviews. Cindy has reviewed design studies, preliminary and final plans, quantities, and construction cost estimates for corridor, signal, and sidewalk improvement projects.
11/12 - 03/23	**PERKINS ROAD (SIEGEN TO PECUE) WIDENING TRAFFIC STUDY, ENVIRONMENTAL ASSESSMENT (EA), PRELIMINARY PLANS, FINAL PLANS AND RIGHT-OF-WAY MAPS | City of Baton Rouge Contract 12-CS-HC-0015 | Baton Rouge, LA** Project Manager. This project initially included an EA and Preliminary Plans for improving 3.4 miles of Perkins Road (LA 427) from the existing two-lane roadway to a four-lane divided curb and gutter roadway with raised median, sidewalk, sewer, and subsurface drainage. During the EA phase, Cindy was responsible for **line and grade alternatives study**, stakeholder coordination, public outreach, led EA phase, preliminary plans (geometry, drainage, sequence of construction, signalization, preliminary construction cost estimate), and final ROW maps. Under the MOVEBR Program, Stantec completed Final Plans for Perkins Road from Siegen Lane to Pecue Lane using MOVEBR design criteria. This widening project accommodates the increase in traffic and improves travel efficiency along this corridor by introducing access management principles which have been shown to increase capacity and safety. Partial median openings and u-turn movements with bulb outs were provided along the corridor. Stantec was responsible for all final design including roadway and traffic signal plans, subsurface drainage and culvert design, and wetlands permitting. Final plans for this project were completed in March of 2023.
08/05 - 12/13	**STARING LANE EXTENSION AND BRIDGE | City of Baton Rouge | Baton Rouge, LA** Project Manager. This Green Light Plan project required a design study and plan development for a new, four-lane urban boulevard with a 30-foot median with subsurface drainage, sidewalks, and traffic signals. Cindy led construction plan development and design of preliminary and final plans including geometrics, intersections, earthwork modeling, striping, quantities, signal design, sanitary sewer force main design, and quality control. She also attended public meetings and coordinated with City and subconsultants.
01/18 - 08/18	**DIJON DRIVE PHASE I & PHASE II | City of Baton Rouge | Baton Rouge, LA** Quality Control. Stantec designed this roadway on new alignment for the City of Baton Rouge as an access roadway to the new Our Lady of the Lake Children's Hospital. This fast-paced project included a four-lane divided roadway on new alignment, sanitary sewer force main, subsurface drainage, signalization, and off-site intersection improvements. Cindy was responsible for quality control during the course of this project which was broken into two phases. Cindy reviewed each phase of work two times and offered comments before major milestone submittals.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Joseph 'Brian' Johnson, PE**		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**20**
TITLE	**Principal, Bridge Division Leader**		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**5**
DEGREE(S) / YEARS / SPECIALIZATION	**MS | 2000 | Civil Engineering; BS | 1999 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 31273 | LA | 09/30/2026**			
YEAR REGISTERED	**2004**	DISCIPLINE	**Civil Engineering; NBIS Certified Team Leader**	

Contract role(s) / brief description of responsibilities	Brian brings 25 years of engineering experience specifically related to structural projects and serves as the Structural Section Manager in the Baton Rouge office. His primary expertise lies in analysis, design, rating, inspection, and rehabilitation of bridges. Brian has managed bridge projects with a variety of structure types such as horizontally curved steel plate girders, prestressed concrete girders, steel truss vertical lift bridges, long span steel trusses, concrete box culverts, and retaining walls. He has overseen several NSBI bridge inspection projects and been involved in hydraulic studies for bridge replacement projects in both Mississippi and Louisiana. **Brian will serve as PROJECT MANAGER for this contract. Brian meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 4**
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc.
08/19 - 04/24	**I-10 LOYOLA DESIGN-BUILD | LADOTD Project No. H.011670 | Kenner, LA** Lead Structural Engineer. Brian led the structural design efforts of two new flyover ramps, one bridge widening, noise barriers, precast box culverts, roadway and pier protection barriers, and miscellaneous structural elements. During design, Brian orchestrated a series of meetings with the contractor, fabricators, vendors, and suppliers to optimize and streamline the design. He oversaw construction support which includes shop drawing reviews, addressing RFIs, and providing construction engineering services.
07/15-Ongoing	**I-49 LAFAYETTE CONNECTOR | LADOTD | Lafayette, LA** Structural Engineer. A 5.5-mile, elevated, six-lane highway will traverse urban Lafayette, Louisiana, from I-10 south to its end near the Lafayette Regional Airport. The overall $9M project includes the construction of a freeway with accompanying interchanges in the Evangeline Thruway/US 90/US 167 corridor and flanking frontage roads for local traffic circulation and land access. A critical transportation link, the I-49 Connector will connect existing I-49 with new interstate mileage through Lafayette and onto New Orleans. Our first activity was to complete the functional plan that started in 2006, which included an extensive community outreach and public input phase. Refinement concepts to the Selected Alternative generated by the public and other stakeholders were investigated and a final design concept was adopted. The functional plan phase included final geometrics, traffic and ITS analyses, EIS re-evaluation, bridge-type selection, lighting, rail and airport coordination, and underpass planning, along with preliminary geotechnical investigation, SUE and topographic survey, and mapping. The CSS process continued by using the refined concept to set the attributes of 55 CSS design elements to be incorporated into the project, including parks, plazas, landscaping, hardscaping and brick pavers, and bridge aesthetic treatments. The CSS process concluded with a Design Guidelines document to direct the design and construction of the project. Analysis of different alignments and interchange configurations was performed using TransCAD, Vistro, HCS, and VISSIM software. The traffic evaluation included a detailed Vistro model of 60 intersections along the project corridor. Each intersection was evaluated for potential control type changes to either unsignalized, signalized, or roundabout control.
12/15 - Ongoing	**NELSON ROAD EXTENSION AND BRIDGE | LADOTD Contract No. H.005967 | Lake Charles, LA** Structural Engineer. Brian managed the bridge and structural design efforts from preliminary to final plans. He performed quality review of bridge design, plans, and specifications for this bridge extension to the surrounding roadway network. Project tasks included design of bridge superstructure, substructure including foundations, median barrier design, and as-designed load rating. Other design elements include navigational lighting bridge attachments and steel bracket light supports with concrete anchors to the bridge structure. Structural Design was performed in compliance with AASHTO LRFD Specifications. In addition, he led the inspection of an existing sign truss to ensure it could be reused for the current project. Brian is currently providing structural construction support for this project.
11/22 - Ongoing	**SR 16/SR 149 FLOODWAY CHANNEL YAZOO RIVER | MISSISSIPPI DOT | Yazoo County, MS** Project Manager: Brian serves as the Project Manager on this bridge replacement project involving three existing structurally deficient bridges over the Yazoo River Relief Channel system. The main structure is a 928-ft long structural steel plate girder bridge on a 20-degree skew with a span arrangement of 280-368-280-ft. The two approach structures consist of three 100-ft prestressed concrete girder (FIB-45) spans. Foundations consist of steel pipe piles and drilled shafts (84-in diameter). Brian managed design and plan development activities, performed quality control checks, and oversees construction administration activities

10/22 - Ongoing	**IDIQ CONTRACT FOR BRIDGE PRESERVATION | CONTRACT NO. 4400023922 | LADOTD | Statewide, LA** Project Manager. Brian serves as the Project Manager overseeing a $7 million IDIQ contract. Two task orders are active (I-10 over Trinity Canal Bridge Repair and Box Culvert Initiative to replace 13 existing bridges). He is responsible for overseeing design activities, coordination with LADOTD and supporting disciplines / sub-consultants, managing project budgets and maintaining schedules.
07/18 - Ongoing	**SR 12 OVER SUNFLOWER RIVER BRIDGE REPLACEMENT | Mississippi DOT | MS** Project Manager. Brian serves as the Project Manager for this bridge replacement of an existing structurally deficient bridge. The new structure will be a three-span, structural steel plate girder bridge that will be 910-ft long with a main span of 350-ft. A construction sequence is suggested that will reduce transportation concerns by using shorter field pieces that will be spliced on the site prior to erection. Substructure units consist of concrete caps founded on drilled shafts (7-ft diameter) and steel pipe piles. Segmental joints were designed for the bridge ends to accommodate large movements and minimize future maintenance considerations.
08/15 - 03/20	**I-20 / TARBUTTON INTERCHANGE | City of Ruston | Ruston, LA** Project Manager. Brian managed the design of a two-span bridge over I-20 to replace an existing structurally and geometrically deficient bridge along Tarbutton Rd. The bridge consisted of structural **steel plate girders** and drilled shaft foundations. Design efforts were performed in under four months to avoid losing project funding. In addition to design and plan development, Brian oversaw construction support which included reviewing shop drawings and addressing contractor RFIs.
07/05-Ongoing	**SR 601 / I-10 INTERIM INTERCHANGE | Mississippi DOT | Harrison County, MS** Project Manager: The original project consisted of replacing a diamond interchange with a four-level, fully directional interchange between SR601 and I-10; however, due to a recent review by the client, the interchange was modified to eliminate two levels. Stantec has been tasked with updating bridge plans to incorporate these modifications and the new standard specifications. Project components include long span (up to 250-ft) horizontally curved steel plate girders; prestressed concrete girders (Types III, IV, BT-54, BT-63, and BT-72); hammerhead and multi-column concrete bents; cast-in-place concrete retaining walls; and complex pile footing designs. Brian manages the structural design efforts for the seven bridges assigned to Stantec. Design is in accordance with AASHTO Standard Specifications while utilizing a heavier vehicle live load (HS-25) to be more comparable to current LRFD specifications. Final plans are being developed.
04/11 - 03/15	**I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT| LADOTD H.010151 | Lake Charles, LA** Lead Structural Engineer. Brian managed the structural design of a single-span, 130-ft long, prestressed concrete girder bridge along I-210 over Cove Lane and twin concrete slab span bridges over Cline Canal. He provided construction support by reviewing shop drawings, addressing RFIs, attending weekly progress meetings, and performing construction engineering. All design was performed in accordance with AASHTO LRFD Bridge Design Specifications.
07/15 - 06/18	**I-20 SOUTH FRONTAGE ROAD EXTENSION TO US 80 | Mississippi DOT | Vicksburg, MS** Bridge Design Manager: Brian served as the bridge design manager for the new bridge along I-20 South Frontage Road over Old Highway 27 & KCSRR in Vicksburg, MS. The new structure consists of a continuous four-span (78-ft, 86-ft, 86-ft, 78-ft) prestressed concrete girder superstructure supported by steel pipe pile bents. A mechanically stabilized earth retaining wall is used at the east bridge end to reduce embankment fill and avoid impacts with the existing railroad tracks. In addition to the new bridge, bridge rails on five I-20 structures (I-20 WB over Old MS Hwy 27 & KCSRR; I-20 EB & WB over Clay Street; I-20 EB & WB over Old US Hwy 80) are being replaced to meet current design and geometric standards. Responsibilities included overseeing bridge design and plan production efforts, coordinating with MDOT and KCS, and performing construction support service**S.**
03/24-05/25	**SR 28 OVER PEARL RIVER REPAIRS | MISSISSIPPI DOT | Copiah and Simpson Counties, MS** Project Manager: Brian served as the Project Manager for the inspection and repair of a steel through truss that was damaged due to an oversized vehicle impact. When the damage occurred, MDOT requested Stantec to perform a damage inspection to determine the extents of required rehabilitation. Brian led the initial inspection and coordinated the hands-on inspection just one week after the impact. Repair plans were developed using the inspection findings. Truss members were replaced in-kind. Stantec reviewed contractor shop drawings and temporary support design for each phase of construction.
07/15 - 06/18	**US 90 INTERCHANGE AT LA 318 DESIGN-BUILD | LADOTD | St. Mary Parish, LA** Structural QA/QC Manager. Brian served as the structural quality control manager for this design-build project which consisted of a new twin structure and a diamond interchange. This stretch of US 90 has been designated as the future I-49 corridor. The bridges consisted of LG-54 prestressed concrete girder spans with lengths up to 111-ft supported by multi-column concrete bents. Brian performed independent reviews of the reported designs and the proposed construction plans.
05/24 - Ongoing	**I-10 OVER TRINITY DRAINAGE CANAL BR REPAIR | LADOTD Project No. H.015636 | Iberville Parish, LA** Project Manager. Brian manages the design and plan development for the repair of a damaged wingwall and slab elements. An initial site visit was performed to confirm damage limits and verify component dimensions. Repair plans were developed to include full wingwall replacement, partial barrier railing replacement, and structural concrete patching. A transportation management plan (Level 2) was transmitted prior to delivering final plans. Currently the final plans are in review at the LADOTD Bridge Division.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**		
NAME	**Nicholas "Nick" Prudhomme, PE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**19**
TITLE	**Roadway Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**

DEGREE(S) / YEARS / SPECIALIZATION		**BS | 2006 | Civil Engineering**	
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE		**PE No. 35996 | LA | 3/31/2027**	
YEAR REGISTERED	**2011**	DISCIPLINE	**Civil Engineer**

Contract role(s) / brief description of responsibilities	Nick has 19 years of experience in feasibility/alternative studies and preliminary and final design of interstates, entrance and exit ramps, arterials, local roads, bridge replacement projects, and other similar transportation systems along both existing and proposed alignments. His experience also includes training courses for Traffic Control Supervisor, Traffic Control Design Specialist, and training in the Highway Safety Manual. **Nick will serve as DEPUTY PROJECT MANAGER for this contract.**
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
08/19 - 04/24	**I-10/LOYOLA INTERCHANGE DESIGN-BUILD | LADOTD Contract No. H.011670 | Kenner, LA** Drainage Lead and Assistant Roadway Lead. As Drainage Lead, Nick oversaw the drainage design consisting of subsurface drainage systems along Loyola Drive and the new airport access road, drainage systems/cross drains on I-10, and the extension of 2-8'x7' box culverts in Canal 13. As Assistant Roadway Lead, Nick designed horizontal and vertical geometry, graphical grades, and Inroads roadway modeling. Nick also performed construction support by reviewing and approving drainage shop drawings as well as RFIs and NCRs relating to drainage and roadway design. This project serves as a main entrance to the new airport terminal recently constructed for the Louis Armstrong New Orleans International Airport.
05/15 - 06/18	**US 90 AT LA 318 INTERCHANGE DESIGN-BUILD | LADOTD | St. Mary Parish, LA** Drainage and Roadway Engineer. Nick performed subsurface drainage analysis and design, earthwork modeling, cross section generation, and quantity calculations. The project included dual overpass bridges, ramps, and frontage road relocations. Stantec proposed an alternative technical concept to the proposed alternative in the RFP. This ATC conserved ROW, lessened impacts to the community and the environment, and saved construction cost. Nick remained involved throughout construction and participated in resolving design and construction non-conformance issues and requests for information.
07/15 - Ongoing	**I-49 LAFAYETTE CONNECTOR | LADOTD | Lafayette, LA** Drainage QA/QC and Roadway Engineer. Nick is responsible for overseeing the drainage design of the project as well as the roadway design of the Willow Street interchange, including horizontal and vertical design, roadway clearance and sight line checks, InRoads modeling, and quantity calculations. Project includes the construction of a freeway with accompanying interchanges in the Evangeline Thruway/US 90/US 167 corridor and flanking frontage roads for local traffic circulation and land access. A critical transportation link, the I-49 Connector will connect existing I-49 with new interstate mileage through Lafayette and to New Orleans.
04/11 - 06/15	**I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT | LADOTD H.010151 | Lake Charles, LA** Roadway Engineer. Nick assisted in the design and plan development for the proposed full tight diamond interchange at Cove Lane and I-210. He was responsible for all the earthwork calculations for the interchange improvements, as well as the extension of existing Cove Lane to the north. The project included retaining walls and a load transfer platform which were included in Nick's cross section design. Nick was also involved with geometric modeling and quantity calculations.
11/12 - 03/23	**PERKINS ROAD (SIEGEN TO PECUE) WIDENING TRAFFIC STUDY, ENVIRONMENTAL ASSESSMENT (EA), PRELIMINARY PLANS, FINAL PLANS AND RIGHT-OF-WAY MAPS | City of Baton Rouge Contract 12-CS-HC-0015 | Baton Rouge, LA** Drainage Lead and Roadway Lead. This project initially included EA and Preliminary Plans for improving 3.4 miles of Perkins Road (LA 427) from the existing, 2-lane roadway to a 4-lane divided curb and gutter roadway with raised median, sidewalk, sewer, and subsurface drainage. During the EA phase, Nick assisted with the alternative analyses, conceptual drainage design, public meeting materials and presentations, and the development of the EA report and documentation. During preliminary plan development, he assisted in all areas of design and plan development including client interaction, drainage design, drainage report, roadway modeling and earthwork analyses using InRoads, quantity calculations, and construction cost estimate. Under the MOVEBR Program, Stantec completed Final Plans using MOVEBR design criteria and is responsible for all final design including roadway and traffic signal plans, subsurface drainage and culvert design, and wetlands permitting.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Gary Heitman, PE**	YEARS OF RELEVANT EXPERIENCE WITH THIS EMPLOYER	**25**	
TITLE	**Senior Principal, Operations Leader**	YEARS OF RELEVANT EXPERIENCE WITH OTHER EMPLOYER(S)	**12**	
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 1986 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 24670 | LA | 9/30/2026**			
YEAR REGISTERED	**1992**	DISCIPLINE	**Civil Engineering**	

Contract role(s) / brief description of responsibilities	With 37 years of experience, **Gary will serve as QA/QC TEAM LEAD for this contract**. He has led the study and design of various project types, including interstates and interchanges, arterials and collector highways, local roads, bridge replacement projects and other similar transportation systems, on both existing highway alignments and new locations. His experience also includes Design-Build and Construction Administration Services, allowing him to apply lessons learned in the construction arena to the design process and thereby providing a better set of alternatives and/or construction plans. Prior to joining Stantec, Gary served as a Plan Development Engineer and Design Engineer with the LADOTD.
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
10/01 - 03/04	**OUACHITA RIVER BRIDGE | LADOTD | Harrisonburg, LA** Project Manager. Gary was responsible for the study to replace the existing Louisiana 8 bridge in Harrisonburg, Louisiana on new alignment. The study identified potential alternative alignments and environmental impacts. Cost estimates, including roadway construction, right-of-way, and utility relocations costs were developed for the report. After successfully obtaining an EA document on the recommended alignment, the project proceeded into the design phase, where in addition to leading the Roadway team to develop the Preliminary and Final construction plans for the 1.4 mile relocation project, Gary coordinated with the Survey Division to develop the topographic survey and ROW maps. The project required close interaction with the LADOTD Bridge Design Section, who developed the bridge design and plans for the high-level river crossing.
08/19 - 04/24	**I-10 LOYOLA DESIGN-BUILD | LADOTD | Kenner, LA** Roadway Design QC for this multimillion-dollar project that improves access and traffic operations to and around the new Northfield Terminal at the New Orleans Airport. Project consisted of a Diverging Diamond Interchange, in addition to flyover ramps leading to/from the Airport on the east side of the interchange.
04/11 - 06/15	**I-210 COVE LANE INTERCHANGE PROJECT | LADOTD | Lake Charles, LA** Roadway Division Manager. Gary led the roadway design efforts on this fast-paced project to improve access to the casino site located on I-210 between Cove Lane and Nelson Road Interchanges. Stantec led the initial study regarding appropriate access needs to and from the casino along I-210 as prior access to the site was not sufficient for the expected increase in traffic. Deliverables included a final report meeting all LADOTD requirements for a traffic impact study based on the proposed development and Stage 0 requirements for long-term improvements at the I-210/Cove Lane and I-210/Nelson Road interchanges, in each case reflecting all agency comments with no outstanding comments or further review required.
10/17 - Ongoing	**NELSON ROAD AND BRIDGE EXTENSION | LADOTD | Lake Charles, LA** Roadway Division Manager. Stantec led the effort for this new high-level bridge and approaches over Contraband Bayou, a navigable waterway in the Lake Charles area. This project will provide a crucial link to downtown Lake Charles and the Port of Lake Charles by extending Nelson Road over Contraband Bayou to West Sallier Street.
07/15 - Ongoing	**I-49 LAFAYETTE CONNECTOR | LADOTD Contract No. H.004273.5 | Lafayette, LA** Assistant Program Manager and Geometrics Task Manager. Gary is assisting with the Program Management task, including overseeing the implementation of an extensive QC/QA plan. He is managing the geometric design of the corridor, which includes segments of at-grade and elevated mainline, frontage roads, urban interchanges and slip ramps, as well as connections/modifications to the existing roadway network. Geometric team's task includes conceptual constructability and maintenance of traffic plans, conceptual drainage design, and estimates of probable construction costs throughout the project. Stantec performed a re-evaluation of the Final EIS through the corridor, began an extensive context sensitive solutions process, and analyzed the horizontal and vertical geometry concepts developed in the previous phases of the project. Through this process, additional concepts are being considered, and in addition to the CSS component, a formal SEIS process is being followed to document the changes identified for the project.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Joseph "Joe" Cains, III, PE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**21**	
TITLE	**Senior Associate, Area Manager (Louisiana)**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**	
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 2003 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 33670 | LA | 03/31/2026**			
YEAR REGISTERED	**2008**	DISCIPLINE	**Civil Engineer**	

Contract role(s) / brief description of responsibilities	Joe has 21 years of experience for various project types, including interstates and interchanges, arterials and collector highways, local roads, bridge replacement projects, and other similar transportation systems, on both existing highway alignments and new locations. He also has extensive experience with Complete Streets and innovative intersections including roundabouts, DDIs, and CFIs, and has been involved in several major projects involving compressed schedules and quick turnaround deadlines. He has experience in both traditional and alternative delivery types as well as Construction Administration services, allowing him to help lead the charge in the transportation industry for Stantec in the State of Louisiana. **Joe will provide DESIGN QC (ROADWAY) services for this contract.**
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
07/2015 - Ongoing	**I-49 LAFAYETTE CONNECTOR | LADOTD | Lafayette, LA** Lead Roadway Engineer. Responsible for Task 4 Geometrics, as well as coordinating project needs for this 15-task program that is being carried out with a team of 15 design firms. Task 4 involves evaluation, development of alternatives, and recommendations for all roadway geometric elements for this 5.5-mile long corridor. Task 4 also is involved in coordination and participation in public outreach and finalization of a Supplemental EIS document. Joe is also serving as Project Manager for the Preliminary Design Phases of the I-49 Connector Project. Joe also performed internal QC on deliverables prior to external submittals.
04/2015 - 06/2018	**US 90 AT LA 318 INTERCHANGE DESIGN-BUILD PROJECT | LADOTD | St Mary Parish, LA** Lead Roadway Engineer. Project included upgrading the existing two-lane undivided roadway LA 318 to a two-lane divided roadway with a raised median, and constructing a new overpass bridge for US 90 over LA 318. This project also included a significant utility relocation coordination effort, as well as ROW acquisition (first for a Design-Build Project), and a Transportation Management Plan. Joe's duties included leading the effort for plan development of the various design units, development of the TMP, design of frontage road and ramp geometry, as well as construction support during the process. Joe also performed internal QC on deliverables prior to external submittals.
11/2010 - Ongoing	**NELSON ROAD EXTENSION AND BRIDGE | LADOTD | Lake Charles, LA** Project Manager. Project Manager for the Environmental Assessment as well as the Preliminary and Final Design Phases of this project to construct a new high-level bridge over Contraband Bayou. During the environmental phase, Joe coordinated all environmental tasks and developed the line and grade study, performed a vessel survey to better understand navigational requirements for the proposed bridge, assisted with development of the Section 404 and Section 10 permits (USACE and USCG), and coordinated the compilation of the entire EA document, which included three subconsultants. Joe also designed the horizontal and vertical geometry for the project and providing general oversight, guidance, and coordination of plan development for the various disciplines involved, including roadway design, drainage design, maintenance of traffic, bridge design, traffic signal design, railroad design, lighting design, and assisted District 07 with the coordination of utility impacts. Joe also performed internal QC on deliverables prior to external submittals. Joe is currently managing the limited construction support phase.
04/2011 - 06/2015	**I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT | LADOTD | Lake Charles, LA** Assistant Project Manager and Lead Roadway Engineer. This project proposed to reconstruct I-210 to overpass the extension of Cove Lane and widen it between the foot of the I-210 bridge over the Calcasieu River ship channel to the Nelson Road Interchange. During the Stage 0 and IMR phases of the project, Joe developed 29 full interchange alternatives and coordinated with traffic engineers during the analysis and modeling efforts to modify the alternatives as needed to satisfy DOTD needs. In the environmental phase, he provided the exhibits and materials necessary to support the Environmental Assessment document. During the Preliminary and Final Design Phases of the project, he designed the horizontal geometry for the entire project, led the roadway design plan development efforts, and coordinated multiple disciplines including hydraulic analysis and design, striping and signing design, bridge and structural design, geotechnical design, and maintenance of construction, as well as ROW acquisition, Utility Coordination and Relocation, and implementing environmental commitments into the design. Joe also performed internal QC on deliverables prior to external submittals. Joe was also involved with the development of the Transportation Management Plan, and the development and approval of several Special Provisions for the project. Lastly, he was heavily involved in the construction process, which included frequent trips to the project site, answering RFIs, and assisting LADOTD with maintaining the project schedule.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**John Taylor Perkins, PhD, SE, PE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**18**	
TITLE	**Principal, Senior Structural Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**	
DEGREE(S) / YEARS / SPECIALIZATION	**PhD | 2017 | Structural Engineering; MS | 2008 | Structural Engineering; BS | 2007 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 47449 | LA | 09/30/2025**			
YEAR REGISTERED	**2023**	DISCIPLINE	**Civil Engineer**	

Contract role(s) / brief description of responsibilities	Taylor has been involved in the plan preparation, design, load rating, and rehabilitation of complex highway and rail bridges of nearly every type. His experience includes concrete bridges (including pre-tensioned and post-tensioned girders), structural steel bridges, long span bridges (including post-tensioned, trusses, arches, and cable supported structures), seismic evaluation and retrofit, and various types of foundation systems. He has been involved in all project phases ranging from planning, to preliminary and final design, to engineering during construction support (ESDC). In addition to structure design, Taylor has completed Sprat Level I rope access training and has assisted in a wide range of bridge inspections. **Taylor will provide DESIGN QC (STRUCTURES) services for this contract.**
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
10/15 - 03/21	**WELLSBURG BRIDGE QUALITY ASSURANCE MANAGEMENT (QAM) SERVICES | WEST VIRGINIA DIVISION OF HIGHWAYS | Wellsburg, WV** QAM Structures Lead. Taylor served as the Structures Discipline Lead for the QAM team supporting the WVDOH and overseeing design and construction of the P3 project. The project involves a new Ohio River crossing connecting Wellsburg, WV to Brilliant, OH. The network tied arch bridge will span 830-ft over the main navigation channel and have **welded steel plate girders** for the Ohio approach (195'~255'~195') and West Virginia approach (187'-6"~187'-6"). The ends of the bridge are supported by pile bents behind MSE walls, while the approach spans are supported by frame piers founded on piles and drilled shafts. The ends of the arch span are supported by piers with inclined columns, a post-tensioned cap, and founded on three 10-ft diameter drilled shafts. The P3 project also includes realignment of WV2 with the innovative use of walls and a pedestrian pathway. As the QAM Structures Discipline Lead for the WVDOH, Taylor provided project documentation development during the pursuit phase working with ODOT, WVDOH and other stakeholders. This includes development of project criteria, which incorporated requirements for 100-year service life as well as redundancy considerations. Taylor also performed QA reviews of all design and plan submittals and technical guidance and coordination on design challenges with the P3 team. During the construction phase of the project Taylor addressed RFIs and performed critical reviews of construction submittals including those for the erection engineering of the arch and float-in operation.
04/17 - 09/22	**US 460 OVER POND CREEK | Pikeville, KY** Senior Structural Engineer. US 460 over Pond Creek consists of **twin steel plate girder superstructures** spanning a deep hollow in eastern Kentucky; the bridge is a five-span structure with span lengths of 170'~220'~220'~220'~170'. Stantec served as the erection engineers for this project, working with the Contractor to develop an erection scheme. Due to the steep slopes and height above the ground below, the incremental launching method was adopted, making it the first bridge of its magnitude to be launched in the state of Kentucky. Taylor assisted with developing the plan and designing the launching system and equipment. In additional to the erection engineering tasks, Stantec worked with the Contractor to develop a VE proposal that changes the originally designed box piers to a slender H-shaped pier, which would assist the Contractor with forming and constructing. Taylor assisted with design checks and performed advanced nonlinear buckling analyses to validate the selection of the slender piers. At nearly 350-ft, these piers are the tallest in the state of Kentucky.
12/12 - 12/16	**LOUISVILLE-SOUTHERN INDIANA OHIO RIVER BRIDGES PROJECT (LSIORB) – DOWNTOWN CROSSING (KENNEDY INTERCHANGE) DESIGN-BUILD | KENTUCKY TRANSPORTATION CABINET | Louisville, KY** Senior Structural Engineer. Responsible for micropile foundation designs as well as 3-D finite element modeling of the steel superstructure unit for Bridge A012. Structure is a 6-span bridge which replaced the existing structure on a new alignment slightly to the west. The **new bridge superstructure consists of curved steel plate girders** with 54 inch webs on a 485-ft radius (105ft. ~ 138ft.), 60 inch deep PPC I beams (74ft. ~ 106.5ft.), and 72 inch deep PPC I-beams (128.5ft. ~ 82.83ft.). The substructure consists of integral end bents, a backwall stub abutment, and multicolumn frame piers all supported on end bearing steel piles or rock-socketed micropiles. Design challenges included the following: complex roadway geometry with merging ramps and a gore area on the bridge, tight vertical clearance, concrete counterweight to resist uplift on curved steel spans, poor soil conditions with 120ft. deep rockline, all vertical piles (no batter) due to conflicts with utilities and other structures, and micropiles at one pier to limit construction vibration near sensitive features. Complex finite element modeling of the steel spans was required to validate stresses and displacements obtained from the simplified grid analysis used for design. This bridge is part of $950M design-build project for a complex interchange rebuild (I-65, I-75, and I-71) and a new Ohio River crossing in downtown Louisville.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**		
NAME	**John Krebs, PE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**12**
TITLE	**Senior Bridge Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**4**

DEGREE(S) / YEARS / SPECIALIZATION		**MS | 2008 | Civil Engineering; BS | 2007 | Civil Engineering**	
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE		**PE No. 37259 | LA | 9/30/2026**	
YEAR REGISTERED	**2012**	DISCIPLINE	**Civil Engineering**

