

Submitted To:
Louisiana Department of
Transportation and Development



DOTD Form 24-102 Qualifications Statement

IDIQ Contracts for Engineering and Technical Support Services for Critical Projects, Statewide

Contract Nos. 4400035363, 4400035364, 4400035365, 4400035366 AND 4400035367



Submitted By:



4545 Sherwood Common Boulevard, Building 3, Suite A | Baton Rouge, LA 70816



4545 Sherwood Common Boulevard
Bldg., 3, Suite A
Baton Rouge, LA 70816

T 225.372.1328
www.TRCompanies.com

June 16, 2026

Louisiana Department of Transportation and Development
Attn.: Project Evaluation Team (PET)
Consultant Contract Services
1201 Capitol Access Road, Room 405-E
Baton Rouge, LA 70802-4438

Re: Professional Engineering and Related Services
Contract Nos.: 4400035363, 4400035364, 4400035365, 4400035366 AND 4400035367
IDIQ Contracts for Engineering and Technical Support Services for Critical Projects, Statewide

Dear Project Evaluation Team Members,

TRC Engineers, Inc. (TRC), in association with several respected and highly qualified consultant partners, is pleased to submit our *Qualifications Statement* on DOTD Form 24-102 for consideration of providing the needed engineering and related services for the above-referenced contracts. Highlights of our qualifications to deliver all work under a contract of this nature to the complete satisfaction of the LADOTD include the following:

- Accomplished **Project Manager with 42 years of experience** involving the planning, design, inspection, and construction of bridges, roadways, tunnels, railroad facilities, and other associated structures. As Project Manager and Engineer-of-Record on multiple LADOTD assignments, he has directed large interdisciplinary teams under extremely aggressive schedules, advanced projects through delivery methods such as design-build and CMAR (Construction Manager at Risk), and coordinated with contractors, stakeholders, and regulatory agencies to keep projects on schedule and within budget. He is a **21-year veteran of TRC**.
- Our team offers the experience of having **provided broad services for high-risk, high-profile infrastructure investments throughout the country**, including in Louisiana for the LADOTD, many of which have been progressed using a variety of Alternative Delivery Methods or in accordance with accelerated schedules.
- In-depth experience with the LADOTD's policies, procedures and expectations for this contract having **served as a prime consultant on past IDIQ Contracts**. Thus, we require no learning curve for delivering the expected work as demonstrated in our Approach and Methodology described herein.

TRC is highly appreciative of your review and consideration of our team's credentials and looks forward to your decision.

Sincerely,

A handwritten signature in blue ink that reads "Durk H. Krone". The signature is fluid and cursive, with the first name "Durk" being the most prominent.

Durk H. Krone, P.E.
Vice President, Area Manager SE Infrastructure

DOTD FORM: 24-102

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 24 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 Name as shown in the advertisement	IDIQ Contracts for Engineering and Technical Support Services for Critical Projects, Statewide
2. Contract Number(s) as shown in the advertisement	4400035363, 4400035364, 4400035365, 4400035366 AND 4400035367
3. State Project Number(s), if shown in the advertisement	N/A
4. Prime consultant name (name must match <u>exactly</u> 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)	TRC Engineers, Inc. (screenshot included in Section 20)
5. Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	License # EF.0003249
6. Prime consultant mailing address	4545 Sherwood Common Blvd., Building 3, Suite A Baton Rouge, LA 70816
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	See Item 6 above
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Durk Krone, PE, Vice President (225) 229-2968 e-mail: dkrone@trccompanies.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Durk Krone, PE, Vice President (225) 229-2968 e-mail: dkrone@trccompanies.com

Prime consultant should enter firm name in the footer at the bottom of this page. (It will carry over to subsequent pages.)

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.

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.

Firm(s):
N/A

Firm(s)' %:
N/A



Signature above shall be the same person listed in Section 9:

June 16, 2026

Date:

12. Discipline Table:

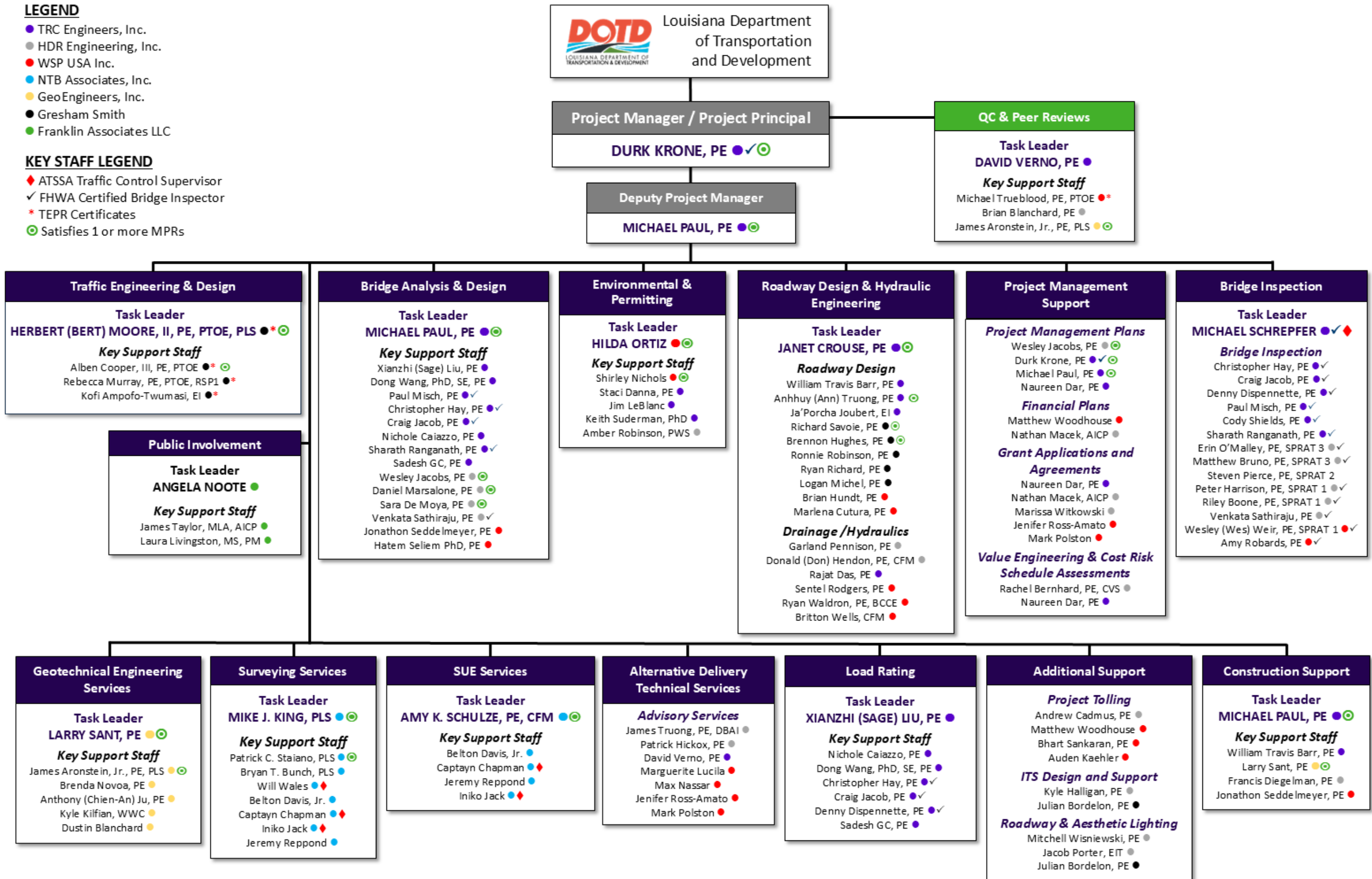
Discipline(s)	% of Overall Contract	TRC Engineers	WSP USA	HDR Engineering	Gresham Smith	NTB Associates	GeoEngineers	Franklin Associates	Each Discipline must total to 100%
Bridge	23	80	5	15	0	0	0	0	100%
Road	28	70	5	10	15	0	0	0	100%
Environmental	7	40	50	10	0	0	0	0	100%
Traffic	5	0	10	0	90	0	0	0	100%
Survey	5	0	0	0	0	100	0	0	100%
Other (SUE)	2	0	0	0	0	100	0	0	100%
Geotech	5	0	0	0	0	0	100	0	100%
Other (Public Outreach)	1	0	0	0	0	0	0	100	100%
ITS	2	0	0	50	50	0	0	0	100%
Other (Lighting)	6	0	0	50	50	0	0	0	100%
Other (Tolling, Alternative Delivery & Other Services)	16	37	50	13	0	0	0	0	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%	47	15	15	10	7	5	1	100%

13. Team Size:

Firm name	DOTD Job Classification	Number of personnel <u>committed</u> to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
TRC Engineers, Inc. 	Principal	2	3
	Supervisor - Eng	8	15
	Supervisor - Other	2	20
	Engineer	10	30
	CADD Technician	4	10
	Administrative	1	25
	Engineer - Other	4	34
	Inspector - Bridge	5	20
	Environmental Pro	3	17
WSP USA Inc. 	Accountant	1	55
	Administrative	1	22
	CADD Technician	2	6
	Engineer	3	85
	Engineer Intern	3	45
	Inspector - Bridge	3	19
	Inspector - Lead	1	2
	Supervisor - Eng	8	96
	Environmental Manager	1	20
	Environmental Pro	3	67
HDR Engineering, Inc. 	Economist	1	16
	Engineer	2	15
	Engineer-Intern	1	5
	Engineer-Other	2	52
	Environmental Pro	1	5
	Inspector Bridge	2	13
	Principal	2	10
	Supervisor-Eng	8	46
	Supervisor-Other	3	12
Gresham Smith 	Administrative	1	1
	Clerical	1	1
	Designer	1	1
	Engineer	4	8

Firm name	DOTD Job Classification	Number of personnel <u>committed</u> to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
	Engineer Intern	4	8
	Planner	0	2
	Principal	1	1
	Professional	1	4
	Senior Technician	2	6
	Supervisor - Eng	4	6
	Supervisor - Other	1	2
NTB Associates, Inc. 	Principal	1	1
	Engineer	1	1
	Engineer Intern	1	1
	Surveyor	5	6
	Supervisor - Other	1	5
	Senior Technician	0	1
	CADD Technician	1	10
	Technician	1	2
	CADD Drafter	1	8
	Party Chief	4	20
	Instrument Man	4	12
	Rodman	4	12
GeoEngineers, Inc. 	Administrative	1	4
	CADD Technician	1	1
	Driller	2	3
	Engineer	4	9
	Engineer- Other	0	7
	Engineer Intern	1	3
	Principal	2	6
	Senior Technician	1	1
	Technician	1	11
Franklin Associates, LLC 	Other (Public Outreach and Relations Support)	2	19

14. Organizational Chart:



15. Minimum Personnel Requirements:

MPR No. Do not insert wording from ad	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	Durk Krone	TRC Engineers, Inc.	#PE.0031955 - Civil	LA	03-31-2028
2	Durk Krone	TRC Engineers, Inc.	#PE.0031955 - Civil	LA	03-31-2028
3	Durk Krone	TRC Engineers, Inc.	#PE.0031955 - Civil	LA	03-31-2028
4	Hilda Ortiz	WSP USA Inc.	N/A	N/A	N/A
4	Shirley Nichols	WSP USA Inc.	N/A	N/A	N/A
5	Herbert “Bert” Moore, II	Gresham Smith	#PE.0031065 - Civil	LA	09-30-2026
5	Alben Cooper, III	Gresham Smith	#PE.0036291 - Civil	LA	09-30-2027
6	Mike J. King	NTB Associates, Inc.	#PLS.0005127 - Survey	LA	09-30-2027
7	Patrick C. Staiano	NTB Associates, Inc.	#PLS.0005130 - Survey	LA	09-30-2027
8	Amy K. Schulze	NTB Associates, Inc.	#PE.0030295 - Civil	LA	03-31-2027
9	Larry Sant	GeoEngineers, Inc.	#PE.0035625 - Civil	LA	09-30-2026
9	James Aronstein, Jr.	GeoEngineers, Inc.	#PE.0011794 - Civil	LA	03-31-2027
10	Janet Crouse	TRC Engineers, Inc.	#PE.0040798 - Civil	LA	09-30-2026
10	Anhhuy “Ann” Truong	TRC Engineers, Inc.	#PE.0051245 - Civil	LA	09-30-2026
10	Richard Savoie	Gresham Smith	#PE.0020936 - Civil	LA	09-30-2026
10	Brennon Hughes	Gresham Smith	#PE.0039985 - Civil	LA	03-31-2028
11	Michael Paul	TRC Engineers, Inc.	#PE.0032172 - Civil	LA	03-31-2028
11	Wesley Jacobs	HDR Engineering, Inc.	#PE.0030774 - Civil	LA	09-30-2026
11	Daniel Marsalone	HDR Engineering, Inc.	#PE.0028554 - Civil	LA	09-30-2027
11	Sarah De Moya	HDR Engineering, Inc.	#PE.0038011 - Civil	LA	03-31-2027
11	Hatem Seliem	WSP Group Inc.	#PE.0039759 - Civil	LA	09-30-2027

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Durk Krone, P.E.		Years of relevant experience with this employer	21
Title	Vice President/Sr. Project Manager		Years of relevant experience with other employer(s)	21
Degree(s) / Years / Specialization			M.S. / 1984 / Civil Engineering B.S. / 1982 / Civil Engineering	
Active registration number / state / expiration date			#PE.0031955 / LA / 03-31-2028	
Year registered	2005	Discipline	Civil Engineer Other Pertinent Training / Certifications LADOTD Maintenance & Rehabilitation of Historic Bridges Training Course, 2016 FHWA-NHI-130055 - Safety Inspection of In-Service Bridges, 5/1999 FHWA-NHI-130053 – Bridge Inspection Refresher Training, 10/2021 FHWA-NHI-130078 – Fracture Critical Inspection Techniques for Steel Bridges, 8/2007 FHWA-NHI-130092 – Fundamentals of LRFR, 2015	
Contract role(s) / brief description of responsibilities			Project Manager (Satisfies MPRs #1, #2, #3) Durk brings 42 years of experience involving the planning, design, inspection, and construction of bridges, roadways, tunnels, railroad facilities, and other associated structures. As Project Manager and Engineer-of-Record on multiple LADOTD assignments, he has directed large interdisciplinary teams under extremely aggressive schedules, advanced projects through delivery methods such as design-build and CMAR (Construction Manager at Risk), and coordinated with contractors, stakeholders, and regulatory agencies to keep projects on schedule and within budget. He has managed several IDIQ and retainer contracts with the LADOTD and is very familiar with managing the delivery of multiple concurrent assignments.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the time specified in the applicable MPR(s).			
03/20-Present	LADOTD, S.P. No.: H.005121, LA1/LA415 Connector – Construction Manager at Risk (CMAR), West Baton Rouge Parish, LA – Project Manager for this high-profile project that involves the design of a new connector between LA 1 and I-10 which will improve resiliency and safety by providing a direct connection and evacuation route for areas south of I-10. The estimated \$550 million project is approximately 5 miles in length and includes a new four-lane roadway and bridge(s) over the Gulf Intracoastal Waterway. Elevated structures are required for much of the project, including a Diverging Diamond Interchange at I-10 and a SPUI interchange layout at LA 1 with substantial roadway improvements north and south of the interchange at LA 1. Initiated as a Design-Bid-Build procurement and in an effort to accelerate the Project, the DOTD transitioned the project’s delivery method near the end of TRC’s preliminary engineering to a CMAR and issued an advanced Notice to Proceed agreement where TRC has recently submitted 30% final plans. TRC is the Lead Designer working hand-in-hand with the DOTD, a CMAR contractor, and ICE (Independent Cost Estimator).			
03/15-01/25	City of Bossier, Walter O. Bigby Carriageway, Bossier City, LA – TRC Project Manager for design of the North Parkway Extension roadway from North of Eatman Street to Benton Highway. The project follows existing roadway for a portion of the alignment, then continues northward on new alignment between the Red River Levee and Union Pacific Railroad, crosses existing tracks with a bridge structure, and connects to Benton Highway at a new signalized intersection. Work includes the design of two roundabouts at the intersections of Hamilton Road and Shed Road, and the reconstruction of three side roads that tie-in to the new North Parkway Extension. The design work also includes widening Hamilton Road from south of US 80 to the new roundabout and the addition of a left-turn lane and driveway reconfigurations along Benton Highway. Total project length includes approximately 5300 feet of reconstructed city streets and 3600 feet of new four lane streets, including a 1470 foot bridge structure. Tasks include geometric design of the new			

	alignment and roundabouts; development of plan and profile sheets, geometric detail sheets, joint layout sheets, cross sections, and quantities; and assistance with the storm drainage design. Additionally managed the delivery of engineering support during construction.
01/21-07/23	S.P. No.: H.003931, I-10 Calcasieu River Bridge P3 Project, Lake Charles, LA – Deputy Project Manager for the WSP Team and Project Manager during the execution of services that included Data Review, Capital Construction Cost Estimation and Schedule. Assisted with development of the technical inputs to the RFP that supported delivery of the Draft RFP, and provided RFP phase preliminary support that included reviews of the draft RFP package documents, development of the Technical Proposal Requirements, drafting of preliminary Technical Provisions (TP) Performance Specifications, and reviewing KPIs and LDs. Oversaw development of the TPs for Environmental Compliance, Railroad, Demolition, Bridge, Miscellaneous Structures, Sign Structures and Support, Signing, and Pavement Markings, Maintenance of Traffic, and Traffic. TRC also conducted the review and evaluation of Developer Proposals. The project extends from the I-10/I-210 west interchange to the Ryan Street exit ramp and consists of replacing the I-10 Calcasieu River Bridge using P3 project delivery, including the reconfiguration of interchanges and interstate widening.
04/23-08/23	S.P. No.: H.009300, Hooper Road Widening CMAR – Appointment to Selection Review Committee – Mr. Krone was appointed by Dr. Eric Kalivoda, Secretary of Transportation, to the CMAR Selection Review Committee for evaluation of the responses to the Request for Qualifications by JB James Construction, LLC and Barber Brothers Contracting Co., LLC. Mr. Krone attended several meetings with the CMAR Selection Review to review SOQs, send requests where necessary to the Contractor’s requesting either clarification or supplemental information, and ultimately score the proposals. Mr. Krone completed two 27 page Evaluations, one for each contractor, and issued them to the LA DOTD
07/13-11/13; 01/15-03/15; 09/19-06/20; 10/22-01/23	Design-Build Pursuits – Project Manager for TRC as the Lead Designer during the RFP Phase for the following Design-Build Projects: 1. S.P. No.: H.010620 US 90 (Future I-49) Albertson’s Parkway to Ambassador Caffery – Contractor – J.B. James Construction 2. S.P. No.: H.004932 US 90 (Future I-49) LA 318 Interchange – Contractor – Conti 3. S.P. No.: H.013897 I-10 and I-12 College Dr. Flyover Ramp – Contractor – J.B. James Construction 4. S.P. No.: H.001779 Jimmie Davis Bridge (LA 511) (HBI) – Contractor – Thalle Construction Co., Inc. Managed all subconsultants and assisted with development of SOQs. Once shortlisted, provided reviews and issued questions on the draft and final ITPs & RFPs; attended One-on-One Meetings; conducted oral presentations with the Contractor; authored and implemented approved ATCs; calculated quantities for the Contractor; prepared the Technical Proposal; and assisted Contractor in developing the cost proposal, Design Units and a cost loaded schedule. TRC scored well on all Technical Proposals and was ranked number one for Albertson’s Parkway.
12/10-Present	S.P. No.: H.001234, LA 1 Port Allen Canal Bridge Replacement, West Baton Rouge Parish, LA (DOTD) – Bridge Study – Project Manager for the development of a detour bridge study where two different detour alignments were developed. Each consisted of a 2,500’ detour bridge over the Intracoastal Waterway where the proprietary Acrow system was considered and where adequate vertical clearance was provided. Conceptual bridge designs were developed for each alignment. Rehabilitation Study – Project Manager for the feasibility study that investigated three bridge rehabilitation options and one bridge replacement option for the existing twin bridges that carry LA 1 over the ICWW. The Study included the development of new roadway alignment options, construction phasing, traffic control schematics, investigating rehabilitation options for the existing bridge and preliminary design of a new bridge option. The rehabilitation and replacement options also investigated and proposed the use of Accelerated Bridge Construction techniques. Preliminary & Final Design – Project Principal for preliminary and final design and associated plans which included roadway, traffic control, maintenance of traffic, ITS, traffic signal, MSE wall, highway lighting and bridge plans. Coordinated with UPRR, the US Army Corps of Engineers, the USCG, and the Port of Baton Rouge. The project included a 1.5-mile “superstreet” (Access Management Improvements) portion.
06/06-10/18	S.P. No.: H.003886.5, I-49 & I-220 Interchange - Shreveport, Caddo Parish, LA (DOTD) - Project Manager on this new, multi-lane divided roadway, 4-level interchange project completed on an accelerated schedule. Managed five design teams to complete the work. Mr. Krone was involved with the review of conceptual and structural designs and worked with the roadway design consultant to develop span arrangements, structure depths, pier concepts and roadway geometry for a dual bridge design that included post-tensioned segmental concrete and steel box girder superstructures. The project consisted of five new bridges and two bridge widenings.

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.	
Name	Michael Paul, P.E.	Years of relevant experience with this employer	17
Title	Project Manager/Senior Bridge Engineer	Years of relevant experience with other employer(s)	6
Degree(s) / Years / Specialization		M.S. / 2003 / Civil Engineering B.S. / 2000 /Civil Engineering	
Active registration number / state / expiration date		#PE.0032172 / LA / 03-31-2028	
Year registered	2006	Discipline	Civil Engineer Other Pertinent Training / Certifications FHWA/NHI #130055 - Safety Inspection of In-Service Bridges, 2007 FHWA/NHI #130078 - Fundamentals of LRFR and Applications of LRFR for Bridge Superstructures LADOTD Highway Safety Manual Workshop, 2011 FHWA/NHI #130092 - Fracture Critical Techniques for Steel Bridges, 2015 ATSSA – Traffic Control Supervisor ASBI Grouting Training Certificate, 2012 LADOTD Maintenance & Rehabilitation of Historic Bridges Training Course, 2016 FHWA-NHI #132082 – LRFD for Highway Bridge Substructures FHWA-NHI #134006 – Utility Coordination for Highway Projects
Contract role(s) / brief description of responsibilities		Bridge Design Lead (Satisfies MPR #11) Michael has over 23 years of experience in transportation and civil engineering consulting involving conceptual, preliminary, and final structural design . His projects have included the rehabilitation of major river crossings such as the Mississippi River and Intracoastal Waterway, as well as new bridges spanning railroads and bridges incorporated into complex urban highway undertakings. Rehabilitation designs have addressed all aspects of the superstructure, substructure and foundations.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. E Experience dates should cover the time specified in the applicable MPR(s).		
03/20-Present	LADOTD, S.P. No.: H.005121.5, LA 1/LA 415 Connector CMAR, West Baton Rouge Parish, LA - Deputy Project Manager for the development of preliminary plans for this new 2.7 mile corridor between LA 1 near LA 988 (Beaulie Lane) and I-10 at the 415 interchange. Served as conceptual structural designer and developed the Evaluation of Single Versus Dual Bridge Options Over the GIWW report. Worked with stakeholders for the development and selection of the conceptual alternate alignment when it was determined that the EA Report alignment was no longer feasible due to recent development. Mr. Paul also developed the Project QA/QC Plan, Design Criteria and Project Schedule.		
06/11-12/25	LADOTD, S.P. No.: H.011965, LA 47: IWGO Bridge Rehabilitation (HBI), Orleans Parish, LA - Project Manager for the rehabilitation of this bridge which consists of 1,248 feet of steel truss main spans with cantilevered arms and tied-arch (main span); 3,304 feet of welded steel girder approaches; 1,590 feet of prestressed girder approach spans; and 480 feet of concrete slab spans. The project has consisted of the development of preliminary and final plans to address the repair and rehabilitation of all substructure and superstructure elements. A special in-depth inspection was conducted to determine repair types and locations, while 3D laser scanning was performed to analyze abnormal bridge movements. As part of the rehabilitation, TRC was responsible for development of a Transportation Management Plan and Maintenance of Traffic plans that included right lane and left lane closures, and a total closure with detour. As part of the construction support, he reviewed an inspection and repair report prepared for the tie girder T1 steel butt welds that identified additional rejectable areas which resulted in additional repair recommendations and load rating.		

01/21-07/23	S.P. No.: H.003931, I-10 Calcasieu River Bridge P3 Project, Lake Charles, LA (DOTD) - Project Engineer responsible for development of the Structures, Demolition, and Railroad Technical Provisions that were included in the RFP document. Mr. Paul also conducted the review and evaluation of Developer Proposals. The project extends from the I-10/I-210 west interchange to the Ryan Street exit ramp and consists of replacing the I-10 Calcasieu River Bridge using P3 project delivery, including the reconfiguration of interchanges and interstate widening.
07/10-02/18	LADOTD, S.P. No.: H.004266 (700-24-0031), Route US 190 Rehabilitation over Mississippi River, East and West Baton Rouge Parishes, LA - Project Engineer for the structural rehabilitation, cleaning and painting of a major railroad/highway bridge across the Mississippi River. The bridge consists of 8,884 feet of railroad approach spans; 2,552 feet of highway approach spans; and 3,326 feet of cantilever steel truss main spans. The inspection consisted of reviewing existing plans and drawings, inspecting and assessing deteriorated portions of the structure, and developing repair locations, repair schemes and details. Reviewed load rating reports for the truss and the approach span steel bent towers, evaluated the bridge conditions and prioritized the bridge repair items. Rehabilitation work included complete cleaning and painting, and general structural rehabilitation of various bridge members including: cross frame chord members and connection angles, top lateral bracing members, replacement of the main truss vertical and diagonal lacing bars, deteriorated interior stiffeners of the main truss verticals, deteriorated diagonals at portals, anchor bolt and column rehabilitation for approach bents, bearing pins and corroded bearings, rehabilitation of false chord expansion devices, replacement of cracked gusset plates, and patching of concrete spalls at bearings and retaining walls. Schemes for jacking and temporary support of members during rehabilitation and structural analysis for traffic reduction during phases of construction were included. Traffic control and phasing for maintenance of traffic was also provided.
08/07-02/09	LADOTD, S.P. No.: 450-09-0026, I-10 Mississippi River Bridge at Baton Rouge Rehabilitation, Baton Rouge, LA - Assisted with performing the design check and construction plan preparation for the rehabilitation of this 2,423', 3-span, through truss bridge. The project included modification of a longitudinal strut to facilitate movement of the suspended span. Sequential jacking was specified for the suspended span movement. The project also included a retrofit of the upper and lower false chord expansion connections, and replacement of the expansion joints to accommodate the suspended span movement. Developed the design documents for floor beam and floor beam connection distortional crack retrofit repairs.
12/10-Present	LADOTD, S.P. No.: H.001234.5, LA 1 Intracoastal Bridge Rehabilitation/Replacement, Port Allen, LA - Detour Bridge Study – Lead engineer for the development of a detour bridge study where two different detour alignments were developed. Each consisted of a 2,500' detour bridge over the Intracoastal Waterway where the proprietary Acrow system was considered and where adequate vertical clearance was provided. Conceptual bridge designs were developed for each alignment. Rehabilitation Study - Lead engineer for a Stage 0 Feasibility Study that investigated three different bridge rehabilitation options and one bridge replacement option for the existing twin bridges that carry LA 1 over the Intracoastal Waterway. As part of the study, Mr. Paul was involved with the development of new roadway alignment options, construction phasing, traffic control schematics, investigating rehabilitation options for the existing bridge and preliminary design of a new bridge option. The rehabilitation and replacement options also investigated and proposed the use of Accelerated Bridge Construction techniques. Preliminary & Final Design – Project Manager while developing the Stage 3 preliminary (bridge and roadway) and final design (roadway only). Associated plans included roadway, traffic control, maintenance of traffic, ITS, traffic signal, MSE wall, highway lighting and bridge plans. Coordinated with UPRR, the US Army Corps of Engineers, the USCG, and the Port of Baton Rouge. A traffic analysis was conducted with the submittal of a Level 3 Transportation Management Plan. The project included a 1.5-mile “superstreet” portion that consists of signalized and un-signalized J-turns. The proposed LA 1 SB and LA 1 NB bridges are 2,680' and 2,700', respectively, and consist of PPC girder approach spans and 3 span continuous steel I-girder spans over the Intracoastal Waterway. Presently providing as-needed construction engineering support during Phase 2 of the project.
06/15-12/24	Walter O. Bigby Carriageway, Bossier City, LA - Bridge Task Leader for the design of a new bridge as part of a complex urban highway reconstruction project that will be 1,520' long and consist of a horizontally curved, haunched 4-span (185'-225'-300'-225') steel plate I-girder main span continuous unit over the Union Pacific Railroad and BT-72 prestressed concrete girder approach spans. The bridge will consist of 4-12' travel lanes, a 4' left shoulder, and a 9'-8" right shoulder, and have an out-to-out width of 66'-2" for the majority of the bridge length. The northern portion of the bridge will flare out to a total width of 70' to accommodate a turning lane. The bridge substructures will consist of reinforced concrete piers and deep prestressed precast concrete pile foundations. As the bridge is located adjacent to the Bossier Levee, Mr. Paul also took the lead in working with the US Army Corps of Engineers to develop the 408 permit request.