Contract role(s) / brief description of responsibilities	John has 16 years of engineering experience providing engineering design and load ratings for bridges and interchanges for LADOTD, MDOT, and KYTC. His primary expertise lies in the engineering analysis and design of a variety of structure types such as prestressed concrete girders, reinforced concrete substructure elements, and retaining walls. He has been heavily involved in the inspection and load rating of existing bridges in both Louisiana and Mississippi. John has an excellent working knowledge of AASHTO LRFD and the LADOTD Bridge Design Manual. He is proficient in several commercial software packages including AASHTOWare BrR, RC-Pier, CONSPAN, MDX, and STAAD. **John will serve as STRUCTURES ENGINEERING TEAM LEAD for this contract.**
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
10/23 - Ongoing	**I-49 LAFAYETTE CONNECTOR | LADOTD Project No. H.004273 | Lafayette, LA** Bridge Engineer. John is responsible for developing bridge design plans for the new Kaliste-Saloom interchange configuration. Bridge structures include for ramps tying into a two-span, "table-top" structure that will move traffic to and from northbound and southbound I-49. Structure types consist of prestressed LG and horizontally curved structural steel plate girders. Existing and proposed constraints (railroad crossing, existing and proposed I-49, temporary roadways) required unique substructure placement and a variety of foundation types (pile footings, pile bents, drilled shafts). In addition, John oversaw plan development for new structures crossing Vermillion River that are to be included in the final structure report.
11/22 - Ongoing	**SR 16/SR 149 FLOODWAY CHANNEL YAZOO RIVER (BRIDGE NOS. 210.9, 211.1, 211.8) | MDOT | Yazoo City, MS** Senior Project Engineer. John is responsible for the analysis, design, and plan development for three bridges crossing the floodway channel of the Yazoo River. Bridge No. 210.1 consists of three 100-ft, prestressed, FIB 45 spans supported by reinforced concrete bent caps on steel pipe piles. Bridge 211.1 consists of a skewed, 928-ft, three-span continuous steel plate I-girder unit supported by reinforced concrete caps on steel pipe piles for end bents and reinforced concrete caps on drilled shafts for intermediate bents. Bridge 211.8 consists of identical components to Bridge 210.1 and is also in a horizontal curve. As the senior project engineer, John is the technical lead, QC/QA for the design and plan development, and assists with construction support.
08/19 - 04/24	**I-10 LOYOLA DESIGN-BUILD INTERCHANGE | LADOTD | Kenner, LA** Project Engineer. This project provided improvements to Loyola Drive north of I-10 and continues south of I-10 connecting to the new terminal access road for the Louis Armstrong New Orleans International Airport. The project provided one-way elevated flyovers from I-10 Westbound to Loyola Drive Southbound and Loyola Drive Northbound to I-10 Eastbound. The concept eliminated the need for a third bridge structure, which traversed nearly 1,200 feet along the median of Loyola north of I-10. Through Stantec traffic analysis, the DDI was shown to perform better than the Preferred Alternative for the overall projects.
04/11 - 03/15	**I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT| LADOTD H.010151 | Lake Charles, LA** Project Engineer. John was responsible for the design and plan development of three bridges and an MSE wall system load transfer platform. The bridge along I-210 consists of a single, 130-ft-long, LG-54 prestressed concrete girder span founded on true abutments (spread footings). The remaining bridges consist of concrete slab spans founded on concrete pile bents. All design was performed in accordance with AASHTO LRFD Bridge Design. This project received the Highways/Bridges: Award of Merit from the Engineering News Record for Texas and Louisiana in October 2016.
12/15 - Ongoing	**NELSON ROAD EXTENSION AND BRIDGE | LADOTD Contract No. H.005967 | Lake Charles, LA** Structural Engineer. John worked on the bridge and structural design efforts during preliminary plans. Project tasks included preliminary design of bridge superstructure, substructure including foundations, median barrier design, and as-designed load rating. Other design elements include navigational lighting bridge attachments and steel bracket light supports with concrete anchors to the bridge structure. Structural Design was performed in compliance with AASHTO LRFD Specifications. In addition, he completed the vessel study report detailing the expected water-borne vessel traffic and establishing the need for pier protection structures. John will also be assisting with structural construction support for the project.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**		
NAME	**Kunal Malpani, PE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**12**
TITLE	**Structural Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**

DEGREE(S) / YEARS / SPECIALIZATION	**MS | 2012 | Civil Engineering; BS | 2010 | Civil Engineering**		
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 43016 | LA | 3/31/2027**		
YEAR REGISTERED	**2018**	DISCIPLINE	**Civil Engineering; NBIS Certified Team Leader**

Contract role(s) / brief description of responsibilities	Kunal has 12 years of structural engineering experience with a primary focus in analysis, design, rating, and inspection of a variety of bridge types including prestressed concrete girders, structural steel plate girders, concrete slab spans, multi-column concrete bents, and pile bents. He is proficient in commercial software packages such as AASHTOWare BrDR, RC-Pier, CONSPAN, MDX, and STAAD. Kunal has also been involved in the design of highway sign structures and reviewing structural shop drawings. **Kunal will provide STRUCTURAL ENGINEERING services for this contract.**
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
08/19 - 04/24	**I-10 LOYOLA DESIGN-BUILD INTERCHANGE | LADOTD | Kenner, LA** Bridge Engineer. Kunal performed design on the horizontally curved structural steel trapezoidal girders, substructure units, roadway barriers, sign structures and foundations, noise barrier, and miscellaneous structural components. He assisted with plan development on several design units. Additional responsibilities included reviewing shop drawings, addressing RFIs, and performing construction engineering. Kunal was also responsible for performing QC on the load rating reports.
09/15 - 07/16	**I-20 AND TARBUTTON ROAD INTERCHANGE | LADOTD | Ruston, LA** Structural Engineer. Project consisted of replacing an existing concrete overpass structure over I-20 near Ruston with a two-span structural steel plate girder structure. Substructure units were supported by drilled shafts to minimize the bridge footprint. Design was performed in accordance with AASHTO LRFD. Kunal assisted with quality control of the superstructure and substructure design and performed the as-designed load rating.
01/19 - Ongoing	**NELSON ROAD EXTENSION BRIDGE | LADOTD Contract No. H.005967 | Baton Rouge, LA** Structural Engineer. Kunal assisted the design engineer with preparation of plans and specifications for this bridge extension to the surrounding roadway network. Design included design of bridge components, including substructure, footing and foundation, load bearing calculations, girders and barrier design. Other design elements include navigational lighting bridge attachments, steel bracket light supports with concrete anchors to the bridge structure.
07/18 - Ongoing	**SR 12 OVER SUNFLOWER RIVER BRIDGE REPLACEMENT | MISSISSIPPI DOT** MSQC Engineer. For this bridge replacement of an existing structurally deficient bridge, Kunal serves as the QC engineer in the design phase for the new structure, which is a three-span structural steel plate girder bridge, 910-ft long with a main span of 350-ft. A construction sequence is suggested that will reduce transportation concerns by using shorter field pieces that will be spliced on the site prior to erection. Substructure units consist of concrete caps founded on drilled shafts (7-ft diameter) and steel pipe piles. Segmental joints were designed for the bridge ends to accommodate large movements and minimize future maintenance considerations.
07/15 - 06/18	**US 90 (FUTURE I-49) AND LA 318 INTERCHANGE DESIGN BUILD | LADOTD | St. Mary Parish, LA** Structural Design Engineer for the twin bridges. Each bridge consists of LG-54 prestressed concrete girder spans on multi-column concrete bents and concrete wall piers. Responsibilities included performing design, as-designed load rating, reviewing shop drawings, and addressing construction submittals including RFIs and NCRs.
01/17 - 10/18	**LOAD RATING AND POSTING OF 110 ON-SYSTEM BRIDGES | LADOTD | Statewide, LA** Load Rating Engineer. Project involved the load rating & posting of 110 on-system bridges. Bridges are located throughout the state and were load rated in accordance with LADOTD and AASHTO specifications. AASHTOWare BrR, CSI Bridge, and RC-Pier were used to determine rating factors and posting requirements. Kunal was responsible for developing load rating models and performing analyses. His main focus was a bridge structure on I-10 over city streets in New Orleans, approx. 18,000-ft long with complex geometry and span arrangements.
06/16 - Ongoing	**MISSISSIPPI COMPLEX BRIDGE INSPECTIONS AND LOAD RATINGS | MISSISSIPPI OFFICE OF STATE AID ROAD CONSTRUCTION | Statewide, MS** Load Rating Engineer and Inspection Team Leader. This project includes inspection and load rating of over 100 off-system bridges in 17 different Mississippi Counties. Inspections and load ratings are performed in accordance with current NBIS and procedures as outlined in the AASHTO MBE. Structure types include steel trusses, structural steel plate girders, steel railroad flat cars, reinforced concrete girders and slabs, reinforced concrete box culverts, and masonry arches. Kunal is responsible for field inspections, load ratings, inspection reports, and QC/QA on load ratings.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Robert Smith, PE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**13**	
TITLE	**Senior Bridge Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**29**	
DEGREE(S) / YEARS / SPECIALIZATION	**MS | 1983 | Structural Engineering; BS | 1982 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 42575 | LA | 9/30/2026**			
YEAR REGISTERED	**2018**	DISCIPLINE	**Civil Engineering**	

Contract role(s) / brief description of responsibilities	Robert has 42 years of experience in the design and management of structural systems. He has an excellent grasp of structural engineering principles, with an ability to develop solutions to non-typical situations in both traditional design-bid-build projects and design-build projects. He is skilled in finding problems and performing necessary change through project management or other methods. He maximizes resources to achieve client satisfaction and increased productivity, meeting deadlines and goals. Additionally, Robert is experienced in public speaking and executive management briefing. He is persuasive, with ability to communicate effectively with a culturally diverse audience. He is also experienced in Microstation, ConSpan, RCPier, MathCAD, Excel, FDOT Structures programs, PennDOT Structures Programs, Merlin-Dash, Descus-II, Shoring Suite, and Larsa 4D. **Robert will provide STRUCTURAL ENGINEERING services for this contract.**
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
08/19 - 04/24	**I-10/LOYOLA INTERCHANGE DESIGN-BUILD | LADOTD CONTRACT NO. H.011670 | Kenner, LA** Independent QC Manager. Responsible to oversee independent design checks of all superstructure and substructure elements on this multi-million-dollar design-build project that improved access and traffic operations to and around the new Northfield Terminal at the New Orleans International Airport. The project consisted of a Diverging Diamond Interchange in addition to flyover ramps leading to/from the Airport on the east side of the interchange.
06/09 - 02/11	**DIXIE HIGHWAY FLYOVER DESIGN-BUILD | FDOT DISTRICT 4 | Broward County, FL** Engineer of Record. EOR for superstructure design and post design services for the 1,398-foot long Dixie Highway bridge over FEC RR and Hillsboro Canal. Also responsible for Quality Control reviews for the NE 2nd Avenue bridge over Hillsboro Canal, the bulkhead retaining wall, and the MSE retaining walls. The project included the following structures: • Dixie Highway (CR 811) over FEC RR and Hillsboro Canal is a **1,390-foot long curved steel box-girder bridge** with an S-Curve alignment. The superstructure is comprised of **curved steel box girders with integral steel box girder diaphragms**, and is a single eight-span unit (104', 130', 3 at 160', 2 at 209', 2 at 200', 218'). The bridge carries two lanes for both NB and SB traffic, as well as bicycle lanes and sidewalks. The total width is 91'-2", with a bridge area of 126,720 SF. • NE 2nd Avenue over Hillsboro Canal is a 215-foot long FIB girder bridge, 37'-2" wide (7,990 SF). • Steel box girder pedestrian bridge over Hillsboro Canal. This bridge was designed as a single span with fixed supports to control the natural frequency. • Numerous retaining walls, including MSE walls and two sheet pile bulkhead walls along the canal.
07/08 - 05/09	**TURNPIKE WIDENING FROM HEFT TO JOHNSON STREET FINAL DESIGN | FLORIDA'S TURNPIKE ENTERPRISE | Broward County, FL** Senior Structural Engineer. Responsible for designing the superstructure of a two-span continuous **curved steel box girder bridge** carrying Ramp A2 over Florida's Turnpike in Broward County. The bridge cross-section is comprised of three six-foot-deep steel box girders. The bridge is located on a horizontal curve with a 353-foot radius. The tight radius, coupled with a skewed pier and unbalanced span lengths of 148 feet and 211.5 feet, complicates the design significantly.
08/12 - 01/16	**HOMESTEAD EXTENSION OF FLORIDA'S TURNPIKE (HEFT) (SR-821) NORTH OF BIRD ROAD (SW 40TH STREET) TO SR 836, RFP DEVELOPMENT | FLORIDA'S TURNPIKE ENTERPRISE | Miami-Dade County, FL** Engineer of Record. Responsible for review and load rating of existing structures and conceptual design of widenings, replacement bridge carrying Coral Way (SW 24th Street) over HEFT and **two new continuous steel plate girder connector ramp bridges**; evaluation of retaining walls and sound barrier walls. The purpose of this project is to develop an RFP to allow the FTE to advertise for procurement of Design/Build services for final design and construction of this project.
06/09 - 04/10	**I-595 CORRIDOR ROADWAY IMPROVEMENT PROJECT (ZONE 5) | FDOT DISTRICT 4 | Broward County, FL** Senior Structural Engineer. Responsible for QC review of structure designs and plans within Zone 5 of project (Pine Island Road to west of University Drive). Four bridges were included in this section: • I-595 Express over Pine Island Road – a new 336-foot long (89'-158'-89'), **three span continuous steel plate girder bridge** • Ramp K2 over Pine Island Road – a new 408-foot long (125'-158'-125'), **three span continuous steel plate girder bridge** • Pine Island Road over North New River Canal – widening of an existing hollow-core precast flat slab bridge to provide improved turning radii at the intersection with SR 84. • I-595 EB Widening over Pine Island Road – widen existing 336-foot long (89'-158'-89'), **three simple span steel plate girder bridge**.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Mengqui "Maggie" Ye, PE**		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**5**
TITLE	**Structural Engineer**		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**4**
DEGREE(S) / YEARS / SPECIALIZATION	**MS | 2016 | Civil Engineering; BS | 2013 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 44061 | LA | 3/31/2026**			
YEAR REGISTERED	**2019**	DISCIPLINE	**Civil Engineering**	
Contract role(s) / brief description of responsibilities	Maggie assists the project manager with bridge designs, compiling bridge plans, and QC/QA of load rating models and reports. She also helps EIs in developing load rating models. **Maggie will provide STRUCTURAL ENGINEERING services for this contract.**			
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
08/19 - 04/24	**I-10 LOYOLA DESIGN-BUILD INTERCHANGE | LADOTD | Kenner, LA** Bridge Engineer. Maggie performed design on the LU and LG prestressed concrete girders, concrete decks, substructure units, and drainage system for the steel trapezoidal box girders. She assisted with plan development on several design units. Maggie's responsibilities included reviewing shop drawings, addressing RFIs, and performing construction engineering. Maggie was also responsible for performing load rating and developing reports on the two ramps and a bridge widening.			
11/22 - Ongoing	**SR 16/SR 149 FLOODWAY CHANNEL YAZOO RIVER (BRIDGE NOS. 210.9, 211.1, 211.8) | MDOT | Yazoo City, MS** Bridge Engineer. Maggie is responsible for the design and plan development for three bridges crossing the floodway channel of the Yazoo River. Bridge No. 210.1 consists of three 100-ft prestressed FIB 45 spans supported by reinforced concrete bent caps on steel pipe piles. Bridge No. 211.1 consists of a skewed, 928-ft, three-span continuous steel plate girder bridge supported by concrete caps on steel pipe piles at the end bents and drilled shafts at the intermediate bents. Bridge No. 211.8 consists of identical components to Bridge No. 210.1 but is in a horizontal curve. As the design engineer, Maggie performed designs, oversaw plan development, and is currently responsible for reviewing shop drawings and contractor submittals.			
05/20 - Ongoing	**SR 27 OVER LITTLE WHITE OAK CREEK | MDOT | Copiah County, MS** Design Manager. Maggie is responsible for the design and plan development for a three-span (60-100-60-ft) prestressed FIB 36 girder bridge. Substructure units consist of concrete caps founded on steel pipe piles. A detour bridge is being constructed to minimize traffic impacts during construction. She performed quality control checking of designs, oversaw plan development, and is currently responsible for reviewing shop drawings and contractor submittals.			
12/20 - Ongoing	**SR 601/I-10 INTERIM INTERCHANGE | MDOT | Harrison County, MS** Design Manager. This project consists of updating a previous design to conform to current design and construction specifications. Tasks include eliminating a portion of the original project, adding stay-in-place forms to girder designs, updating plans and references, and develop load ratings for seven bridges. Design is in accordance with AASHTO LFD. Maggie is responsible for overseeing design activities and plan development and performing QC on designs and load ratings. Structures include prestressed concrete AASHTO and BT girders, structural steel plate girders, and complex substructure units.			
02/19 - 08/19	**LOAD TESTING OF BERWICK BAY BRIDGE AND LA-1 BRIDGE | LADOTD | Statewide, LA** Site Engineer. Maggie assisted the project engineer to installing sensors on the bottom of the bridge deck and connecting the sensors to computers. She guided the loaded truck on the bridge and analyzed the collected deflections from sensors. She gained on-site experience as well as knowledge that the load rating results were much more conservative than the load testing results.			
02/19 - 08/19	**27 COMPLEX OFF-SYSTEM BRIDGES RATING AND EVALUATION | LADOTD H.009859.5 | Statewide, LA** Structural Engineer. This project consisted of load rating 27 complex off-system bridges in accordance with LADOTD Policies and Guidelines for Bridge Rating and Evaluation. The bridge types comprised ferry-toll, pontoon, steel I-beam, plate girder swing spans, plate girder continuous spans, plate girder bascule spans, low truss swing spans, plate girder swing spans, and steel box girder. Maggie's responsibilities included reviewing the as-built drawings of the bridges and determining the appropriate load rating method, developing the load rating models, and preparing the load rating reports.			

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Michael Brodnax, PE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**6**	
TITLE	**Structural Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**	
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 2019 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 48622 | LA | 9/30/2026**			
YEAR REGISTERED	**2024**	DISCIPLINE	**Civil Engineering; NBIS Certified Team Leader**	

Contract role(s) / brief description of responsibilities	Michael is a structural engineer with six years of experience. He has been involved in structural designs ranging from deck, prestressed box girder and concrete substructure. Michael has performed numerous inspections and load ratings on Mississippi and Alabama Bridges. Michael is familiar with several design and analysis software programs including RC-Pier, CONSPAN, and AASHTOWare Bridge Rating. **Michael will provide STRUCTURAL ENGINEERING services for this contract.**
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc.
08/23 - 01/24	**US 82 OVER MISSISSIPPI RIVER FRACTURE CRITICAL INSPECTION | MDOT | Greenville, MS** Bridge Inspection Team Leader. Michael led a team to complete an element level field inspection of fracture critical members on a cable stay structure. The team used a mechanical platform to access the underside of the main cable stay spans and inspected steel edge girders and steel floorbeams for deficiencies. In addition to the inspection, a formal inspection report was developed to convey the findings.
03/24 - 06/25	**SR 28 OVER PEARL RIVER BRIDGE REPAIRS | MDOT | Copiah & Simpson Counties, MS** Team Leader. Emergency repair of a damaged 550-ft three-span steel through truss bridge. Michael performed the inspection of the damaged truss members and developed repair plans. Several truss members were damaged during a vehicle impact resulting in bridge closure until repairs can be completed. The inspection was performed one week after impact and repair plans were completed in six weeks. Micheal was also responsible for post-design services including construction progress.
07/19 - Ongoing	**MADISON COUNTY BRIDGE INSPECTIONS | Mississippi Office of State Aid Road Construction | Madison County, MS** Team Leader / Assistant Project Manager. Michael is responsible for coordinating and performing bridge inspections on non-complex bridges in Madison County on an annual basis. Stantec serves as the State Aid Engineer which includes maintaining inspection records on the local county bridges. Bridge superstructure types include concrete channel beams, prestressed concrete, concrete box culverts, and steel beams. Substructure elements include concrete, steel, and timber pilings. Reports are developed using AssetWise through State Aid.
07/19 - Ongoing	**MISSISSIPPI STATEWIDE COMPLEX BRIDGE INSPECTIONS & LOAD RATINGS | Mississippi Office of State Aid Road Construction | Statewide, MS** Bridge Inspector and Load Rating Engineer Intern. Stantec is responsible for inspecting and load rating over 100 bridges in 17 different Mississippi Counties. Michael serves as a bridge inspector and load rater for this project. Inspections and load ratings are performed in accordance with current NBIS and procedures as outlined in the AASHTO MBE. Michael is responsible for performing inspections, performing load ratings, and developing inspection reports using InspectTech. Structure types include steel trusses, structural steel plate girders, steel railroad flat cars, reinforced concrete girders and slabs, reinforced concrete box culverts, and masonry arches. Michael assists with data management and transmitting project status updates to the client.
05/24 - Ongoing	**I-10 OVER TRINITY DRAINAGE CANAL BR REPAIR | LADOTD Project No. H.015636 | Iberville Parish, LA** Bridge Engineer. Michael is responsible for design and plan development for the repair of a damaged wingwall and slab elements. An initial site visit was performed to confirm damage limits and verify component dimensions. Repair plans were developed to include full wingwall replacement, partial barrier railing replacement, and structural concrete patching. Currently the final plans are in review at the LADOTD Bridge Division.
08/19 - 04/24	**I-10 LOYOLA DESIGN-BUILD | LADOTD Contract No. H.011670 | Kenner, LA** Bridge Inspector and Load Rating Engineer. Michael designed concrete substructures such as hammerhead piers and pile cap footings. He designed prestressed concrete girders and concrete decks. He also designed and developed plans for concrete noise barriers and their concrete foundations using in-house design spreadsheets and hand calculations. Michael also reviewed shop drawings for construction.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**		
NAME	**Mary Frances Bratton O'Rourke, PE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**15**
TITLE	**Roadway Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 2012 | Civil Engineering**		
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 41444 | LA | 09/30/2025**		
YEAR REGISTERED	**2017**	DISCIPLINE	**Civil Engineer**

Contract role(s) / brief description of responsibilities	Mary's roadway engineering experience includes preparing roadway plans, quantity calculations, hydraulic analysis, striping and signing design, coordination of utility relocation for design-build projects, and geometric design such as horizontal and vertical alignments for a variety of projects in Louisiana. Mary is knowledgeable in a number of software programs including Microstation, InRoads and SignCad. She has also assisted in the design of roundabouts, interchanges, and realignments of urban roadways. **Mary will serve as ROADWAY/DRAINAGE DESIGN TEAM LEAD for this contract.**
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
07/15 - Ongoing	**I-49 LAFAYETTE CONNECTOR | LADOTD | Lafayette, LA** Roadway Engineer. Mary is responsible for developing permanent interchange and ramp terminal signage concepts of the five-and-a-half-mile urban corridor, which includes segments of at-grade and elevated mainline, parallel frontage roads, urban interchanges, slip ramps, and connection/modifications to the existing roadway network. Mary is also assisting with the geometric roadway designs, quantity and cost estimating, drainage designs, and MOT concepts.
07/15 - 06/18	**US 90 AT LA 318 INTERCHANGE DESIGN-BUILD | LADOTD | St. Mary Parish, LA** Roadway Engineer. Mary assisted with the plan development of this project which constructed a diamond interchange with frontage roads to replace the current, at-grade, signalized intersection of US90 and LA 318. This included developing horizontal and vertical alignments, drainage design, signing and striping design, maintenance of traffic design, and quantity calculations. Mary also coordinated with utility companies for all required utility relocations on the project, as well as LADOTD Headquarters and the District office to ensure the utilities were relocated in a timely manner to mitigate utility conflicts with the roadway construction.
01/18 - Ongoing	**DIJON DRIVE PHASE I & PHASE II | City of Baton Rouge | Baton Rouge, LA** Roadway Engineer. Stantec designed this roadway on new alignment for the City of Baton Rouge as an access roadway to the new hospital. This fast-paced project includes a four-lane divided roadway on new alignment, sanitary sewer force main, subsurface drainage, signalization, and off-site intersection improvements. Mary's responsibilities include designing the signing and striping layout, calculating quantities to develop a construction cost estimate, and assisting with plan development to produce typical section sheets, plan and profile sheets, summary of quantity sheets, drainage map sheets, geometric detail sheets, signing and striping sheets, and suggested sequence of construction sheets. Mary has also provided construction support for Dijon Phase I.
10/17 - Ongoing	**NELSON ROAD EXTENSION AND BRIDGE | LADOTD | Lake Charles, LA** Lead Roadway Engineer. Stantec is lead designer for this new, high-level bridge and its approaches over the navigational channel of Contraband Bayou. The project provides a crucial link to downtown Lake Charles and the Port of Lake Charles by extending Nelson Road over Contraband Bayou to West Sallier Street. Mary was responsible for the geometric design which included an at-grade railroad crossing, roadway modeling, drainage design, signing and striping, joint layout, and sequence of construction. Mary also assisted with the NEPA Environmental Assessment process and coordination between all stakeholders and is currently providing roadway construction support for this project.
07/14 - 06/16	**US 79 BYPASS AT LA 9 ROUNDABOUT | LADOTD | Claiborne Parish, LA** Roadway Engineer. Project replaced a signalized intersection with a roundabout while maintaining traffic. Mary's responsibilities included managing plan development, client coordination, and the design of all areas of plan development including horizontal and vertical alignments, earthwork modeling, drainage design, signing and striping layout, sequence of construction which required three detour roads and a temporary subsurface drainage system, quantity calculations, and cost estimate for the construction.
05/12 - 12/21	**GOVERNMENT STREET ROAD DIET: STUDY THROUGH FINAL DESIGN | LADOTD | Baton Rouge, LA** Roadway Engineer. Mary designed bike lane facilities and signing/striping layout for this preliminary and final plan design project to upgrade a four-mile portion of Government Street. She assisted with designs/plan development including typical sections, plan sheets, geometric details, signing and striping, and sequence of construction. Mary also calculated quantities, developed the cost estimate for construction, and provided construction support.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**		
NAME	**Michael Neumann, PE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**10**
TITLE	**Roadway Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 2015 | Civil Engineering**		
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 45396 | LA | 9/30/2025**		
YEAR REGISTERED	**2021**	DISCIPLINE	**Civil Engineer**

Contract role(s) / brief description of responsibilities	Michael has 10 years of experience in designing subsurface and open channel drainage systems, roadway geometry through intersections, and striping plans along a major corridor. His work has encompassed both improvements to existing roadways and roadways on new alignments. Michael has also had a hand in analyzing existing conditions for a high-profile rehabilitation of an existing roadway. He has had both governmental and private client experience in his projects. Michael is familiar with technical programs including: MicroStation, AutoCAD, ArcGIS, InRoads, AutoTURN, StormCAD, and HYDR2009. **Michael will provide ROADWAY/DRAINAGE services for this contract.**
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
06/17 - Ongoing	**I-49 LAFAYETTE CONNECTOR | LADOTD | Lafayette, LA** Roadway Engineer. Michael is responsible for developing cost estimates for various alternatives, creating public meeting exhibits, attending and participating in public meetings, horizontal and vertical geometry, project organization, and modeling and cross-section development. This route will provide the final nationwide link of I-49 by connecting the existing I-49/I-10 interchange to the proposed I-49/US 90 interchange. For the Comprehensive Stage 0 and Environmental Study, Stantec leads the traffic study and impacts effort along with development of an implementation plan and strategy
05/15 - 12/17	**GOVERNMENT STREET ROAD DIET: STUDY THROUGH FINAL DESIGN | LADOTD | Baton Rouge, LA** Engineer Intern. Michael provided analysis of existing project conditions through field work. Michael also provided recommendations to bring conditions up to current ADA standards. Through public meetings held by LADOTD, he met with residents and business owners impacted by the project. Michael also produced construction plans as well as exhibits for public information meetings. This project included a single-lane roundabout with bypass lanes at the Lobdell Ave. intersection.
08/19 - 04/24	**I-10/LOYOLA INTERCHANGE DESIGN-BUILD | LADOTD CONTRACT NO. H.011670 | Kenner, LA** Roadway Engineer for this multi-million-dollar design-build project that improves access and traffic operations to and around the new Northfield Terminal at the New Orleans International Airport. The project consisted of a Diverging Diamond Interchange in addition to flyover ramps leading to/from the Airport on the east side of the interchange. Michael modeled the cross sections in InRoads and calculated earthwork quantities. He also designed the subsurface drainage systems along Loyola/Airport Access Road.
10/17 - Ongoing	**NELSON ROAD EXTENSION AND BRIDGE | LADOTD | Lake Charles, LA** Roadway Engineer. This project provides a crucial link to downtown Lake Charles and the Port of Lake Charles by extending Nelson Road over Contraband Bayou to West Sallier Street. Stantec has led the design effort for this new, high-level bridge (56-ft. clearance) and approaches over the navigational channel of Contraband Bayou. Michael assisted with the NEPA Environmental Assessment process and coordination between stakeholders, led the drainage design and roadway modeling efforts, and assisted with plan development. He also assisted with drainage and earthwork design. Michael is currently providing roadway construction support for this project.
06/20 - 03/23	**PERKINS ROAD (SIEGEN TO PECUE) WIDENING TRAFFIC STUDY, ENVIRONMENTAL ASSESSMENT (EA), PRELIMINARY PLANS, FINAL PLANS AND RIGHT-OF-WAY MAPS | CITY OF BATON ROUGE | Baton Rouge, LA** Drainage Design Engineer. Under the MOVEBR Program, Stantec is currently completing Final Plans for Perkins Road from Siegen Lane to Pecue Lane using MOVEBR design criteria. This two-lane to four-lane divided roadway widening project accommodates the increase in traffic and improves travel efficiency along this corridor by introducing access management principles which have been shown to increase capacity and safety. Partial median openings and u-turn movements with bulb outs are being provided along the corridor. Michael led the design of five subsurface drainage systems, culvert design, and the drainage report.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Hannah Krebs, PE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**10**	
TITLE	**Roadway Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**	
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 2017 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 45917 | LA | 3/31/2026**			
YEAR REGISTERED	**2021**	DISCIPLINE	**Civil Engineering**	
Contract role(s) / brief description of responsibilities	Hannah has 10 years of experience in design and plan development of interstate, arterial, and collector facilities, including existing and new alignment locations. She also has experience with the design of intersection improvements for both urban and rural projects. Hannah is specifically experienced in roadway design, environmental assessments and temporary traffic control plans. **Hannah will provide ROADWAY/DRAINAGE services for this contract** .			
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “Designed drainage”, “designed girders”, “designed intersection”, etc.			
06/17 - Ongoing	**I-49 LAFAYETTE CONNECTOR | LADOTD Contract No. H.004273.5 | Lafayette, LA** Roadway Engineer. Hannah is responsible for developing cost estimates for various alternatives, creating public meeting exhibits, attending and participating in public meetings, developing geometry for the roundabout corridor alternative, C3, and project organization. She also developed a Conceptual Maintenance of Traffic Report and exhibits. This route will provide the final nationwide link of I-49 by connecting the existing I-49/I-10 interchange to the proposed I-49/US 90 interchange. For the Comprehensive Stage 0 and Environmental Study, Stantec leads the traffic study and impacts effort along with development of an implementation plan and strategy.			
11/15 - 12/17	**GOVERNMENT STREET ROAD DIET: STUDY THROUGH FINAL DESIGN | LADOTD | Baton Rouge, LA** Engineer Intern. Hannah provided analysis of existing project conditions through field work. She helped in providing recommendations to bring conditions up to current ADA standards. She met with residents and business owners impacted by the project at public meetings held by LADOTD. Hannah assisted with construction plans as well as exhibits for public information meetings. This project included a single-lane roundabout with bypass lanes at the Lobdell Ave. intersection.			
11/15 - 8/19	**W. PRIEN LAKE ROAD RELOCATION | LADOTD | Lake Charles, LA** Engineer Intern. Hannah assisted with the Preliminary and Final Design Phases of this project, that proposed to realign W. Prien Lake road for approximately 1.4 miles to improve interchange operations at I-210 and Nelson Road. This project included a multi-lane roundabout and a large drainage structure improvement.			
08/19 - 04/24	**I-10/LOYOLA INTERCHANGE DESIGN-BUILD | LADOTD Contract No. H.011670 | Kenner, LA** Roadway Engineer. Hannah was responsible for creating traffic control plans and modifying as needed during construction. This multi-million dollar project improves access and traffic operations to and around the new Northfield Terminal at the New Orleans International Airport. The project consisted of a Diverging Diamond Interchange, in addition to flyover ramps leading to and from the Airport on the east side of the interchange.			
06/20 - 03/23	**PERKINS ROAD (SIEGEN TO PECUE) WIDENING TRAFFIC STUDY, ENVIRONMENTAL ASSESSMENT (EA), PRELIMINARY PLANS, FINAL PLANS AND RIGHT-OF-WAY MAPS | City of Baton Rouge | Baton Rouge, LA** Roadway Engineer. Hannah’s responsibilities included final plan development, geometric design, and traffic control plans. Under the MOVEBR Program, Stantec completed Final Plans for Perkins Road from Siegen Lane to Pecue Lane using MOVEBR design criteria. This 2-lane to 4-lane divided roadway widening project accommodates the increase in traffic and improves travel efficiency along this corridor by introducing access management principles which have been shown to increase capacity and safety. Partial median openings and u-turn movements with bulb outs are being provided along the corridor. Stantec is responsible for all final design including roadway and traffic signal plans, subsurface drainage and culvert design, and wetlands permitting. Hannah produced the plan set that was submitted with the wetlands permit application.			
06/17 – 06/21	**NELSON ROAD EXTENSION AND BRIDGE | LADOTD | Lake Charles, LA** Engineer Intern. Hannah was responsible for organizing and completing a vessel survey during the Environment Assessment phase. Vessel owners were contacted to determine a bridge clearance business impact to a local shipyard. Hannah also assisted in the vertical profile design, drainage design, template design, and plan preparation for the preliminary submittal. The Nelson Road extension over Contraband Bayou will connect the community of Lake Charles and provide an alternate route to alleviate traffic from the interstate system.			