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Janet Crouse, P.E.		Years of relevant experience with this employer	12.5
Title	Senior Roadway Engineer		Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization			B.S. / 2003 / Civil Engineering	
Active registration number / state / expiration date			#PE.0040798 / LA / 09-30-2026	
Year registered	2016	Discipline	Civil Engineer	
			Other Pertinent Training / Certifications ATSSA – Traffic Control Design Specialist ATSSA – Traffic Control Supervisor (10/18/2024 – 10/18/2028)	
Contract role(s) / brief description of responsibilities			Roadway Design Lead (Satisfies MPR #10) Janet’s nearly 20 years of experience as a project engineer includes work on such projects as interstate highways, state and local roads, and site development parcels. Project tasks have included geometric design, drainage and site design, development of erosion control, signing and marking, and right of way plans. Offering more than 10 years of experience with Louisiana roadway design, she is very familiar with the latest applicable DOTD references, including the latest applicable editions, supplements and revisions.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
03/20-Present	LADOTD, S.P. No.: H.005121.5, LA1/LA415 Connector, West Baton Rouge Parish, LA – Roadway Design Engineer for the LA 1/LA 415 CMAR project involving 2.7 miles of new four-lane roadway with bridge crossings over the Gulf Intracoastal Waterway, Sun Plus Parkway, and LA 1. Responsible engineer-in-charge for developing roadway geometrics and plans for LA 415 beginning north of Court Street continuing south to the ICWW bridge crossing and includes the reconfiguration of the LA 415 connection at I-10 to a diverging diamond interchange with ramp modifications, as well as improvements to Court Street, Commercial Drive and a new Backage Road connection.			
11/14-Present	LADOTD, S.P. No. H.001234, Port Allen Canal Bridge, LA 1, West Baton Rouge Parish, LA – Roadway Design Engineer for the preliminary and final design of 2.26 miles of roadway associated with the replacement of LA 1 over the Intracoastal Waterway. Project features 0.98 miles of new four lane roadway for LA 1 on new alignment, including a separate exit ramp for I-10 EB traffic, and coordination with the design of new 2,700’ twin bridges. Served as the responsible engineer-in-charge for the reconstruction of an existing frontage road, and a railroad at-grade crossing for Ernest Wilson Road and associated plan development. Also served as the responsible engineer-in-charge for the initial design and associated plan development which featured 1.27 miles of “Super Street” improvements to LA 1 that included the removal of eight median openings, four new signalized ”J-Turns” and left-turn storage. Developed MOT plans required to maintain four lanes of traffic on LA 1 with connections to the I-10 ramps. Project also included involvement with drainage design, geometric details, striping, joint layout, sequence of construction, cross sections, and quantities.			
08/15-01/21	City of Bossier, Walter O. Bigby Carriageway, Bossier City, LA – Served as the responsible engineer-in-charge for the design of this complex urban highway project involving an extension of the North Parkway roadway from north of Eatman Street to Benton Highway. Work included the design of two roundabouts at the intersections of Hamilton Road and Shed Road, the reconstruction of three side roads to tie into the new North Parkway Extension, widening of Hamilton Road from south of US 80 to the new roundabout, and the addition of a left-turn lane and driveway reconfigurations along Benton Highway. Total project length was approximately 5,300 feet of reconstructed city streets and 3,600 feet of new four lane roadway, which included a 1,470-foot bridge structure. Tasks involved the geometric design of the new alignment and roundabouts, the development of plan and profile sheets, geometric			

	detail sheets, joint layout sheets, cross sections, quantities, and assistance with the storm drainage. Completed for the City of Bossier, all design work was completed in accordance with all applicable and current DOTD specifications and standards.
10/12-09/14	LADOTD, S.P. No. H.011111, I-49 North – Preliminary & Final Bridge Plans, Caddo Parish, LA – Project Designer for engineering and related services for the bridge design and rating for the I-49/I-220 interchange bridges, specifically directional ramps EN, SE and WN, and the widening of existing I-220 bridges. Areas of responsibility included the design and plan sheet preparation for median barrier and barrier rail layout, bridge deck drainage, and quantity sheets, and design coordination with roadway design team and other team members.
06/21-07/22	City of Marble Falls, Avenue N Bridge at Backbone Creek, Marble Falls, TX - Design Engineer for the preliminary and final design of Avenue N bridge approaches. Tasks included the geometric design of bridge approaches; walk paths connecting new sidewalk to existing crushed granite trails and a new cul-de-sac at Backbone Street; and the development of roadway plan and profile sheets, walk path plan and profile sheets, quantities, and cross-section sheets.
04/23-09/23	Delaware County Engineers Office, DEL-CR98-01.58 Roundabout Design, Delaware County, OH – Roadway engineer for the preliminary design and layout of a roundabout to replace an existing 4-way intersection located at Piatt Road and Peachblow Road. Challenges included constraints due to right of way and existing drainage features. Areas of involvement included horizontal and vertical layout of roundabout and associated design checks, storm sewer and ditch design and development of Stage 1 plans using MicroStation ORD.
02/23-07/23	Mississippi Dept. of Transportation, SR 184 Bridge Replacement (BR 103.1), Prentiss, MS – Served as the responsible engineer-in-charge for the roadway design and final plan development of approximately 1,000 feet of two-lane roadway widening associated with a bridge replacement on SR 184. Areas of involvement included confirming the typical sections and proposed right-of-way that was developed during the preliminary design phase, along with final plan preparation that included guardrail design, ditch design, erosion control treatments, quantities, striping, construction signing and maintenance of traffic plans, cross sections and a construction cost estimate. Roadway plans were completed in MicroStation OpenRoads Designer (ORD).
06/14-10/14	West Virginia Department of Transportation, I-64 Design Study, Saint Albans Interchange, Nitro, WV - Responsible for providing engineering design during the preliminary layout for a diverging diamond interchange along I-64 at US 35 (St. Albans Interchange). The design included her review of the proposed traditional diamond interchange for US 35 and the layout of a diverging diamond interchange to improve traffic flow on ramps.
08/12-10/13	East Baton Rouge Parish, Old Hammond Highway Improvements, Segment 2, Baton Rouge, LA – Project Designer during the design of reconstruction work along Old Hammond Highway as part of the City’s Green Light Plan. Work consisted of the design for a new four-lane divided highway, intersection layout, roadway profiles, sub-surface drainage, sequence of construction drawings, and utility relocation including new 8” gravity sewer, a lift station and a force main. Task involvement included plan revisions and the development of drainage plans.
01/13-11/14	LADOTD, SPN# 44-2184, Louisiana Department of Transportation, Retainer Contract for Bridge Preventative Maintenance, Statewide - Responsible for providing engineering and related services under a retainer contract that involved the repair and/or preventative maintenance of bridge structures throughout the State of Louisiana. Task Order 1 involved bridges in East Baton Rouge, West Baton Rouge, East Feliciana and West Feliciana Parishes and included bridges on I-10, I-110, LA-1 and LA-67 crossing local roads and creeks. Areas of responsibility included preparing traffic control plans for several bridge sites as well as assisting in the preparation of general plan sheets, quantity sheets and other miscellaneous sheets.
10/08-05/11	US 441/SR 15 Widening from Clayton County Limits to North Carolina State Line, Rabun County, GA (GDOT) - Project Designer for the conceptual and preliminary design associated with widening over 7 miles of roadway between the northern city limits of Clayton to the North Carolina State line. The project included both urban and rural typical sections for widening to a four lane divided facility. Retaining walls were required to limit right-of-way impacts due to the steep terrain. Context sensitive design solutions were utilized to reduce the property and socio-economic impacts in the municipalities of Mountain City and Dillard. Tasks included on this project were geometric design, roadway drainage design, hydraulic design of major culverts, design of bicycle and pedestrian facilities, preparation of staged construction and maintenance of traffic plans and preparation of erosion and sediment control plans.

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Anhhuy ‘Ann’ Truong, P.E.		Years of experience with this employer	3
Title	Senior Roadway Engineer		Years of experience with other employer(s)	27
Degree(s) / Years / Specialization			B.S. / 1996 / Civil Engineering	
Active registration number / state / expiration date			#PE.0051245 / LA / 09-30-2026	
Year registered	2026	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities			Senior Roadway Engineer (Satisfies MPR #10) Ann offers 30 years of highway design experience which has been gained while delivering many PA/ED and PS&E projects in both the public sector and private sector as a design lead and senior engineer. She has assisted with the successful delivery of numerous major highway design projects, including Express Lanes and HOV lane improvements, and developed stage construction plans for projects throughout densely populated areas such as Los Angeles, Orange, and San Bernardino Counties. She has successfully prepared staging approaches that emphasize safety, operability, and a practical construction sequence which have resulted in her achievement of numerous awards for her efforts, including the ASCE Orange County’s Project of the Year Award, Caltrans District 12 Superior Accomplishment Award, and Caltrans District 12 Sustainable Superior Accomplishment Award.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
07/25-Present	LA Department of Transportation and Development, LA1/LA415 Connector, West Baton Rouge Parish, LA - Roadway Design Engineer for this project which includes the design of a full diamond interchange connection at LA 1 and the realignment of LA 1 in both directions to accommodate ramp configuration and future widening. Ms. Truong has prepared detailed design plans and construction cost estimates for mainline roadways and associated ramps. She also evaluated interchange alternative concepts by comparing multiple interchange design alternatives while considering such factors as traffic operations, constructability, right-of-way impacts, and cost-effectiveness.			
11/23-01/26	SBCTA, I-10 Express Lanes, Contract 2, San Bernardino County, CA - Design Engineer responsible for delivery of the I-10 Express Lanes Contract 2 PS&E. The project will implement one Express Lane in each direction between the I-10/I-15 interchange in Ontario and Pepper Avenue in Colton. Additional improvements include the construction of four new or extended acceleration/deceleration lanes. The project team is thinking progressively and designing the facility to accommodate an eventual second Express Lane, with soundwalls being built in their ultimate condition. The project has been divided into two segments: Contract 2A and Contract 2B. Ms. Truong is responsible for delivering the construction staging and traffic handling plans for Contract 2B, a 5-mile segment extending from Sierra Avenue to Pepper Avenue. She also reviewed comments from Caltrans and coordinated with the design team to provide comment responses.			
11/23-01/26	Metro, I-105 Express Lanes Segment 1 (Imperial Highway/Sepulveda Boulevard to Central Avenue), Los Angeles County, CA - Design Engineer supporting this Express Lanes project on I-105. The project will implement a new median lane in each direction for approximately 9 miles from Sepulveda Boulevard to Central Avenue to be managed with the existing HOV lanes as a tolled express facility. The project will also lower the profile of local roads to improve vertical clearance between the roadway and I-105. Ms. Truong is responsible for the construction staging effort, including preparation of the Work Site Traffic Control plans for local streets overlapping proposed bridge widening for the project. The construction staging plans are being developed			

	to accommodate a high volume of truck traffic. Also, traffic on local streets is being shifted where possible during the reprofiling of the road to maintain efficient traffic operations during construction.
11/24-01/26	Caltrans District 12, I-405 South Multi-Asset Project Design-Build (Contract No. 12-0Q9704), Orange County, CA - Design Engineer supporting the delivery of plans for Segments 3 and 4 of this multi-asset Design-Build project. Proposed improvements included pavement rehabilitation, bridge railing upgrades and replacement of bridge approach/departure slabs, construction of a sound wall along the I-405 off-ramp to University Drive/Jeffrey Road, maintenance vehicle pullouts, and relocation of existing irrigation facilities at the Jeffrey Road and Bristol Street interchanges to reduce maintenance worker exposure. Additionally, Class II bicycle lanes will be implemented on Irvine Center Drive and Jeffrey Road/University Drive. Ms. Truong is responsible for preparation of the DSDD and providing QC review of the roadway, lighting, and signing calculations and plans.
03/22-12/25	OCTA, I-5 Widening Project PS&E Segment 3, El Toro Road to Alicia Parkway, Orange County, CA - Project Engineer responsible for providing design support during construction. This project involves widening a three-mile freeway segment including replacement of Los Alisos Boulevard OC, modifications to Aliso Creek bridge and El Toro Road UC, ramp improvements, and Americans with Disabilities Act (ADA)-compliant upgrades for 16 curb ramps. During construction, Ms. Truong was responsible for revising the staging plans for northbound I-5 to maintain the existing number of general-purpose lanes during median widening, increase available working space for the contractor, and provide safe ingress/egress. She also oversaw the design of modifications to four ADA-compliant curb ramp upgrades to accommodate field conditions as well as two new ADA-compliant curb ramps to accommodate a driveway designed during the construction phase.
01/08-12/15	OCTA, SR-91 Widening from Lakeview Avenue to SR-241, Orange County, CA - Project Engineer/Design Lead while serving as the Caltrans Project Engineer-in-charge of developing this 8-year multi-phase, multi-asset project from the PA/ED phase to the PS&E phase and through the construction phase for widening the SR-91 mainline one lane in each direction and adding auxiliary lanes from Lakeview Avenue to the SR-241/SR-91 Separation. Additional improvements included modifications to the geometry of the existing weigh stations at Weir Canyon, Maintenance Vehicle Pullouts, and one 2,000-ft soundwall. Ms. Truong managed the design team and coordinated with other Caltrans functional units, OCTA, cities, and agencies to prepare PA/ED technical studies. Her responsibilities included developing the construction staging plans, which involved preparing a temporary westbound ramp entrance at Imperial Highway to eliminate the need for a ramp closure. She also assisted with the public hearing and the environmental document, draft project report, and final project report approval; delivered the PS&E contract; and provided construction support. As the Project Engineer, Ms. Truong was a proud recipient of the ASCE Orange County 2012 Project of the Year Award for this project.

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Naureen Dar, P.E.		Years of experience with this employer	5
Title	Regional Vice President		Years of experience with other employer(s)	27
Degree(s) / Years / Specialization			MBA / 2012 / University of Phoenix M.Sc. / 2001 / Geotechnical/Transportation M.S. / 1994 / Structures B.S. / 1992 / Civil Engineering	
Active registration number / state / expiration date			#PE.0047439 / LA / 09-30-2027	
Year registered	2023	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities			Grant Applications/Agreements, Project Management Plans, Value Engineering Naureen has extensive experience in project management, construction management, quality control/quality assurance, contract administration and program management. She has managed and coordinated design-bid-build and design-build construction projects, in addition to the performance of risk assessments for P3 projects. Ms. Dar’s experience includes alternative contracting, cost estimate reviews, environmental documents, project risk assessments, value engineering and value engineering change proposals, access modifications and safety studies. While with the Federal Highway Administration, she provided oversight on projects in Ohio and was Program Manager for Contract Administration, Consultant Services and Value Engineering.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
3/19-Present	ODOT District 12, CUY-77-1121, Cuyahoga, OH - Principal-in-Charge for this \$70 million rehabilitation project involving the replacement of approximately 6 miles of I-77 pavement, including median barrier replacement, drainage upgrades, and shoulder widening where possible. The project also includes replacing the IR-77 bridges over Morgana Run and Ruffini Court as well as nine (9) retaining wall structures.			
02/21–12/24	ODOT District 11, HAS-151-4.85, Harrison, OH - Principal-in-Charge for this \$6 million Design-Build project involving the replacement of a curved six-span bridge over the CUOH Railroad. Includes new piers, abutments and foundations, along with all necessary roadway, maintenance of traffic and other work necessary for contract completion. As Principal-in-Charge, she is responsible for contract management and negotiations with the Design-Build contractor.			
06/23-12/25	WVDOH Coalfields Expressway - The Coalfields Expressway is intended to provide a multi-lane expressway with partial control of access, connecting I-64/I-77 (the WV Turnpike) at Beckley, West Virginia (WV), and US 23 at Slate, Virginia (VA). With an estimated cost of more than \$500 million, this modern, safe, and efficient transportation corridor through the Appalachian Mountains of southern WV and western VA is also expected to promote economic development opportunities for this region. In WV, the Coalfields Expressway will be about 65 miles long and in VA, the length of the corridor will be about 50 miles. Project included a Financial Study, Environmental Corridor Assessment, Alignment Study, and other roadway and bridge design services to support the project’s development.			
03/17–06/19	ODOT District 12, CUY-480-18.42 - Cleveland, OH – FHWA Project Manager for this Design-Build project with a total estimated cost of \$256M. The twin structures are 4,155-feet-long and 200-feet above the valley, and exist along one of the most heavily travelled routes in the area. The project was delivered using a Two-Step Design-Build procurement process. Ms. Dar assisted ODOT with development of the RFP/RFQ and review of contractor SOQs. The project was sold as two contracts: one for the new structure in the median and a second one for re-decking the existing structures. She also			