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Destiny Armstrong, PE**		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**6**
TITLE	**Roadway Engineer**		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**3**
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 2018 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 47602 | LA | 09/30/2025**			
YEAR REGISTERED	**2023**	DISCIPLINE	**Civil Engineering**	

Contract role(s) / brief description of responsibilities	Destiny is a Civil Engineer with nine years of transportation engineering experience, specializing in roadway design and plan development. She is experienced in temporary traffic control, quantity calculations and cost estimation, signing and striping design, hydraulic analysis, subsurface drainage design, QC coordination/document control, GIS maps and visualizations, and joint layout design for a range of minor and major transportation design projects in Louisiana. Destiny is also knowledgeable in industry standards such as MUTCD, AASHTO Green Book, AASHTO Roadside Design Guide, LADOTD Hydraulics Manual, LADOTD Road Design Manual, ADA Standards for Accessible Design, AASHTO Guide for Development of Bicycle Facilities, NACTO Urban Street Design Guide, and AASHTO Pedestrian Guide. Destiny will provide **ROADWAY/DRAINAGE** services for this contract.
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “Designed drainage”, “designed girders”, “designed intersection”, etc.
03/22 - Ongoing	**AIRLINE HIGHWAY SOUTH | City of Baton Rouge | Baton Rouge, LA** Project Engineer. Phase 1 of the project consists of studies associated with improvements from south of the Airline/Siegen CFI to Bluebonnet Boulevard. The proposed Phase 1 scope of this project’s capacity improvements include but are not limited to the following: roadway widening, additional lanes, access management improvements and considerations/improvements for other users in the network (such as sidewalks, bike paths, trails, medical facilities, parks, and other public places). As Project Engineer, Destiny prepared project plan spreadsheet, work plan, quality management plan, and risk management strategy form (RMS 1). She compiled 202 crash report data from Crash1 for Exist/No Build Analysis (Crash Report Documentation), and assisted with various traffic counts.
08/19 - 04/24	**I-10/LOYOLA INTERCHANGE DESIGN-BUILD | LADOTD Contract No. H.011670 | Kenner, LA** Project Engineer. The project consisted of a Diverging Diamond Interchange, in addition to flyover ramps leading to and from the Airport on the east side of the interchange. Destiny assisted with designs/plan development including typical sections, plan sheets, and signing and striping sheets. She also generated quantity calculations and assisted with cost estimates for alternatives.
11/10 - 05/22	**NELSON ROAD EXTENSION AND BRIDGE | LADOTD | Lake Charles, LA** Engineer Intern. This provided a crucial link to downtown Lake Charles and the Port of Lake Charles by extending Nelson Road over Contraband Bayou to West Sallier Street. Stantec led the design for this new high-level bridge (56-foot clearance) and approaches over the navigational channel of Contraband Bayou. Destiny assisted with quantity calculations and plan development including typical sections, plan and profile sheets, and striping and signing. She performed AutoTurn Analyses for driveways, produced exhibits, and prepared Utility Conflict Matrix and the Coast Guard Bridge Permitting Application along with other documentation.
08/14 - 12/23	**I-49 LAFAYETTE CONNECTOR | LADOTD | Lake Charles, LA** Project Engineer. A 5.5-mile, elevated, six-lane highway will traverse urban Lafayette, Louisiana, from I-10 south to its end near the Lafayette Regional Airport. A critical transportation link, the I-49 Connector will connect existing I-49 with new interstate mileage through Lafayette and onto New Orleans. As Project Engineer, Destiny prepared design report form, reviewed horizontal geometry for potential conflicts between sidewalk alignment and bridge piers, and performed conceptual drainage analysis for high-level cost estimates. She evaluated sight distance lines at turnouts for side streets and participated in project overview presentation for University of Louisiana at Lafayette’s senior design class. Destiny also generated quantities and prepared cost estimates.
06/20 - 03/23	**PERKINS ROAD (SIEGEN TO PECUE) WIDENING TRAFFIC STUDY, ENVIRONMENTAL ASSESSMENT (EA), PRELIMINARY PLANS, FINAL PLANS AND RIGHT-OF-WAY MAPS | City of Baton Rouge | Baton Rouge, LA** Engineer Intern. Stantec is responsible for all final design including roadway and traffic signal plans, subsurface drainage and culvert design, and wetlands permitting. Destiny generated vertical profiles for driveways and side streets. She assisted in the design of subsurface drainage, retaining walls, signing, curb ramps, and joint layout design. She also assisted with plan development for typical sections, plan and profile sheets, sequence sheets, striping and signing sheets, and joint base layout sheets. Destiny prepared Utility Conflict Matrix and technical specifications.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Scott Hoffeld, CEP**		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**5**
TITLE	**Senior Project Manager, Environmental**		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**26**
DEGREE(S) / YEARS / SPECIALIZATION	**MS | 1994 | Resource Management and Administration; BA | 1989 | Economics**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**CEP No. 02040408 | LA | N/A**			
YEAR REGISTERED	**2002**	DISCIPLINE	**Certified Environmental Professional of the Academy of Board Certified Environmental Professionals**	

Contract role(s) / brief description of responsibilities	Scott is a Senior Environmental/Transportation Planner and Economist with 31 years of NEPA and permitting experience for LADOTD, spanning from EAs, CEs and re-evaluations to complete multi-phased and 3rd party EISs and supplemental EISs. His project experience has included IJRs; hazardous materials; and EJ outreach/involvement, impact and mitigation analyses; and the use of benefit-cost analysis in public-project alternative investment and decision-making. He has completed the DOTD TEPR training, NHI NEPA Decision-Making course among many others. **Scott will provide ENVIRONMENTAL & PERMITTING SERVICES for this contract.**
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
01/15 – 07/17	**EA FOR US 11 NORFOLK SOUTHERN RAILROAD OVERPASS REPLACEMENT (H.000688) | LADOTD | St. Tammany Parish, Louisiana** Project Manager. Project includes replacement and widening of the US 11 roadway overpass of the Norfolk Southern Railroad in Slidell, Louisiana. Project includes the evaluation of partial and full-access intersection options and bridge alignment and type alternatives for the heavily skewed and long steel span bridge in this urban area of Slidell, Louisiana. Key issues include the historic status of the bridge, commercial parking impacts, use of the Norfolk southern right of way, and travel pattern changes following the construction.
07/15 - Ongoing	**I-49 LAFAYETTE CONNECTOR | LADOTD | Lafayette, LA** Assistant Program Manager and Prime Env. Program Lead. Scott is assisting with the program management task, including overseeing staff and agency coordination, schedule maintenance/adherence, contracting, invoicing, and other. As the program prime's Environmental SME, Scott coordinates closely with the LCP task and firm leads on Environmental SEIS tasks/deliverables content, quality and schedule. Scott's work also includes the close coordination of LCP strategy to comply with evolving NEPA expectations based on FHWA and FAA concerns; as well as strategizing to expedite delivery of the project through various NEPA compliance and construction phasing options. Work will ultimately involve LCP coordination of a DOTD Joint Use Agreement with the Lafayette Consolidated Government for under-structure use of viaduct's rights of way.
10/15 - 03/17	**EA AND REEVALUATION FOR DIJON EXTENSION IMPROVEMENTS | CITY OF BATON ROUGE H.012233/H.012232 | Baton Rouge, LA** Project Manager. Responsible for EA and public outreach for short connector roadway between LA 3064 (Essen Lane) and LA 1248 (Bluebonnet Boulevard) in Baton Rouge. The project involved coordination with the Our Lady of the Lake and The General hospitals regarding future development plans, as well as consideration of future bikeway plans for the City of Baton Rouge.
01/03 - 07/08	**I-69 ENVIRONMENTAL IMPACT STATEMENT, SIU NO.14 | LADOTD/ARKANSAS HIGHWAY AND TRANSPORTATION DEPARTMENT | Shreveport, LA and El Dorado, AR** Deputy Project Manager. Scott served as Deputy Project Manager for section of independent utility number 14, spanning between Shreveport, LA and El Dorado, AR through a rural timber and poultry farming area. The study area is studded with historic properties and oil wells among parcels of the Kisatchie National Forest properties, the Bodcau Wildlife Management Area, and the Bodcau Reservoir Recreational Area. Bayou Dorcheat, a Louisiana scenic stream, must be crossed with a new structure that must be designed and ameliorated to avoid and minimize adverse effects to Bayou Dorcheat's scenic uses.
01/20 - Ongoing	**MOVEBR ENHANCEMENT PROGRAM | City of Baton Rouge, LA** Project Manager and Environmental SME. Responsible for developing protocols for Environmental Compliance for Enhancement and Capacity Programs, and serving as Quality Control and Assurance representative for all Enhancement Program Environmental tasks. Also serving as program manager for enhancement program projects including the Plank Segment 2 (Dawson – Harding/Hooper), College Drive Corridor Congestion Relief Project and the Plank-Nicholson Bus Rapid Transit Project. Duties include coordination with DOTD, federal agencies and local interests, monitoring and implementing quality-control/assurance checks, and evaluating scope/budget issues so that overall schedule may be maintained. Duties for the Bus Rapid Transit project also included complex coordination among City-Parish, CATS, FTA, CRPC, MOVEBR Program and the Consultant team in the programming and routing of federal grant funding and the amendment of the City-Parish/CATS Memorandum of Understanding for funding and responsibility divisions.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**				
NAME	**Josh McEnany**		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**1**	
TITLE	**Senior Project Manager**		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**25**	
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 2000 | Forest Ecosystem Management**				
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**N/A**				
YEAR REGISTERED	**N/A**	DISCIPLINE	**N/A**		

Contract role(s) / brief description of responsibilities	Josh is a Senior Project Manager and Environmental Scientist with 26 years' experience in environmental consulting, project management, and natural resources studies and investigations. He has participated in and supervised projects ranging in size from large military bases encompassing over 40,000 acres to small, site-specific areas of less than 1 acre. The value of these projects has also been quite diverse, ranging from $500 to $1.6 million. Through the years he has performed field surveys in 42 states and have supervised large multidisciplinary teams of up to 15 staff members, consisting of environmental planners; wetland, wildlife, and fisheries biologists; botanists; terrestrial and aquatic ecologists; restoration ecologist, plant abatement technicians; and GIS specialists. Josh has been responsible for managing large National Environmental Policy Act (NEPA) documents, conducting jurisdictional wetland determinations, completing Clean Water Act Section 401/404 USACE permits, performing threatened and endangered species surveys, conducting informal and formal Section 7 consultation with the U.S. Fish and Wildlife Service, using Habitat Evaluation Procedures (HEP) to model potential impacts to wildlife species for Section 206 Aquatic Restoration projects, vegetation and habitat assessments, developing environmental checklists, agency coordination, and public involvement (Scoping Meetings). He has prepared and manages Environmental Impact Statements (EISs), Environmental Assessments (EAs), Categorical Exclusions (CEs), and Biological Assessments (BAs). **Josh will provide ENVIRONMENTAL & PERMITTING SERVICES for this contract.**
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
03/19 - 04/19	**VERNAL POOL GROUP 68 WETLAND DELINEATION | MARINE CORPS BASE CAMP PENDLETON | San Diego County, California** Project Manager/Wetland Scentist. Conducted a wetland delineation on a 105-acre parcel within Marine Corps Base Camp Pendleton (MCBCP) identified as Vernal Pool Group 68 (VPG 68). VPG 68 resides within the coastal plains that rise steeply from the beaches of MCBCP and slowly grade into the foothills of the Santa Ana Mountains to the north and east. The site occupies 105 acres of primarily undeveloped land and contains approximately 300 vernal pools, many of which support species protected under the Endangered Species Act (ESA). Mr. McEnany was responsible for conducting the wetland delineation, authoring the wetland findings report, preparing the preliminary jurisdictional determination, and all Section 404/401 permit applications for this project. The entire project site contained approximately 0.06 acre of potentially jurisdictional wetlands as classified by the U.S. Army Corps of Engineers. These wetlands were in the form of three vernal pools that during normal rain event years would have a surface hydrologic connection to a swale that eventually joins a jurisdictional tributary east of the VPG 68 project site.
04/16 - 05/16	**CLEAN WATER ACT SECTION 404 NATIONWIDE PERMIT | Livingston Parish, LA** Project Manager/Wetland Scentist. Conducted the wetland delineation for this project and authored the Nationwide Permit 29 preconstruction notification permit application. Josh was the agent responsible for the permit and for completing any permit request made by the USACE and La DEQ when obtaining approval of the permit.
07/22 - 11/23	**NATURAL RESOURCES SERVICES AT SIX U.S. ARMY MATERIEL COMMAND INSTALLATIONS | USACE Huntsville District** Project Manager and Enviornmental Scientist. Josh was the project manager and completed field work for this task order, which was to provide a multitude of natural resources services at 5 different U.S. Army Material Command Installations. These services included level 1 flora and fauna surveys at Pueblo Chemical Depot in Pueblo County, Colorado; level 1 floral surveys at Letterkenny Army Depot in Franklin County, Pennsylvania as we as development and construction of 500 acres of bobwhite quail habitat; floral and threatened and endangered species surveys, as well as water surveys and sampling at Pine Bluff Army Depot in Pine Bluff, Arkansas; two seasons of elk, pronghorn, and mule deer surveys using ocular pedestrian surveys and remote camera surveys at Tooele Army Depot in Tooele, Utah; and lastly construction and installation of five golden eagle perches, as well as creation of 250 acres of golden eagle foraging habitat at Sierra Army Depot in Herlong, California. Josh attended kick-off meetings at each installation, conducted biological surveys at Tooele as well as Sierra, coordinated all subcontractors, assisted in the development of various reports associated with the surveys, and maintained communication between GSRC and HGL as well as the various installation representatives.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Omer Gene Champion II, PE**		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**1**
TITLE	**Senior Associate, Senior Engineer**		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**25**
DEGREE(S) / YEARS / SPECIALIZATION	**MBA | 2016; BS | 2006 | Electrical Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 129894 | TN | 2/28/2026**			
YEAR REGISTERED	**2024**	DISCIPLINE	**Electrical Engineer**	

Contract role(s) / brief description of responsibilities	Omer has 26 years of experience with a demonstrated history of producing various scaled, complex projects with a drive to deliver results. Having previously worked for CSX Transportation, he is proficient in Class I railroad design standards, FRA track standards, railroad construction and maintenance. Omer is experienced in managing multi-discipline projects simultaneously while being committed to excellence and producing results the right way. Omer proudly served his country in the United States Air Force and is well adapted to working in a mission critical, hazardous environment with limited margin for error. **Omer will serve as RAILROAD LIAISON for this contract.**
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “Designed drainage”, “designed girders”, “designed intersection”, etc.
01/15 - 10/23	**FACILITIES MANAGEMENT | CSX Transportation, Inc. | Jacksonville, FL** Director Facilities - Facilities Management. Director duties included development and management of the fixed asset capital improvement plan and OE budgets for facilities infrastructure. He oversaw electrical infrastructure design, standards, construction and maintenance of all of CSX’s electrical distribution. This included responsibilities for the General Electrical Contracts between CSX and outside party contractors as well as 200+ internal union forces comprised of eight total collective bargaining agreements. As the primary electrical SME representing all departments within CSX; oversight of electrical and arc flash safety and training requirements was a critical role for this position. The general electrical scope of work included automation systems and management; VFD and motor control systems; transformer management; switch heater standards, design and construction; lighting design, construction and standards; back up electrical system design, utility management, resiliency, emergency restoration and sustainability programs. Omer often interfaced with public utility infrastructure design, construction and standards and coordinating with various levels of federal, state and local governments.
08/12 - 11/15	**POSITIVE TRAIN CONTROL PROGRAM | CSX Transportation, Inc. | Corbin, KY** Manager Positive Train Control – Locomotive Engineering. Omer was a critical part of a team tasked to develop and install Positive Train Control (PTC) technology and modify the existing fleet of CSX locomotives to be compliant with congressional FRA mandates. This included training the workforce and providing technical assistance to shops and service centers; leading the Corbin primary PTC team including nine electricians, two pipe fitters and one engine carpenter. He expanded PTC Installation sites to Erwin, TN and EMD Progress Rail facility located in Mayfield, KY. Omer managed the process of PTC installations to include capital labor, safety and efficiency; writer of Mechanical Locomotive Engineering Technical Documents Shop Maintenance Instructions (SMI’s) for PTC; coordinated efforts with shops and service centers in dealing with locomotive support; communicating daily with shop management to balance PTC and shop support needs. Other duties included inventory management and coordinating with Purchasing and Material for the purpose of organization, procurement and distribution of locomotive modification material. Additional responsibilities were maintaining capital and OpEx budgets for material, man hours, and tooling; maintaining a safe working environment for all Shop employees; providing continual support to the PTC Director, staff and PTC support groups. All his efforts were pivotal in allowing Corbin to achieve the recognition as the safest, most efficient and professional modification installation site on the system.
02/14 - 08/15	**SIGNAL MAINTENANCE DEPARTMENT LEADERSHIP | CSX Transportation, Inc. | Louisville, KY** Manager Electronics Engineering. Omer observed, directed, demanded, coached, and trained safety to union and management employees. As a leader in the Signal Maintenance Department, he was charged with inspection, design and construction of the signaling systems for the purpose of ensuring the safe movement of all rolling stock. He was the primary Operating Rule and Safety Certification trainer for the Louisville Division; he performed periodic audits of assigned territory to ensure compliance of FRA and CSX standards; scrutinized multiple details to maximize performance in safety, reliability and cost effectiveness. Additional responsibilities include management of the Osborn Classification Yard, Louisville Terminal & LCL Subdivision with 18 signal maintainers. He planned, organized, developed and implemented expansions and upgrades to Louisville Terminal; met with labor union chairmen to interpret labor agreements covering assigned employees; managed yearly operational budget, including procurement of material and labor.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Joey Lefante, PE, PTOE**		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**17**
TITLE	**Senior Associate, Traffic Engineer**		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 2008 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 37244 | LA | 09/30/2026**			
YEAR REGISTERED	**2012**	DISCIPLINE	**Civil Engineering | PTOE #3560**	
Contract role(s) / brief description of responsibilities	Joey has 17 years of experience working on major traffic projects, preparing feasibility studies and interchange modification reports, and leading improvements through plan design and signal construction. His experience using various analysis software packages, including TransCAD, Synchro, and VISSIM, allows him to determine innovative transportation solutions tailored to each individual situation. **Joey will provide TRAFFIC ENGINEERING services for this contract.**			

Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
04/11 - 06/15	**I-210 / COVE LANE INTERCHANGE AND ROUNDABOUT | LADOTD | Lake Charles, LA** Lead Traffic Engineer. Joey developed an Interchange Justification Report (IJR) for I-210 between Cove Lane and Nelson Road interchanges on Port of Lake Charles property. He developed peak hour traffic volumes for 28 possible design alternatives, which took into account and accommodated for all future developments in the area, including the Nelson Road Bridge over Contraband Bayou and the Ameristar Casino and Hotel development north of I-210. Joey coordinated the collection of traffic counts and performed field calibration of the traffic models by collecting data such as queues and travel times. Once the alternatives were narrowed down to the final, Joey performed HCS and SIDRA analyses on over 50 locations per alternative. The recommended alternative included innovative interchange configurations including roundabout ramp terminals at Cove Lane and a Diverging Diamond Interchange (DDI) at Nelson Road.
03/14 - 05/15	**LA 511 JIMMIE DAVIS BRIDGE REHABILITATION | LADOTD Contract No. H.010662 | Bossier Parish, LA** Traffic Engineer who performed traffic analysis for the designated detour route as part of the TMP and proposed locations for temporary signal installations during the bridge closure. Detour routes included city streets on both side of bridge. Based on analysis, Joey designed and detailed traffic signal plans for temporary signal installations. Each selected improvement was needed to handle rerouting of all bridge traffic to the detoured route with minimal permanent pavement changes.
11/10 - Ongoing	**NELSON ROAD EXTENSION AND BRIDGE | LADOTD Contract No. H.005967 | Lake Charles, LA** Traffic Engineer. Joey ran traffic analyses for the different bridge tie-ins being studied. Also included in the traffic analysis was a consideration of the impact of the bridge on the surrounding roadway network. The Regional Travel Demand Model was modified in TransCAD to determine the effects of the bridge construction. Joey will be providing Traffic construction support for the project.
08/14 - Ongoing	**I-49 LAFAYETTE CONNECTOR | LADOTD | Lafayette, LA** Traffic Task Manager. Joey is responsible for coordination with DOTD traffic staff and managing analysis of various geometric design alternatives. This project includes a comprehensive Vistro model and additional analyses using TransCAD, VISSIM, and Sidra software packages. It follows the Access Justification Request (AJR) guidelines established by DOTD and FHWA. Joey has been involved in the Context Sensitive Solutions (CSS) process, attending community meetings. Feedback from the CSS process has informed changes to ramp layouts and interchange design and has enabled Stantec to redesign several key elements to emphasize urban design principles, including pedestrian and bicycle accommodations. Joey is responsible for documenting the project to follow DOTD Traffic Engineering Process and Report (TEPR) Guidelines.
08/09 - Ongoing	**I -49 INNER CITY CONNECTOR STAGE 0-1, STUDY & IJR | LADOTD | Shreveport, LA** Traffic Engineer performing NEPA investigations, developing IMR and IJR and providing quality assurance for this 3.5-mile final nationwide link of I-49 by connecting the existing I-49/I-20 interchange to the proposed I-49/I-220 interchange. NLCOG's Travel Demand Forecasting Model was modified and used to project future traffic for 3 alternatives representing different interchange combinations. HCS will be used to determine which roadway improvements would be necessary for each alternative.
08/19 - 04/24	**I-10 LOYOLA DESIGN-BUILD | LADOTD Contract No. H.011670 | Kenner, LA** Traffic Engineer. Joey performed VISSIM analyses of an Alternative Technical Concept (ATC) consisting of two new flyover ramps leading to/from the Airport on the east side of the interchange and the first Diverging Diamond Interchange (DDI) in Louisiana. Joey completed an IMR to meet FHWA access policy standards to move the project forward on the accelerated design-build schedule. Joey also led the traffic signal design effort, including specialized DDI operations and complete street accommodations such as sidewalks and a two-way cycle track.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Julia Rouse**		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**2**
TITLE	**Project Controls Consultant**		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**12**
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 2009 | Construction Management**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**N/A**			
YEAR REGISTERED	**N/A**	DISCIPLINE	**N/A**	

Contract role(s) / brief description of responsibilities	Julia has 14 years of experience in Project Management as both an Owner's Representative and a Contractor. Her experience spans Governmental, Industrial, Commercial, and Utility disciplines. Julia managed a wide range of project controls aspects from estimating, proposal creation, and contract review to scheduling, document control, requests for information, change order creation, cost reporting, purchasing, invoicing, time keeping, and more. Julia later took her talents to the commercial realm where she used her skill set to manage multiple projects at a time from proposal to close out for private entities, the federal government, and several local municipalities as both a Prime and Subcontractor. Julia came to Stantec in March of 2023. Since she joined our team, she has taken on various tasks in the MOVEBR Program Management Team including plan review for cost estimation and constructability, budget analysis, cost controls, document control, schedule analysis, information systems management, and much more. **Julia will provide COST ESTIMATING SERVICES for this contract.**
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
03/23 - Ongoing	**MOVEBR ENHANCEMENT PROGRAM | City of Baton Rouge, LA** Project Controls Consultant. Julia provides support to the MOVEBR Program Management team through CPM Schedule review and management, Project Cost Estimation, Project Time Estimation, Plan Review, bid package preparation, addenda preparation, bid verifications, DBE paperwork review, Document Control, Construction Invoice preparation and review, Construction Change Order preparation and review, review and provide input for RFI responses, and more. Julia is working with the Project Management Team on the Plank-Nicholson BRT Corridor Project, which has multiple funding sources including multiple grants from the FHWA and the FTA. She has been instrumental in organizing the complex funding sources and reconciling the phased estimates with the budget.
01/21 – 03/23	**TRIUMPH CONSTRUCTION, LLC | Project Manager-Estimate | Baton Rouge, LA** Cost Estimating. Julia provided estimating for civil/commercial projects on projects ranging up to $30,000,000. Estimating duties include quantity take off, material and subcontractor pricing, proposal document preparation. She also performed project management duties on multiple projects including CPM schedule creation and maintenance, cost control, purchasing, billing/invoicing, document control, RFI submittal, change order management, personnel management, and subcontractor management. She was involved in private construction projects such as Elysian III (Baton Rouge, LA), Lotus Village (Baton Rouge, LA), and CVS Pharmacy (St. Rose, LA). Parish municipal project involvement included Fuqua St. Area ADA Project (Baton Rouge, LA), Florida St. Area ADA Project (Baton Rouge, LA), and Elm Grove Garden Drive Pedestrian Improvements (Baton Rouge, LA). State project involvement includes Joliet Trail Sidewalks (Brusly, LA), Hyacinth Avenue Bike Lanes (Baton Rouge, LA), St. John Levee Trail Phase 3 (Garyville, LA), LA 3002 Access Management (Denham Springs, LA), and Louisiana Greenway Connector (Baton Rouge, LA). She also successfully managed the West Atchafalaya Basin Levee Slide Repair hauling for the USACE while in this position
06/19 – 10/20	**COST SEGREGATION SERVICES, INC. | Project Engineer | Baton Rouge, LA** Cost Estimating. Estimated replacement value of commercial/residential buildings by analyzing pictures, plans, surveys, and/or actual cost documents. She would then segregate the building elements and building improvement elements into different categories on a depreciation schedule to help offset the property owner's taxable income.
01/14 – 02/17	**PERFORMANCE CONTRACTORS, INC. | Project Coordinator | Sulphur, LA** Cost Estimating. Responsible for managing project cost reports, subcontractor activities and schedules, project schedules, project documents, project estimates, project scope and cost changes, project material procurement and sourcing, and project billing. Created estimates for time and materials as well as lump sum projects. She would manage and coordinate multi-discipline projects spanning multiple job sites in multiple states averaging $5M in revenue per year. Interacted with clients, subcontractors, field personnel, and in-house management to ensure smooth progress of work and to complete projects with optimal schedules and budgets. Job sites included El Dorado Chemical Company (El Dorado, AR), MeadWestVaco-Ingevity (DeRidder, LA), International Paper Red River Mill (Campti, LA), Georgia Pacific (Crossett, AR), Packaging Corporation of America (DeRidder, LA), Green Bay Packaging AKD (Morrilton, AR), and Indorama Ventures Olefins (Westlake, LA).

FIRM EMPLOYED BY	**GeoEngineers, Inc.**			
NAME	**Larry D. Sant, PE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**24**	
TITLE	**Associate Geotechnical Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**2**	
DEGREE(S) / YEARS / SPECIALIZATION	**MS | 2001 | Civil Engineering; BS | 2001 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 35625 | LA | 9/30/2026**			
YEAR REGISTERED	**2010**	DISCIPLINE	**Civil Engineering**	

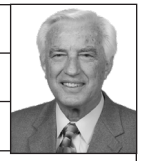
Contract role(s) / brief description of responsibilities	Larry is a professional geotechnical engineer with more than 25 years of experience managing geotechnical engineering projects and has been GeoEngineers' project manager for most of their transportation projects in the last two decades working with agencies like the City-Parish, LA DOTD, and many other local entities. He has managed the geotechnical design tasks for 12 design-build/P3 projects either as Lead Geotechnical Engineer of Record or as the owner's representative. His experience includes project planning and technical direction during exploration, laboratory testing, engineering design analyses, report preparation and construction monitoring. Larry has been involved in hundreds of projects including roadways ranging from highways to private access drives, airports, bridges, dams, university and K-12 schools, wastewater treatment plants, drainage facilities, utility projects, and other structures ranging from private residences to large public and private facilities. **Larry will serve as GEOTECHNICAL ENGINEERING TEAM LEAD for this contract. Larry meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 6 and 7** 
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc.
04/24 - Ongoing	**P3 I-10 CALCASIEU RIVER BRIDGE GEOTECHNICAL ENGINEERING SERVICES | LADOTD | Lake Charles, LA** Lead Geotechnical Engineer. This historic public-private partnership (P3) redesigns and renovates a six-mile stretch of I-10 running through Lake Charles—including the Calcasieu River Bridge itself, which has been outdated for decades. The finished project aims to improve traffic capacity with three through lanes in each direction, and renovate interchanges, shoulders, and bridges through the I-10 corridor to meet modern engineering standards and transportation needs. GeoEngineers' scope includes several hundred borings including deep borings in the Calcasieu River, geotechnical design for bridge foundations, embankment slopes and retaining walls, lab testing, drilling, construction monitoring, and environmental support to deal with explorations within a known contamination plume.
10/21 – 06/22	**JIMMIE DAVIS BRIDGE PRELIM EXPLORATIONS | LADOTD | Caddo and Bossier Parishes, LA** Lead Geotechnical Engineer. GeoEngineers completed the fast-tracked preliminary geotechnical exploration and testing including deep borings in the Red River for this high-profile design-build project that is in preparation for the replacement of the Jimmie Davis Bridge over the Red River, along LA 511 in Bossier City, Louisiana.
1/19 – 11/24	**I-10/LOYOLA INTERCHANGE DESIGN BUILD | LADOTD | Kenner, LA** Lead Geotechnical Engineer. GeoEngineers completed the geotechnical exploration, testing, engineering, modeling driving in the wave equation analyses (WEAP) and conducting PDA (Pile Driving Analyzer)/CAPWAP (Case Pile Wave Analysis Program) testing monitoring/evaluations for this high-profile project in Kenner that will ultimately improve the Loyola Drive interchange to increase operational efficiency and traffic capacity.
05/18 – 04/19	**I-20/I-220 (BARKSDALE AFB) DESIGN BUILD, OV/QA | LADOTD | Bossier Parish, LA:** Project Manager. Larry is the project manager for GeoEngineers' OV/QA role in this design-build project which involved interchange improvements (piles, shafts, embankments and PDA / CAPWAP) that will increase access to the Barksdale Air Force Base in Bossier Parish.
08/17 – 11/20	**I-10 WIDENING (HIGHLAND TO LA-73) DESIGN BUILD, OV/QA | LADOTD** | Baton Rouge, LA Project Manager. Larry was the project manager for GeoEngineers' OV/QA role in this highly-anticipated I-10 project that involved PDA / CAPWAP monitoring / evaluations for widening a 6.5-mile segment of I-10 from four lanes to six lanes between Highland Road and LA-73.

04/15 – 11/17	**US-90/LA-318 INTERCHANGE DESIGN BUILD | LADOTD | St. Mary Parish, LA** Project Manager. Larry was the project manager during this design-build project in support of the proposed Interchange on US90 at LA318. He lead the geotechnical design including drilling, log review, test assignments, pile design, settlement analysis, embankment monitoring, and embankment design. GeoEngineers also conducted extensive settlement modeling to demonstrate that the aggressive schedule for this project can be met along with modeling driving in the wave equation analyses (WEAP). During construction we conducted PDA (Pile Driving Analyzer)/CAPWAP (Case Pile Wave Analysis Program) testing to keep the schedule progressing.
02/13 – 04/13	**I-49/US90 WIDENING OVER LA182 AND BNSF RAILROAD | LADOTD | Lafayette, LA** Project Manager. A Louisiana DOTD widening project in preparation for upgrading US90 to I-49 from Albertson Road to Ambassador Caffery where Larry was the project manager in conducting bridge and roadway borings, and laboratory tests in support of design of this design build widening project located just south of Lafayette. GeoEngineers completed 119 borings for the project on a fast-track schedule utilizing multiple drill rigs to meet the deadline.
08/12 – 07/15	**I-210 AT COVE LANE INTERCHANGE | LADOTD | Lake Charles, LA** Project Manager. Larry was the project manager during this fast-track design and construction project in support of the proposed Interchange on I-210 at Cove Lane. GeoEngineers coordinated a field investigation including multiple simultaneous drilling and CPT rigs, with lane closures and traffic control and completed engineering analyses and provided recommendations for design and construction of about 8,000 driven pile foundations including modeling driving in the wave equation analyses (WEAP), MSE walls, and wick-drain/surcharge design to reduce post-construction embankment settlement, in accordance with AASHTO LRFD specifications for highway bridges. In addition, the GeoEngineers' team monitored MSE wall construction, provided PDA/CAPWAP evaluation of the piles during installation, and installed liquid settlement sensors to monitor embankment settlement.
01/10 – 12/12	**I-12 WIDENING (AMITE RIVER TO JUBAN ROAD) DESIGN BUILD | LADOTD | Denham Springs, LA** Project Manager. Larry was project manager during this design build project. GeoEngineers completed engineering analyses and provided recommendations for design and construction of driven pile foundations for four bridge structures in accordance with AASHTO LRFD specifications for highway bridges, which included PDA/CAPWAP monitoring/evaluations.
09/09 – 07/11	**US90 AT LA85 INTERCHANGE DESIGN BUILD | LADOTD | Iberia Parish, LA** Project Manager. Larry was the project manager during a design build project in support of the proposed Interchange on US90 at LA85. GeoEngineers' completed engineering analyses and provided recommendations for design and construction of driven pile foundations in accordance with AASHTO LRFD specifications for highway bridges and PDA/CAPWAP monitoring/evaluations. In addition, the GeoEngineers' team analyzed embankment settlement and provided design recommendations for wick drains and surcharge loading to reduce post construction settlement and prevent downdrag loads on the proposed adjacent bridge foundations.

FIRM EMPLOYED BY	**GeoEngineers, Inc.**			
NAME	**Brenda Novoa, PE, MSCE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**23**	
TITLE	**Senior Geotechnical Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**2**	
DEGREE(S) / YEARS / SPECIALIZATION	**MS | 2003 | Civil Engineering; BS | 1999 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 33665 | LA | 3/30/2026**			
YEAR REGISTERED	**2003**	DISCIPLINE	**Civil Engineering**	

Contract role(s) / brief description of responsibilities	Brenda is a geotechnical engineer with 25 years of experience in geotechnical field work and engineering in Louisiana and Puerto Rico. Her daily responsibilities include the management of projects from the proposal stage to the report distribution. Brenda is directly involved with the field exploration crews, constantly in direct contact with clients to gather project data and solve any challenging issues that arise in their projects, conducts onsite soil observations and analyzes field and lab data to develop engineering recommendations for commercial, industrial, municipal, state, and federal projects. Her geotechnical experience includes data evaluation and engineering analysis including slope stability analysis, shallow and deep foundation recommendations per LRFD design requirements for LA DOTD projects, and settlement analysis, among others. **Brenda will serve as SENIOR GEOTECHNICAL ENGINEER for this contract. Brenda meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 6** 
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “Designed drainage”, “designed girders”, “designed intersection”, etc.
11/24 – 06/25	**BONNE IDEE ROAD BRIDGE GEOTECHNICAL EXPLORATIONS & LAB | LADOTD | Bonita, LA** Project Engineer. Brenda was the project engineer for this project. The project consisted of geotechnical field and laboratory testing services to determine the soil conditions at the bridge’s site and the preparation of final boring logs in LADOTD format.
11/24 – 05/25	**SPRING BAYOU ROAD OVER SPRING BAYOU | LADOTD | Goudeau, LA** Project Engineer. Brenda was the project engineer for this project. The project consisted of geotechnical field and laboratory testing services to determine the soil conditions at the bridge’s site and the preparation of final boring logs in LADOTD format.
04/24 - Ongoing	**P3 I-10 CALCASIEU RIVER BRIDGE GEOTECHNICAL ENGINEERING SERVICES | LADOTD | Lake Charles, LA** Senior Project Engineer. Brenda is the senior project engineer for this historic public-private partnership (P3) that will redesign and renovate a six-mile stretch of I-10 running through Lake Charles—including the Calcasieu River Bridge itself, which has been outdated for decades. The finished project aims to improve traffic capacity with three through lanes in each direction, and renovate interchanges, shoulders, and bridges through the I-10 corridor to meet modern engineering standards and transportation needs. GeoEngineers’ scope includes geotechnical design for bridge foundations, embankment slopes and retaining walls, lab testing, drilling, construction monitoring, and environmental support to deal with explorations within a known contamination plume. Brenda is helping with the coordination of the field and laboratory testing activities and with the evaluation of the data obtained for the geotechnical designs.
06/20 – 04/22	**MOVEBR, HENNESSY BOULEVARD TO PERKINS ROAD CONNECTOR | City of Baton Rouge, LA** Project Manager. Brenda worked as the project manager for this project. The project consisted of design and construction of a new 2,600 feet long connector roadway and railroad underpass bridge. The project included depressing the new roadway under the existing KCS railroad track to provide grade separation from the railroad. The project will also include a new drainage pump station. Retaining structures, sheet piles or otherwise, will be required for temporary support of one track of the R/R while the other is constructed to maintain operations of the R/R. The proposed new connector roadway was designed to be constructed to connect Hennessy Boulevard and Perkins Road in Baton Rouge, Louisiana. The scope of work consisted of performing soil borings along the proposed roadway and the required laboratory testing to evaluate the existing subsurface soils conditions to provide recommendations for: an effective pavement section, deep foundations to support the railroad bridge and proposed retaining walls, and retaining wall design parameters.
02/20 – 04/22	**MOVEBR, JONES CREEK ROAD EXTENSION: JEFFERSON HIGHWAY TO AIRLINE HIGHWAY | City of Baton Rouge, LA** Project Manager. Brenda was the project manager for this project. The project consisted of design and construction of a new, approximately 0.70-mile long, four-lane roadway extension to connect Jefferson Highway to Airline Highway, near Jones Creek Boulevard in Baton Rouge, Louisiana. The scope of work consisted of performing soil borings along the proposed roadway and the required laboratory testing to evaluate the existing subsurface soils conditions to provide recommendations for an effective pavement section.

01/17 – 09/19	**BAYOU TERREBONNE; TERREBONNE | LADOTD | Parish, LA** Project Engineer. Brenda was the project engineer for the geotechnical exploration phase of this project. The project consisted of geotechnical field and laboratory testing services to determine the soil conditions at the bridge's site and the preparation of final boring logs in LADOTD format.
01/17 – 09/19	**US-80 OVERPASS AT KCS RR | LADOTD | Lincoln Parish, LA** Project Engineer. Brenda was the project engineer for the geotechnical exploration phase of this project. The project consisted of geotechnical field and laboratory testing services to determine the soil conditions at the bridge's site and the preparation of final boring logs in LADOTD format.
01/17 – 09/19	**NELSON ROAD EXTENSION AND BRIDGES | LADOTD | Calcasieu Parish, LA** Project Engineer. Brenda was the project engineer for this project. The project consisted of geotechnical field and laboratory testing services to determine the soil conditions at the bridge's site and the preparation of final boring logs in LADOTD format and providing pile foundations recommendations for the proposed bridges.
01/17 – 09/19	**BAYOU CHEVREUIL BRIDGE WIDENING | LADOTD | St. James Parish, LA** Project Engineer. Brenda was the project engineer for the geotechnical exploration phase of this project. The project consisted of geotechnical field and laboratory testing services to determine the soil conditions at the bridge's site and the preparation of final boring logs in LADOTD format.
01/10 – 12/11	**BRIDGE SCOUR PROJECTS | LADOTD | Statewide, Louisiana** Project Engineer. Brenda worked as a project engineer for the Bridge Scour project for over 100 bridge locations across the state of Louisiana. The project consisted of the determination of soil parameters and calculation of pile capacities of existing bridge foundations.

FIRM EMPLOYED BY	**GeoEngineers, Inc.**			
NAME	**James "Jim" Aronstein, Jr., PE, PLS**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**55**	
TITLE	**Senior Geotechnical Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**5**	
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 1965 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 11794 | LA | 3/31/2027 / PLS No. 458 | LA | 3/31/2027**			
YEAR REGISTERED	**PE: 1969** **PLS: 1970**	DISCIPLINE	**Civil Engineering**	

Contract role(s) / brief description of responsibilities	Jim has provided geotechnical services on private, industrial, and public facilities since 1969, with extensive, significant expertise in the transportation industry. He has been the engineer of record for the majority of GeoEngineers' Louisiana road and bridge projects over the past 30 years, including LADOTD statewide retainer contracts for geotechnical investigations and project-specific programs. His projects include the I-210 at Cove Lane Interchange; I-49/US90 Widening over LA182 and BNSF Railroad Design-Build; 37-mile extension of I-49 North through Louisiana, I-220 to the Arkansas state line; Rigolets Pass Bridge project on US 90; numerous off-system bridge sites for LADOTD through local consultants; and work on the East Baton Rouge Parish Green Light roads and streets improvements plan. Jim's role has involved managing and executing engineering analyses and reports, field exploration, site access, drilling technology evaluation, exploration conduct, laboratory test assignments, and quality control of the generated work product. **Jim will serve as SENIOR GEOTECHNICAL ENGINEER for this contract. Brenda meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 5 and 7**
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc.
10/21 – 06/22	**JIMMIE DAVIS BRIDGE PRELIM EXPLORATIONS | LADOTD | Caddo and Bossier Parishes, LA** Principal in Charge. GeoEngineers completed the fast-tracked preliminary geotechnical exploration and testing for this high-profile design-build project that is in preparation for the replacement of the Jimmie Davis Bridge over the Red River, along LA 511 in Bossier City, Louisiana.
01/19 – 11/24	**I-10/LOYOLA INTERCHANGE DESIGN BUILD | LADOTD | Kenner, LA** Principal in Charge. GeoEngineers completed the geotechnical exploration, testing, engineering and modeling driving in the wave equation analyses (WEAP) and conducting PDA (Pile Driving Analyzer)/CAPWAP (Case Pile Wave Analysis Program) testing monitoring/evaluations for this high-profile project in Kenner that will ultimately improve the Loyola Drive interchange to increase operational efficiency and traffic capacity. Jim is serving as Principal-in-Charge.
05/18 – 04/19	**I-20/I-220 (BARKSDALE AFB) DESIGN BUILD, OV/QA | LADOTD | Bossier Parish, LA** Principal in Charge. Jim is the Principal-in-Charge for GeoEngineers' OV/QA role in this design-build project which involves interchange improvements (piles, shafts, embankments and PDA / CAPWAP) that will increase access to the Barksdale Air Force Base in Bossier Parish.
08/17 – 11/20	**I-10 WIDENING (HIGHLAND TO LA-73) DESIGN BUILD, OV/QA | LADOTD | Baton Rouge, LA** Principal in Charge. Jim is the Principal-in-Charge for GeoEngineers' OV/QA role in this highly-anticipated I-10 project that involved PDA / CAPWAP monitoring / evaluations for widening a 6.5-mile segment of I-10 from four lanes to six lanes between Highland Road and LA-73.
04/15 – 11/17	**US-90/LA-318 INTERCHANGE DESIGN BUILD | LADOTD | St. Mary Parish, LA** Principal in Charge. Jim was the principal-in-charge during this design-build project in support of the proposed Interchange on US90 at LA318. GeoEngineers performed the geotechnical design including drilling, log review, test assignments, pile design, settlement analysis, embankment monitoring, and embankment design. We also conducted extensive settlement modeling to demonstrate that the aggressive schedule for this project can be met along with modeling driving in the wave equation analyses (WEAP). During construction we conducted PDA/CAPWAP testing to keep the schedule progressing embankment design. We also conducted extensive settlement modeling to demonstrate that the aggressive schedule for this project can be met along with modeling driving in the wave equation analyses (WEAP). During construction we conducted PDA/CAPWAP testing to keep the schedule progressing.

02/13 – 04/13	**I-49/US-90 WIDENING OVER LA182 AND BNSF RAILROAD | LADOTD | Lafayette, LA** Principal in Charge. A Louisiana DOTD widening project in preparation for upgrading US90 to I-49 from Albertson Road to Ambassador Caffery where Jim was the principal-in-charge in conducting bridge and roadway borings, and laboratory tests in support of design of this bridge and roadway widening project located just south of Lafayette. GeoEngineers completed 119 borings for the project on a fast-track schedule utilizing multiple drill rigs to meet the deadline.
08/12 – 04/15	**I-210 AT COVE LANE INTERCHANGE | LADOTD | Lake Charles, LA** Principal in Charge. Jim was the principal-incharge during this fast-track design and construction project in support of the proposed Interchange on I-210 at Cove Lane. GeoEngineers coordinated a field investigation including multiple simultaneous drilling and CPT rigs, with lane closures and traffic control and completed. engineering analyses and provided recommendations for design and construction of about 8,000 driven pile foundations, MSE walls, and wick-drain/surcharge design to reduce post-construction embankment settlement, in accordance with AASHTO LRFD specifications for highway bridges. In addition, the GeoEngineers' team monitored MSE wall construction, provided PDA/CAPWAP evaluation of the piles during installation, and installed liquid settlement sensors to monitor embankment settlement.
01/10 – 12/12	**I-12 WIDENING (AMITE RIVER TO JUBAN ROAD) DESIGN BUILD | LADOTD | Denham Springs, LA** Principal in Charge. Jim was the principal-in charge during this design build project. GeoEngineers completed engineering analyses and provided recommendations for design and construction of driven pile foundations for four bridge structures in accordance with AASHTO LRFD specifications for highway bridges, which included PDA/CAPWAP monitoring.
09/09 – 07/11	**US-90 AT LA-85 INTERCHANGE DESIGN BUILD | LADOTD | Iberia Parish, LA** Principal in Charge. Jim was the principal-in-charge during this design-build project in support of the proposed Interchange on US90 at LA85. GeoEngineers' completed engineering analyses and provided recommendations for design and construction of driven pile foundations in accordance with AASHTO LRFD specifications for highway bridges and PDA/CAPWAP monitoring. In addition, the GeoEngineers' team analyzed embankment settlement and provided design recommendations for wick drains and surcharge loading to reduce post construction settlement and prevent downdrag loads on the proposed adjacent bridge foundations.
04/07 – 04/09	**I-49 NORTH | LADOTD | Caddo Parish, LA** Project Manager. A Louisiana DOTD Priority 1 Mega Project where Jim led the GeoEngineers' team in conducting bridge and roadway borings and laboratory tests before bridges are constructed and pavement is laid on the 36-mile northward extension in Louisiana. GeoEngineers completed 166 borings for the project. At some sites, the team had to overcome the challenge of drilling exploratory borings at the same time LA DOTD cleared the area for construction, disturbing the site where samples are taken.

Section

17

I-10/Loyola Interchange Design-Build Project, Kenner, Louisiana - Stantec

17. **Firm Experience:**

FIRM NAME	**Stantec Consulting Services Inc.**	PAST PERFORMANCE EVALUATION CATEGORY(IES)*	**Road, Bridge, Traffic, ITS, Other (Lighting)**
PROJECT NAME	**I-10/LOYOLA INTERCHANGE DESIGN-BUILD PROJECT**	FIRM RESPONSIBILITY (prime or sub?)	**Sub-consultant**
PROJECT NUMBER	**H.0011670**	OWNER'S NAME	**Louisiana Department of Transportation and Development**
PROJECT LOCATION	**Kenner, Louisiana**	OWNER'S PROJECT MANAGER	**Timothy Nickel, PE**
OWNER'S ADDRESS, PHONE, EMAIL	**1201 Capital Access, Baton Rouge, LA 70808 | 225-242-4640 | timothy.nickel@la.gov**		
SERVICES COMMENCED BY THIS FIRM (MM/YY)	**08/19**	TOTAL CONSULTANT CONTRACT COST ($1,000's)	**$125,591 (DB Contractor's Bid)**
SERVICES COMPLETED BY THIS FIRM (MM/YY)	**04/24**	COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM ($1,000's)	**$9,744.3**

Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

This innovative design project is critical to the Greater New Orleans area, providing improved access on a local, state, regional and international level.

TASK RELEVANCE:

- ☑ Alternative Delivery Technical ServiceS
- ☑ Definitive Design Plan Development
- ☑ Preliminary & Final Design, Plan Development & Cost Quantities
- ☑ Roadway Design
- ☑ Bridge Design
- ☑ Quality Control & Peer Reviews
- ☑ Teamed with GeoEngineers to deliver Exceptional Design Solutions

Stantec served as the Lead Designer for this Design-Build project which provided improvements to Interstate 10 (I-10), Loyola Drive north of I-10, as well as improvements south of I-10 connecting to the new terminal access road for the new LANOIA north terminal facility. The proposed improvement was approved as an Alternative Technical Concept (ATC) and features Louisiana's first Diverging Diamond Interchange (DDI) at Loyola and I-10, as well as one-way elevated flyovers from I-10 Westbound to the southbound terminal access road lanes, and from the northbound terminal access road lanes to I-10 Eastbound. Through Stantec traffic analysis, the DDI was shown to perform better than the original alternative LADOTD proposed for the project. To support the environmental re-evaluation required for the ATC, Stantec developed creative exhibits to explain the DDI concept including a "hot wheels" scale DDI "drive-thru", a video produced from an OpenRoads rendering, and a VISSIM model, all used at the public meeting.

Stantec pro-actively managed the design phase by coordinating closely with the surveyor to advance the design as much as possible during the collection of the topographic and property survey, condensing the project schedule tremendously. At the same time, our traffic engineers developed the Interchange Modification Report (IMR) for DOTD/FHWA approval of the DDI. We also broke down the overall design into several design packages to advance portions of the project not reliant on the approval of the IMR to proceed with construction, another schedule related benefit.

The project features aesthetically pleasing bridge structures, including curved steel box girders and enhanced substructure in high-visibility areas; and concrete trapezoidal box girders (LU shapes) and enhanced substructure at the combined bridge section of the northbound and southbound ramp approaching the new terminal access road. Roadway geometry and hydraulic design were critical to the success of this retrofit urban interchange. An intensive Line & Grade vertical profile exercise was performed to ensure the proposed flyover structures did not conflict with Veterans Memorial Blvd., existing overhead utilities, Loyola Drive the I-10 EB & WB mainline structures, and the I-10 WB access ramp. Profile grade, superelevation, superstructure depth, and other appurtenances (signing, etc.) was considered in the development of a final alignment that met design requirements for vertical clearance and constructability. Utility coordination and relocations were also very important for the success of this project - where the utility conflict matrix identified an impact, Stantec coordinated closely with the utility providers and District 02 to implement utility relocation plans for 6 major utilities and designed to avoid many more. Lastly, the proposed Temporary Traffic Control Plans and Level 4 TMP developed by Stantec allowed traffic from the new airport to be maintained with very little disruption.

During construction, Stantec was heavily involved in responding to Contractor RFIs, NCRs, and design clarifications needed to assist them with making progress. The quality of the design and construction on this project was guided by the Design Quality Management Plan and the Construction Quality Management Plan. For each submittal, Stantec performed design quality reviews by the discipline lead, the design manager, and an independent reviewer. Then DOTD's Owner Verification Team led by GEC also performed design reviews and provided comments for each submittal. Our close and productive working relationship with GEC on the Loyola project led to our teaming relationship on this IDIQ for Critical Project Support.

TEAM MEMBERS INVOLVED: **B. JOHNSON, K. MALPANI, R. SMITH, M. YE, M. BRODNAX, N. PRUDHOMME, C. HALL, G. HEITMAN, J. CAINS, J. LEFANTE, M. O'ROURKE, J. KREBS, AND GEOENGINEERS**

FIRM NAME	**Stantec Consulting Services Inc.**	PAST PERFORMANCE EVALUATION CATEGORY(IES)*	**Bridge, Traffic**
PROJECT NAME	**I-49 INNER CITY CONNECTOR STAGE 0-1 STUDY & BRIDGE STUDY**	FIRM RESPONSIBILITY (prime or sub?)	**Sub**
PROJECT NUMBER	**H.00395**	OWNER'S NAME	**North Louisiana Council of Government**
PROJECT LOCATION	**Shreveport, Louisiana**	OWNER'S PROJECT MANAGER	**Chris Petro**
OWNER'S ADDRESS, PHONE, EMAIL	**401 Market Street, Shreveport, LA 71101 | 318-841-5950 | chris.petro@nlcog.org**		
SERVICES COMMENCED BY THIS FIRM (MM/YY)	**01/10**	TOTAL CONSULTANT CONTRACT COST ($1,000's)	**$3,000 (estimated)**
SERVICES COMPLETED BY THIS FIRM (MM/YY)	**Ongoing**	COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM ($1,000's)	**$969 (Stage 0-1)**

Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

TASK RELEVANCE:

- ☑ IJR and IMR
- ☑ Line and Grade Study
- ☑ Traffic Analysis
- ☑ Bridge Study
- ☑ Environmental Study with EJ Considerations

When complete, this 3.5-mile route will provide the final nationwide link of I-49 by connecting the existing I-49/I-20 and I-49/I-220 interchanges.

For the Comprehensive Stage 0, IAR, and Environmental Study, **S**tantec led the traffic study and impacts effort for the proposed new interstate link. Several alternative routes were developed and tested to determine how they match up to the overall purpose and need for the project. In order to determine the regional influence of each route, Stantec used the Regional Travel Demand Forecasting Model supplied by the Northwest Louisiana Counsel of Governments (NLCOG), representing the local Metropolitan Planning Organization (MPO). Stantec compared results of potential alternatives routes with existing and No-Build options to demonstrate the effect of each option on the proposed I-49 route and regional network.

The environmental process and study is ongoing and public involvement for the I-49 Inner-City Connector has been critical, as potential corridors run through a traditionally low-income environmental justice (EJ) neighborhood. Stantec is providing input to concept development and evaluation, development of environmental investigations, and the context sensitive solution (CSS) design elements for the project. Stage I included a comprehensive traffic study of the alternatives and their impact on the street network adjacent to the proposed I-49 route for the Environmental Assessment. Also, an Interchange Justification Report (IJR) has been developed for the I-49 / I-220 interchange and an Interchange Modification Report (IMR) has been completed for the I-49/I-20 interchange. The IMR and IJR analyzed key points within the interchange and key points along the proposed route and adjacent intersections within the Area of Influence as designated by LADOTD and FHWA. To begin the traffic analyses, each alternative was input into the NLCOG Regional Travel Demand Forecasting Model to determine its effect on the regional network. A decision was made later to study LA 3132 as an alternative route for connecting I-49 within Shreveport to the potential I-49 Inner City Connector between the I-220 and I-20 interchanges. After incorporating the LA 3132 alternative into the analyses, the total traffic analyses effort performed by Stantec includes the following: 7 TransCad Models, 23 interchanges along I 49, I-20, I-220 and LA 3132, 65 intersections, and over 5000 analyses points.

The Bridge study has consisted of an investigation of various alternatives of the superstructure and substructure bridge elements for the proposed new interstate link and the interchanges. The study focused on selecting alternatives that would meet the CSS aesthetics requirements and be efficient and sound from a structural design perspective, cost effective and suitable for construction. A full layout showing the spans arrangement and the proposed locations for the substructure elements has been developed for the interstate link and the interchanges. The investigated superstructure options has consisted of the precast prestressed concrete LU and/or LG girders option and the steel trapezoidal twin girder option. The substructure options has comprised hammerhead single columns, two column bents and pile bents.

Stantec is also performing the Line & Grade Study for a new alternative that is focused on avoidance of significant ROW impacts, environmental constraints to the physical and natural environment, providing network connectivity and efficient traffic operations. Line & Grade tasks also include interchange design with consideration of ROW & major utility impacts, existing topography, current & planned development, historic structures and boundaries, and Signal spacing & Control of Access Policy considerations.

TEAM MEMBERS INVOLVED: **B. JOHNSON, N. PRUDHOMME, C. HALL, J. LEFANTE, J. CAINS, J. KREBS**

FIRM NAME	**Stantec Consulting Services Inc.**	PAST PERFORMANCE EVALUATION CATEGORY(IES)*	**Road, Traffic, Bridge, ITS, Environmental, Planning, Right-of-Way, Other (Lighting)**
PROJECT NAME	**I-49 LAFAYETTE CONNECTOR**	FIRM RESPONSIBILITY (prime or sub?)	**Prime**
PROJECT NUMBER	**H.004273.5**	OWNER'S NAME	**Louisiana Department of Transportation and Development**
PROJECT LOCATION	**Lafayette, Louisiana**	OWNER'S PROJECT MANAGER	**Timothy Nickel, PE**
OWNER'S ADDRESS, PHONE, EMAIL	**1201 Capital Access, Baton Rouge, LA 70808 | 225-379-1110 | timothy.nickel@la.gov**		
SERVICES COMMENCED BY THIS FIRM (MM/YY)	**07/15**	TOTAL CONSULTANT CONTRACT COST ($1,000's)	**$43,287.4**
SERVICES COMPLETED BY THIS FIRM (MM/YY)	**Ongoing**	COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM ($1,000's)	**$16,633.5**

Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

Connecting communities and improving interstate access is what the I-49 Connector project is all about.

Stantec serves as the Prime Consultant and Program Manager for the 5.5 mile elevated six-lane highway. It will traverse urban Lafayette, Louisiana from I-10 south to its end near the Lafayette Regional Airport. The overall project includes construction of a freeway with accompanying interchanges in the Evangeline Thruway / US 90 / US 167 corridor and flanking frontage roads for local traffic circulation and land access. A critical transportation link, the I-49 Connector will connect existing I-49 with new interstate mileage through Lafayette and on to New Orleans.

DOTD began planning for the project in 1990 and after an alternative was selected the project was put on hold in 2006. When DOTD re-started the project in 2015, Stantec embraced the opportunity to help weave the project into the neighborhood fabric and engage the community in creating a true community asset. In the fall of 2015, DOTD decided to re-engage the community to re-configure the project to meet current expectations. Stantec helped develop refinements to the project geometrics by eliminating 2 major interchanges and creating a frontage road/slip ramp configuration. This simplified and streamlined the project while helping to reduce project costs by ~$400M.

TASK RELEVANCE:

- ☑ Project/Program Management
- ☑ Program Schedule & Budget
- ☑ Traffic Engineering & Design
- ☑ Roadway Design
- ☑ Bridge Design
- ☑ Preliminary Plan Development & Cost Estimates

Our first activity was to complete the functional plan which included an extensive community outreach and public input phase. Refinement concepts to the Selected Alternative generated by the public and other stakeholders were investigated and a final design concept was adopted. The functional plan phase included final geometrics, traffic and ITS analyses, bridge-type selection, lighting, rail and airport coordination, and underpass planning, along with preliminary geotechnical investigation, SUE and topographic survey, and mapping. All project elements were determined through a comprehensive Line & Grade investigation, which considered surrounding development, Context Sensitive elements, ramp connections, 4(f) & 6(f) and constraints, railroad constraints, ROW impacts, major utility impacts, airport runway operation constraints, and local planning considerations. The resulting alternatives were different enough from the 2003 ROD Alternative that the DOTD elected to have Stantec undertake a complete SEIS.

Stantec's Team has recently started preliminary design of the Kaliste Saloom interchange, while wrapping up additional traffic analyses at the Willow interchange. Stantec, GEC, and other contracting partners are working together to advance the plans while the the SEIS is ongoing. The Kaliste Saloom interchange was chosen for advancement due to its independent utility post construction. Stantec has worked closely with DOTD on this critical project to logically progress the plans for phased construction.

TEAM MEMBERS INVOLVED: **B. JOHNSON, N. PRUDHOMME, G.HEITMAN, C. HALL, J. CAINS, S. HOFFELD, J. LEFANTE, M. O'ROURKE, J. KREBS**

FIRM NAME	**Stantec Consulting Services Inc.**	PAST PERFORMANCE EVALUATION CATEGORY(IES)*	**Road, Bridge, Traffic, ITS, Environmental, Other (lighting)**
PROJECT NAME	**NELSON ROAD EXTENSION AND BRIDGE**	FIRM RESPONSIBILITY (prime or sub?)	**Prime**
PROJECT NUMBER	**H.005967**	OWNER'S NAME	**Louisiana Department of Transportation and Development**
PROJECT LOCATION	**Lake Charles, Louisiana**	OWNER'S PROJECT MANAGER	**Christina Brignac, PE**
OWNER'S ADDRESS, PHONE, EMAIL	**1201 Capital Access, Baton Rouge, LA 70808 | 225-379-2516 | christina.brignac@la.gov**		
SERVICES COMMENCED BY THIS FIRM (MM/YY)	**11/10**	TOTAL CONSULTANT CONTRACT COST ($1,000's)	**$3,058.6**
SERVICES COMPLETED BY THIS FIRM (MM/YY)	**Ongoing**	COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM ($1,000's)	**$2,535.9**

Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

The City of Lake Charles, LADOTD, FHWA, and the Port of Lake Charles were the key stakeholders in completing this crucial roadway network link to the Port of Lake Charles City Docks facilities and downtown Lake Charles area. Coordination with all stakeholders was key to the success of this project.