	reviewed and approved the design exception needed for super-elevation rates of the express lanes on the proposed center structure which tied into FHWA PBPD initiatives.
05/18–06/19	ODOT District 2, WOO/LUC-75-30.70, Toledo, OH – FHWA Project Manager for this \$225M project to address traffic flow and safety concerns along 3.48-mile stretch of Interstate 75. Work included the mitigation of geometric deficiencies, bridge replacement, addition of auxiliary lanes, noise walls and interchange improvements. Reviewed the Alternative Evaluation Report (AER), IMS and design exceptions in-line with the FHWA PBPD concepts for the project.
04/18–04/19	ODOT District 2, LUC-2-18.62, Toledo, OH – FHWA Project Manager and contract administrator for the Anthony Wayne Bridge dehumidification and dynamic lighting project. This \$12M contract was the first bridge cable dehumidification system in Ohio and third in the United States. As project manager she was involved in evaluating the SOQ's for contractor selection. She also headed the effort for Buy America requirements and waiver request with ODOT and FHWA headquarters.
04/17–06/19	Reconnecting Cleveland Tiger Grant Project, Cleveland, OH – FHWA Project Manager and Contract Administrator for the Cleveland Metroparks' \$7.950M Re-Connecting Cleveland: Pathways to Opportunity grant for the Transportation Investment Generating Economic Recovery (TIGER) grant program through the US Department of Transportation. TIGER funds were used to construct five trail projects totaling over four miles, including a new bridge. The Cleveland Lakefront Bikeway Connector, Canal Basin Park Connector, the Red Line Greenway, Wendy Park Bridge, and Whiskey Island Connector will fill critical gaps in the active transportation network for the City of Cleveland.
06/19-12/19	IDOT I-80 Ridge Road to US Route 30, IL - Involved with the Cost Estimate Review (CER) for the \$1B, I-80 Phase I Preliminary Engineering and Environmental Studies to review the current and future transportation needs of the approximately 16 miles study area beginning at Ridge Road to the west and ending at U.S. Route 30 to the east. The study included an analysis of existing roadway and bridge deficiencies, safety and capacity issues, and future transportation needs, and includes an extensive public involvement process.
02/12–12/13	ODOT District 12, Opportunity Corridor, Cleveland, OH – FHWA Project Manager for this \$350M project that was politically sensitive and located in an Environmental Justice (EJ) community with 88 relocations involved. Worked with ODOT to re-write and improve their environmental document to meet the legal sufficiency for receiving approval of the first EIS/ROD in Ohio. Also conducted a Cost Estimate Review (CER) for the project to verify the accuracy and reasonableness of the total cost estimate to complete the project which addressed planning, environmental design costs, inflation factors, threats and opportunities. Worked with and reviewed ODOT's EJ tech memo outlining the mitigation measures to provide additional benefits beyond the proposed transportation improvements during project development.
04/13–06/14	ODOT District 9, Portsmouth Bypass, Portsmouth, OH - As the FHWA's contract administration and alternative contracting program manager, she reviewed and analyzed the Risk Matrix for this innovative delivery P3 (Design-Build-Finance-Operate-Maintain) project. This \$634M, 16-mile, four-lane, limited access highway around the City of Portsmouth in South Central Ohio was the first of its kind in the state of Ohio.
09/13–06/14	ODOT District 6 / John Glenn International Airport, Pickaway East West Connector, Columbus, OH – FHWA Project Manager. The grant agreement development process required coordination within the FHWA, the recipient, and ODOT. Worked successfully with ODOT in finalizing the TIGER grant agreement for the construction of Duvall Road and right of way acquisition for Ashville Pike.
02/18–12/18	FHWA NEPA Audit Team – Member of the NEPA Audit review team assembled within the FHWA's Ohio Division that was tasked with conducting the FHWA's first audit of ODOT regarding their responsibilities and obligations assigned under a memorandum of understanding (MOU) signed on December 11, 2015.
03/09–09/10	ODOT District 12, Central Viaduct, Cleveland, OH – ODOT Project Manager for the \$600M Central Viaduct rehabilitation project. In this capacity, she reviewed the study that resulted in the project and also reviewed the plans for moving truss span 1 of the central viaduct over the Cuyahoga River which was completed as an ODOT Type B Emergency. This work had to be completed before the onset of warm weather which would have introduced unacceptable thermal stresses in the truss members. A waiver for advertising was obtained from the FHWA with all other provisions for competitive bidding still being applicable.

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Xianzhi (“Sage”) Liu, P.E.		Years of relevant experience with this employer	15
Title	Structural Engineer		Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization			M.S. / 2003 / Civil Engineering M.S. / 1999 / Coastal Engineering B.S. / 1996 / Civil Engineering	
Active registration number / state / expiration date			#PE.0034727 / LA / 09-30-2027	
Year registered	2009	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities			Bridge Design / Load Rating Sage possesses 20 years of experience in the structural engineering field that includes bridge design, rating, inspection, structure monitoring and testing, and flood control structure design, along with skills and expertise that include finite element modeling and wind loads on structures. He is also experienced with the load rating provisions in the current AASHTO Manual for Bridge Evaluation and the DOTD Policies and Guidelines for Bridge Rating and Evaluation.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
11/23-Present	LADOTD, S.P. No.: H.005121.5, LA 1/LA 415 Connector CMAR, West Baton Rouge Parish, LA – Bridge Task Leader for the development of preliminary plans for this new 2.7 mile corridor between LA 1 near LA 988 (Beaulie Lane) and I-10 at the 415 interchange. The project includes a four-lane roadway, bridges over the Intracoastal Waterway and flyover ramps at the LA 1 connection. Serving as the bridge task lead for development of the span layout, bridge type selection, and preliminary design of the superstructure and substructure for a mix of long-span steel girders and prestressed LG girders spans.			
06/25-Present	LADOTD, S.P. No.: H.16046, US190 Atchafalaya River Bridge Repair, St. Landry Parish, LA – Reviewed and provided guidance for final plan development of bridge railings repair, truss false chord repair, and bridge joint replacement, including verifying repair location and scope, reviewing as-built plans and developing repair concept and details.			
11/23-01/24	LADOTD, S.P. No.: H.015424, La 67 at Airline Hwy Bridge Repair, East Baton Rouge Parish, LA – Developed final plans for the bridge steel girders repair and interior diaphragm replacement due to impact damage. Mr. Liu reviewed field conditions, as-built plans, developed repair concepts and details together with jacking and monitoring schemes.			
01/19-05/20	Walter O. Bigby Carriageway, Bossier City, LA – Served as the lead engineer for superstructure design of the main steel girder spans. He has performed design modeling, analysis and final plan development for the main continuous curved steel girder spans with a maximum span length of 300’. He has used several structural analysis software packages, including LUSAS and MDX, for structural analysis. He was also responsible for reviewing shop drawings and erection plans for the steel girder superstructure.			
01/13-07/14; 05/15-12/17	LADOTD, S.P. No. 003905 – I-49 North (I-220 to MLK Drive), Caddo Parish, LA – Served as lead engineer for the superstructure design of a segmental bridge alternative. Developed 3-D FEM models, calculations and final plans for the ramp EN bridge which is a 15-span, precast post-tensioned segmental bridge with a total length of 3,030 ft. He also developed the complete as-designed and as-built load rating reports for the superstructure of the ramp EN bridge.			
03/11-01/17	LADOTD, S.P. No. 700-24-0031 – US 190 Mississippi River Bridge Rehabilitation, Baton Rouge, LA - Performed structural analysis for the purpose of rehabilitating this major truss bridge. He performed a special condition inspection of the main truss for the purpose of rehabilitation design. At an			

	accelerated pace, Mr. Liu reviewed existing plans and drawings, inspected and assessed deteriorated structures, and developed plans for repair locations, repair schemes and repair details which included repair/replacement of main truss members, lateral bracings and expansion bearings, and adding a new safety cable system. Mr. Liu reviewed the submitted shop drawings for structural repair and answered RFIs from the contractor during construction.
3/13-08/13; 08/14- 11/14	LADOTD, S.P. No. 000351 & H.000792 – District 61& District 08 Bridge Preventive Maintenance Repairs, LA - Mr. Liu performed inspections and developed repair plans for more than 30 bridges within district 61 and 08. He reviewed as-built plans, assessed deteriorated structures and developed repair locations, repair schemes and details for joint replacement, deck overlay and miscellaneous preventive structural repairs.
04/20-12/20	LADOTD, Contract No.: 4400004920 (H.012485.1), Off-system Bridge Load Rating - Technical lead for the load rating of more than 400 off-system bridges. He performed complex load rating of steel bridges without any available plans, completed the QC/QA of load rating for superstructure and substructure elements, developed load rating reports, and proposed repair options for bridges with a posting drop. Work was completed using the current LA DOTD BDEM, AASHTO BrR and the AASHTO MBE.
04/16-03/20	LADOTD, Contract No.: 4400004920 (H.009859.5), Complex Load Rating, Statewide, LA – Served as the lead engineer for superstructure and substructure load rating for multiple complex bridges, including LA1 truss bridge over Atchafalaya river, LA47 IWGO tied-arch truss bridge, US 90B Riverbound Expressway deck truss bridge and the following movable bridges: Intracoastal Waterway Bridge at Ellenders (vertical lift), LA 654 over Bayou LaFourche (vertical lift), LA 657 over Bayou LaFourche (vertical lift), LA 319 Intracoastal Canal Bridge (bascule), LA 83 over Patout Bayou (swing), Local Road over Bayou Terrebonne (swing), Bridge over Bayou Teche at Adeline (swing). He performed inspections, load ratings, and developed load rating reports. He also led the efforts to analyze several bridges with unique configurations and high complexities. During his performance of the work, he has utilized several structural analysis software packages including LUSAS, MIDAS Civil and AASHTOWare BrR for structural analysis, validations, and load ratings.
11/19-10/20	LADOTD, Contract No.: 4400004920 (H.012485.1), Off-system Bridge Load Rating - Technical lead for the load rating of more than 400 off-system bridges. He performed <u>load rating</u> , QC/QA of the load rating for superstructure and substructures, developed load rating reports, and proposed repair options for bridges with a posting drop.
04/10-08/10	West Virginia Division of Highways, Twenty-mile Creek Bridge, Nicholas County, WV - Structural Engineer for QA/QC regarding analysis and load rating for this unique truss bridge. He performed an alternative Finite Element analysis for the superstructure and load rating using LUSAS software, and provided detailed rating reports to compare with standard rating programs.
04/07-05/09	Railroad Bridge over Mississippi River Rehabilitation and Inspection, Vicksburg, MS - Performed annual inspections, emergency inspections of the bridge due to barge collision accidents. Assisted with rehabilitation and repair plan development for the old truss bridge due to excessive movement of one of the river piers
11/07-08/08	LADOTD, S.P. No. 006-01-0018 - Huey P. Long Mississippi River Bridge Widening, Jefferson Parish, LA – Performed structure modeling of both the existing and widened truss, reviewed existing shop drawings, assisted with determining the existing truss geometry, and performed camber analysis for fabrication of the widening truss. Led the truss monitoring task during truss erection. Worked closely with bridge monitoring teams and predicted truss member stresses under calibration loads, dead loads and erection loads for various construction stages.
08/10-05/14	West Virginia Division of Highways, Phill G. McDonald Bridge of I-64 over Glade Creek, Raleigh County, WV - Served as structural lead for the truss analysis, gusset plate rating, and bridge monitoring for this structure which is one of the highest deck truss bridges in the world (560'-784'-560' spans). He performed a detailed 3-D Finite Element analysis of the bridge using LUSAS software, generated governing load cases for gusset plate ratings, developed a rating spreadsheet in accordance with FHWA publications for gusset plate rating, and quality controlled the final rating report. He also led efforts to develop bridge monitoring schemes, deploy sensors, and perform data analysis and interpretation for the purpose of diagnosing and rehabilitating abnormal bridge expansion and racking. Performed quality control reviews of the final plans for rehabilitation design.

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Michael Schrepfer		Years of relevant experience with this employer	20
Title	Inspection Team Leader / Practice Safety Leader		Years of relevant experience with other employer(s)	15
Degree(s) / Years / Specialization			M.E. / 1998 / Coastal Engineering B.S. / 1990 / Ocean Engineering	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	Other Pertinent Training / Certifications FHWA / NHI #130055 - Safety Inspection of In-Service Bridges, 1994 FHWA / NHI #130053 – Bridge Inspection Refresher Training, 2024 FHWA – SNBI Training, 2024 FHWA / NHI #130078 – Fracture Critical Inspection Techniques for Steel Bridges and Refresher, 2009/2024 FHWA / NHI #130110 – Tunnel Safety Inspection, 2017 (Refresher 2021) FHWA / NHI #130087A - Inspection of Ancillary Highway Structures, 2024 LADOTD Movable Bridge Inspection Workshop, 2012 LADOTD Maintenance and Rehabilitation of Historic Bridges, 2016 LTAP – Inspection of Local Bridges, 2022 ATSSA - Traffic Control Supervisor, 2024 and Flagger, 2024	
Contract role(s) / brief description of responsibilities			Bridge Inspection Task Leader/Inspection Team Leader Michael possesses 35 years of experience and progressive responsibility with the performance of a wide variety of above and underwater facility inspections throughout the United States and in overseas locations that have included waterfront structures, bridges and military facilities. Bridges inspected consist of concrete and masonry arches; concrete, steel and timber girders, steel trusses, fracture critical, and movable. Michael has operated a wide range of equipment including digital photography and video, various sized watercraft, commercial diving equipment, non-destructive testing equipment, bucket trucks and Snoopers, and fathometers.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the time specified in the applicable MPR(s).			
03/25-Present	LADOTD, S.P. No. 44-21515; Movable Bridge Inspection, Iberia and Terrebonne Parish, LA – Team Leader performing in-depth and NSTM inspections of 5 swing bridges. Led all structural, electrical, mechanical, plumbing, architectural, and coating assessment inspections. Wrote the element level report in InspectX and the SNBI coding for each bridge. Coordinated and managed the traffic control, inspection boats, and safety operations.			
11/21-01/22	LADOTD, S.P. No. 44-17264; H.011965.5, LA 47 over IWGO, Bridge Rehabilitation, New Orleans, LA – Senior team leader performing the bridge cleaning/washing inspection for the rehabilitation design of this tied arch/deck truss bridge. He led the cleaning operations and subs with use of manlift, platform truck, snooper truck, and safety boat. He supervised traffic control, safety operations, and wrote the inspection and cleaning reports.			
02/16-12/20	LADOTD, 44-4920 (H.009859.5), Complex Load Rating and Inspection, Statewide, LA – Senior team leader for the load rating inspections of 15 complex truss and movable bridges over major waterways. The bridges included the steel tied arch truss bridge, riveted plate girder and deck truss, and 5 movable bridges (vertical lift, bascule, swing) and 428 off-system bridges. He planned, coordinated with state and local agencies (DOTD, USCG, LSP) and managed traffic control, special aerial access, and rope access teams; developed the safety plans, and led the inspection teams. The inspections involved the use of special access equipment such as manlifts, snoopers, boats, confined space entry, as well as coordination for bridge openings with marine traffic			

	during the inspections. He directed the document search and collection of as-built plans, bridge inspection reports, and other historical documents in hard copy and electronic format. He managed the project accounting and subcontractors. He performed QA/QC of the inspection reports.
03/16 – 08/23	LADOTD, Contract Nos. 4400005960 and H.013321 Complex Bridge Inspections – Senior team Leader for the in-depth inspections of complex bridges that included trusses and movable bridges. These bridges included: I-10 Mississippi River, I-10 Calcasieu River, US 190 Mississippi River bridges (cantilever and deck truss), I-310 Luling (cable stayed/box girder) and US 90 over IHNC, Danziger Bridge (vertical lift), LA 1 over Company Canal (vertical lift), LA 23 over ICCW (vertical lift), LA 39 Claiborne over IHNC (vertical lift through truss). He led inspection teams during the inspections and operated various equipment including a bucket truck, manlifts, bucket boat and snooper. He wrote the inspection reports in DOTD AssetWise format, developed element level quantities and condition states, and SI&A data. He searched for bridge plans and inspection reports from the DOTD Plans and Microfilm Rooms. He developed project safety plans and inspection schedules for multiple inspection teams. He coordinated with 8 th Coast Guard District. Performed all traffic control coordination, reviewed and submitted traffic control plans, and worked directly with DOTD Districts.
09/14-12/14; 01/15-03/15	LADOTD, Movable Bridge Inspections, LaFourche Parish, LA – Senior team leader for the special above and underwater inspections of two pontoon bridges to develop repair and maintenance plans and documents. He planned the logistics, scheduling, and inspection operations. He led the field inspections and performed the diving, inspection report writing and repair recommendations.
12/12-04/13	LADOTD, S.P. No. 002562.5 – Bayou LaLoutre Bridge Rehabilitation, St. Bernard Parish, LA – Senior Team Leader for the special rehabilitation inspection of this vertical lift bridge. He planned, coordinated with state and local agencies and subcontractors (including traffic control), and led inspection team. Used special access equipment such as manlifts and coordination for bridge openings with marine traffic during the inspection. He performed ultrasonic NDT of the primary steel members and thermal imaging of the concrete deck. He directed the search and collection of as-built plans, bridge inspection reports, and other historical documents in electronic format located at DOTD and General Files. Performed coordination with 8 th Coast Guard District to provide notice to mariners. Inspected and corrected traffic control patterns and operations daily during the inspections.
08/09-11/09	LADOTD, 44-0641 (700-99-0429) / H.005330.5 (701-65-1215) Little Caillou and Bayou LaCarpe Bridges, Houma, LA – Senior Team Leader for the special rehabilitation inspections of two vertical lift bridges. He planned, coordinated with state and local agencies and subcontractors (including traffic control), and led the inspection teams and in-house traffic control operations. The inspection involved the use of special access equipment such as manlifts and coordination for bridge openings with marine traffic during the inspection. He managed the project safety, accounting and subcontracts. He performed all traffic control coordination, reviewed and submitted traffic control plans, and worked directly with DOTD Districts to provide notice to the traveling public. He inspected and corrected traffic control patterns and operations daily during the bridge inspection operations. He directed document searches and collection of as-built plans, inspection reports, historical documents on DOTD databases, Section 51 office, and General Files.
05/12-05/16	LADOTD, Contract No. 4400002184, Bridge Preventative Maintenance Program - Senior Inspection Team Leader for the special rehabilitation inspections of 26 highway bridges to develop maintenance repair plans. He planned and coordinated the inspections which included traffic control and special access equipment. He wrote the inspection reports and recommended bridge repairs. He directed the search and collection of as-built plans, bridge inspection reports, and other historical documents located on the DOTD database, Section 51 Bridge Maintenance office, and DOTD General Files. Performed all traffic control coordination, reviewed and submitted traffic control plans, and worked directly with DOTD Districts to obtain permits. Inspected and corrected traffic control patterns and operations daily during the bridge inspection operations.
01/06 – 12/08 02/10 – 02/12	LADOTD, S.P. No. 700-99-0354 and 700-99-0510 - Crescent City Connection Bridges and Facilities, Orleans Parish, LA – Senior Team Leader for the routine, special, damage inspections of 120 bridges included cantilevered thru trusses over the Mississippi River, steel deck trusses, steel plate girders, and box girders over the Harvey Canal. He planned inspections, retrieved bridge plans and historical inspection documents, coordinated with state and local agencies and subcontractors (including rope access and traffic control), resourced the project, wrote the safety plan, and led inspections for 2 cycles. He managed project safety, accounting and subcontracts. He wrote and edited inspection reports, performed QA/QC of inspections. Inspections involved use of special access equipment (snooper, bucket trucks, manlifts and technical rope access climbing).

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Dong Wang, Ph.D., S.E., P.E.		Years of relevant experience with this employer	11
Title	Structural Engineer		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			Ph.D. / 2014 / Civil Engineering M.S. / 2009 / Structural Engineering B.S. / 2007 / Engineering Mechanics	
Active registration number / state / expiration date			#PE.0042845 / LA / 03-31-2027	
Year registered	2018 (PE of LA) 2020 (SE of LA)	Discipline	Civil Engineer Structural Engineer Other Pertinent Training / Certifications FHWA-NHI-130092-Fundamentals of LRFR for Bridge Superstructures, 2015 LADOTD AASHTOWare Bridge Rating Fundamentals Training FHWA-NHI-130081-LRFD for Highway Bridge Superstructures, 2022 FHWA-NHI-130126-Strut-and-Tie Modeling (STM) for Concrete Structures, 2022 FHWA-NHI-134001-Principles and Applications of Highway Construction Specifications, 2023 FHWA-NHI-130102-Engineering for Structural Stability in Bridge Construction, 2024	
Contract role(s) / brief description of responsibilities			Bridge Design & Analysis / Load Rating Dr. Wang possesses 11 years of experience in the field of structural engineering with a particular emphasis on steel bridge rehabilitation and load rating of both simple and complex bridge structures using AASHTO BrR software.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
06/21-12/21	LADOTD, Contract No. 4400020156 (H.011965.5), LA 47 IWGO Bridge Rehabilitation, New Orleans, LA – Bridge engineer responsible for an inspection of the bridge and rehabilitation design for the steel plate girder spans. Generated plan sheets for the rehabilitation of various bridge components of the steel plate girder spans, including concrete barrier, drainage trough, stiffener, cross-frame, lateral bracing, and girder splice.			
06/24 - Present	LADOTD, Contract No. H.005121, LA 1/LA 415 Connector, West Baton Rouge, LA – Bridge engineer responsible for steel span design, PCC span design, column bent design, vertical clearance calculations and quantity calculations.			
07/15-03/16	LADOTD, Contract No. 4400002791, (H.009859.5), LA 1 Port Allen Canal Bridge, West Baton Rouge Parish, LA – Bridge engineer responsible for the preliminary design of steel girder spans, PCC girder spans, and column bents. Performed quantity calculations, CAD drawings for GP&E sheets, typical sections, framing plan and foundation plan. Performed the QC for vertical clearance calculations.			
06/16-08/19	LADOTD, Contract No. 4400004920 (H.009859.5), Complex Load Rating and Inspection, Statewide, LA – Load rating engineer responsible for completing the complex load rating of truss and movable bridge superstructure elements of the LA 47 IWGO Bridge (tied arch/deck truss), LA1 over Atchafalaya River Bridge (truss), LA 27 over ICWW Bridge (vertical lift), LA 654 Bayou Lafourche Bridge (vertical lift), LA 83 Patout Bayou Bridge (swing), LA 319 Intracoastal Bridge (bascule), St. Ann Bridge over Bayou Terrebonne (swing) and US 90 Riverbound Expressway Bridge (deck truss/plate girder). Work was completed using the load rating provisions in the current AASHTO Manual for Bridge Evaluation and the DOTD Policies and Guidelines			

	for Bridge Rating and Evaluation. Developed the AASHTOWare BrR load rating, MIDAS/Civil modeling, and Excel/MathCAD data processing. Wrote portions of the load rating reports.
11/22-12/22; 04/24-05/24	ODOT, PID 116592/TRC 491195 – Statewide Load Rating, OH – Load rater for the performance of LRFR and LFR ratings of steel beam and plate girder bridges. Completed the rating of a bridge with multiple doglegs on a curved alignment with variable flares rated in midas Civil and pegged to a BrR line girder. QC check the load ratings performed by AASHTOWare BrR.
04/23-08/23	TIDD Bridge Load Rating, Brilliant, OH (Private Client) – TRC was assigned the deck replacement design and load rating for a 7-span, 400’ long bridge. Dr. Wang developed the 3D FEA modeling of the bridge using midas Civil software. The superstructure (the main girders, floorbeams, stringers) and substructure (the columns) were both included.
03/23-08/23	Bridge Load Rating, US DOE – Performed load rating using AASHTO BrR and midas Civil on six bridges of different types. Members that were rated consisted of the steel beams, grid deck, voided concrete box beams, and arch culvert.
06/22-09/22	ODOT, HAS-151-04.85 – SR 151 over the Columbus & Ohio River Railroad Design-Build, Harrison County, OH – The project involved replacement of a curved six-span bridge over the CUOH Railroad using Design-Build. The bridge is curved and highly skewed to the railroad. An integral straddle bent and a refined analysis were required. Dr. Wang assisted with the midas Civil modeling of the bridge which encompassed both the superstructure and straddle bent.
02/21-04/21	Broadmore Bridge Inspection and Special Haul Load Rating, Lake Arthur, LA (Private Client) – Load rating engineer responsible for the load rating of a concrete slab off-system bridge for special hauling vehicles. He used AASHTO BrR for the concrete superstructure, load rated the timber piles and concrete caps, and issued posting recommendations.
02/20-12/20	LADOTD, Contract No. H.012485.1, Load Rating of 426 Off-System Bridges, Statewide, LA – Load rating engineer responsible for the load rating of 346 off-system bridges (COSLAB, COPCSS, concrete and steel girders). He performed the LRFR load rating analyses using AASHTOWare BrR and other software for the superstructures and substructures (timber and concrete piles). He developed influence lines and models for the cap and pile elements. He performed the quality control for the load rating calculations and analysis models rated by fellow engineers.
07/18-10/20	Walter O. Bigby Carriageway Bridge – Bossier City, LA (City of Bossier City) – Bridge engineer responsible for designing and detailing the bridge deck overhang, bearing pads, pile bents and abutments. Checked the modeling and design of steel girder spans. Performed stability analysis of steel girder spans. Prepared quantities and design calculation books. Performed load ratings of steel girder spans and prepared the load rating report. Checked the load rating of one pile bent.
07/19	BEL-70-2684C Bridge Load Rating, Ohio Department of Transportation, Statewide, OH – Load rating engineer responsible for load rating of the BEL-70-2684C bridge. He used AASHTO BrR for the superstructures and provided posting recommendations
05/19-06/19	Off-system Bridge Load Rating, South Carolina Department of Transportation, Statewide, SC – Load rating engineer responsible for the load rating of several off-system bridges in South Carolina. He used AASHTO BrR and LRFR for the concrete superstructures, load rated the substructure elements, and issued posting recommendations.
05/15-11/15	LADOTD, Contract No. 4400002791 (H.003495 & H.011111), I-49 & I-220 Interchange, Caddo Parish, LA – Load rating engineer responsible for developing and performing the AASHTOWare BrR load rating for the I-49 over MLK Bridge , including writing of the load rating report.
04/15-10/15	LADOTD, S.P. No.: H00256.5, Bayou LaLoutre Bridge Rehabilitation, St. Bernard Parish, LA – Design engineer responsible for performing the design and quantity calculations for the lower platform design of this vertical lift bridge.

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Sharath Ranganath, P.E.		Years of relevant experience with this employer	1.5
Title	Project Engineer		Years of relevant experience with other employer(s)	9
Degree(s) / Years / Specialization			M.S. / 2015 / Civil Engineering B.S. / 2012 / Civil Engineering	
Active registration number / state / expiration date			#PE.0049283 / LA / 03-31-2027	
Year registered	2019	Discipline	Civil Engineer Other Pertinent Training / Certifications FHWA-NHI-130056 - Safety Inspection of In-Service Bridges for Professional Engineers, 11/2022	
Contract role(s) / brief description of responsibilities			Bridge Design / Bridge Inspection Sharath possesses over 10 years of structural engineering experience. He is proficient in using advanced analysis software such as midas Civil, HEC-RAS, RAS Mapper, STAAD Pro V8, MDX and LEAP Bridge Concrete. Advanced skills include structural analysis design and detailing, hydraulic modeling and scour analysis.	
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).			
06/25-09/25	LADOTD, US 190: Atchafalaya R @ K’Spgns Repairs, LA – He dedicated additional time to reviewing go-by plans, which enabled him to execute his assigned tasks effectively and in full alignment with project expectations. He detailed the barrier rail repair by specifying the removal of damaged portions and replacement with in-kind new concrete barriers, as well as the in-kind replacement of false chord plates. He also developed plans for the deck expansion joint repair, including the replacement of expansion seals with new silicone joint seals and the replacement of modular joints with new finger joints. This work included detailing new drainage requirements and replacing armor plates in the curbs, ensuring all activities were performed accurately, safely, and in compliance with project standards.			
01/25-05/25	LADOTD, Contract 3 for Movable Bridges, Iberia & Terrebonne Parishes, LA – He invested time in developing a solid understanding of load rating principles, with a primary focus on BrR load rating software, successfully applying this knowledge to deliver quality results on movable bridges. He performed the load ratings of approach slab spans for both simple and continuous spans using BrR software, as well as the pile cap load ratings and metal grid deck load ratings for both half-filled and fully filled concrete decks. Leveraging guidance from senior team members and reference materials, he completed all assigned tasks accurately and on time, ensuring full compliance with project requirements and applicable code standards.			
07/24-12/24	LADOTD, LA 1/LA 415 Connector, West Baton Rouge Parish, LA – He was assigned as the Lead Engineer for the Sunplus Bridge design and detailing, successfully delivering the work to project standards. He designed the prestressed concrete girders using LEAP Concrete for the superstructure and reinforced concrete piers for the substructure. His responsibilities included geometry calculations, vertical clearance checks, and preparation of GP&E sheets and typical sections. Subsequently, he contributed to the superstructure design for both the single and dual bridge options over the ICWW and LA 1 interchange, completing all tasks with a strong focus on accuracy, quality, and strict adherence to project requirements.			
08/23-09/23	TDOT, Hernando de Soto Bridge over the Mississippi River Inspection, West Memphis, AR and Memphis, TN – Assigned as a bridge inspector during the completion of a hands-on structural inspection of the two main arch truss spans which included cables, ties and upper chord members with the help of man-lift. He also assisted the UAS inspection team with organizing and reviewing data.			
03/23-05/23	MDOT, OSARC Bridge Inspection, Statewide Mississippi – Assigned as an assistant team leader under this contract which involved the inspection of 178 bridges consisting of complex bridges as well as timber substructures. Specifically, he participated in the inspection of 22 bridges, four of which involved his hands-on inspection of a non-redundant steel tension member (NSTM) rail car bridges. He compiled 11 bridge inspection reports which were submitted within 30 days of the inspection.			