TASK RELEVANCE:

- ☑ Project Management
- ☑ Preliminary & Final Roadway Design, Plan Development & Cost Estimates
- ☑ Bridge Design
- ☑ Roadway Design
- ☑ Traffic Engineering & Design
- ☑ Quality Control & Peer Reviews

To deliver a project that has been planned for well over 40 years, Stantec led the design efforts to construct a new, high-level, fixed-span bridge over Contraband Bayou with access to the Port of Lake Charles and points east of the project. Stantec—working closely with DOTD and FHWA—led the Stage 0 studies and Environmental Assessment process for this project to obtain a FONSI decision, in which an alternative analysis for potential roadway connections to the Port of Lake Charles and W. Sallier Street were driven by traffic analysis and an assessment of impacts on the area.

Stantec developed several other items for the EA document including a line and grade study, traffic and safety analyses, profile grade investigation, access management assessment, vessel survey, complete streets alternatives, as well as assisted with developing supporting exhibits and completing applications for USACE and USCG permitting with other project team members. The Line & Grade Study was primarily focused on determining the profile grade for the high-level bridge structure, which included the vertical navigational clearance for Contraband Bayou. Stantec also managed the delivery of the EA document for approval, including leading the required public meeting and hearing during the NEPA process. After receipt of the FONSI, Stantec entered into Stage 3 Preliminary and Final Design Services.

The project is a multi-disciplinary effort including roadway design, subsurface drainage design, open ditch design, bridge design over a navigable waterway, traffic signal design, roadway lighting design, navigation lighting design, and railroad design (at-grade crossing and electrical equipment). The topographic survey for this project was provided through two team subconsultants (topographic and hydrographic survey) as well as partially in-house (topographic survey), so clear and frequent coordination was required during the early stages of preliminary design.


OpenRoads 3D Rendering

Stantec delivered the project in the customary phases and performed quality reviews and independent peer reviews throughout the process prior to milestone submittals. Stantec also designed a new railroad crossing near the Port of Lake Charles, which required coordination with DOTD and the development of technical specifications and special provisions for this project that were included in the bid package for construction. To assist with public media releases, Stantec developed a 3D-rendering using various viewpoints of the project (daytime and nighttime).

Stantec answered contractor's questions and provided plan changes to incorporate contactor comments during the construction letting phase. We are currently performing construction support including reviews of RFIs, product submittals and shop drawings, attending progress meetings, and providing limited inspection services (lighting, railroad, and underwater structural inspection).

TEAM MEMBERS INVOLVED: **B. JOHNSON, N. PRUDHOMME, G. HEITMAN, C. HALL, J. CAINS, J. LEFANTE, M. O'ROURKE, J. KREBS**

FIRM NAME	**Stantec Consulting Services Inc.**	PAST PERFORMANCE EVALUATION CATEGORY(IES)*	**Road, Bridge**
PROJECT NAME	**SR 16/SR 149 FLOODWAY CHANNEL YAZOO RIVER**	FIRM RESPONSIBILITY (prime or sub?)	**Prime**
PROJECT NUMBER	**BR-0037-04(059) / 107397-301000**	OWNER'S NAME	**Mississippi Department of Transportation**
PROJECT LOCATION	**Yazoo County, Mississippi**	OWNER'S PROJECT MANAGER	**Scott Westerfield, PE**
OWNER'S ADDRESS, PHONE, EMAIL	**401 North West Street, Jackson, MS 39201 | 601-359-7200 | swesterfield@mdot.ms.gov**		
SERVICES COMMENCED BY THIS FIRM (MM/YY)	**11/22**	TOTAL CONSULTANT CONTRACT COST ($1,000's)	**$529.0**
SERVICES COMPLETED BY THIS FIRM (MM/YY)	**08/23**	COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM ($1,000's)	**$529.0**

Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

Mississippi DOT selected Stantec for replacement of three important bridges over the Yazoo River.

TASK RELEVANCE:

- ☑ Bridge Design
- ☑ Steel Plate Girder Design

Three bridges along SR16/SR149 over the Yazoo River Relief Channel system were deemed structurally deficient and needed to be replaced. The main bridge (211.1) showed signs of severe and irreparable degradation which warranted a posting for weight restriction. Given their proximity to Bridge 211.1 and sharing the same date of construction, the approach bridges (210.9 and 211.8) were included to avoid additional future traffic disruptions by including them in the same replacement schedule. The existing alignment was utilized, thus requiring the route to be closed during construction.

Stantec delivered final plans, using OpenBridge Modeler, in August 2023 with construction beginning later that same year. The bridge span arrangements are as follows:

- Bridge 210.9: three spans @ 100-ft (FIB-45); steel pipe pile concrete cap bents
- Bridge 211.1: three span steel continuous 928-ft (280-ft, 368-ft, 280-ft); steel pipe pile concrete cap abutments & drilled shaft concrete cap bents; tangent with 20-deg right forward skew
- Bridge 211.8: three spans @ 100-ft (FIB-45); steel pipe pile concrete cap bents; horizontal curve

Design software used to complete the design and analysis included CONSPAN (prestressed concrete girders), MDX (steel plate girders), RC-Pier (substructure), and AASHTOWare BrR (load ratings). All design was in accordance with current AASHTO LRFD Design Specifications.

To accommodate the extreme loads and movements of the structural steel plate girders, disc bearings (uni-directional and fixed) and segmental joints were utilized. Due to the skew angle, segmental joints provided a more robust solution when compared to modular or finger joints.

Considerable estimated scour is expected to compromise some of the foundations. This resulted in a decision to use large diameter (20-in) pipe piles for the FIB abutments and a double row for the steel bridge. The bridge was analyzed and designed in accordance with the AASHTO provisions for Seismic Zone 1.

Construction administration duties included reviewing shop drawings, addressing RFIs, and construction engineering.

TEAM MEMBERS INVOLVED: **B. JOHNSON, J. KREBS, M. YE, K. MALPANI**

FIRM NAME	**GeoEngineers, Inc.**		DISCIPLINE(S)		**Geotech**
PROJECT NAME	**I-210 AT COVE LANE INTERCHANGE (DESIGN AND CONSTRUCTION)**			FIRM RESPONSIBILITY (prime or sub?)	**Prime**
PROJECT NUMBER	**H.010151**	OWNER'S NAME	**Louisiana Department of Transportation and Development**		
PROJECT LOCATION	**Route I-210, Lake Charles, LA**			OWNER'S PROJECT MANAGER	**Benjamin Fernandez**
OWNER'S ADDRESS, PHONE, EMAIL	**P.O. Box 94245, Baton Rouge, LA 70816 | 225-379-1821 | Benjamin.Fernandez@la.gov**				
SERVICES COMMENCED BY THIS FIRM (MM/YY)	**08/12**		TOTAL CONSULTANT CONTRACT COST ($1,000's)		**$80,000**
SERVICES COMPLETED BY THIS FIRM (MM/YY)	**07/15**		COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM ($1,000's)		**$2,470**

Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

PROJECT RELEVANCE:
☑ Geotechnical Engineering

GeoEngineers completed a geotechnical engineering evaluation, design and construction monitoring for the new Interstate 210 (I-210) overpass of Cove Lane in Lake Charles, Calcasieu Parish. This fast-track project required our team to mobilize five different drill rigs for explorations and staff from offices across the country to meet the schedule requirements. We completed engineering analyses and provided design and construction recommendations for about 8,000 driven pile foundations (provided PDA/CAPWAP evaluation of the piles during installation), MSE walls, and wick-drain/surcharge design to reduce post-construction embankment settlement, in accordance with AASHTO LRFD specifications for highway bridges.

GeoEngineers provided a complete geotechnical investigation, including 128 explorations (43 drilled soil borings and 85 CPTs) to depths in the range of 20 to 120 feet and associated soil laboratory testing for the I-210 overpass structure with approach embankments and ramps, which is aligned within a very crowded corridor between Cline Canal and private property. The proposed embankment overpass structure used a tight urban diamond configuration with a roundabout for the new Cove Lane interchange. The team used PDA equipment to evaluate and monitor installation of one pile every 50 of the 8,000 piles the contractor placed. In addition, our numerous detailed records provided valuable information to the DOTD and team members during the project. The work for this large project had to be performed very close to live traffic. Safety measures were heighted even more to ensure the safety of everyone working on the project and to the ongoing traffic.

TEAM MEMBERS INVOLVED: **J. ARONSTEIN, L. SANT**

FIRM NAME	**GeoEngineers, Inc.**		DISCIPLINE(S)		**Geotech**
PROJECT NAME	**DESIGN-BUILD US90 @ LA318 INTERCHANGE**			FIRM RESPONSIBILITY (prime or sub?)	**Sub**
PROJECT NUMBER	**S.P. H.004932**	OWNER'S NAME	**Louisiana Department of Transportation and Development**		
PROJECT LOCATION	**St. Mary Parish, LA**			OWNER'S PROJECT MANAGER	**Timothy Nickel, PE**
OWNER'S ADDRESS, PHONE, EMAIL	**P.O. Box 94245, Baton Rouge, LA 70816 | 225-379-1110 | Timothy.Nickel@la.gov**				
SERVICES COMMENCED BY THIS FIRM (MM/YY)	**05/15**		TOTAL CONSULTANT CONTRACT COST ($1,000's)		**~ $56,000**
SERVICES COMPLETED BY THIS FIRM (MM/YY)	**04/18**		COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM ($1,000's)		**$734**

Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

PROJECT RELEVANCE:
☑ Geotechnical Engineering

The US90/LA318 Interchange project was in preparation for the conversion of US90 to future I-49 in St. Mary Parish and included construction of access ramps between US90 and LA318, realignment of the frontage road for local access parallel to US90, and elevating US90 over LA318. As part of the design-build team with Gilchrist Construction Company, GeoEngineers provided geotechnical engineering design services and construction recommendations. Our work included completing preliminary designs for compliance with AASHTO LRFD and LADOTD standards. GeoEngineers also provided geotechnical design to the bridge, road and contractor teams as needed throughout the duration of the design-build construction process and provided PDA/CAPWAP evaluation of the piles during installation. Areas of geotechnical design include the following:

- Review of project geology and explorations previously completed.
- Providing explorations and laboratory testing for foundation, embankment and pavement design.
- Engineering analysis and recommendations for driven pile foundations for highway overpass bridges and drainage culvert design.
- Engineering analysis and recommendations for wick drains an surcharge to reduce post-construction embankment settlement, including field monitoring.
- Field monitoring of pile dynamic testing including WEAP and PDA/CAPWAP analysis.

TEAM MEMBERS INVOLVED: **J. ARONSTEIN, L. SANT**

FIRM NAME	**GeoEngineers, Inc.**		DISCIPLINE(S)		**Geotech**
PROJECT NAME	**LOYOLA DRIVE/I-10 INTERCHANGE TO NEW AIRPORT TERMINAL DESIGN BUILD**			FIRM RESPONSIBILITY (prime or sub?)	**Sub**
PROJECT NUMBER	**H.011670**	OWNER'S NAME	**Louisiana Department of Transportation and Development**		
PROJECT LOCATION	**Jefferson Parish, LA**			OWNER'S PROJECT MANAGER	**Timothy Nickel, PE**
OWNER'S ADDRESS, PHONE, EMAIL	**1201 Capitol Access Road, Baton Rouge, LA 70804 | 225-379-1110 | Timothy.Nickel@la.gov**				
SERVICES COMMENCED BY THIS FIRM (MM/YY)	**01/19**	TOTAL CONSULTANT CONTRACT COST ($1,000's)			**~$125,000**
SERVICES COMPLETED BY THIS FIRM (MM/YY)	**11/24**	COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM ($1,000's)			**$1,100**

Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

PROJECT RELEVANCE:
☑ Geotechnical Engineering

GeoEngineers completed the geotechnical exploration, testing, and engineering for this high-profile design build project that will ultimately improve the Loyola Drive interchange to increase operational efficiency and traffic capacity. The pre-existing I-10 interchange was a multi-level, controlled access interchange consisting of two overpass bridges. The LANOIA Airport had plans to build a new terminal and subsequently move the I-10 exit from Williams Boulevard to Loyola Drive. To do this, LA DOTD hired a design-build team to:

- Modify the existing ramps and construct a new multi-level interchange, including two one-way elevated flyovers and a diverging diamond on at-grade interchange Loyola Drive.
- Add auxiliary lanes along I-10, including over Duncan Canal.
- Construct noise barriers at various locations throughout the project corridor.
- Upgrade Loyola Drive north and south of I-10 and tie it into the LANOIA corridor Airport Access Road.
- Improve drainage and lighting, relocate utilities, and provide pier protection.

As part of the design build procurement process, GeoEngineers developed a preliminary subsurface conditions evaluation describing local geology, available geotechnical information, and plotted preliminary design standards to help refine the team's design approach. GeoEngineers worked with the contractor and design team to provide the geotechnical investigations, analyses, design, and construction (provided PDA/CAPWAP evaluation of the piles during installation). Our design services included providing foundation, embankment, pile, and pavement design recommendations.

TEAM MEMBERS INVOLVED: **J. ARONSTEIN, L. SANT**

Sections

18-19

I-210 and Cove Lane Interchange, Lake Charles, Louisiana – Stantec and GeoEngineers, Inc

18. **Approach and Methodology:**

We understand that this project will generally be in accordance with the design and phasing presented in the Environmental Assessment (EA) document, but that additional detail and study is required to ensure that the solution that is progressed complies with all current DOTD Design Guidelines, is the most cost effective and constructible solution, and that the proposed sequence of construction will minimize negative impacts to local businesses while maintaining through traffic along the corridor. Stantec is familiar with both the typical level of detail of conceptual line and grade studies and providing additional detail during this early phase of work to define critical geometry (horizontal and vertical), offer typical section options, identify utility conflicts, advance the sequence of construction to avoid constructability issues, and establish conservative limits of construction in order to define the required right of way early on in design.

Our approach on the initial phases of this project will be similar to how our work on the I-49 Corridor in Lafayette (H.004273) has provided DOTD with enhanced line & grade studies to better understand the footprint and the costs associated with this very complex 5-mile portion of the Future I-49 Corridor. These studies have included multiple corridor options, an end-to-end corridor model, traffic studies, utility matrices, and cost estimating. The I-49 Corridor also includes complex structural studies for the phasing, footprint and bridge type, size and location for the elevated highway and several other structures, including an overpass of the BNSF railroad at the Kaliste Saloom interchange.

PROJECT UNDERSTANDING

After reviewing the previously produced Line & Grade study we understand the complexities of the US 11 widening project which begins near the at-grade railroad crossing at Lafayette Street and parallels the Norfolk Southern right-of-way on the right for approximately 1700-ft until the reverse-curve single bridge structure crossing over the rail, followed by approximately 4700-ft of roadway widening parallel to the railroad right-of-way on the left side. The study recommends widening the existing 2-lane US 11 to a 4-lane divided roadway with a raised median to manage access and prevent direct access to most driveways. Bulb outs are spaced at one-directional median openings to control where u-turns can be made. Along the US 11 corridor, two intersections, Addis Blvd. Relocation and Ben Thomas Road, do not allow direct access for left-turning vehicles; North Blvd. access is proposed using a directional median opening; and Powell Drive is shown as a three-legged roundabout. The median ends prior to the I-12 on ramp. Two existing box culverts (six 4x4-ft barrels) require extension under the proposed roadway widening, one which extends to the West Diversion Detention pond. These extensions will require special consideration while maintaining traffic. Retaining walls are proposed along the west side of US 11 to keep the widening from encroaching on the detention pond. The right-of-way is constrained to minimize impacts to existing improvements, to provide for future railroad tracks, and to accommodate existing and relocated utilities.

DESIGN CRITERIA

Stantec's approach to developing the two detailed line and grade studies required for this corridor will start with a thorough review of the existing EA to determine if the geometry shown complies with all current DOTD Design Guidelines. We will establish design criteria for both the roadway and bridge including design class, design speed, lane widths, minimum horizontal curvature, maximum side slopes, horizontal and vertical clearances, and maximum roadway grade. The selected criteria will be based on DOTD's latest Road Design Manual, the DOTD Minimum Design Guidelines, and AASHTO's A Policy on Geometric Design of Highways and Streets. The design criteria will be submitted to DOTD for review and approval. Once approved, Stantec will document the selected design criteria in a table to be included with the line and grade.

Stantec's Recent Line & Grade Experience:

- H.002344 - Perkins Road (Siegen Lane to Highland Road) EA Alternatives
- H.005967 - Nelson Road Extension and Bridge
- H.004273 - I-49 Connector in Lafayette
- H.003915 - I-49 Intercity Connector in Shreveport
- H.016090 - I-20 Frontage Road Extension (Tarbutton Road to Grambling)

HORIZONTAL & VERTICAL ALIGNMENTS

We will then refine the existing line and grade to provide 1) a 4-lane access-managed corridor replacing the existing bridge with a widened structure, and 2) a reduced scope alternative limited to replacing the existing bridge with a two-lane bridge with compliant shoulders. The reduced scope option will be oriented and designed (spans and structure types) as to not preclude the future roadway reconstruction and widening. The horizontal alignment will be tied to the topographic survey provided by DOTD and will be revised as needed to minimize right of way impacts to developed properties along the route. Median opening locations will be checked against DOTD's EDSM IV.2.1.4 and AutoTurn will be run for the appropriate design vehicle (either WB-67 or passenger car) to check the bulb out and median opening geometry. The horizontal alignment and plan view features will be checked to ensure clearance to major utilities, drainage structures, existing roadways and turnouts, the existing and future requirements for Norfolk Southern Rail, any environmentally sensitive areas, and the existing and proposed bridge structure. Superelevation will be utilized where needed and

sight distances will be checked. The alignment will consider how the sequence of construction will be phased and how traffic will be maintained. **See bridge approach for conceptual phasing ideas Stantec has considered during this proposal**.

Vertical alignment will then be set to ensure the minimum roadway grade is met and the required clearance over the railroad is achieved. The vertical alignment will also consider utility and major drainage structure impacts, and the need for retaining walls to accommodate any elevation differences. Stantec will detail the profiles showing baselines, stationing, vertical curve data and grades, bridge limits, and required vertical clearances in the profile view. Stantec will plot any major drainage structures and utilities in the profile to show clearances are being met. While designing the vertical geometry, cross sections will be developed along the corridor to calculate realistic limits of construction and establish anticipated right-of-way taking lines. These cross sections will include temporary diversion pavement that may be needed to construct certain areas of the project in case construction servitudes should be required. Cross sectional analysis is just one example of enhancing the Line & Grade to provide the additional detail needed to select the most cost effective and constructible alternative.

TYPICAL SECTIONS, DRAINAGE, AND UTILITIES

After the geometry is set, Stantec will revise the typical sections from the original line and grade as necessary to meet the approved design criteria and configuration. As a part of this study, GeoEngineers can advise on alternative typical section materials that can both enhance constructability and save costs. Over the last 15 years, Stantec has participated in several Louisiana alternative delivery projects and the contractors have repeatedly asked for typical section material changes that will help them expedite construction and save costs. GeoEngineers has worked with Stantec to optimize typical sections on several contracts and having this information during the Line & Grade will help our team refine the construction costs.

Stantec will investigate existing drainage patterns throughout the corridor and provide an overview of a proposed drainage design in the form of a memo to be included in the Line & Grade report. In our discussions with the PM, it is understood DOTD prefers to extend or replace box culverts for their lower maintenance costs and past successes as opposed to constructing new slab span bridges. Stantec's staff of engineers is familiar with DOTD's Hydraulics Manual and drainage preferences, and we can advance drainage design as required to determine the necessary clearances, property requirements, and costs.

The location and depth of utilities will be investigated thoroughly using the subsurface utility engineering (SUE) survey provided by DOTD, especially in relationship to the proposed drainage design and bridge foundation layout. A utility conflict matrix describing potential utility adjustment and relocation needs will be included in the Line & Grade Report. This matrix will recommend areas where additional SUE information should be collected, areas where the existing utilities could remain in place, and locations where utilities could be lowered or realigned to avoid conflicts. Wherever possible, Stantec will strive to design around existing utilities. On the I-10 Loyola Drive Interchange (H.011670) project, for example, Stantec implemented a curved long-span bridge with steel box girders that provided the geometry and foundation layout needed to clear significant utility corridors along Veterans Blvd and I-10. For those utilities that were not avoidable, Stantec provided relocation services plans and agreements during an accelerated Design-Build project. We are familiar with Title 70 and will work with HQ and the District's utility personnel to develop the most cost effective and realistic plan along this corridor.

BRIDGE APPROACH

Bridge Geometry

The primary concern for the bridge geometry is spanning the railroad. The overpass span must provide the minimum vertical clearance of 24-ft above the top of rail while adequately addressing the horizontal clearance requirements from the centerline of existing/future track as required in the Norfolk Southern Public Improvements Manual. Horizontal clearance requirements can be satisfied in two ways: locating bridge substructure outside of the railroad minimum horizontal clearance or providing crash walls for bridge substructure located inside the minimum horizontal clearance. Review of the original line and grade study revealed overpass lengths of approximately 400-ft to remain outside of the horizontal clearance limit and approximately 300-ft to remain outside of the vertical clearance limits but requiring crash walls. Furthermore, while the extreme skew option presented in the original line and grade study will be revisited, Stantec will investigate a twin, two-lane bridge option (refer to Figure 1 sketch) where initially constructing one of the bridges satisfies the reduced scope of two-lanes while still allowing for a future four-lane corridor.

The extreme skew will be eliminated by staggering the substructure units. Since the skew (≤ 20°) will be nearly perpendicular to the railroad, only a single column will be located within the horizontal clearance limit reducing the extent of crash walls. Staggered bents between the twin bridges also allows for minimizing the overpass span thereby reducing the superstructure depth which will aid in meeting vertical clearance requirements and possibly reducing the overall structure length. Lastly, the twin bridge concept can satisfy the four-lane and the two-lane corridor objectives of the Line & Grade Report. Both bridges can be built to provide for four lanes or one of them can be located and built to allow for future construction of the second bridge.

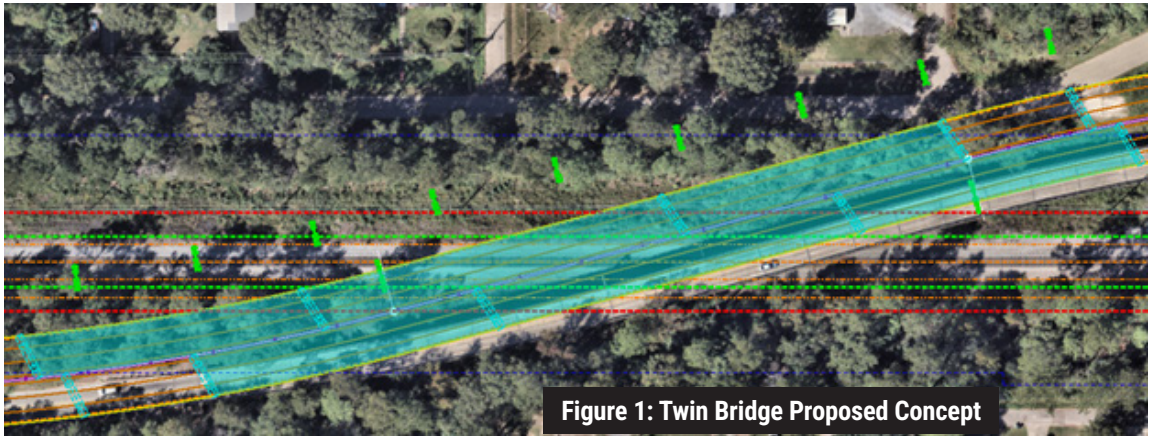


Figure 1: Twin Bridge Proposed Concept

Bridge Design

Stantec has recent experience in continuous steel girder bridge design and construction support for the SR 16 Bridge Over Will M. Whittington Auxiliary Canal near Yazoo City, MS, and the I-10: Loyola Dr. Interchange in Kenner, LA (H.011670). The SR 16 Bridge consists of a 928-ft, 3-span continuous steel plate I-girder bridge with a center span of 368-ft, which is similar to the expected bridge geometry on this project. The Loyola Dr. Interchange contains two curved steel plate box girder ramps with a total of 2,745-ft of steel spans and a long span of 220-ft. Both projects demonstrate Stantec can determine a realistic bridge typical section and span arrangement to optimize the vertical clearance versus structure depth. Lessons learned on these projects will significantly aid in the development of a comprehensive design criteria tailored to this project. Bridge design criteria, including crash wall design, will be according to DOTD BDEM, AASHTO LRFD, AREMA, the study "Development of Crash Wall Design Loads from Theoretical Train Impact" by G. Layden, and Norfolk Southern Public Improvement Projects Manual. Girder sections will be established using AASHTO guidance and past experience from similar projects. If needed, MDX, CSi Bridge, or MIDAS can be introduced to refine proposed sections.

Foundations

Stantec and GeoEngineers will investigate pile footings and drilled shafts for single and multi-column substructures. Geotechnical data from a nearby project and preliminary loads from Stantec past projects will be used to determine advantages and disadvantages as well as the viability of the two foundation types. GeoEngineers is also prepared and equipped to perform various forms of field investigations, laboratory testing, analysis and design should further information be necessary. Experience has shown that drilled shafts are the preferred option near railroads by limiting soil disturbance and vibrations, and reducing the foundation footprint. During execution of this scope, GeoEngineers will maintain consistent communication to better evaluate risk and allow for a risk-informed approach to the optimal foundation selection. In addition to foundations, we will determine feasible embankment and wall heights at the bridge ends.

Railroad Coordination

Stantec worked extensively with the Union Pacific railroad in developing the line and grade study and report for the Nelson Road Bridge Extension in Lake Charles (H.005967) in relation to multiple new at-grade road crossings. In addition, Stantec's local and national staff have worked with Norfolk Southern and can provide railroad coordination assistance as needed. Omer Champion, our Railroad Liaison, previously worked for CSX Transportation for 17 years, where he interfaced with all CSXT departments to ensure the safe and timely operation of trains. Omer also has strong relationships with Norfolk Southern which could be beneficial if negotiations are needed to modify the railroad's standards to better accommodate the roadway, drainage, and bridge improvements. Stantec will also work with Norfolk Southern on bridge foundations and crash walls in relation to construction methods and proximity to future and existing tracks.

SEQUENCE OF CONSTRUCTION

The sequence of construction for this project is intricate to the bridge design recommendations and to the ability to maintain traffic while reducing negative impacts to the surrounding businesses and the traveling public. A suggested sequence of construction will be developed for both alternatives that will maintain at least one northbound lane and one southbound lane of traffic throughout the duration of the project. In our experience, phasing the construction of a structure in an active RR corridor while maintaining traffic can be challenging. On the I-49 Connector project (H.004273) the structure at the Kaliste Saloom Interchange was offset from the location of the existing intersection with the railroad (refer to Figure 2), as it would need to be on US 11. Foundation configurations and footprints were carefully chosen to avoid railroad right-of-way and provide clearance to the existing travel lanes. Temporary drainage is proposed along the diverted travel lanes of US 90 to contain drainage flow while the structure is being constructed. This drainage will eventually revert back to an open channel but we proposed a temporary solution to get through construction. Temporary connections to the existing roadway were also recommended that avoid and provide space for the bridge construction. On other projects we have implemented temporary retaining walls (sandbag walls or sheet pile) to maintain needed clearances while progressing the construction. These are the types of innovative sequence of construction exercises that will need to be studied and developed to ensure a constructible solution for the US 11 overpass.

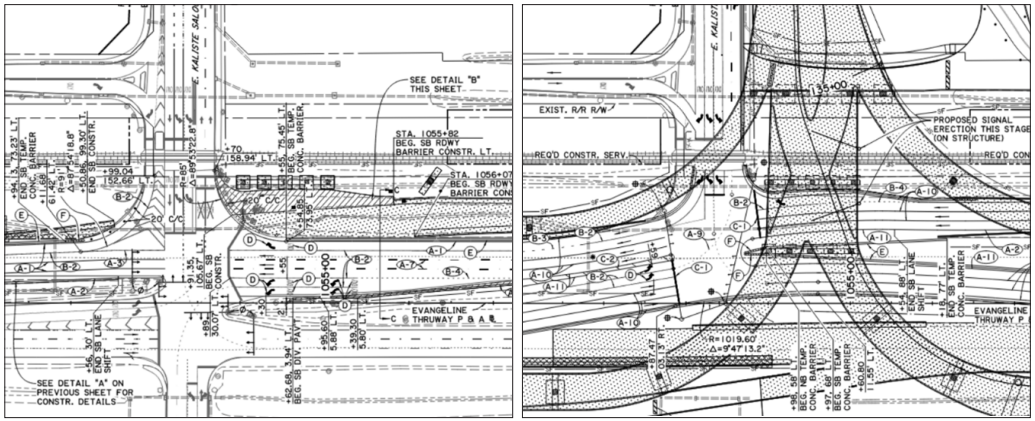


Figure 2: I-49 Kaliste Saloom Interchange (H.004273) – phased the bridge footings providing temporary drainage and an offset bridge alignment for the Railroad overpass.

LINE & GRADE STUDY REPORT

Stantec will deliver the final Line & Grade Report for both alternatives which will include but is not limited to the following:

- Design criteria
- Design reports, any required design waivers and/or exceptions
- Plan and Profile Sheets including the bridge layout
- Any additional bridge or wall details that have been advanced
- Typical sections
- Drainage memo
- Utility Conflict Matrix
- Overall Suggested Sequence of Construction
- Preliminary cost estimates for both alternatives and any options DOTD wants considered, including temporary and permanent work required for the project.
- Recommendations based on most cost effective, constructible solution

QA/QC PLAN

A draft Quality Management Plan (QMP) has been included in Section 21 for consideration. The QMP is in accordance with Part I, Chapter 3 of the DOTD BDEM and defines roles and goals to provide quality deliverables to DOTD.

PROJECT MANAGEMENT AND SCHEDULE

The Stantec Team will work closely with DOTD's PM and discipline leads to keep DOTD informed about the status of the project and to assess the options that we are developing during the course of the project. Periodic coordination meetings and schedule updates will be provided throughout the project. All electronic deliverables for the project will conform to DOTD's Software and Deliverable Standards for Electronic Plans. Stantec is familiar with DOTD's ProjectWise platforms and has used this software to upload deliverables and in a connected environment. Stantec is currently using ORD on the LA 384 Intersection Improvements project for Calcasieu Parish, and we will implement that software on this project as needed.