06/19-02/20	ARDOT, Freeo Creek Relief Structures, Ouachita Co, AR – Project involved the replacement of four bridge structures along SH 7. Lead engineer responsible for analysis and design of the curved steel girder unit (3 deg curve, 7.6% superelevation and 20 deg skew) using LEAP Bridge Steel software and the prestressed square piles using LPILE and RC Pier software. He also performed the hydraulic design for the project which included scour analysis and report compilation.
04/20-02/21	ARDOT, Cornie Bayou, Harper Creek, and Lapile Creek Bridge Replacements, Columbia and Union Counties, AR – Project engineer for the replacement of 3 bridges. Responsible for the entire project design and detailing effort which included precast prestressed concrete girder units using RC Pier software and pile design using LPILE software. He was also involved in CWP and performed a single mode seismic analysis for each structure.
02/20-11/20	ARDOT, Big Creek, Little Piney Creek, and Big Creek Branch Structure, Lee and Monroe Counties, AR – Project Engineer during the replacement design of three bridge structures along State Highways 78, 238 and 259. Designed precast prestressed concrete girder units (40 deg skew) using LEAP Bridge Concrete and pipe piles using RC Pier, LPILE and Midas Section Designer for moment curvature analysis. Also performed the single mode seismic analysis (Zone 3) for the structures.
11/17-01/18	NYSTA, Syracuse Bundled Bridges, Syracuse, NY – Design engineer during the design of three replacement continuous span structures along the New York State Thruway. His role included superstructure design using LEAP Bridge Concrete (CON/SPAN). He also performed railroad load rating assessments, verified vertical clearance geometry, estimated steel weights, and conducted preliminary calculations for the Spring Street Superstructure Replacement project.
05/18-03/19	ARDOT, Hwy 212 over Big Creek Relief Structures, Cleveland Co., AR - Analyzed and designed three precast-prestressed concrete slabs using Leap concrete and pipe piles using RC Pier and LPile. Provided bridge layout and detailing of other components using MicroStation. Also involved in estimation and modeling of cut and fill for embankment.

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Nichole Caiazzo, P.E.		Years of relevant experience with this employer	11
Title	Bridge Engineer		Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization			B.S. / 2008 / Civil Engineering	
Active registration number / state / expiration date			#PE.0041078 / LA / 03-31-2027	
Year registered	2016	Discipline	Civil Engineer	
			Other Pertinent Training / Certifications FHWA-NHI-130092 – Fundamentals of LRFR for Bridge, 2016 FHWA-NHI-132082 – LRFD for Highway Bridge Substructures, 2018 FHWA-NHI-132010B – LRFD for Foundation Design, 2018	
Contract role(s) / brief description of responsibilities			Bridge Design / Load Rating Nichole has over 18 years of experience in the discipline of civil engineering which has been focused on the inspection, design and review processes associated with new bridges and bridge maintenance and repair, as well as the load rating of new, existing and rehabilitated bridges. Over the course of accumulating her experience, she has gained experience with designing, detailing and analyzing highway bridge elements and is adept with the use of such software as AASHTOWare BrR (formerly Virtis), MDX, Merlin-DASH, LEAP Conspan, LEAP RC-Pier, FB-MultiPier, LARSA 4D, Consys, GTStrudl, and STAAD.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
05/23-Present	Ohio Department of Transportation, VAR-STW-Statewide Load Rating - Performing checks and load rating of reinforced concrete slab bridges using AASHTOWare BrR software.			
11/19-12/20	LADOTD, Contract No. 4400004920 (H.012485.1), Complex Off-system Bridge Rating and Evaluation, Statewide, LA – Responsible for the inspection and load rating of 346 off-system bridges (COSLAB, COPCSS). She performed load rating analysis using LRFR with AASHTOWare BrR for the superstructures and substructures (timber and concrete piles). Provided repair recommendations for bridges with 3-ton or closure ratings.			
05/19-12/21	South Carolina Department of Transportation, Bridge Load Rating and Evaluation Services – District 4, SC - Engineer-of-record, load rater and reviewer responsible for reviewing as-built plans and recent inspection reports, and completing load capacity ratings and related tasks for 60 on- and off-system bridges consisting of steel plate girder, prestressed cored slab, reinforced concrete flat slab, and reinforced concrete precast panel superstructures. The load rating was performed using AASHTOWare BrR in accordance with the SCDOT Load Rating Guidance Document and AASHTO Manual for Bridge Evaluation (MBE) using the Load Resistance Factor Rating (LRFR) and Load Factor Rating (LFR) methods. Also led the load rating QA process.			
09/21-11/21	City of Bossier City, Walter O. Bigby Carriageway, Bossier City, LA - Bridge engineer responsible for the review of shop drawings for the steel girder superstructure of a new 1,550-foot, 10-span bridge. The structure consists of a horizontally curved, haunched 4-span steel plate I-girder main span continuous unit over the Union Pacific Railroad and prestressed concrete bulb tee approach spans.			
04/16-06/19	LADOTD Contract No. 4400004920 (H.009859.5) On-system Complex Load Rating, Statewide, LA – Bridge engineer for the load rating of movable and complex truss bridges using AASHTOWare BrR in accordance with the AASHTO Manual for Bridge Evaluation (MBE), the Load Resistance Factor Rating (LRFR) method, and DOTD Policies and Guidelines for Bridge Rating and Evaluation. Bridges that she load rated included LA 670 over Bayou Teche (swing bridge) , LA 47 over IWGO (tied arch, deck truss, steel & concrete girder, concrete slab) , US 90 Business Riverbound Expressway (deck truss and steel plate girder, floorbeams, stringers, gusset plates) , and I-220 over Russell Road (steel plate girders) . She load rated reinforced			

	concrete slab approach spans and open steel grid decks, along with portions of the main span, stringers and floorbeams in the main span, and reinforced concrete bent caps. She used AASHTOWare BrR, CONSYS software and Mathcad hand calculations to load rate open steel grid decks, floorbeams, stringers, and concrete bent caps. Developed influence lines for existing and new girders, as well as hammerhead bent caps using AASHTOWare BrR software.
08/22-05/25	West Virginia Department of Transportation – Division of Highways, Coalfields Expressway Pineville to Mullens Section, Wyoming County, WV - Project involved the study, design and preparation of contract plans for the Coalfields Expressway project from the access at Pineville to Mullens (8.2 miles). Included in the work is the preparation of TS&L documents and final detail bridge plans for the Still Run Bridge (1,138', 4-span steel plate girder bridge, 260' +/- above the creek/valley floor) and the Marsh Fork Bridge (91.5', single span steel plate girder bridge). Responsibilities have included design of the 206 foot long reinforced concrete box culvert that carries Meadow Fork under Twin Falls Connector. Tasks also included wingwall design, quantity calculations, preparing cost estimate and plan preparation. Responsibilities for the Still Run Bridge included checking quantities and cost estimate for the Span Arrangement Report.
04/19-12/20	South Carolina Department of Transportation, SCDOT Bridge Inspection and Evaluation Services – Engineer-of-record and load rater responsible for reviewing as-built plans, recent inspection reports and completing load capacity ratings and related tasks for 10 on- and off-system bridges consisting of prestressed concrete beam, reinforced concrete tee beam and steel plate girder superstructures. Load rating was performed using AASHTOWare BrR in accordance with the SCDOT Load Rating Guidance Document and AASHTO Manual for Bridge Evaluation (MBE) using the Load Resistance Factor Rating (LRFR) and Load Factor Rating (LFR) methods.
05/18-07/18	West Virginia Department of Transportation-Division of Highways, Henrietta Bridge Renovations, Calhoun County, WV - Bridge engineer responsible for reviewing the load rating of the 3-span superstructure replacement consisting of continuous steel beams superstructure on repaired substructure. Load rating was performed using MDX in accordance with the AASHTO Manual for Bridge Evaluation (MBE) using the Load Resistance Factor Rating (LRFR) method and the WVDOH Bridge Design Manual.
08/18-09/19	I-70 Bridges Rehabilitation, Ohio County, WV and Belmont County, OH - Project involved the rehabilitation/replacement of seven (7) bridges along I-70 using cursory inspection information, discussions with the WVDOH, and analysis to establish rehabilitation efforts in accordance with WVDOH/ODOT manuals and standards. Performed design and analysis in accordance with AASHTO LFD Standard Specifications for analysis of existing bridges and LRFD for new bridges and repairs of existing bridges. Tasks for this project included: I-70 (EB & WB) over Wheeling Creek (Elbys Bridges) : Responsible for using RC-Pier for the substructure analysis of two (2) bridges consisting of a 7-span steel plate girder superstructure supported by reinforced concrete abutments with steel piles, multi-column piers on spread footings with steel piles, multi-column piers on caissons and spread footings with concrete piles and multi-column piers with a crash wall on spread footings. Bearings were replaced at all expansion piers and the cap was built-up at the overhang to resolve existing shear issues. Current and proposed thermal loads were modeled to compare cap, column and footing deficiencies. I-70 (EB & WB) over Wheeling Creek (Cemetery Bridges) : Bridge engineer responsible for using RC-Pier for the abutment analysis and checking the pier analysis of these two (2) bridges consisting of a 3-span steel plate girder superstructure supported by reinforced concrete abutments with steel piles and wall piers with spread footings. I-70 over Wheeling Creek (BEL-70) : Bridge engineer responsible for using RC-Pier for the pier analysis of this bridge consisting of a 7-span steel beam superstructure supported by multi-column piers with some caissons (wider columns) on spread footings with steel piles. The superstructure changed from 13 to 10 beams and the bearings were replaced.
02/09-12/12	Virginia Department of Transportation, NOVA Limited Services Maintenance and Repair Contract – Northern, VA - Assigned to various task orders that involved the repair and/or widening of bridge substructures and superstructures due to collision damage, fire damage, flood damage, scour, traffic demand, corrosion and section loss. Assisted with the performance of site inspections and preliminary study reports, as well as prepared and reviewed design calculations associated with the completion of substructure and superstructure repairs and/or replacements involving temporary supports for beam replacement and painting, joint reconstruction, bearing replacement, pedestal reconstruction and deck replacement. Generated preliminary, as-built and revision plans. Repair methods included heat straightening, wet and dry shotcrete, scour countermeasures, and temporary and accelerated bridge systems. Also aided in quantity calculations and cost estimate preparation.

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Sadesh GC, P.E.		Years of relevant experience with this employer	2
Title	Bridge Engineer		Years of relevant experience with other employer(s)	4
Degree(s) / Years / Specialization			M.S. / 2020 / Structural Engineering B.S. / 2017 / Civil Engineering	
Active registration number / state / expiration date			#6201312379 / MI / 04-14-2027	
Year registered	2023	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			Bridge Design / Load Rating Sadesh possesses six (6) years of experience with analyzing and designing bridges. He is well-versed with AASHTO standards, as well as the design standards of the LADOTD and several other DOTs. He has designed and analyzed a variety of bridge structure components, including prestressed concrete bulb-T beams, box beams, hammerhead piers, wall-type piers, post-tensioned straddle bents, end bents, drilled shaft foundations, steel pile foundations, and retaining walls. He has also reviewed shop drawings; load rated steel and concrete bridges; prepared quantity and cost estimations; calculated geometric properties of bridges, including beam seat elevation, screed elevations, and haunches; and performed construction engineering, bridge demolition analysis, shipping and handling analysis, lifting loop calculations etc. He is additionally adept at the use of various software, including LEAP Bridge Concrete (Superstructure, Substructure, Geometry), Merlin-Dash, DESCUS, LARSA 4D, AASHTOWare BrR, RISA 3D, L-Pile, and MATHCAD.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
06/24-Present	LADODT, LA 1/LA 415 Connector CMAR, West Baton Rouge Parish, LA - Serving as a bridge engineer responsible for the design, drafting, and design review of prestressed girder bridges, multiple column piers, and abutments.			
09/22-08/23	LADOTD, I-10 Calcasieu P3 Program, Louisiana - Bridge design engineer (Bidding Phase) responsible for the design of six bridges and design review of three bridges. The bridge designs included the design of prestressed concrete beams, abutments, multiple column piers, and steel pile foundations.			
06/21-12/23	Indiana Department of Transportation, I-65/I-70 North Split Exchange Design-Build, Indianapolis, IN - Served as a lead design engineer on this \$320 million design-build project responsible for the design of all 14 bridges. His work included the design of new prestressed bulb-tee bridges with curve-chorded geometry, design of post-tensioned straddle bents, design of integral/semi-integral abutments, and design of other bridge components. He also load rated all of the bridges and designed structural retaining walls, along with sign and luminary foundations. Retaining wall designs included sheet piles, soldier piles and lagging systems, as well as cast-in-place concrete retaining gravity walls. He coordinated with the engineering technicians to develop bridge plans and reviewed the resulting work.			
06/20-10/20	Indiana Department of Transportation, I-69 Section 6 Design-Build, Indianapolis, IN - Served as a design engineer during the bidding phase responsible for the design and design review of 10 bridges. He designed prestressed concrete bulb-T beam bridges and other vital bridge components as well as worked on the quantity estimation of the bridge structures and geometry calculations.			
08/21-12/21	Maryland State Highway Administration, I-495 and I-270 P3 Program, Virginia/Maryland - Design engineer during the bidding phase. For this project, he was responsible for the design and design review of four bridges. The bridge designs included the design of curved steel girders, abutments, hammerhead piers, wall-type piers, multiple column piers, drilled shaft foundation, and steel pile foundations.			

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Christopher Hay, P.E.		Years of relevant experience with this employer	9
Title	Sr. Bridge Engineer		Years of relevant experience with other employer(s)	9
Degree(s) / Years / Specialization			B.S. / 2007 / Civil Engineering	
Active registration number / state / expiration date			#PE.0043025 / LA / 03-31-2028	
Year registered	2018	Discipline	Civil Engineer	
			Other Pertinent Training / Certifications FHWA-NHI-130055 - Safety Inspection of In-Service Bridges, 2016 FHWA-NHI-130053 – Bridge Inspection Refresher Training, 2021 FHWA-NHI-130078 – Fracture Critical Inspection Techniques for Steel Bridges, 2014 FHWA-NHI-130092 – LRFR for Bridge Superstructures, 2019	
Contract role(s) / brief description of responsibilities			Bridge Inspection / Load Rating / Bridge Design Chris possesses 18 years of structural design experience, with the last 16 in various aspects of bridge engineering including preliminary and detailed bridge design, plan preparation and development, project management, quality control, field inspection and reporting, cost estimates and bridge inspection. He has been involved in the design of a variety of bridge projects, including concrete slabs, pre-stressed concrete I-beams and rolled steel beam bridges. He also offers expertise with integral, semi-integral and stub abutments; T-type and cap-and-column piers; soldier pile, cast-in-place and MSE retaining walls; and such foundation types as multi-row piles, drilled shafts and spread footings. Complementing his design expertise, he is adept at the inspection and load ratings of bridges of all types including the use of AASHTOWare BrR and midasCivil software.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
11/22-Present	Ohio Department of Transportation, VAR-STW-Statewide Load Rating – Load rater performing LRFR and LFR ratings of steel beam and plate girder bridges. Was also responsible for training, checking and QA reviews of numerous steel beam and concrete slab bridge ratings. Completed the rating of a bridge with multiple doglegs on a curved alignment with variable flares rated in BrR using line girders calibrated for live load distribution factors calculated in Midas Civil.			
04/22-07/22; 04/24-06/24	WVDOH, Blennerhassett Island Bridge over the Ohio River, Wood County, WV - Bridge inspector during the completion of Routine element level inspections of this network arch bridge that carries U.S. Route 50 over the Ohio River and historic Blennerhassett Island. The longest bridge in West Virginia, the structure has a total length of 4008’-9”. Involved in the performance of a hands-on inspection of every element of the structure which included the Ohio approach (three-span steel girder unit with a total length of 489’-9”), main span (878’-6” network tied-arch unit that crosses the main channel of the Ohio River) and WV approaches consisting of an eight-span steel girder unit (total length of 2,624’-10½”).			
11/19-12/20	LADOTD, Contract No. H.012485.1, Off-system Load Rating, Statewide, LA – Bridge inspector responsible for the assessments of 50 off-system bridges (COPCSS and COSLAB with concrete or timber piles). He documented current conditions and geometric data for the load ratings. Served as the load rating engineer which included analysis of the superstructures and substructures (timber and concrete piles) using AASHTOWare BrR, LRFR, and STAAD.			

12/18-01/19	WVDOH, I-70 Bridges Design/Rehabilitation Inspections, Ohio County, WV and Belmont County, Ohio – Inspection team leader for the expedited inspection/evaluation of 7 bridges (steel girders). Responsible for identification and documentation of deficiencies to be included in the rehabilitation of assigned structures.
11/18-12/18	WVDOH, District 9, Kanawha Falls Emergency Inspection, Fayette County, WV - Kanawha Falls Bridge is a 90-year-old, three-span, riveted through truss over the Kanawha River. Team leader tasked with performing an emergency inspection of the floor beam to lower chord connections for the entire floor system to verify their condition and advise if additional emergency repairs were required. Led an inspection of the truss lower chords and stringers looking for critical findings that might require immediate repairs or preclude the bridge from reopening.
09/18-10/18	Ohio Department of Transportation, District 2, LUC-280 VGCS Inspection, Toledo, OH – Team leader for the routine and element level inspections of this cable stayed and concrete segmental box girder bridge consisting of a series of nine bridges, including ramps, carrying I-280 over the Maumee River. He also performed QA/QC checks of the inspection reports.
06/18-10/19	WVDOH, I-70 Bridges Rehabilitation, Ohio County, WV and Bridgeport, OH - Bridge design engineer during the replacement or rehabilitation of several bridges. For the 7-span BEL-70-26.84 bridge (620 feet) the entire superstructure, including concrete deck, concrete barrier parapets, steel beams, expansions joints and bearings and rear abutment backwall, were replaced. The new bridge was constructed without a center joint allowing a single median concrete barrier to be used for safety. The rear abutment was rehabilitated with a new backwall and a new full width approach slab. New PTFE elastomeric bearings will be used to limit loading additions. He also assisted with rehabilitation design efforts at three (3) other bridge sites by providing plan and calculation checking involving rehabilitation work that included substructure patching, conversion to semi-integral, new elastomeric bearings and elimination of deck joints. All substructures had to be analyzed for the changes in loading due to joint eliminations, increase loading and bearing type changes.
09/17; 12/17; 9/18 and 01/19	Ohio Department of Transportation, VAR-D08 Fracture Critical Bridge Inspections No. 2017-2, Fort Ancient and Oregonia, OH - Project involved the performance of annual bridge inspections on various truss bridges and post-tensioned bridges in ODOT District 8. Mr. Hay participated in the routine element level inspection of the following bridges: HAM-50-0376L (4-span thru-truss structure); HAM-50-2180N (7-span deck arch with three plate girder approach spans); WAR-71-1514L/R Jeremiah Morrow Bridge over the Little Miami River (post-tensioned, CIP Segmental boxes and cast-in-place, twin-wall piers); and U.S. Route 50 over the Great Miami River . Inspected the abutments, piers, floor beams accessible by ladder and all lower chords, as well as participated in the review of bridge inspection reports.
07/17	WVDOH, 5th Street Bridge, Wood County, WV – Bridge inspector for the performance of an In-Depth inspection of this bridge that consists of a 350' simple span riveted Warren Through Truss and 13 steel wide flange beam spans. The bridge is supported by reinforced concrete abutments and piers, along with steel bents on concrete pedestals.
03/15-04/16	South Carolina Department of Transportation, Interchange Rehabilitation, I-85/I-385 Design-Build, Greenville, SC - Structural engineer on this unique Design-Build project that included a road widening, interstate rehabilitation and intersection improvements. The project was developed using Design-Build to reduce construction time and provide for better management of cost, reduce environmental impacts and shorten travel delays for motorists.
02/11-10/11	Ohio Department of Transportation, District 6, I-670/71 Interchange, FRA-71-17.16/FRA-670-4.19, Franklin County, OH - Bridge engineer on this \$200 million Design-Build project which involved improvement of the safety and operational efficiency of the I-670/71 Interchange. Goals included providing a multi-modal solution for the interchange and surrounding streets, access points, pedestrian facilities, and aesthetic enhancement to support the City of Columbus' complete streets philosophy. The RFC (Released for Construction) plans were completed in a nine (9) month period for all of the drainage and SWPPP design, seven bridges (which included a 1000' long flyover structure), and 26 retaining walls (MSE, CIP, and T-Type).

16. Staff Experience:

Firm employed by TRC Engineers, Inc.				
Name	Denny Dispennette, P.E.		Years of relevant experience with this employer	9
Title	Civil Engineer		Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization		M.S./ 2012 / Civil Engineering B.S. / 2010 / Civil Engineering		
Active registration number / state / expiration date		#PE.0044141 / LA / 03-31-2028		
Year registered	2019	Discipline	Civil Engineer	
		Other Pertinent Training / Certifications FHWA-NHI-130055 - Safety Inspection of In-Service Bridges, 2014 FHWA-NHI-130053 - Bridge Inspection Refresher Training, 2021 FHWA-NHI-130078 - Fracture Critical Inspection Techniques for Steel Bridges, 2021 FHWA-NHI-130092 - LRFR for Bridge Superstructures, 2014		
Contract role(s) / brief description of responsibilities		Inspection Team Leader / Load Rating Denny possesses more than 14 years of experience involving bridge load rating, bridge inspection, and design while working for the WVDOH (5) and TRC (8). His expertise includes extensive bridge load rating work, performance of in-service bridge safety inspections, hauling permit evaluation, and overall guidance with respect to the WVDOH's load rating program, including development of the WV Bridge Load Rating Manual. He has provided load rating support statewide to bridge engineers, implemented load rating policies to comply with NBIS requirements, and analyzed various types of bridge materials, including steel, concrete, and timber using such design philosophies as LFRD, LFD, and ASD. He has also evaluated simple bridges and complex bridges using AASHTOWare BrR, LARSA 4D, MDX, and much more.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
12/21	LADOTD, Contract No. 44-13321; H.09730.5 Retainer Contract for In-depth Bridge Inspections (On-System), Statewide – Team Leader responsible for the routine and element level inspection of the I-10 over Calcasieu River truss bridge. He inspected the deck, steel superstructure (girders, floor beams, stringers, bearings), steel substructure (bent caps, columns, diagonal bracing, gusset plates) using aerial access equipment. He wrote the inspection report defect list and updated the drawings for the defects.			
12/19-12/20	LADOTD, Contract No. H.012485.1 Off-system Load Rating, Statewide, LA – Load rating engineer responsible for load rating of 300 off-system bridges (COSLAB, COPCSS, steel and concrete girders, culverts). He rated the concrete panel and slab superstructures using AASHTOWare BrR software and timber pile substructure units using Excel and STAAD. He was the responsible engineer for over 50 bridge load rating reports. The load ratings were performed using the current AASHTO <i>Manual for Bridge Evaluation</i> and DOTD <i>Policies and Guidelines for Bridge Rating and Evaluation</i> . He provided repair recommendations for bridges with 3 ton or closure ratings.			
04/18-12/19	LADOTD, Contract No. 4400004920 (H.009859.5) Complex Load Rating and Inspection, Statewide, LA – Performed load ratings and inspections of complex bridge structures that included trusses and movable (vertical lift, bascule, swing) bridges. Services included: Plan and document retrieval and review; Bridge inspection; and Structural modeling and analysis. Load Rated each assigned bridge based on present condition, capacity and loading using the load rating provisions in the current AASHTO <i>Manual for Bridge Evaluation</i> and DOTD <i>Policies and Guidelines for Bridge Rating and Evaluation</i> . Also peer reviewed ratings.			

10/22-07/23	WVDOH, Trout Run Cutoff Bridges – Hardy County, WV – Designer and load rater for the twin bridges carrying US48 over a local road. He designed the two different (EB & WB) steel superstructures (girders and all associated details) and load rated each of these new bridges to be constructed next year.
06/25-Present	WVDOH, District 1 Evaluation Engineer – Task Order assignment to serve as the District 1 Evaluation Engineer. In this role, he is responsible for the routine load rating review (evaluation) of every bridge in District 1. He leads 3 to 9 people within TRC as they load rate bridges, handles all client interaction, and makes bridge weight limit recommendations and repair recommendations to the District Bridge Engineer. During this project, he has overseen the load rating by TRC of the Patrick Street Bridge, a 27-span Kanawha River crossing located in Charleston, WV. In an effort to help the district successfully meet their federal deadline, he led the review of over 400 bridges in just four months.
04/22-07/22; 04/23-07/23; 04/24-Present	WVDOH, Blennerhassett Island Bridge, Parkersburg, WV (WVDOH) – Project Manager/Team Leader during the Routine (2022, 2024) and Special inspections (2023) of this network arch bridge that carries U.S. Route 50 over the Ohio River and historic Blennerhassett Island. The longest bridge in West Virginia, the structure has a total length of 4008’-9”. Led the performance of a hands-on inspection of every element of the structure which included the Ohio approach (three-span steel girder unit with a total length of 489’-9”), main span (878’-6” network tied-arch unit that crosses the main channel of the Ohio River) and WV approaches consisting of an eight-span steel girder unit (total length of 2,624’-10½”). He also planned the inspection, safety, subcontractor coordination/contracting, and traffic control; wrote the inspection report; developed the element level data; and updated the SI&A coding. Presently leading the load rating of this structures using LARSA 4D and AASHTOWare BrR software.
12/21-01/22	Linden Street Bridge over Lackawanna River, Scranton, PA (PennDOT) – Load rater for the superstructure (steel girder) and substructure load rating using LRFR.
11/20-11/20	General Engineering Services Contract, Franklin County Engineer’s Office (FCEO), OH – Team Leader responsible for 17 bridges. He led the field inspection and wrote the inspection reports in AssetWise in accordance with NBIS and ODOT standards.
10/19-03/20	Off-system Bridge Load Rating, South Carolina Department of Transportation, Statewide, SC - Load rating engineer responsible for the load rating of several off-system bridges in South Carolina. He used AASHTO BrR for the concrete superstructures, load rated the substructure elements, issued posting recommendations, and updated NBI data.
10/18-12/18	I-70 Bridge Rehabilitation, Ohio County, WV (WVDOH) – Team leader for the rehabilitation bridge inspections of four steel multi-girder bridges carrying I-70 EB and WB. He ensured the completion of thorough condition documentation as well as geometric inventory measurements to provide information for the rehabilitation of each structures. He also participated in the preparation of rehabilitation plans for the bridges.
11/18-12/18	Kanawha Falls Bridge, Kanawha Falls, WV (WVDOH) – Team leader for the emergency bridge inspection a 90-year-old, three-span, riveted through truss over the Kanawha River. He led and performed the inspection of the entire floor system to verify conditions and to advise if additional emergency repairs were required. He led and performed an inspection of the truss lower chords and stringers looking for critical findings that might require immediate repair or preclude the bridge from reopening. A hands-on inspection of the lower chords and floor beam to lower chord connections was also conducted. He developed and submitted an inspection report.
10/17-02/18	Office of State Aid and Construction, Bridge Inspection and Off-system Load Rating Contract, Statewide, MS - Load rating engineer responsible for the performance of load rating analyses on the timber substructure elements of 160 off-system bridges in Lincoln, Pike, and Amite counties. He analyzed timber and concrete substructure components in compliance with the AASHTO MBE. This load rating effort was completed on an accelerated schedule.
10/12-09/17	West Virginia Division of Highways, Charleston, WV – Bridge engineer/load rater/bridge inspector while employed by the WVDOH. His responsibilities included the load rating of trusses, steel deck girders, steel box beams and simple span bridges ; performance of QA/QC on load ratings; development of the load rating policy for the State’s load rating program; review of consultant load rating reports; and teaching classes on load rating to State bridge engineers. He also served as a team member during the inspection of several complex girder and truss bridges, including I-470 over the Ohio River and the Hi Carpenter Memorial Bridge over the Ohio River, and during routine inspections of other bridges throughout the state.

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Craig Jacob, P.E.		Years of relevant experience with this employer	4
Title	Bridge Engineer		Years of relevant experience with other employer(s)	22
Degree(s) / Years / Specialization			B.S. / 1999 / Civil and Environmental Engineering	
Active registration number / state / expiration date			#PE.68866 / OH / 12-31-2027	
Year registered	2004	Discipline	Civil Engineer	
			Other Pertinent Training / Certifications FHWA / NHI #130053 - Bridge Inspection Refresher Training, 2022 FHWA / NHI #130055 - Safety Inspection of In-Service Bridges, 2005 FHWA / NHI #130078 – Fracture Critical Inspection Techniques for Steel Bridges, 2017	
Contract role(s) / brief description of responsibilities			Bridge Inspection / Load Rating / Bridge Design Craig possesses over 26 years of full-time experience in the analysis, design and inspection of state and local transportation infrastructure on highways, interstate routes, county roads, and municipal projects using AASHTO LRFD and LFD standards. He is a bridge designer with experience in various uncommon elements of Level 3 bridges, including complex framing geometries and structure alignments, dog-legged girders, welded steel box pier caps, and truss analyses. Craig also retains advanced expertise in design calculations and accurate structural modeling for the production of quality bridge plans, improvement details, and load rating evaluations.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
02/22-Present	Ohio Department of Transportation – District 12, CUY-77-1121, Cuyahoga County, OH - Lead Structural Engineer for this project which involves a realignment and shoulder widening for safety improvements along I-77 in the Cleveland urban corridor. Serving as lead structural engineer on the design and plan production for nine new retaining walls and the reconstruction of two underpass bridges within the project limits to facilitate realignment of the interstate.			
06/22-10/24	Ohio Department of Transportation – District 11, HAS-151-0485 Design-Build, Harrison County, OH - Structural Engineer for this Design-build contract involving a complete replacement of the bridge carrying SR 151 over the G&W Railroad. The overpass alignment is highly skewed to the railroad alignment. The proposed structure follows the existing alignment but constructs one straddle bent over the railroad, instead of the six straddle bents of the existing bridge. Responsibilities include design development, quality review, and plan production.			
11/22 - 08/23	Ohio Department of Transportation, Statewide Load Rating, OH – Load rater performing LRFR and LFR ratings of steel beam and plate girder bridges. Reviewed completed ratings of bridges.			
04/22 – 05/22	US 50, Blennerhassett Island Bridge, Parkersburg, WV – Bridge Inspector while using aerial access equipment to inspect the superstructure main span (tied arch) and approach spans (steel girder) components along with the bearings and piers.			
09/21	ODOT, HAM-71-0134 Lytle Tunnel NTIS Inspection – Team Leader for a condition and element level inspection of the liner, headwalls, approach wingwalls, and structural components of facility chambers in the 855-foot long, 3-barrel tunnel of I-71 below Lytle Park in Cincinnati.			
06/20-09/21	Ohio Department of Transportation, CRA-30-0842 Bridge Rehabilitation, Crawford County, OH - Lead Design Engineer for a preliminary engineering study and subsequent plan production for deck replacement, abutment conversion and fatigue retrofit on left and right structures over Norfolk Southern Railroad. The design accommodated a curved alignment, deck width transition, flared beams, and spiral curve geometry.			