In preparation of this RFP response, we have developed a project schedule that shows both the Initial Services (Detailed Line & Grade) and the Additional Services (Preliminary & Final Plans and Construction Support) that may be authorized by supplement to this contract. The overall time for the completion of the scope of engineering services shown is estimated at 900 days, with the initial services estimated to be 180 days as indicated in the RFP; however, Stantec will work to expedite the schedule of any portion of the services if project time becomes more critical. We appreciate the opportunity to propose on this project and look forward to continuing to work on important and complex projects with DOTD!

PROJECT SCHEDULE (Initial and Additional Services)		2026								2027			2028			2029-2030		
		Q1			Q2			Q3	Q4									
2	Detailed Line and Grade Studies																	
2.1	Line and Grade Analysis	◆																
	Review Existing Available Data	■	■															
2.2	Design Criteria		◆															
2.3	Horizontal Alignment *(both alternatives)*	■	■															
2.4	Vertical Alignment *(both alternatives)*			■	■													
	Bridge Study / TSL		■	■	■													
	Geotech Analysis		■	■														
2.5	Typical Sections	■	■															
2.6	Utilities	■	■															
3	Sequence of Construction		■	■	■													
4	Preliminary Cost Estimate				■	■												
	Line and Grade Report				■	◆	◆											
Additional Services	*Preliminary Plans*									■	■	■						
	Final Plans												■	■	■			
	Construction Support															■	■	■

NOTE: Kickoff meeting within 15 days of selection

LEGEND: ◆ NTP & Kickoff Meeting ◆ Transmit Draft Report ◆ Transmit Design Criteria ◆ Transmit Final Report

19. **Workload:**

FIRM(s) ALL FIRMS MUST BE REPRESENTED IN THIS TABLE	Discipline(s)*	Contract Number and State Project Number	PROJECT NAME	REMAINING UNPAID BALANCE**
Stantec Consulting Services Inc.	Road	4400024629; H.005967.6	Nelson Road Ext. and Bridge [Calcasieu Parish, Louisiana]; Striping Pln. Changes	$1,506
		440004128; H.004273.5	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]; Geometric Design/Analysis	$483,929
		4400024461; H.012685.5	LA 385: Ryan Street Intersection Improvements [Calcasieu Parish]; Roadway Design; Drainage	$49,406
		4400022901; H.011094.5 & H.012005.5	LA 3094: Hearne Ave. Bridge and US 80: KCSRR Overpass (HBI) [Caddo Parish]; Roadway	$678,176
		4400022582; H.012011	Contract for Replacement of Eight Bridges; LA 173 and LA525: Creek Bridges [Caddo Parish]	$91,100
		4400022582; H.012029	Contract for Replacement of Eight Bridges; US 80: Creek Bridges [Bienville and Webster Parishes]	$95,700
		4400022582; H.012036	Contract for Replacement of Eight Bridges; US 80: Creek Bridges [Richland Parish]	$48,500
		4400022582; H.012037	Contract for Replacement of Eight Bridges; US 63 and LA 2: Creek Bridges [Union Parish]	$83,450
		4400029196; H.016255.5	IDIQ Contract for Engineering and Technical Support Services for Critical Projects; Task Order No. 2 LA1:WGS Riverplex RR Overpass	$724,311
Stantec Consulting Services Inc.	Bridge	440004128; H.004273.5	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]; Structure & Bridge	$117,560
		4400022901; H.011094.5 & H.012005.5	LA 3094: Hearne Ave. Bridge and US 80: KCS RR Overpass (HBI) [Caddo Parish]; Bridge	$780,044
		4400023922; H.016311	IDIQ Contract for Bridge Preservation; LA 1123: Creek Bridges [Acadia Parish]	$170,306
		4400023922; H.016312	IDIQ Contract for Bridge Preservation; LA 3116: Creek Bridges [Acadia Parish]	$186,278
		4400023922; H.016314	IDIQ Contract for Bridge Preservation; LA 3048: Creek Bridge [Richland Parish]	$106,327
		4400023922; H.016318	IDIQ Contract for Bridge Preservation; LA 3149: Bayou Bridges [Evangeline Parish]	$152,453
		4400023922; H.016319	IDIQ Contract for Bridge Preservation; LA 542: Creek Bridges [Jackson Parish]	$163,590
		4400023922; H.016320	IDIQ Contract for Bridge Preservation; LA 3187: Creek Bridge [Evangeline Parish]	$102,500
		4400023922; H.016325	IDIQ Contract for Bridge Preservation; LA 358: Creek Bridge [St. Landry Parish]	$104,851
		4400022582; H.012011	Contract for Replacement of Eight Bridges; LA 173 and LA525: Creek Bridges [Caddo Parish]	$24,500
		4400022582; H.012029	Contract for Replacement of Eight Bridges; US 80: Creek Bridges [Bienville and Webster Parishes]	$90,000
		4400022582; H.012036	Contract for Replacement of Eight Bridges; US 80: Creek Bridges [Richland Parish]	$118,300

Stantec Consulting Services Inc.	Bridge	4400022582; H.012037	Contract for Replacement of Eight Bridges; US 63 and LA 2: Creek Bridges [Union Parish]	$26,400
		4400029196; H.016255.5	IDIQ Contract for Engineering and Technical Support Services for Critical Projects; Task Order No. 2 LA1:WGS Riverplex RR Overpass	$433,903
Stantec Consulting Services Inc.	Traffic	440004128; H.004273.5	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]; Traffic Engineering	$110,434
		4400024461; H.012685.5	LA 385: Ryan Street Intersection Improvements [Calcasieu Parish]; Traffic Study; Signal Design	$31,668
Stantec Consulting Services Inc.	Other (Lighting)	4400024629; H.005967.6	Nelson Road Ext. and Bridge [Calcasieu Parish, Louisiana]; Roadway & Nav. Lighting	$26,378
		440004128; H.004273.5	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]; Public Relations/Comm.; Lighting; Aviation	$71,120
		4400020064; H.014286.6	IDIQ Contract for Electrical Services; I-10: LA 26 (Jennings) Interchange Lighting [Jefferson Davis Parish]	$58,870
		4400020064; H.014272.6	IDIQ Contract for Electrical Services; I-10: LA 97 (Jennings) Intchg Lighting [Jefferson Davis Parish]	$61,120
		4400020064; H.014287.6	IDIQ Contract for Electrical Services; I-10: LA 99 (Welsh) Intchg Lighting [Jefferson Davis Parish]	$84,160
		44-04761; H.004957.5	I-12 to Bush Corridor, LA 3241: I-12 to LA 36 (Sub to Evans-Graves Engineering, Inc.) [St. Tammany Parish]; I-12/LA 434 Lighting Project	$5,781
Stantec Consulting Services Inc.	CE&I/OV	4400024629; H.005967.6	Nelson Road Ext. and Bridge [Calcasieu Parish, Louisiana]; CE&I and Construction Support	$350,218
Stantec Consulting Services Inc.	Right-of-Way	440004128; H.004273.5	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]; ROW Acquisition	$69,646
Stantec Consulting Services Inc.	Survey	440004128; H.004273.5	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]; Survey	$22,731
Stantec Consulting Services Inc.	Planning	440004128; H.004273.5	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]; Prog. Mgmt.; Context Sensitive Design Process; Impl. Strategies	$576,954
		4400022582; H.012011	Contract for Replacement of Eight Bridges; LA 173 and LA525: Creek Bridges [Caddo Parish]	$42,244
		4400022582; H.012029	Contract for Replacement of Eight Bridges; US 80: Creek Bridges [Bienville and Webster Parishes]	$41,753
		4400022582; H.012036	Contract for Replacement of Eight Bridges; US 80: Creek Bridges [Richland Parish]	$47,139
		4400022582; H.012037	Contract for Replacement of Eight Bridges; US 63 and LA 2: Creek Bridges [Union Parish]	$42,239
Stantec Consulting Services Inc.	Environmental	4400023922; H.016312	IDIQ Contract for Bridge Preservation; LA 3116: Creek Bridges [Acadia Parish]	$34,213
		4400023922; H.016314	IDIQ Contract for Bridge Preservation; LA 3048: Creek Bridge [Richland Parish]	$34,524
		4400023922; H.016318	IDIQ Contract for Bridge Preservation; LA 3149: Bayou Bridges [Evangeline Parish]	$30,778

Stantec Consulting Services Inc.	Environmental	4400023922; H.016319	IDIQ Contract for Bridge Preservation; LA 542: Creek Bridges [Jackson Parish]	$33,249
		4400023922; H.016320	IDIQ Contract for Bridge Preservation; LA 3187: Creek Bridge [Evangeline Parish]	$32,768
		4400029196; H.016255.5	IDIQ Contract for Engineering and Technical Support Services for Critical Projects; Task Order No. 2 LA1:WGS Riverplex RR Overpass	$108,355
		4400023922; H.016325	IDIQ Contract for Bridge Preservation; LA 358: Creek Bridge [St. Landry Parish]	$27,318
		4400022582; H.012011	Contract for Replacement of Eight Bridges; LA 173 and LA525: Creek Bridges [Caddo Parish]	$27,300
		4400022582; H.012029	Contract for Replacement of Eight Bridges; US 80: Creek Bridges [Bienville and Webster Parishes]	$46,200
		4400022582; H.012036	Contract for Replacement of Eight Bridges; US 80: Creek Bridges [Richland Parish]	$30,450
		4400022582; H.012037	Contract for Replacement of Eight Bridges; US 63 and LA 2: Creek Bridges [Union Parish]	$32,650
Stantec Consulting Services Inc.	ITS	440004128; H.004273.5	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]; ITS	$4,810
		4400020058; H.012374.05	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; I-12: Essen Ln to Walker Rd. ITS Ramp Meter Upgrades SA #1 [East Baton Rouge & Livingston Parishes]	N/A
		4400020058; H.013710.6	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; I-10/US-61 to Laplace ITS Deployment [Ascension, St. James & St. John Parishes]	$731
		4400020058; H.001234.6	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; LA 1: Port Allen Canal BR REPL (PHI) (HBI) [West Baton Rouge Parish]	$1,262
		4400020058; H.013261.6	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; I-110 ITS Deployment [EBR Parish]	N/A
		4400020058; H.011152.6	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; I-12: US 190 to LA 59 [St. Tammany Parish]	$10,899
		4400020058; H.013866.6	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; I-12: LA 21 to US 190 [St. Tammany Parish]	$2,593
		4400020058; H.003047.6	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; I-10: Pecue Lane/I-10 Interchange Phase III [EBR Parish]	$8,173
		4400020058; H.002424.6	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; LA 70: Sunshine Bridge - LA 22 [St. James & Ascension Parishes]	$5,760
		4400020058; H.015137.1	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; Bonnet Carre ITS Upgrades [St. John the Baptist, St. Charles & Jefferson Parishes]	N/A
		4400020058, T.O. 16	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; I-10 WBR Queue Warning System [Iberville & WBR Parishes]	$45,508

Stantec Consulting Services Inc.	ITS	4400020058, T.O. 17	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; New Orleans Regional Arch Updates [Orleans, St. Tammany & Tangipahoa Parishes]	N/A
		4400020058, T.O. 19	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; Monroe Phase 3 SEA [Ouachita Parish]	N/A
		4400020058, T.O. 20	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; Alexandrea Reg. ITS Architecture Update [Statewide]	$83,998
GeoEngineers, Inc.	Geotech	4400019012; H.001970.5	LA 561 Boeuf River Bridge near Hebert Phase 2	$100,884
		N/A; H.003931	P3 I-10 Calcasieu River Bridge Geotechnical	$2,317,964
		4400019012; H.014981.5	Hosston Road Over Kelly Bayou	$ 56,246
		4400019012; H.014416.5	LA 3125 @LA 3274 Roundabout	$7,037
		4400019012; H.014994.5	Bonne Idee Rd Bridge Geotechnical Explorations	$17,371
		4400019012; H.014985.5	Spring Bayou Rd over Bayou Spring Bridge	$ 45,855

(Add rows as needed) DO NOT SUM

*The only disciplines to be used are: Appraiser, Bridge, CE&I/OV, CPM, Data Collection, Environmental, Geotech, ITS, Other (must specify), Planning, Right-of-Way, Road, Survey, and Traffic. If a firm has more than one discipline for any single project, the firm can use multiple rows to express the remaining unpaid balance per discipline.

** Round to the nearest dollar. **Do not** round to the nearest thousands. If there are no active contracts with a remaining unpaid balance, please place N/A in the remaining unpaid balance column. NOTE: ALL FIRMS MUST BE REPRESENTED IN THIS TABLE. LEAVING THE "REMAINING UNPAID BALANCE" COLUMN BLANK IS NOT ACCEPTABLE.

Sections

20-23

Appalachian Development Highway System (ADHS) Corridor K Improvements: Robbinsville to Stecoah - Stantec (NAEP Excellence Award)

20. **Certifications/Licenses:** If the advertisement requires submission of licenses and/or certificates, include them here. Otherwise, leave this section blank.

STANTEC CONSULTING SERVICES INC.

Louisiana SECRETARY OF STATE NANCY LANDRY

(https://www.sos.la.gov/Pages/default.aspx) Search for Louisiana Business Filings

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Name	Type	City	Status
STANTEC CONSULTING SERVICES INC.	Business Corporation (Non-Louisiana)	ALBANY	Active

Previous Names

STANTEC CONSULTING GROUP INC. (Changed: 4/12/2005)
STANTEC CONSULTING GROUP, INC. (Changed: 4/12/2005)
THE SEAR-BROWN GROUP, INC. (Changed: 4/12/2005)

Business: STANTEC CONSULTING SERVICES INC.
Charter Number: 34554273F
Registration Date: 3/17/1997

Domicile Address
80 STATE STREET
ALBANY, NY 12207

Mailing Address
10220 - 103 AVENUE NW
SUITE 300
EDMONTON, AB, T5J 0K4
CANADA

Principal Business Office
410 17TH STREET
SUITE 1400
DENVER, CO 80202

Registered Office in Louisiana
450 LAUREL STREET, 8TH FLOOR
BATON ROUGE, LA 70801

Principal Business Establishment in Louisiana
1340 POYDRAS STREET
SUITE 1420
NEW ORLEANS, LA 701121274

Status
Status: Active
Annual Report Status: In Good Standing
Qualified: 3/17/1997
Last Report Filed: 2/18/2025
Type: Business Corporation (Non-Louisiana)

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Nick Prudhomme
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

6/24/2022 to 6/24/2026
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

ATSSA American Traffic Safety Services Association ATSSA.com

Certificate of Completion

presented to

Cindy Hall

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: March 10, 2021
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor | *Authorized Instructor* | *Authorized instructor*

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Cindy Hall

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: March 10, 2021
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor | *Authorized Instructor* | *Authorized instructor*

DOTD
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Module 3

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Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor | *Authorized Instructor* | *Authorized instructor*

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LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

ATSSA
Safer Roads Save Lives

Gary Heitman

has attended
Louisiana Traffic Control Supervisor Refresher

Completed: 21-JUN-2024

CEU (If Applicable): 0.75

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Joseph Cains III
has attended
Traffic Control Supervisor Refresher-LA State Specific
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Location

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Certificate of Completion

presented to

Joseph Cains III

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: March 29, 2022
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

Certificate of Completion

presented to

Joseph Cains III

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: March 29, 2022
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

Certificate of Completion

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Joseph Cains III

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: March 30, 2022
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

ATSSA TRAINED

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THIS CERTIFICATE HEREBY RECOGNIZES THAT

John Krebs
has attended
Traffic Control Technician-LA State Specific
Training Course

11/29/2022 to 11/29/2026
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Location

President, CEO

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Maggie Ye
has attended
Traffic Control Supervisor-LA State Specific
Training Course

4/5/2023 to 4/5/2027
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John Krebs
has attended
Traffic Control Supervisor-LA State Specific
Training Course

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Director of Training

Baton Rouge, LA
Location

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Maggie Ye
has attended
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Training Course

4/4/2023 to 4/4/2027
Training Valid Through

Vice President of Education and Technical Services

Baton Rouge, LA
Location

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THIS CERTIFICATE HEREBY RECOGNIZES THAT

Michael Brodnax
has attended
Traffic Control Supervisor-LA State Specific
Training Course

4/5/2023 to 4/5/2027
Training Valid Through

Vice President of Education and Technical Services

Baton Rouge, LA
Location

President, CEO

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ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Mary O'Rourke
has attended
Traffic Control Technician-LA State Specific
Training Course

2/7/2023 to 2/7/2027
Training Valid Through

Vice President of Education and Technical Services

Baton Rouge, LA
Location

President, CEO

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ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Michael Brodnax
has attended
Traffic Control Technician-LA State Specific
Training Course

4/4/2023 to 4/4/2027
Training Valid Through

Vice President of Education and Technical Services

Baton Rouge, LA
Location

President, CEO

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ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Michael Neumann
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

6/24/2022 to 6/24/2026
Training Valid Through

Director of Training

Baton Rouge, LA
Location

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ATSSA TRAINED

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THIS CERTIFICATE HEREBY RECOGNIZES THAT

Hannah Krebs
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

6/24/2022 to 6/24/2026
Training Valid Through

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Baton Rouge, LA
Location

President, CEO

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Certificate of Completion

presented to

Scott Hoffeld

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: March 10, 2021
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

ATSSA
Safer Roads Save Lives

Destiny Armstrong

has attended
Louisiana Traffic Control Supervisor

Completed: 22-AUG-2024

CEU (If Applicable): 1.5

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presented to

Scott Hoffeld

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: March 10, 2021
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Scott Hoffeld

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: March 11, 2021
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

THE ACADEMY OF BOARD CERTIFIED ENVIRONMENTAL PROFESSIONALS

ATTESTS THAT

SCOTT HOFFELD

IS HEREBY DECLARED TO BE A

CERTIFIED ENVIRONMENTAL PROFESSIONAL

IN

DOCUMENTATION

BY THE CERTIFICATION REVIEW BOARD
ACTING UNDER THE AUTHORITY OF THE BOARD OF TRUSTEES

Elizabeth R. Johnson
PRESIDENT, ABCEP

THE ACADEMY OF BOARD CERTIFIED ENVIRONMENTAL PROFESSIONALS
CEP

CHAIRPERSON, CERTIFICATION REVIEW BOARD

CERTIFICATION NUMBER: **2040408**

CERTIFIED SINCE: **6/19/2002**

All CEPs must renew their certification annually by submitting their annual payment and annual maintenance hours each year.

Certificate of Professional Development Hours

presented to

Scott Hoffeld

for attending the

Highway Safety Manual Workshop

12.0 PDHs

on

December 3-4, 2014 Baton Rouge, Louisiana

Authorized By

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

LTRC
LOUISIANA TRANSPORTATION RESEARCH CENTER

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Joseph Lefante
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

6/24/2022 to 6/24/2026
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

ATSSA American Traffic Safety Services Association ATSSA.com

Certificate of Completion

presented to

Joey Lefante

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: July 16, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 2

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Joey Lefante

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: October 18, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Joey Lefante

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: July 23, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Transportation Professional Certification Board Inc.

certifies that

Joseph Michael Lefante

has met all of the requirements established by the Certification Board to use the title of

PROFESSIONAL TRAFFIC OPERATIONS ENGINEER

unless withdrawn by the Certification Board and subject to the provisions for renewal.
Certificate number 3560 issued in Washington, D.C., U.S.A.
November 20, 2013

Timothy P. Harpst
Chair

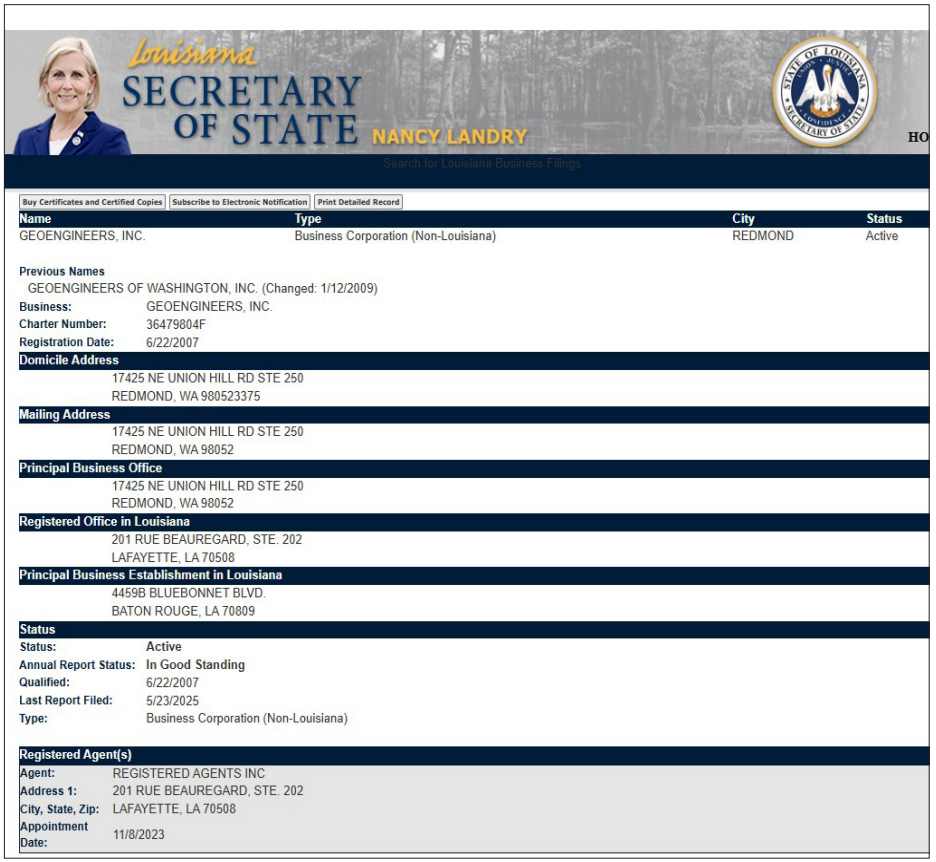
PTOE
PROFESSIONAL TRAFFIC OPERATIONS ENGINEER

Executive Director

Joseph 'Joey' Lefante PTOE status:

Certification Type	Professional Traffic Operations Engineer®	**TPCB Status**	Active
Certification Number	3560	**Application Status**	
Application Date Received		**Audit**	Yes
Certification Date	11/20/2013	**Expiration Date**	11/20/2025
Agreed to Privacy Policy	No	**Examination Date**	
Ethics Statement of Renewal	No	**Results**	Passed
Signed Obligation Statement	No	**Date of Initial PE**	
Reasonable Testing Accommodati		**PE License Issuing State**	
Don't Share My Information EU	No	**PE License Number**	0
		PE License Expiration Date	

GEOENGINEERS, INC.



Louisiana SECRETARY OF STATE NANCY LANDRY

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Name	Type	City	Status
GEOENGINEERS, INC.	Business Corporation (Non-Louisiana)	REDMOND	Active

Previous Names
GEOENGINEERS OF WASHINGTON, INC. (Changed: 1/12/2009)

Business: GEOENGINEERS, INC.
Charter Number: 36479804F
Registration Date: 6/22/2007

Domicile Address
17425 NE UNION HILL RD STE 250
REDMOND, WA 980523375

Mailing Address
17425 NE UNION HILL RD STE 250
REDMOND, WA 98052

Principal Business Office
17425 NE UNION HILL RD STE 250
REDMOND, WA 98052

Registered Office in Louisiana
201 RUE BEAUREGARD, STE. 202
LAFAYETTE, LA 70508

Principal Business Establishment in Louisiana
4459B BLUEBONNET BLVD.
BATON ROUGE, LA 70809

Status
Status: Active
Annual Report Status: In Good Standing
Qualified: 6/22/2007
Last Report Filed: 5/23/2025
Type: Business Corporation (Non-Louisiana)

Registered Agent(s)
Agent: REGISTERED AGENTS INC
Address 1: 201 RUE BEAUREGARD, STE. 202
City, State, Zip: LAFAYETTE, LA 70508
Appointment Date: 11/8/2023

AASHTO ACCREDITED

CERTIFICATE OF ACCREDITATION

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AASHTO

GeoEngineers, Inc.

in

Baton Rouge, Louisiana, USA

has demonstrated proficiency for the testing of construction materials and has conformed to the requirements established in AASHTO R 18 and the AASHTO Accreditation policies established by the AASHTO Committee on Materials and Pavements.

The scope of accreditation can be viewed on the Directory of AASHTO Accredited Laboratories (aashtoresource.org).

Jim Tymon, *AASHTO Executive Director*

Matt Linneman, *AASHTO COMP Chair*

This certificate was generated on 08/14/2025 at 4:59 AM Eastern Time. Please confirm the current accreditation status of this laboratory at aashtoresource.org/aap/accreditation-directory

Office of Conservation
Department of Energy and Natural Resources
STATE OF LOUISIANA

WATER WELL CONTRACTOR'S LICENSE

The Office of Conservation
for the Department of Energy and Natural Resources
State of Louisiana

hereby certifies that

GEOENGINEERS, INC.

Kyle Kilfian

has been licensed to drill environmental wells under the provisions of R.S. 38:3098
and is entitled to practice in the state of Louisiana as a Water Well Contractor.

This License is non-transferable and expires ***June 30, 2026*** unless
renewed, revoked or suspended by the licensing authority as prescribed by statue.

Signed and sealed this ***28th*** day of ***May*** , ***2025***

GAVIN D. BROUSSARD
ENVIRONMENTAL DIVISION ADMINISTRATOR
Office of Conservation
Louisiana Department of Energy and Natural Resources

License No. WWC- ***# 724***

Louisiana Professional Engineering and Land Surveying Board

Hereby Certifies that

GeoEngineers, Inc.

has complied with the regulation of this Board and is authorized to provide or to offer to provide engineering services in the State of Louisiana contingent upon payment of the annual renewal fee.

Baton Rouge, Louisiana · 06/27/2007

Chairman

Secretary

License Number 3700

Louisiana Professional Engineering and Land Surveying Board

Hereby Certifies that

GeoEngineers, Inc.

has complied with the regulation of this Board and is authorized to provide or to offer to provide engineering services in the State of Louisiana contingent upon payment of the annual renewal fee.

Baton Rouge, Louisiana · 06/27/2007

Chairman

Secretary

License Number 3700

21. **QA/QC Plan:**
If the advertisement requires submission of a QA/QC plan or Work plan, include them here. Otherwise, leave this section blank. If a QA/QC plan is included in this section and was not required by the advertisement, it will be redacted.

Please see attached QA/QC Plan on the following pages.

Quality Management Plan

CONTRACT NO. 4400032800
US 11 NORFOLK SOUTHERN RR OVERPASS (HBI)
STATE PROJECT NO. H.000688.5
F.A.P. NO. H000688
ROUTE: US 11
ST. TAMMANY PARISH

Stantec Project No.: TBD

Brian Johnson, P.E. – Project Manager

Nick Prudhomme, P.E. – Deputy Project Manager

Cindy Hall, P.E. – Principal-in-Charge

Document Date: TBD

QUALITY MANAGEMENT PLAN
CONTRACT NO. 4400032800
STATE PROJECT NO. H.000688.5
F.A.P. NO. H000688
ROUTE: US 11
ST. TAMMANY PARISH

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QUALITY MANAGEMENT PLAN
CONTRACT NO. 4400032800
STATE PROJECT NO. H.000688.5
F.A.P. NO. H000688
ROUTE: US 11
ST. TAMMANY PARISH

Foreword

Stantec recognizes the importance of quality on the US 11 Norfolk Southern RR Overpass (HBI) (US 11 NFS Overpass). We are committed to developing, implementing and adhering to a detailed Quality Management Plan for all services provided as part of the Project. In addition, since the Project has a large roadway component, our team is committed to the principles dictated in the LADOTD, Road Design Section, "Construction Plans Quality Control / Quality Assurance Manual".
This Quality Management Plan (**QMP**) is a "living document". As such, it will periodically be reviewed for performance and amended as necessary to achieve the quality commitments and goals. This QMP will also be amended as the Project moves into future phases of development.

In our commitment to quality, this **Quality Management Plan (QMP) will satisfy all criteria by**:

A. Creating guidelines, processes and protocols which clearly demonstrate that QC/QA is the full responsibility of our team and not a responsibility of the LADOTD.
B. Creating clear definitions of responsibility for our designers, checkers, reviewers, and various professionals of record.
C. Assigning designers and QC/QA personnel to the Project, who are exceedingly qualified to perform the work required of the Project.
D. Creating Project specific processes and protocols which are clearly described and effective in ensuring accuracy in our design and plan details.
E. Creating all the necessary QC/QA tools, such as checklists, standard forms and training materials. All our QC/QA tools will be well documented and well suited to the scope and the complexity of the Project.
F. Creating a focus on the QC/QA concepts for the design elements of the Project by defining specific quality procedures for the major structures of the Project; describing how the QMP will support quality work for the Project; and creating clear definitions of QC/QA.
G. Provide training to all personnel working on the Project specific to their role in the Project.

The **goals of the QMP for the US 11 NFS Overpass** are to:

- Increase the probability of meeting the LADOTD's expectations in terms of the finished product
- Improve analysis and design solutions
- Provide adequate detail on plans
- Reduce errors in reports and plans
- Reduce constructability issues
- Maintain schedule through all project phases
- Allow for efficient and effective innovative solutions, materials and techniques
- Minimize community impacts
- Enhance worker and public safety
- Minimize construction related traffic disruptions
- Accurately mitigate impacts of unforeseen conditions and events

QUALITY MANAGEMENT PLAN
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This QMP conforms to the current LADOTD Road Design CONSTRUCTION PLANS QC-QA MANUAL and the current LADOTD BRIDGE DESIGN AND EVALUATION MANUAL (BDEM) for structural elements.

This **QMP** contains seven (8) appendixes:

- APPENDIX A: GUIDELINES FOR DESIGN & DOCUMENT PREPARATION
- APPENDIX B: GUIDELINES FOR PROCESSES
- APPENDIX C: QC CHECKLIST & COMMENT FORMS
- APPENDIX D: QA CHECKLIST & COMMENT FORMS
- APPENDIX E: INDEPENDENT REVIEW & COMMENT FORM
- APPENDIX F: LADOTD ROAD DESIGN QC/QA PLAN
  - F1: 30% PRELIMINARY ROADWAY PLANS QA CHECKLIST
  - F2: 60% PRELIMINARY ROADWAY PLANS QA CHECKLIST
  - F3: 90% PRELIMINARY ROADWAY PLANS (PRE-PLAN IN HAND) QA CHECKLIST
  - F4: ACP FINAL ROADWAY PLANS QA CHECKLIST
- APPENDIX G: NON-CONFORMANCE REPORT FORM

This **QMP** will be distributed to all team members and reviewed to confirm understanding. All team members will be trained so that they understand their role and obligation in implementing the QMP. All personnel shall be held accountable to these high standards.

QUALITY MANAGEMENT PLAN
CONTRACT NO. 4400032800
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Revision Summary

To be completed by document owner and/or originator of revisions prior to issue to team.

Revision	Date	Section	Summary of Revision
0	9/9/2025		Transmitted to DOTD

QUALITY MANAGEMENT PLAN
CONTRACT NO. 4400032800
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Required Reading Form

All members of the US 11 NFS Overpass Project Team – Designers, Checkers, Reviewers, and Professionals of Record shall become acquainted with the contents of this document and related attachments. As a record of responsibility of the team, and a record of accountability by Stantec, this form shall be maintained on the Project.

Name	Signature	Date

SECTION 1. UNDERSTANDING OUR ROLE

1.1 STANTEC PHILOSOPHY AND POLICY ON QUALITY (ISO 9001 5.1, 5.2 AND 5.3)

Stantec clearly understands, and believes, that the responsibility for Quality in our services and deliverables is 100% ours. In satisfying the LADOTD's Policy on QC and QA, this QMP creates a commitment to continual improvement of project execution, product quality and the reduction of quality related costs. We believe that RESPONSBILITY is created through processes and guidelines that are integral to our team's thinking. We believe that ACCOUNTABILITY is created through purposeful reporting and measured results by our leaders. And we believe that SUCCESS is created by our team's ownership of the **QMP**. To this end, Stantec will provide experienced leadership, specifically tasked with developing, maintaining, enhancing and monitoring the performance of the overall system of quality for the US 11 NFS Overpass.

1.2 QUALITY MANAGEMENT PLAN PHILOSOPHY

A critical component of our **QMP** will be to ensure that all Stantec staff involved in the Project are aware of the **QMP** and committed to following its direction. Our QC/QA Manager is responsible for providing Project staff with a copy of the **QMP** and encouraging its use throughout the life of the Project. This goal will be accomplished through an initial training process supplemented with ongoing training to present process revisions based on the results of QC/QA reviews and Project audits. In addition to our **QMP**, each Project team member, regardless of his/her role, will be responsible for the quality of his/her own work and will be expected to provide an appropriate level of quality control on that work.

1.3 QUALITY MANAGEMENT PLAN PRINCIPLES

The guidance for quality management of Stantec projects will be based on three quality principles:

- Client focus
- Project processes
- Measurement, analysis and improvement

1.3.1 Client Focus

Stantec knows and understands that our future depends on our Clients – which equates to satisfaction with our company and services. Therefore, our primary focus is to understand our Client's current and future needs, while continually striving to meet and exceed our Client's requirements and expectations.

For our Clients, our focus is on "**MAKING IT WORK**". We maintain this focus by:

- **Knowing our Client's View** – we strive to know what the expectations are within our Client's organization, including such things as design philosophy, cost expectations, and project purpose.

- **Knowing our Client's People** - we focus on relationships by knowing the point-of-contact for our Clients and understanding "who does he report to?", or "what is her background on this type of project?", or more personally "what makes him really excited? Or upset?"

- **Knowing our Client's Scope** – we strive to completely understand project requirements. We want to appreciate "what's behind that?" and pursue it until we get answers like, "that's very important to the project outcome," or "that's crucial to project approval," or "that's a particular area of project distinction".

- **Knowing our Client's Risk** – we appreciate and attempt to understand our Client's important issues such as "what keeps him up at night?"; or "what will create problems for her?"; or in a positive way, understanding "what outcome will give greatest value", or "what outcome will give greatest satisfaction."

Another area of Client focus is critical attention to project **time, cost and deliverables**. Stantec understands that these three factors have an impact on each other and requires evaluation - taking into consideration our Clients' requirements and expectations. We realize that on some projects - or with some Clients - the balancing of these three factors can be particularly delicate. Client focus in these cases is all about our ability to communicate and deliver the basic project requirements while managing expectations and outcomes.

Our Client focus always involves **effective communication**. Our goal is to be continual and timely, thus creating and building confidence with our Client that their expectations are being met and value is being achieved.

Stantec's Client focus also includes **interfaces with all Stakeholders**. These interfaces are crucial to Project success in facilitating the exchange of information, as appropriate, throughout the project. Our focus on behalf of the Client includes resolution of any conflicts between project requirements and Stakeholders requirements – with Client requirements taking precedence, except in the case of statutory or regulatory requirements.

Our focus on "MAKING IT WORK" becomes the Project's Quality Objective - not only for deliverables, but also for our Client's needs and expectations. This Quality Objective outlines the path to a high level of Client satisfaction.

QUALITY MANAGEMENT PLAN
CONTRACT NO. 4400032800
STATE PROJECT NO. H.000688.5
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ROUTE: US 11
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STANTEC QUALITY CONTROL/QUALITY ASSURANCE CONCEPTS & DEFINITIONS

Our concept for QC/QA on the US 11 NFS Overpass. follows proven methods which include process controls, detailed QC procedures, QA reviews, and continual maintenance and updating of the **Project Design Criteria**. As a management tool of our **QMP**, quality audits and management reviews will also occur. The **QMP** is a living document that will be reviewed and amended throughout the Project cycle in a commitment to continual improvement.

Additionally, our **QMP** will support quality work through Independent Checks focused on Consistency, Constructability and Risk avoidance.

The following definitions of quality management, quality control and quality assurance will apply to the US 11 NFS Overpass.

Checking Stamp — An electronic or rubber stamp to be affixed on all QC documents and to be used as part of the **Five Step Process** for all **QC Checking**.

Five Step Procedure — A detailed checking procedure to be followed by **QC Checkers**, as needed.

Independent Review — As part of the QA Review, an Independent Review will include one (or more) of the following:

- **Consistency review** of the plan details to assure uniformity of design, detailing, format and presentation;
- **Constructability review** of the plan details to identify possible design improvements to make construction easier, safer and less costly and/or reduce environmental impacts;
- **Operational Review** to understand how the Project functions, how it can be more user friendly and easier to maintain and how the design can be made more efficient; and,
- **Risk review** of areas of critical importance; areas where, based on the reviewer's experience, mistakes may be typically found; and areas that may be new to the design practice.

Inter-Discipline Reviews — A review focused on specific discipline elements or coordination between different disciplines – includes survey, roadway and bridge; bridge and geotechnical; roadway and traffic; etc.

Management Review Meetings — Review by Project leadership and QC/QA leadership to measure QC/QA compliance at various Project milestones. Review will also include

effectiveness of the **QMP** with the objective of continual improvement.

Primary QC Signature

Signature by Project Manager / Discipline Leader on all submittals and documents prepared under their control.

Quality Control (QC) Submittal Checking

Every work product requires a full review. Work products include plans, cost estimates, reports, evaluations, or studies. For the various submittals, responsibilities may include:

- **Checking** for completeness in accordance with guidelines approved by the Project Manager or Discipline Leader;
- **Ensuring** that the work product adequately and accurately presents the required information;
- **Verification** of all dimensions and quantity calculations;
- **Verification** of the accuracy of the preparer's work product;
- **Verification** that all design information is correctly and completely shown on the details and in accordance with the approved design calculations;
- **Verification** of conformance to standards of practice;
- **Verifications** of cost effectiveness & fitness for the purpose and function of the specified Project;
- **Performance** of CAD drawing reviews for formatting, layering and CAD Conform requirements; and
- **Performance** of redline checks of the work product (where deemed necessary); or production of an independent work product and comparison of the results.

QC Design Checking

A full review of the design calculations, survey calculations, software input and output, and cost estimates. Responsibilities will also include:

- **Verification** of the accuracy and adequacy of the preparer's work product;
- **Compliance** with specified codes, standards, and permits;
- **Conformance** to standards of practice;
- **Performance** of redline checks of the work product; or production of an independent work product and comparison of the results; and
- **Ensuring** that the work product adequately and accurately presents the required information. (The calculations of the Design Checker will also become a part of the calculation of record when independent checking calculations are produced.) (The Design Checker will not be the one who performed the original design.)

Quality Assurance (QA) Review	A review of QC documents to ensure that the QC process is complete and the work products (field rolls, designs, plans, cost estimates, reports, evaluations, and studies) are in accordance with the established Project practices, policies, and procedures.
QA Information Package	Package of Quality Control documentation submitted to the QA Reviewer. QA Information Packages will be prepared for all Project submittals and shall include appropriate designs, plans, cost estimates, reports, evaluations, or studies. QA Packages will include all QC documentation of the Project submittal such as calculations, plans, and estimates of probable construction costs and include checklists, comments and markups by the Project Professional, Design Checker and Detail Checker.
Quality Management Plan (QMP)	The documented requirements that establish and define responsibilities, performance measures, milestone audits and work procedures to ensure that the project deliverables meet predetermined requirements. It encompasses Quality Control, Quality Assurance, and Audit of the scope of work covered by the Project.

SECTION 2. QUALIFICATIONS AND RESPONSIBILITIES OF STANTEC LEADERSHIP AND STAFF

The following qualifications and responsibilities will apply to the leadership and staff of the Stantec team on the US 11 NFS Overpass Project.

Designer

Engineer (LA licensed PE or EI) directly tasked with the development of design calculations, drawings, and estimates of probable construction costs. Responsibilities will include:

- Understanding and following the Project Design Criteria;
- Developing, organizing and maintaining design calculations;
- Communicating with the detailer and supervising the detailing work to ensure adequate and accurate presentation of design information;
- Checking his own work; and
- Updating design calculations to correct any errors or omissions discovered by the Design Checker.

Detailer

Individual directly responsible for the creation of CAD drawings. Responsibilities will include:

- Understanding of drawing formats;
- Understanding of layering requirements;
- Understanding of LADOTD's CAD Conform requirements; and
- Checking his own work for accuracy and completeness. .

Project Manager (and/or Deputy Project Manager)

Professional (LA licensed as required) tasked with the duty to lead the Stantec team, with the following experience and responsibilities:

- **Experience** – Professional with technical and management experience of projects with similar scope and magnitude.
- **Responsibilities**
  - Serve as overall project leader and liaison with the LADOTD;
  - Develop and monitor overall project scope, schedule and budget;
  - Identify and obtain approval of any scope changes (when required);
  - Monitor the overall project development, deadlines and deliverables;
  - Work and coordinate with all Discipline Leaders through the

progression of the Project;

- Determine all required Inter-Discipline and Independent Review requirements of the Project;
- Establish and monitor protocol and procedures for communications with LADOTD, stakeholders and Discipline Leaders;
- Establish procedures for identifying and resolving project conflicts, constraints and other risks;
- Conduct Project Reviews to identify and track key issues, and provide recommendations for function and efficiency improvements. (Depending on the magnitude and schedule of the Project, reviews can also be post-mortem.)
- Monitor the overall QMP for QC/QA, including systems for tracking progress and completion;
- Accept final work products;
- Track and verify overall project archiving;
- Sign, or delegate responsibility to sign, all Deliverable Release Forms.
- Collaborate and effectively communicate with Stantec team;
- Lead meetings, forums and discussions with LADOTD, stakeholders, and Discipline Leaders in Project development and Project decisions;
- Assign and manage resources to execute the work in accordance with the Project schedule;
- Ensure checking and review by appropriate senior individuals that all deliverables are in accordance with the Project Design Criteria, the QMP for QA/QC, and LADOTD standards.
- Establish written agreement for the scope and budget for the Project;
- Achieve budget through effective control of the work;
- Provide prompt identification and submission for formal approval of all scope changes to the Client;
- Archive all Project data and Project deliverables (including surveys, designs, plans, cost estimates, reports, and studies) in accordance with the QMP. Responsibility also includes records retention policy.

Discipline Leader Professional (LA licensed as required) assigned to the specific discipline of the Project (Environmental, Surveying, Geometrics, Traffic, ITS, Roadway, or Bridge) and responsible for supervision and/or preparation of all deliverables and submittals as defined by the Project Scope for the assigned Discipline. Experience and responsibilities will include:

- **Experience** – Professional with experience in executing similar Discipline assignments.
- **Responsibilities**
  - Collaborate and communicate on a regular basis with the Project Manager;
  - Take full responsibility for providing Discipline scope and schedule;
  - Develop, update and implement the Project Design Criteria as related to the Discipline;
  - Oversee the development, organization and maintenance of design (where required) and submittals as related to the Discipline;
  - Identify activities required for completion of the work for the Discipline;
  - Maintain a project deliverable list for the Discipline;
  - Maintain matrix (or list) of staff assigned as originators and checkers of the work product by the Discipline;
  - Determine the necessary technical knowledge and experience required for all Discipline activities;
  - Lead and guide the Discipline staff required for execution;
  - Oversee all procedures and forms related to the Disciple;
  - Approve and validate all software used by the Discipline staff;
  - Develop (as required) and adhere to Process Guidelines (PG's);
  - Sub-consultant oversight (as assigned) within the Discipline;
  - Inter-discipline Reviews (IDR) - as initiator or participant;
  - Implement the **QMP** for QC and QA to be performed for the Discipline.

Engineer-of-Record (EOR)

Engineer (LA licensed PE), designated by the Project Manager, responsible for supervision and/or preparation of plans, sealing calculations, plans, and special provisions. (The EOR can be the Designer, Design Checker, QA Reviewer, or Project Manager - who is directly involved in the project design activities.) The responsibilities of the EOR include:

- Ensure the QC/QA certifications are signed by all responsible parties
- Assemble design calculations from all designers, finalize the calculation book, and seal the cover sheet of the calculation book.
- Ensure the names of the Designer, Design Checker, Detailer, Detail Checker, and QA Reviewer are correctly shown on the title block of each plan sheet.
- Stamp all plan sheets or designate a Designer, Design Checker, or QA Reviewer developed under their supervision.

- Ensure all special provisions are accurately shown on the construction proposal and stamped by the Specification Engineer (or by the EOR).

Independent Reviewer (IR) — Engineer (LA licensed PE) responsible for conducting a totally independent review of all Project documents and final deliverables. The Independent Reviewer and QA Reviewer may be the same and also occur at the same time.

QA Reviewer — Engineer, Surveyor or appropriate Professional (LA licensed PE or PLS where required) assigned QA Review responsibilities. The Reviewer must have experience related to the Project discipline.

QC Design Checker — Engineer (LA licensed PE) assigned QC Design Checking responsibilities.

QC Submittal Checker — Engineer, Surveyor or appropriate Professional (LA licensed PE or PLS where required) assigned QC Submittal Checking responsibilities.

QC/QA Leader — Engineer (LA licensed PE) responsible for coordinating the Quality Management practices across the Project and to ensure implementation of the **QMP** for the Project. Duties also include:

- **Establish** Process Controls and overall QMP for QA/QC;
- **Provide** QC and QA oversight;
- **Prepare** Quality Audit Reports (Proof of Compliance) to track quality trends, solicits feedback from the LADOTD on quality related issues;
- **Attend** Management Review Meetings conducted by the Project Manager and prepare report of findings and recommendations for improvement; and
- **Sign** Delivery Release Record attesting that all QC/QA documentation has been properly completed and authorized for release of the submittal.

SECTION 3. DESCRIPTION OF THE QC, QA & IR PROCESSES

3.1 QUALITY MANAGEMENT PLAN

The Quality Management Plan for the US 11 NFS Overpass Project includes formats and templates for QC and QA that have been successful on many past projects. Our QMP processes will also focus on the following:

- **High risk elements** which will include the structural steel spans, foundation systems, and sequence of construction;
- **Rigorous verification elements** such as project geometrics; and
- **Refinement elements** such as superstructures and substructures with a high level of repetition - where efficiency of detail could yield financial benefit.

3.1.1 Project Meetings

Project meetings required for the US 11 NFS Overpass Project are as outlined and described in the Scope of Work. All project meetings will be guided by the principles and requirements as detailed in the **Process Guideline (Project Meetings)**.

3.1.2 Process Control

As required for more complex projects, this document should outline all aspects of preconstruction activities, design guidelines, environmental requirements, permitting, specifications, right-of-way, utility relocations, estimates, and financial.

Process control may include the following:

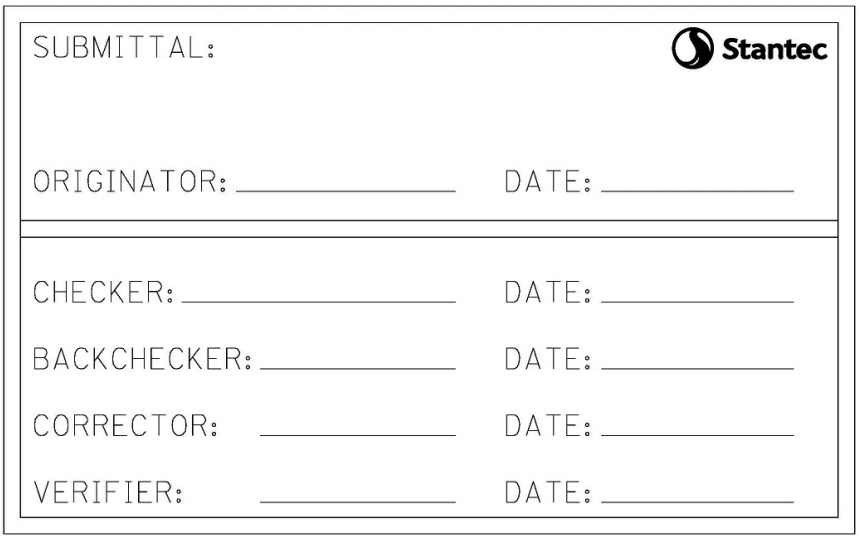
- Identify, confirm, document and communicate objectives, deliverables, schedule, work plan, standards and analysis methodology
- Obtain confirmation, and approval where required - by the LADOTD and other stakeholders
- Confirm the information provided for project implementation is complete and accurate
- Review site conditions, particularly those areas where conflicts and constraints may affect design or constructability
- Maintain a documented, indexed and traceable record of all work in a format that allows the project team access to all pertinent project information
- Ensure all deliverables are signed and stamped in accordance with LADOTD requirements
- Provide all documentation to the designated quality control checkers and quality assurance reviewers, including Non-Conformance Reports

3.2 QUALITY CONTROL

Quality control (**QC**) is the responsibility of each individual undertaking a component of the work. To assist in this process, the **Project Manager** will establish as part of this **QMP** responsibilities and procedures for checking technical accuracy of the work, identifying and correcting any discrepancies, rejecting product not meeting requirements if necessary, and accepting the final work product as well as defining the frequency of implementing some or all of the procedure and reviewing procedural performance. It is expected that this procedure will include checks by individuals knowledgeable of the technical requirements for a particular activity and with the relevant qualifications and experience in the discipline.

QC reviews will be conducted for all submittals at the required LADOTD Milestones. The **Project Manager** will work with the **Discipline Leaders** to identify **QC** reviews and who will have responsibility for **QC** of these reviews. As part of the **QC** accountability, the **Discipline Leader** will be the **Primary QC Signature** on all submittals and documents prepared under their control. As part of this **QMP, Discipline Leaders** will be responsible for the following:

- Complete **Section 4** of the **QMP** by assigning **QC Design Checkers** and **QC Submittal Checkers** possessing the technical skills, relevant qualifications and experience required to complete these efforts;
- Utilize the checklists included in **Appendix A**, or create checklists to assist in the reviews and provide documentation of the review;
- For **QC Design & Submittal Checking**, a **Five Step Procedure** will be used. For this purpose, the **Checking Stamp** shown below will be used. The **Checking Stamp** is available as an electronic image or a rubber stamp which must be affixed to the documents.



Checking Stamp

3.2.1 Five Step Procedure

Step 1. Once **Designer** & **Detailer** complete calculations and plans a **Check Print Stamp** will be placed on calculations and plans indicating a submittal name/division. **Designer/Detailer (Originator)** will sign and date on calculations/plans, and will provide calculations and/or plan sets to the **Checker**.

Step 2. The **Checker** will indicate with a highlighter that he agrees with, and use red marks that he would like to make comments. **Checker** will sign and date the calculations and/or plan sheets being checked and give it to **Backchecker** (can be the same person as the **Originator**).

Step 3. **Backchecker** will go through all the comments made by the **checker**. If he agrees he would put a green check beside the **Checker's** comments. But if the **Backchecker** disagrees with the **Checker's** comment he will resolve the disagreement with the **Checker**. If the **Checker's** comments needs to be changed the **Backchecker** will strike through the **Checker's** comments and update it using a green pen. The **Backchecker** will sign and date it.

Step 4. **Corrector** (can be the same person as the **Originator**) will correct all comments which are agreed upon. Once the correction is made he will circle the changes with a green pen. **Corrector** will sign and date it, he will give it to **Verifier**.

Step 5. **Verifier** (can be the same person as the **Checker**) will verify all changes, and will highlight the green circles. He will sign and date it to complete the process.

Quality Control Records will be checked documents *(including evidence of checking, evidence of verification, evidence of interdisciplinary review, and evidence of approval)*, memoranda, meeting notes, or checklists specific to the task.

3.2.2 Quality Control (LADOTD Road Requirements)

Refer to Appendix 'F' for details on completing **LADOTD Road QC/QA**. These procedures are tailored to satisfy the **LADOTD, Road Design Section, "Construction Plans QC-QA Manual."** These procedures augment the procedures described herein and are **required for all LADOTD Road work products**.

Quality Control (QC) Road will have the responsibilities as detailed in Appendix 'F'. In addition, **QC (Road)** will also include:

- For the simple and moderately complex elements of the Project, create checklists to assist in the reviews and provide documentation of the review.
- For the high-risk elements and complex components of the Project, institute the use of QC by independent design teams, rather than line-by-line checking to make sure that both math and methodology are checked in an effective way.

- Create Process Guidelines (PG's) as the basic tool to define standards, outline technical approaches, and define the salient points and objectives of design. PG's will be developed by Discipline Leaders and other senior technical staff.

3.3 QUALITY ASSURANCE

As part of this **QMP,** the Quality Control/Quality Assurance (QC/QA) Manager will establish the following:

- Assign Quality Management Personnel (QA reviewers) for the Project and ensure these individuals possess the technical skills, relevant qualifications and experience required to complete the efforts (These individuals are summarized in Section 4);
- Verify that Quality Assurance (QA) Information Packages have been properly prepared for the QA reviewer's use;
- Complete the required QA certification (signed by the appropriate QA reviewer);
- Document QA reviewer's comments;
- Reconcile, and/or develop accepted course of action;
- Prepare QA Review Comment Form Reports or Non-Conformance Form Reports as appropriate to deal with issues noted in the review; and
- Confirm that all issues raised and actions identified are addressed.

3.4 INDEPENDENT REVIEW AND CONSTRUCTABILITY REVIEW

An independent individual/team will be identified to develop additional ideas to assure that enhance innovation and construction for the Project.

As part of the QA Review, an Independent Reviewer will be designated and identified in the Section 5, Quality Management (QC/QA) Personnel. The Independent Reviewer will perform consistency, constructability and risk reviews as defined in Section 2 of this document.

3.4.1 Document and Data Control

Quality related records, including hard copy and digital file documentation, will be received and maintained in accordance with Stantec best practices.

These records will include the following:

- Copy of the **QMP** and all revisions to the plan
- Copy of all **Quality Control** checklists and certifications for each milestone review
- Copy of all **Quality Assurance** certifications for each review
- Copy of all **Design Review Comment Forms**, **Non-Conformance Reports** and evidence of the corrective action and subsequent compliance for **QC** and **QA** reviews

3.4.2 Control of Sub-Contracted Work

Sub-consultants will be required to provide a copy of their QMP for review by Stantec; or, be required to follow the Stantec **QMP**.

3.4.3 Control and Correction of Non-Conforming Work

Identified deviations from designs or non-conformances need to be assessed, documented, and communicated to affected parties. This process will be handled through Design Review Comment Forms and Non-Conformance Reports (NCRs).

The corrective action taken and any preventative actions identified as being appropriate to prevent future occurrences will be documented.

3.5 PROJECT DESCRIPTION

3.5.1 Disciplines/Tasks

Project elements included in the QC plan will be applied to all project deliverables produced by the Project for the following disciplines/tasks:

- Roadway, Geometric Design and Analysis, Drainage
- Bridge Design
- Hydraulics
- Traffic Engineering
- Geotechnical Services

QUALITY MANAGEMENT PLAN
CONTRACT NO. 4400032800
STATE PROJECT NO. H.000688.5
F.A.P. NO. H000688
ROUTE: US 11
ST. TAMMANY PARISH

SECTION 4. QUALITY MANAGEMENT (QC/QA) PERSONNEL

List of Personnel Assigned to Quality Management Tasks per Activity	**Project Manager** – Brian Johnson, PE **Deputy Project Manager** – Nick Prudhomme, PE
Roadway, Geometrics and Drainage	
Designer(s)	Mary Frances O'Rourke, PE
QC – Design & Plans	Joseph Cains, PE
QA – Design & Plans & Independent Review	Cindy Hall, PE, Gary Heitman, PE
Structures and Bridge	
Designer(s)	John Krebs, PE, Kunal Malpani, PE
QC – Design & Plans	Taylor Perkins, PE
QA – Design & Plans & Independent Review	Brian Johnson, PE
Traffic Engineering	
Designer(s)	Joey Lefante, PE
QC – Design & Plans	TBD
QA – Design & Plans & Independent Review	Joseph Cains, PE, Cindy Hall, PE
Geotechnical	
Designer(s)	Brenda Novoa, PE
QC – Design & Plans	Larry Sant, PE
QA – Design & Plans & Independent Review	Jim Aronstein, Jr., PE
Environmental & Permitting	
Designer(s)	Josh McEnany
QC – Design & Plans	Scott Hoffeld, CEP
QA – Design & Plans & Independent Review	Cindy Hall, PE

Appendix A: Guidelines for Document Preparation

A.1 Purpose and Scope

A.1.1. The purpose of these Guidelines is to establish a method for consistently delivering quality project work that meets client needs and prevents rework.

A.1.2. These Guidelines are mandatory and apply to all project work.

A.1.3. Methods for rework prevention include reviewing project input; checking and verifying project work by someone other than the **Originator**; conducting **Interdisciplinary Reviews**, where required; and **Approving** project work for further use or delivery.

A.1.4. It is recognized that some projects do not result in the "traditional" deliverables of calculations, designs, contract documents, studies/reports, etc. Nonetheless, the principles underlying **Checking** and **Verification** must be applied.

A.2 Preparation of Calculations

A.2.1. Terms and Definitions

A.2.1.1 Calculations – Mathematics-based computations that transform input data into a result that is used as further input to the delivered project work or is delivered directly to the client to meet contract obligations.

A.2.1.2 Assumptions – Estimated or presumed information used as input to a calculation.

A.2.1.3 Confirmation – Verification that an assumption was correct based on actual data.

A.2.2. Procedure

A.2.2.1 Calculation Preparation

(i) **Discipline Leaders** shall assign qualified individuals the task of preparing calculations and are responsible for monitoring compliance with this guideline.

(ii) **Calculations** are to be neat, legible and suitable for reproduction. They are to be prepared using company calculation pads, where available, including a header with space for identifying the calculation title, page numbers, project name and number, and the **Originator's** and **Checker's** names, initials and dates.

(iii) **Calculations** must be organized and logically presented, and are to include sufficient notes, explanations and sketches to make the calculation easily

followed. The intent is to make calculations understandable by an individual competent in the subject matter without going back to the originator.

(iv) The following information should be provided in the calculation, or on a cover or summary page:

(a) Objective – A statement of the problem or question to be solved (if not obvious from the title).

(b) Method – Identify the methods to be used, including software.

(c) Assumptions – Clearly state any assumptions applied.

(d) References and Inputs – Identify the inputs and the references for inputs, equations, methods, etc. Design inputs used as the basis for calculations shall be verified by the **Originator** as obtained from a reliable source. Design equations, tables, field data, etc., shall be referenced to the specific section of the applicable design code or manual. Any information not readily available to a reviewer should be attached as an appendix to the calculations.

(e) Conclusions – Clearly state the conclusions of the calculations including any limitations, conditions and/or exceptions.

(v) Confirmations – Critical assumptions need to be tracked and confirmed by the **Originator** as soon as valid and current data becomes available. The impact of any variances between assumptions and confirmed information must be evaluated, and any necessary revisions to calculations made.

(vi) In assembling larger sets of calculations, or where providing summary information will be useful, the use of a calculation cover page may be helpful.

(vii) Prior to the results of a calculation being utilized for subsequent design work, relevant calculations shall be checked and verified in accordance with **Checking** and **Verification Procedure** and documented accordingly.

A.2.2.2 Computer Calculations

(i) Computer calculations shall include or reference documentation clearly explaining the program's function, nomenclature, and sign conventions utilized. All technical software must be validated in accordance with the **Software Validation Procedure**.

(ii) Calculations utilizing computer programs to perform analyses or design shall include the following:

(a) Name of the program including version or revision level.

(b) Paper copies of computer output files, or portions thereof, that are required to satisfy the documentation requirements of this procedure shall be labelled and filed.

(c) Identification and/or location of associated electronic files.

(iii) Spreadsheet calculations shall be documented and organized so that formulae used in the spreadsheet can be checked for accuracy of incorporation into the spreadsheet, using a calculator or other method. After validation of the spreadsheet calculations the spreadsheet shall be protected to prevent inadvertent modification of the embedded formulae.

A.2.2.3 Revisions to Calculations

Revisions (or cancellations) may be required after an initial set of calculations has been reviewed. These revisions may be a result of client comments, scope changes, or errors found during subsequent reviews. Revisions to the calculations do not necessarily warrant a second review of the entire set of calculations. Only the revised portion of the calculations may need to be reviewed. Required revisions shall, therefore, be completed as follows to appropriately document the revisions made:

(i) Revisions shall be reviewed and approved in the same manner as the original. The **Originator** and **Reviewer** of the calculations shall be responsible for the revision. The revision to the calculation shall be clearly identified and dated or shall be replaced by a new calculation.

(ii) Revisions shall be prepared in a manner that provides a clear record of the content of the calculation, both prior to and after the revision. The reason for the revision should be identified.

(iii) Revisions to calculations that impact other disciplines shall be immediately reported to the **Project Manager** and the affected disciplines.

A.2.2.4 Control of Calculations

(i) All calculations shall be organized and adequately indexed to facilitate retrieval of results and verification of completeness. A calculation index may be useful as a tool to help plan and organize the work, or may be developed upon completion of the calculations for record and archival purposes.

(ii) On completion of the calculation review process, original calculations including calculation cover pages, checklists, index pages and other associated documents shall be controlled.

A.3 Preparation of Studies/Reports

A.3.1. Terms and Definitions

A.3.1.1 **Technical Study or Report** – A hardcopy or electronic document based on technical information gathered and evaluated with professional insight and delivered to the client. Generally, a technical study or report contains conclusions and often contains recommendations.

A.3.2. Procedure

A.3.2.1 Style and Format

(i) The report should be prepared following the client-specific preference and project standardized format. If the client has a specific preference or the office or group preparing the report has a previously used style with that client, these factors should be considered in developing the report format.

(ii) The format (organization and content) of project technical studies and reports shall be based on the client's requirements. Absent client-specified format, the **Project Manager** and/or the originating **Discipline Leader** shall determine the format based on the scope and complexity of the report.

A.3.2.2 Development and Review

(i) **Discipline Leaders** shall assign qualified individuals the task of preparing study and report content and are responsible for monitoring compliance with this guideline.

(ii) **Discipline Leaders** shall arrange for reviews in accordance with the **Checking** and **Verification Procedure** and documented in the associated forms.

(iii) In addition to discipline reviews, the **Project Manager** shall review the study/report for overall adequacy, completeness, and contractual requirements including compliance with applicable client requirements.

A.3.2.3 Distribution and Filing

(i) **Project Manager** shall distribute copies of technical reports and studies and any changes thereto to personnel/organizations requiring them.

(ii) If multiple reports are expected, it is suggested that the **Project Manager** or designee maintain an index of project technical studies and reports.

A.3.2.4 Changes

(i) Technical reports and studies should be maintained current with significant changes identified during technical development.

(ii) Changes to issued technical reports and studies shall be processed in the form of revision/addenda, approved and distributed.

(iii) Changes incorporated in technical reports and study revisions that are to be reissued should be identified. The reasons for changes should also be provided when it would be helpful for users. The revision date shall be added to the cover.

A.3.2.5 Use of Photographs or Digital Images

(i) Photographic or digital images used in the **Study or Report** depicting conditions relevant to the findings or conclusions shall be dated. Electronic image files of photography taken by project staff or subconsultants shall be retained in project files along with a record print. Photos used in a report from a source other than project photography shall be attributed to the proper source.

A.4 Preparation of Drawings

A.4.1. Procedure

A.4.1.1 General Guidelines

(i) **Discipline Leaders** shall assign qualified individuals the task of preparing drawings and are responsible for monitoring compliance with this guideline.

(ii) At project inception, a project drawing list is to be developed, or updated from one prepared during the proposal phase, by each discipline. Drawing lists will be updated at each milestone to help the **Project Manager** in estimating progress or completion status.

(iii) Drawing Numbers and File Naming – Drawings and drawing files shall be uniquely identified with drawing numbers in accordance with the system applicable to the project.

(iv) CAD Standards –The CAD Standards to be used on the project shall be as identified in the scope of services, or through detailed discussions with the client.

(v) Origin of Drawings – **Discipline Leaders** are responsible for assigning the preparation of drawings to a **Designer** who may work with the **Detailer** working under the direction of a CAD Manager. Each **Designer** shall be responsible for

seeing that the required information is transmitted to the **Detailer** via sketches, marked-up prints, electronic data, and/or written or verbal instructions.

(vi) Duplication of information is to be avoided on drawings, and between drawings and specifications.

A.4.1.2 Review of Drawings During Preparation

(i) **Designer** will conduct periodic reviews of drawings in progress to see that proper scales, orientation, standards, formats, and design information are being utilized and that the design input has been interpreted, applied properly, and is being coordinated with other disciplines. This type of "over-the-shoulder" review takes place as the work progresses and precedes the formal reviews that occur as part of the **Checking** and **Verification Procedure**.

(ii) Where available, the **Designer** may use discipline-specific, client-specific, project-specific or other similar checklists to verify that design, construction and presentation aspects and details are being adequately addressed.

A.4.1.3 Client Requests for Unchecked In-progress Drawings

(i) Clients occasionally request non-contractual, unscheduled, interim or in-progress submittals of drawings for any number of purposes. Given the risks associated with providing unchecked documents to a client and the potential for client complaints, it is always intended that drawings be reviewed in accordance with the **Checking** and **Verification Procedure** prior to submission. However, when circumstances demand, unchecked drawings may be released if the following minimum requirements are met:

(a) The **Project Manager** shall review the drawing set to confirm that the drawings have progressed to the completion level anticipated by the client and to confirm that the non- contractual progress submittal would not be deemed as unacceptable by the client in any way.

(b) A disclaimer statement (or bold stamp) shall be placed on the drawing set indicating that "IN-PROGRESS" and are being provided for "INFORMATION ONLY" at the request of the client."

(c) The **Project Manager** shall submit the non-contractual progress submittal with a cover letter stating that the drawing set is being provided for "INFORMATION ONLY" as requested by the client. The cover letter shall also state that the IN-PROGRESS submittal has not yet been reviewed in accordance with project procedures and is subject to revision in concept and detail as work progresses.

A.4.1.4 Signing and Sealing of Drawings

(i) Drawings issued for construction shall be signed and sealed in accordance with the laws of the applicable State, typically that where the project is located, not where the design takes place. **Discipline Leaders** shall be responsible for understanding the practice and implementing on the project. Any discrepancy or confusion shall be brought to the attention of **Project Manager**.

A.5 Software Validation Procedure

A.5.1. Purpose and Scope

A.5.1.1 This procedure describes minimum requirements to ensure that technical software used on the project has been validated before use.

A.5.1.2 This procedure applies to software used for any of the following:

(i) Performing calculations;

(ii) Developing input for use in calculations;

(iii) Creating designs or drawings using embedded calculations;

(iv) Generating output provided directly to clients;

(v) Generating output included in deliverables to clients; or

(vi) Software that is developed and delivered to a client as a contractual obligation.

For purposes of this procedure, such software is referred to as “technical software.” Exclusions from this procedure include software:

(i) That does not conform to the definitions provided in the list above;

(ii) Used to produce output that is checked and verified manually;

(iii) Inherent to equipment for measuring and testing, which is periodically verified and calibrated in accordance with the manufacturer’s specifications; or

(iv) Designed to enable the operation and maintenance of a computer system and its associated programs (systems software).

A.5.1.3 Mathematical, formulaic, and logic-based programming developed within standard office-type platforms such as Excel and Mathcad may typically be validated as calculations in accordance with the **Checking** and **Verification Procedure**.

Advanced or complex programs that are not amenable to standard checking/verification shall be validated in accordance with this procedure.

A.5.2. Terms and Definitions

A.5.2.1 **Approver** – The individual, independent of the **Validator**, that reviews the validation output and accepts the software for use on the project.

A.5.2.2 **Industry-Standard Software** – Commercially available technical software that is widely used and accepted in a discipline or practice area, and that does not require significant adaptation.

A.5.2.3 **Legacy Software** – Technical software regularly used in the current version for at least three years and for which no problems have been reported, or for which problems have been reported and corrected.

A.5.2.4 **Non-Standard Software** – Technical software that is not widely used and accepted in the industry.

A.5.2.5 **Software Register** – An up-to-date listing of validated technical software maintained by each **Discipline Leader** and posted in a location accessible to all staff.

A.5.2.6 **Validation** – The process of accepting technical software for use by an LCP Company.

A.5.2.7 **Validator** – The individual that performs the validation.

A.5.3. Procedure

A.5.3.1 Staff Responsibilities with Technical Software

All staff using technical software shall help ensure that technical software is used properly, that it is appropriate for the task at hand, and that any resulting errors, input/processing problems, or questionable output are reported to their **Discipline Leader**.

A.5.3.2 Technical Software Register

Discipline Leaders shall maintain a register, accessible to project staff that lists technical software that has been validated for use. The register shall include, at a minimum, the vendor name, software name/description, and version number.

A.5.3.3 Responsibility for Software and Validation

Discipline Leaders are responsible for monitoring the use of technical software within their departments, disciplines and/or practice areas and ensuring that such software meets the

requirements of this procedure. When appropriate, **Discipline Leaders** may serve as Validators and/or Approvers.

A.5.3.4 Software Classification

Technical software shall be classified by the appropriate **Discipline Leader** into one of the following categories, as defined above:

(i) Legacy Software

(ii) Industry-standard Software

(iii) Non-standard Software

A.5.3.5 Validation Process

The appropriate **Discipline Leader** shall assign a **Validator** and **Approver** who shall process the technical software in accordance with its classification as follows:

(i) Legacy Software – Acceptance is based on previously documented and satisfactory internal production experience.

(ii) Industry-Standard Software – The software developer/vendor shall be requested to provide a signed statement or certification that the software has undergone a quality control validation process confirming that it performs as intended. Based on this certification, such software requires no further validation other than a run with sample data to verify that the program functions properly. When no such statement or certification is available, the software shall be treated as Non-standard Software.

(iii) Non-standard Software – Shall be validated using either of the following test procedures:

(a) Run the software using input from a known solution and verify that the program output matches the known solution. All significant design options/methodologies offered by the program shall be verified.

(b) Perform a manual calculation to verify the results obtained using the software.

A.5.3.6 Validation Approval

The **Validator** shall provide the results and documentation of the validation process to the assigned **Approver**, who shall review the information and, if found acceptable, approve the software for use. The **Approver** shall take the necessary steps to have the technical

software added to the LCP validated software register. Technical software shall not be used in production until it has been accepted by the **Approver**.

A.5.3.7 Validation of Software Revisions

(i) New versions of technical software that have been previously validated shall be reviewed by a **Validator** by running the input file or database from the previous version and comparing results. Any differences between the outputs shall be justifiable.

(ii) When approving new versions, changes that may affect previous output shall be noted and communicated by the **Validator** to the **Discipline Leader**.

(iii) The widespread use and acceptance of the new version of the software in our industry, without apparent concern regarding its performance, may also be considered as a basis for accepting new versions.

(iv) New versions of technical software shall not be used prior to acceptance by the **Approver**.

(v) Consideration shall be given to whether only the latest version of the software is to be maintained, keeping in mind that the use of older versions may still be required by the client or for continuity with earlier output.

A.5.3.8 Software Validation Documentation

The validation process shall be documented.

A.5.3.9 Software Errors

Errors discovered by any user in previously validated software that have the potential to affect completed work shall be reported to the appropriate **Discipline Leader**. The **Discipline Leader** shall then be responsible for:

(i) Notifying the software developer/vendor and **Project Manager**

(ii) Identifying projects that have used or are using the software

(iii) Assessing the impact of the error on both completed and ongoing projects, including notification of other **Discipline Leaders** as appropriate.

(iv) Developing a corrective action plan for all affected projects

(v) Revising the validation documentation, including the software register, as necessary

Appendix B: Guidelines for Processes

B.1 Project Processes

We believe that a Project's desired result is achieved more efficiently when activities and related resources are managed as a Process. In achieving desired results, Process Guidelines must be identified and documented. Stantec develops typical Process Guidelines based upon past experiences. Unique Process Guidelines (PG's) are also developed for certain projects.

Our PG's are defined as those functions necessary for managing the Project as well as those that are necessary to realize the project's deliverable. Project processes include:

- administrative processes; and,
- technical processes

Our QMP provides Process Guidelines (PG's) for all known project processes. PG's outline a quality process to be performed; and becomes part of the QMP for the Project.

Basic Elements of a Process Guideline should include:

- purpose
- process description
- key elements
- responsibility/authority

Appendix C: QC Checklist & Comment Forms

QUALITY MANAGEMENT PLAN
CONTRACT NO. 4400032800
STATE PROJECT NO. H.000688.5
F.A.P. NO. H000688
ROUTE: US 11
ST. TAMMANY PARISH

QC DESIGN CHECKLIST & COMMENT FORM

PROJECT ELEMENT

ORIGINAL CALC ☐ Yes ☐ No **IF REVISED, REV'N NO.**

DESIGNER **QC DESIGN CHECKER**

ENGINEER OF RECORD

CALCULATION TYPE ☐ Hand calculation ☐ Spreadsheet ☐ Vendor Software ☐ Other

1.	If SPREADSHEET, has it been approved by Stantec's Project Manager?	☐ Yes	☐ No
2.	If VENDOR SOFTWARE, is it on the LADOTD, website, pre-approved list?	☐ Yes	☐ No
3.	If not on pre-approved list, has it been approved for use by LADOTD?	☐ Yes	☐ No
4.	If OTHER, please describe		

DESIGN INPUT VERIFICATION

1.	Has design input been generated from another source?	☐ Yes	☐ No
2.	Has source information been checked and approved?	☐ Yes	☐ No

CALCULATION CHECK (If response is No, provide applicable comments)

1.	Has the DESIGNER signed and dated the calculation?	☐ Yes	☐ No	☐ N/A
2.	Is the calculation in accordance with a standard approach to preparing the design?	☐ Yes	☐ No	☐ N/A
3.	Is the calculation consistent with contractual requirements of the Scope of Work?	☐ Yes	☐ No	☐ N/A
4.	Are any new BDTM's by LADOTD required to be implemented in this design?	☐ Yes	☐ No	☐ N/A
5.	Has the Project Design Criteria been included & followed?	☐ Yes	☐ No	☐ N/A
6.	Is a Project "GO-BY" required for this design?	☐ Yes	☐ No	☐ N/A
7.	Has the Project "GO-BY" been followed?	☐ Yes	☐ No	☐ N/A
8.	Have assumptions for the design been reviewed and confirmed?	☐ Yes	☐ No	☐ N/A
9.	Are results & conclusions consistent & reasonable considering the inputs & approach?	☐ Yes	☐ No	☐ N/A
10.	Are special provisions or Non-Standard Specification required for this design?	☐ Yes	☐ No	☐ N/A
11.	Have any NON-CONFORMANCE REPORTS been prepared?	☐ Yes	☐ No	☐ N/A

Comments:

QC DESIGN CHECKER SIGNATURE _____ **DATE:**

QUALITY MANAGEMENT PLAN
CONTRACT NO. 4400032800
STATE PROJECT NO. H.000688.5
F.A.P. NO. H000688
ROUTE: US 11
ST. TAMMANY PARISH

QC DETAIL CHECKLIST & COMMENT FORM

PROJECT DRAWINGS CHECKED

ORIGINAL DRAWINGS ☐ Yes ☐ No **IF REVISED, REV'N NO.**

ORIGINATOR(S) **QC DETAIL CHECKER**

CHECK LEVEL ☐ 30% Final ☐ 95% Final ☐ 98% Final ☐ PS&E

DESIGN, QUANTITIES, MATERIALS, SPECIFICATIONS & NOTES				
1.	Has the DESIGN INFORMATION been checked and approved?	☐ Yes	☐ No	☐ N/A
2.	Have the QUANTITIES been checked and approved?	☐ Yes	☐ No	☐ N/A
3.	Are the MATERIALS properly coordinated with the Project specifications?	☐ Yes	☐ No	☐ N/A
4.	Are special provisions or Non-Standard Specifications required for any of the design elements or materials shown on the DRAWINGS?	☐ Yes	☐ No	☐ N/A
5.	Do the NOTES include proper references for DESIGN & MATERIALS and proper cross-references to other DRAWINGS?	☐ Yes	☐ No	☐ N/A
DRAWING CHECK (If response is No, provide applicable comments)				
1.	Are titles and sheet numbers properly shown & matching the Sheet Index?	☐ Yes	☐ No	☐ N/A
2.	Have comments from previous internal reviews been addressed?	☐ Yes	☐ No	☐ N/A
3.	Have comments from previous LADOTD reviews been addressed?	☐ Yes	☐ No	☐ N/A
4.	Is the DESIGN INFORMATION properly and correctly presented?	☐ Yes	☐ No	☐ N/A
5.	Is completeness sufficient for the REVIEW LEVEL?	☐ Yes	☐ No	☐ N/A
6.	Have the appropriate CAD standards been followed?	☐ Yes	☐ No	☐ N/A
7.	Are the DRAWINGS properly formatted in accordance with the "GO-BY"?	☐ Yes	☐ No	☐ N/A
8.	Are there any constructability issues presented on the DRAWINGS?	☐ Yes	☐ No	☐ N/A
9.	Have the appropriate CAD standards been followed?	☐ Yes	☐ No	☐ N/A
10.	Have dimensions been independently verified?	☐ Yes	☐ No	☐ N/A
11.	Are critical dimensions and clearances correct?	☐ Yes	☐ No	☐ N/A
12.	Have redundancy and duplication issues been eliminated?	☐ Yes	☐ No	☐ N/A
13.	Have the DRAWINGS' information been properly interfaced with other disciplines?	☐ Yes	☐ No	☐ N/A
14.	Have Project geometrics been verified with other discipline drawings?	☐ Yes	☐ No	☐ N/A
15.	Have any NON-CONFORMANCE REPORTS been prepared?	☐ Yes	☐ No	☐ N/A

Comments:

QC DETAIL CHECKER SIGNATURE _____ **DATE:**

Appendix D: QA Checklist & Comment Forms

QUALITY MANAGEMENT PLAN
CONTRACT NO. 4400032800
STATE PROJECT NO. H.000688.5
F.A.P. NO. H000688
ROUTE: US 11
ST. TAMMANY PARISH

QA REVIEW & COMMENT FORM

DESCRIPTION OF QA PACKAGE:

Designs Included in Package:

Drawings Included in Package:

QA REVIEWER

REVIEW LEVEL ☐ 95% Final ☐ 98% Final ☐ PS&E

QA PAKCAGE PREPARATION

Has the QA PACKAGE been properly prepared for review?	☐ Yes ☐ No
Have INDEPENDENT CHECKS been properly prepared & included in the QA PACKAGE?	☐ Yes ☐ No

Comments:

PACKAGE REVIEW (If response is No, provide applicable comments)

1. Have all DESIGNS been properly checked in accordance with the 5-step method?	☐ Yes ☐ No ☐ N/A
2. Have all DESIGN COMMENTS been properly resolved?	☐ Yes ☐ No ☐ N/A
3. Have all DRAWINGS been properly checked in accordance with the 5-step method?	☐ Yes ☐ No ☐ N/A
4. Have any NON-CONFORMANCE REPORTS been prepared?	☐ Yes ☐ No ☐ N/A

Comments:

QA REVIEWER SIGNATURE _____ **DATE:**

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Appendix E: Independent Review & Comment Form

QUALITY MANAGEMENT PLAN
CONTRACT NO. 4400032800
STATE PROJECT NO. H.000688.5
F.A.P. NO. H000688
ROUTE: US 11
ST. TAMMANY PARISH

INDEPENDENT REVIEW & COMMENT FORM

DESCRIPTION OF QA PACKAGE:

Designs Included in Package:

Drawings Included in Package:

INDEPENDENT REVIEWER

REVIEW LEVEL ☐ 95% Final

IR PAKCAGE PREPARATION

Has the IR PACKAGE been properly prepared for review? ☐ Yes ☐ No

Comments:

COMPLETENESS & CONSTRUCTIBILITY REVIEW (If response is No, provide applicable comments)

1.	Do the PLANS & SPECIFICATIONS satisfactorily complete the Project SOW?	☐ Yes ☐ No ☐ N/A
2.	Are the design concepts & technical solutions suitable to the Project's SOW?	☐ Yes ☐ No ☐ N/A
3.	Are the PLANS & SPECIFICATIONS presented with completeness for bidding?	☐ Yes ☐ No ☐ N/A
4.	Do the PLANS & SPECIFICATIONS provide the contractor with clear, concise information that can be utilized to prepare a competitive, cost-effective bid?	☐ Yes ☐ No ☐ N/A
5.	Can the Project, as detailed in the PLANS & SPECIFICATIONS, be constructed using standard construction methods, materials and techniques?	☐ Yes ☐ No ☐ N/A
6.	When constructed in accordance with the PLANS & SPECIFICATIONS, can be the Project be maintained in a cost-effective manner?	☐ Yes ☐ No ☐ N/A

Comments:

INDEPEDENT REVIEWER SIGNATURE _____ **DATE:**

Appendix F: LADOTD Road Design QC/QA Plan

In addition to the **QC/QA** procedures described in this **QMP**, **LADOTD Road Design** has established requirements for road design projects. This **Appendix F** has been developed with respect to the current **LADOTD Road policies**. Stantec's **QMP** program is well aligned with the **LADOTD Road Policy**.

Consistent with our **QMP** program, Stantec clearly understands, and believes, that the responsibility for Quality in our services and deliverables is **100% ours**. We also recognize that expectation of LADOTD Road and its staff is only to provide oversight on the design process. The following Checklists are incorporated and become the requirement of the project/assignment. Where discrepancies arise between the Stantec QMP and the LADOTD Road Design QC/QA Plan, the LADOTD Road Design QC/QA Plan shall govern.

F1: 30% Preliminary Roadway Plans QA Checklist

F2: 60% Preliminary Roadway Plans QA Checklist

F3: 90% Preliminary Roadway Plans (Pre-Plan in Hand) QA Checklist

F4: ACP Final Roadway Plans

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ST. TAMMANY PARISH

F1: 30% Preliminary Roadway Plans QA Checklist

Give comment on separate sheet for any item marked 'no'.

Yes No

Title Sheet

- ☐ ☐ Is layout map sufficient (scale, north arrow, size)?
- ☐ ☐ Are project termini labeled (begin/end state/fed project, CS log mile, equations, bridges, exceptions)?
- ☐ ☐ Are Traffic Data, Design Speed, & Class of Highway shown?
- ☐ ☐ Is survey information shown?
- ☐ ☐ Is type of construction identified?
- ☐ ☐ Is project caption complete (Federal aid no., state project no., project name, parish, route no.)?
- ☐ ☐ Is specification year note complete?

Typical Section and Detail Sheets

- ☐ ☐ Has the pavement design, soil borings, ph and resistivity been requested?
- ☐ ☐ Are sections in agreement with current specifications and project design criteria?
- ☐ ☐ Are right-of-way lines shown?
- ☐ ☐ Is area to be constructed free of obstructions labeled?
- ☐ ☐ Are superelevation details shown?
- ☐ ☐ Are grading sections shown?
- ☐ ☐ Are finished sections appropriate (travel lane & shoulder widths & slopes, median widths, embankment slopes)?
- ☐ ☐ Are limits of erosion control items (seeding, fertilizer, water, etc.) shown?
- ☐ ☐ Are typical sections sufficient to show proposed construction?

Plan-Profile Sheets

- ☐ ☐ Are the sheets set up at an appropriate scale (horizontal and vertical)?
- ☐ ☐ Are legend and notes adequately shown on first plan/profile?
- ☐ ☐ Is the existing roadway shown 500' before and after the project limits?
- ☐ ☐ Are all topographic features plotted and labeled where appropriate (pavement types, structure types & sizes, etc.)?
- ☐ ☐ Are utilities shown and adequately labeled?
- ☐ ☐ Is existing right-of-way shown and labeled?
- ☐ ☐ Are beginning & ending project limits labeled?
- ☐ ☐ Is north arrow and scale shown?
- ☐ ☐ Is proposed horizontal geometry shown and adequate (appropriate horizontal curve lengths, equations, surveyed and abandoned, stations, and labeling)?
- ☐ ☐ Is existing profile grade with elevations shown in profile grid?
- ☐ ☐ Is proposed vertical geometry shown and adequate (appropriate curve lengths, grades, equations, and labeling)?

Completed By:
Date:

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F2: 60% Preliminary Roadway Plans QA Checklist

Note: If sufficient changes have occurred since 30% submittal, need to complete 30% checklist again.

Give comment on separate sheet for any item marked 'no'.

Yes No

Title Sheet

- ☐ ☐ Have comments from 30% submittal been addressed?
- ☐ ☐ Have items from 30% checklist marked as 'no' been completed?
- ☐ ☐ Is index in progress?
- ☐ ☐ Is length of project table complete?

Typical Sections

- ☐ ☐ Have comments from 30% submittal been addressed?
- ☐ ☐ Have items from 30% checklist marked as 'no' been completed?
- ☐ ☐ Has pavement design been obtained and incorporated?
- ☐ ☐ Is pipe spacing detail shown?

Plan-Profile Sheets (Includes Drainage Plan-Profiles Where Appropriate)

- ☐ ☐ Have comments from 30% submittal been addressed?
- ☐ ☐ Have items from 30% checklist marked as 'no' been completed?
- ☐ ☐ Has preliminary required right-of-way (including construction and drainage servitude) been shown?
- ☐ ☐ Have limits of construction been shown?
- ☐ ☐ Are cross drain locations identified (disposition of existing structure, required structure, station, size, type, drainage area, design Q, design headwater or headwater elevation, differential head, velocity, direction of flow, flow lines, erosion control measures, bedding material)?
- ☐ ☐ Are required side-drains shown (station, size, type, drainage area)?
- ☐ ☐ Are required bridge structures shown (hydrologic information, begin/end bridge)?
- ☐ ☐ Are ditch grades shown?
- ☐ ☐ Are limits of superelevation shown (begin/end transition, begin/end superelevation, super rates, normal crown)?
- ☐ ☐ Are finished roadway elevations shown at begin/end of each sheet?
- ☐ ☐ Are construction notes in progress (removal items, required PCCP, AC, fencing, gates, etc)?
- ☐ ☐ Are required driveways shown (station, width and type)
- ☐ ☐ Are lane widths & dimension to centerline shown at begin/end of each sheet?
- ☐ ☐ Are geometric details at intersections & crossovers shown?
- ☐ ☐ Are detour alignments shown?
- ☐ ☐ Are proposed cross drains and storm drains shown and labeled in profile?

Existing Drainage Map

- ☐ ☐ Is scale appropriate?
- ☐ ☐ Are sizes and drainage areas of all existing structures shown?

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Yes No

Design Drainage Map

☐ ☐ Is scale appropriate?
☐ ☐ Is proposed horizontal alignment shown and labeled (begin/end station)?
☐ ☐ Is proposed hydrologic information shown (drainage area, watershed boundaries, flow direction, design storm, design Q, design HW, method used)?
☐ ☐ Are required structures numbered?

Geometric Details

☐ ☐ Have plan/profiles showing detours been provided?
☐ ☐ Have all details of crossovers, turnouts, intersections, and islands been provided at appropriate scale?
☐ ☐ Do details include lane widths, deltas, baseline ties to centerline, north arrow, etc.?
☐ ☐ Are traffic data and turning movements shown where appropriate?
☐ ☐ Survey

Sequence of Construction/Construction Signing Sheets (In Progress)

☐ ☐ Are the sheets set up at an appropriate scale?
☐ ☐ Is existing roadway, proposed alignment and stationing shown?
☐ ☐ Are intersecting roads shown and labeled?
☐ ☐ Is north arrow and scale shown?

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F3: 90% Preliminary Roadway Plans QA Checklist

Note: If sufficient changes have occurred since 60% submittal, need to complete 60% checklist again.

Give comment on separate sheet for any item marked 'no'.

Yes No

Title Sheet

☐ ☐ Have comments from 60% submittal been addressed?
☐ ☐ Have items from 60% checklist marked as 'no' been completed?
☐ ☐ Is index in complete & accurate?
☐ ☐ Are earthwork totals shown?

Typical Sections

☐ ☐ Have comments from 60% submittal been addressed?
☐ ☐ Have items from 60% checklist marked as 'no' been completed?

Summary Sheets

☐ ☐ Has complete listing of current pay items been provided?
☐ ☐ Has construction cost estimate been completed?

Plan-Profile Sheets (Includes Drainage Plan-Profiles Where Appropriate)

☐ ☐ Have comments from 60% submittal been addressed?
☐ ☐ Have items from 60% checklist marked as 'no' been completed?
☐ ☐ Are construction notes complete (removal items, required PCCP, AC, fencing, gates, etc)?
☐ ☐ Is earthwork shown at maximum 200' spacing?

Existing Drainage Map

☐ ☐ Have comments from 60% submittal been addressed?
☐ ☐ Have items from 60% checklist marked as 'no' been completed?

Design Drainage Map

☐ ☐ Have comments from 60% submittal been addressed?
☐ ☐ Have items from 60% checklist marked as 'no' been completed?

Geometric Details

☐ ☐ Have comments from 60% submittal been addressed?
☐ ☐ Have items from 60% checklist marked as 'no' been completed?

Sequence of Construction/Construction Signing Sheets

☐ ☐ Have comments from 60% submittal been addressed?
☐ ☐ Have items from 60% checklist marked as 'no' been completed?
☐ ☐ Does phasing sufficiently allow for construction of all proposed improvements?
☐ ☐ Are traffic flow arrows shown?
☐ ☐ Are required construction signs shown?

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F4: ACP Final Roadway Plans QA Checklist

Note: If significant changes have occurred since Plan in Hand, need to complete 90% Preliminary Plan checklist again.

Give comment on separate sheet for any item marked 'no'.

Yes No

General Items

- ☐ ☐ Have all comments since plan in hand been addressed?
- ☐ ☐ Have items from 90% preliminary plan checklist marked as 'no' been completed?
- ☐ ☐ Is index of sheets complete and accurate?
- ☐ ☐ Are all standard plans required included – ensure that latest revision is used?
- ☐ ☐ Has a detailed check of all sheets added since plan in hand been completed?
- ☐ ☐ Have all design exceptions required been approved and listed on the Title Sheet?
- ☐ ☐ Have environmental commitments been incorporated?

Summary Sheets (Includes Drainage Summary Sheets)

- ☐ ☐ Are tables provided for all major items of work?
- ☐ ☐ Are tables arranged in accordance with latest plan preparation manual?
- ☐ ☐ Are tables in agreement with design quantity calculations?
- ☐ ☐ Is design calculation report and hydraulic report provided (neatly arranged, checked, bound, etc.)?
- ☐ ☐ Are all pay items in agreement with latest standard pay item list (item number, description, number of decimals, etc.)?
- ☐ ☐ Is side drain table and list of abbreviations shown on last drainage summary sheet?
- ☐ ☐ Is final construction cost estimate complete?

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Appendix G: Non-Conformance Report Form

NON-CONFORMANCE REPORT

NCR # _____

Activity #: _____

Activity: _____

Location: _____

NCR Prepared By: Name: _____ Date: _____

Company: _____

NCR Given to: Name: _____ Date: _____

Company: _____

Non-Conformance Description: _____

_____

_____

□ No Impact or Assessed Impact: _____

_____

_____

□ No Action or Action Required: _____

_____

References/Attachments _____

_____

Action(s) To Be Implemented By (Name & Date): _____

_____

Action(s) Completed By
(name & signature): _____ Date: _____

Remarks: _____

_____

Date copied: _____ Fax No. _____

Comments: _____

_____

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Guidelines for NCR use

1. NCRs record non-conforming work incorporated into the project and could include, but not be limited to, deviations from design requirements, unexpected soil conditions, material defects, dimensional defects or other deviations in the work.

2. NCRs do not replace routine inspections, diary entries, or materials delivery or testing reports, but can refer to them.

3. Ideally, the person whose actions or decisions create the need for a NCR will issue it, but in other cases the person who finds the non-conformance issues the NCR.

4. The person who issues the NCR ensures it is completed to the point where a copy can be sent within 24 hours to the Quality Assurance Manager.

5. It is implicit that if non-conforming work is not to be repaired or replaced (i.e., no assessed impact) the finished deliverable will meet project requirements.

6. The assessment of the situation will include a review of whether or not the non-conformance is likely to re-occur and if so, a description of the measures that will be implemented to prevent this.

7. The NCR event should be resolved at the lowest appropriate decision making level and escalated only if necessary. The NCR process is not meant to replace quick decision-making in the field or replace communications between the parties involved.

8. The status of unresolved NCRs shall be reviewed in any regular progress meetings and in the Quality Audit summaries done by the Project Quality Assurance Manager.

22. **Sub-consultant Information:**
If one or more sub-consultants will be used, provide the name, address, point of contact and phone number for each. Otherwise, leave this section blank.

Firm Name (Name must match exactly as registered with Louisiana's Secretary of State (SOS): including punctuation, include screenshot(s) from SOS at the end of Section 20)	Address	Point of Contact and Email Address	Phone Number
GeoEngineers, Inc.	11923 Sun Belt Court Baton Rouge, LA 70809	Larry Sant, PE lsant@geoengineers.com	(225) 663-1522

23. **Location:**
If location is an evaluation criterion for this advertisement (see page 2) and the prime consultant intends to establish a local presence, describe the plan for doing so. Otherwise, leave this section blank. **Any information included in this section will be redacted if not required by the Evaluation Criteria section of the advertisement.**

Nelson Road Extension and Bridge, Lake Charles, Louisiana – Stantec

Stantec is a global leader in sustainable architecture, engineering, and environmental consulting. The diverse perspectives of our partners and interested parties drive us to think beyond what's previously been done on critical issues like climate change, digital transformation, and future-proofing our cities and infrastructure. We innovate at the intersection of community, creativity, and client relationships to advance communities everywhere, so that together we can redefine what's possible.