02/21 - 03/21	Indiana Department of Transportation, I-74 Emergency Bridge Repair - Crawfordsville District - Engineer of Record for a damage inspection, repair design, and bridge details to correct vehicular impact on the steel beam superstructure of Wesley Station Road over I-74.
01/20-12/21	KYTC, Ohio River Fracture Critical Bridge Inspection Services – Project Manager and Inspection Lead for the fracture critical inspection of five long-span Ohio River bridges. The structures in the contract are the historic Roebling Suspension Bridge (Cincinnati, Ohio), the Irvin Cobb Bridge (Paducah, Kentucky), the Carroll Cropper Bridge (Lawrenceburg, Indiana), the Ben Williamson Bridge (12th Street Ashland, Kentucky), and the Simeon Willis Bridge (13th Street Ashland, Kentucky). He led the load rating evaluation of the Carroll Cropper Bridge, a complex tied arch thru truss with suspender cables, based on as-inspected condition while using AASHTOWare BrR, LRFR and other software. Also authored the capacity evaluation report. He managed the execution of the project, coordinated with railroads and a traffic control subconsultant, communicated with Cabinet and District engineers, directed inspection staff, and updated the condition and element level records in the state inventory database (BrM). He led or reviewed deliverable reports on noted structural conditions and maintenance recommendations, including documentation of fatigue cracks verified with NDT.
10/19-10/20	South Carolina Department of Transportation, Bridge Load Ratings, SC - Task Leader and Quality Control Reviewer for a team of analysts during the load rating of more than 200 bridges in two South Carolina districts using AASHTOWare BrR and LRFR method. Work included the production of load rating documentation as engineer-of-record for the state bridge management system.
04/13; 04/17	KYTC, Ohio River Fracture Critical Bridge Inspection Services – Team leader for a fracture critical inspection of the 5,340-foot-long Irvin Cobb Bridge (Paducah, Kentucky) which consists of ten main simple-span thru truss units with a maximum span length of 716 feet across the Ohio River.
06/12; 06/16	KYTC, Ohio River Fracture Critical Bridge Inspection Services – Team leader for a fracture critical inspection of the 5,746-foot-long Clark Memorial Bridge (Louisville, Kentucky). The bridge consists of two adjacent 3-span continuous thru truss superstructure units with a maximum span length of 820 feet across the Ohio River.
09/11-03/12	Brown County Engineers Office, Truss Load Ratings - Brown County, OH - Lead inspector and structural analyst for the condition evaluation and documentation of deterioration on 10 pony truss structures maintained by the County Engineer's Office. Assessments included field measurements to verify as-built configuration and current deterioration of steel gusset plates. He also processed the condition information to perform a capacity evaluation of the truss members and gusset plate connections.
08/11-10/11	Ohio Department of Transportation, District 8, CLI-71-4.26, SR 380 over IR 71 Bridge Rehabilitation, Wilmington OH - Lead Bridge Inspector, Designer, and Load Rating Analyst for a deck replacement on the existing steel plate girders of SR 380 over IR 71 with semi-integral and composite conversion.
07/11	Kentucky Transportation Cabinet, Inspection of Ohio River Bridges - Inspection Team Leader on the Simon Kenton Memorial Bridge (US 62/68) to assess fracture critical members, measure gusset plate deficiencies, and appraise the entire suspension bridge for condition rating and repair/maintenance recommendations.
03/10; 04/11; 02/12	City of Middletown, Bridge Inspection and Analysis, Middletown, OH - Lead Engineer for the structural inspection, scour inspection, and load rating of 20 off-system bridges and large culverts in the municipality. Reviewer of annual city bridge inspections.
11/07-04/08	Ohio Department of Transportation, District 6, FRA-23-12.11, 4th Street Bridge over the NS Railroad and I-670, Columbus, OH - Inspection Team Leader and load rater for the seven-span bridge which consists of dog-legged steel beams, varying substructure skews, left and right horizontal curves with super-elevation reversal, and cantilevered structural concrete beams on abutment wingwalls.

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Cody Shields, P.E.		Years of relevant experience with this employer	12
Title	Civil Engineer		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			B.S. / 2011 / Civil Engineering	
Active registration number / state / expiration date			#PE.0044457 / LA / 09-30-2026	
Year registered	2020	Discipline	Civil Engineer	
			Other Pertinent Training / Certifications FHWA-NHI-130056 - Safety Inspection of In-Service Bridges for Professional Engineers, 2019 FHWA-NHI-130053 – Bridge Inspection Refresher Training (SNBI), 2024	
Contract role(s) / brief description of responsibilities			Bridge Inspector	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
03/23-08/23	TDOT NBIS Bridge Inspections, Contract E2456 (3 Work Orders) – Team Leader and/or Bridge Inspector for the routine inspections of off-system bridges in both Shelby Co. and Gibson Co. in Tennessee. Inspections were performed using InspectX software. Bridge superstructures included precast channel slabs (PCCS), concrete box beams and prestressed I-beams. Substructures included concrete abutments, pile bents, and pier systems. Inspections also included multi-span concrete box culverts.			
11/22-12/22	Ohio Department of Transportation, VAR-STW-Statewide Load Rating – Load rater assigned to perform LRFR and LFR ratings of steel beam and plate girder bridges with multiple doglegs on a curved alignment with variable flares pegged to a BrR line girder.			
2/20-09/20	LADOTD, Contract No. H.012485.1 Off-system Load Rating, Statewide, LA – Load rater for off-system bridges which included both COSLAB and COPCSS bridges. Reviewed inspection reports and performed analysis on bridge elements using AASHTOWare BrR (superstructure) and STAAD (substructure) software.			
11/17-12/17	LADOTD, Contract No. H.009730.5 Retainer Contract for Inspection of Complex Bridges, Statewide, LA – Bridge inspector for the in-depth inspection of the Judge Perez vertical lift bridge. Documented deficiencies observed on the concrete bridge deck, parapets, open-grid metal deck (lift section), abutments, and bents			
10/17-11/17	Off-System Timber Bridge Inspections (MDOT) - Bridge inspector for over 40 bridges in three counties in southwest Mississippi. All bridges were either partially or fully comprised of timber components: piling, pile caps, girders, decking, and railing. Inspections included noting any elements that were deteriorated or damaged, taking detailed photographs of the condition of the bridge and all elements, and documenting everything in a report furnished to the client.			

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	William Travis Barr, P.E.		Years of relevant experience with this employer	2
Title	Project Manager / Senior Project Engineer		Years of relevant experience with other employer(s)	12
Degree(s) / Years / Specialization			B.S. / 2012 / Civil Engineering	
Active registration number / state / expiration date			#PE.0045675 / LA / 09-30-2027	
Year registered	2021	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities			Roadway Design Travis has 14 years of experience and progressive responsibility in the fields of civil and roadway engineering consulting. His qualifications include extensive hands-on experience consisting of roadway geometrics, drainage design, cost estimating and project management. Having provided such services on several Louisiana roadway design projects, he is very familiar with the latest applicable DOTD references, including the latest applicable editions, supplements and revisions.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
03/24-Present	LADOTD, S.P. No.: H.005121.5, LA1/LA 415 Connector, West Baton Rouge Parish, LA – Serving as the Roadway Engineer-in-Charge for the LA 1/LA 415 CMAR roadway design project responsible for coordinating and managing the roadway design team. Key responsibilities include scheduling, task management, and overseeing design activities such as horizontal and vertical alignment, drainage systems, traffic maintenance, and layout planning for the LA 1 corridor, including the LA 1 and LA 415 interchange. Deliverables include preliminary layouts, design validation, calculations, and detailed plan preparation for the LA 1 roadway corridor.			
11/22-03/24	LADOTD, LA 447 Safety Improvements, Livingston Parish, LA - Served as responsible engineer-in-charge for the preliminary layout, design checks, calculations, and plan preparation for two (2) LA 447 highway roundabouts which included one multi-lane and one single-lane configuration. Mr. Barr additionally provided roadway design on adjoining roadway realignments.			
03/21-11/22	MOVEBR Transportation Program – Program Management, East Baton Rouge Parish, LA - Responsible for the management of eight projects in the program. Mr. Barr assisted in the leadership of each project through oversight of cost estimation, budgeting and adherence to design standards, as well focused on the overall constructability/feasibility of each project. As a part of his project management tasks, he assisted with the identification of project goals, economic development benefits, and overall feasibility.			
11/22-03/24	MOVEBR Transportation Program, Terrace Avenue, East Baton Rouge Parish, LA – Sr. Engineer responsible for project wide modeling, ADA design, Right of Way/ construction access, wall design and project wide drafting standards. Mr. Barr performed 1 mile of complex modeling within a confined urban corridor. Due to Right of Way restrictions, he also designed multiple retaining walls. The project is a corridor improvement project tasked with widened the roadway and adding sidewalks while not impacting right of way in the area.			
11/22-03/24	MOVEBR Transportation Program, Lee Drive, East Baton Rouge Parish, LA – Project Manager in responsible charge of quality control and assurance, geometric design, vertical design, site grading, suggested sequence of construction, scheduling, and construction cost development for a ¾-mile segment of this capacity improvement project. The overall project is a 2-mile roadway widening and drainage improvement project to establish a five-lane roadway corridor.			
03/17-03/21	Texas Department of Transportation – I-820 (SH-287 to I-20) Interchange Reconstruction (Southeast Connector Design-Build), Dallas, TX - Responsible for the evaluation of interstate plans, establishment of retaining wall locations to facilitate a proper sequence of construction, identification of bridge limits, and development of retaining wall structural requirements. He additionally produced exhibits, provided QA/QC of deliverables, coordinated			

	work with stakeholders, and presented findings to key stakeholders. Travis led weekly task force meetings with major stakeholders to present status, potential roadblocks, project timelines, design philosophies and approach.
03/17-06/20	Washington Department of Transportation, SR 520 (I-5 to 84th Avenue) Interchange Reconstruction Design-Build, Seattle, WA - In responsible charge for the evaluation of interstate plans, maintenance of traffic, and pier and wall locations to facilitate sequence of construction, alternative design analysis, production of exhibits, and QA/QC of deliverables. Additionally coordinated and presented his findings to key stakeholders.
05/24-12/25	Mississippi Department of Transportation, SR 184 Bridge Replacement, Jefferson Davis County, MS - Senior Roadway Design Engineer responsible for the horizontal, vertical, drainage, and maintenance of traffic design and layout of the SR 184 bridge replacement corridor. Design includes preliminary layouts, design checks, calculations, plan preparation, scheduling, and coordination with MDOT staff.
08/18-02/20	Border Patrol / United States Army Corp of Engineers, Tucson 63 Boarder Wall Reconstruction, AZ. Served as Roadway Design Task lead in responsible charge for this very fast paced project which included project wide design standards, specifications and design of the Douglas portion of the Tucson 63 project. Totaling over 20 miles of boarder wall design, access roads, and patrol roads the Douglas portion of the Tucson 63 project had some of the most treacherous and complicated portions of the border to design and construct. Travis managed three design teams, QA/QC activities, design of the line and grade, wall and retaining system selection, limits of construction/right of way, typical section, compliance with environmental guidelines, scope/fee estimation, and scheduling. Additionally led weekly task force meetings with major stakeholders, including representation from construction, design, and the owner, to present status, potential roadblocks, project timelines, design philosophies and approach each week. He also led comment resolution meetings with the owner and reviewing agencies to ensure proper closeout of each item.
12/14-04/17	Town of Edgewood, Walker Road Improvements, Edgewood, NM - Served as the project manager and primary designer, including roadway horizontal and vertical design, drainage facilities, sanitary sewer design, and ADA-compliant design. For the horizontal design, guidance from the AASHTO Green Book and NMDOT standards was used to layout intersections and alignments based on the designated design speed. Stopping sight distances were calculated, and the design vehicle was used to verify that the layout adhered to the specified criteria.
12/14-04/17	Town of Red River, Pioneer Road Rehabilitation, Red River, NM - Served as a Highway Designer for the Pioneer Road Rehabilitation project which involved roadway horizontal and vertical design, drainage facilities, and ADA-compliant design.
01/13-05/14	New Mexico Department of Transportation, Paseo Del Norte Interchange - Served as field engineer responsible for calculating design quantities, tracking completion and to date quantities for earthwork and road tasks. Tracked and maintained schedule and helped design earthwork flow and haul routes.

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.	
Name	Ja’Porcha Joubert, EI	Years of relevant experience with this employer	<1
Title	Roadway Designer	Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization		B.S. / 2023 / Civil Engineering	
Active registration number / state / expiration date		#EI.0035872 / LA / 03-31-2027	
Year registered	2024	N/A	
Contract role(s) / brief description of responsibilities		Roadway Designer	
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).		
03/26-Present	LADOTD, LA1/LA415 Connector, West Baton Rouge Parish, LA - Serves as an Engineer Intern for this project while tasked with the development of pavement marking plans. This project includes approximately 2.7 miles of new four-lane roadway and bridges over the Gulf Intracoastal Waterway, Sun Plus Parkway, and LA 1. This project also includes an interchange reconfiguration to a diverging diamond at the LA 415 connection to I-10 with ramp modifications, and the realignment of LA 1 to accommodate ramp configuration and future widening.		
08/23-12/23	East Baton Rouge Parish, Old Hammond Highway Improvements, Segment 2, Baton Rouge, LA - Served as a student intern for this project tasked with quantity calculations and final plan sheet revisions for the reconstruction work along Old Hammond Highway. This project involves the reconstruction of a two-lane highway to a four-lane divided highway and intersecting side roads as part of the City’s MoveBR Plan.		
01/24-03/26	LADOTD, Traffic Monitoring Section, Baton Rouge, LA – Employed as a Traffic Monitoring Engineer Intern 2. Responsibilities included assisting senior engineers with editing and creating Louisiana road and highway segments using ESRI Roads & Highways integration processes; coordinating with contractors to ensure work was completed in compliance with approved plans and specifications; supporting senior engineers by uploading, extracting, and managing traffic data within Transportation Data Management Systems (TDMS); and performing quality assurance and quality control (QA/QC) on traffic data uploaded to the DOTD’s traffic server.		

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Rajat Das, P.E.		Years of experience with this employer	5
Title	Quality Director / Senior Project Manager		Years of experience with other employer(s)	21.5
Degree(s) / Years / Specialization			MBA / 2004 / International Business M.S. / 2001 / Environmental Engineering B.E. / 1999 / Civil Engineering	
Active registration number / state / expiration date			PE#062.070414 / IL / 11-30-2027	
Year registered	2018	Discipline	Professional Engineer	
Contract role(s) / brief description of responsibilities			Hydraulics / Drainage Engineer Rajat has 26 years of experience and associated knowledge with the preparation of project scopes, delivery plans and budgets, construction plan set production, and feasibility studies for transportation drainage design and water resources development projects. He has managed and supervised hydrologic and hydraulic modeling, storm sewer systems, bridge and culvert replacement, scour analysis, channel restoration and stabilization projects for highway projects, railroads (UP, BNSF, CSX), and various government agencies. Experience includes several projects progressed using alternative delivery methods.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
10/19-02/21	80th Avenue Reconstruction Phase II Design, Will County, IL - As Drainage Design Manager, Mr. Das supervised all aspects of the drainage design and construction document preparation associated with a \$47 million reconstruction of 80th Avenue from 191st Street to 183rd Street within the Villages of Tinley Park and Mokena. The project involved widening of the roadway from a two-lane rural section to a four-lane urban section with auxiliary turn lanes added at cross streets. The widened roadway required a new storm sewer network design as well as significant detention storage and culvert replacements. Improvements also included the replacement of a bridge over the Union Drainage Ditch, rehabilitating a large culvert carrying the Tributary to the Union Drainage Ditch under 80th Avenue, and coordinating drainage improvements at the intersection of 80th Avenue and Interstate 80.			
06/17-08/19	Illinois Tollway, Tri-state Tollway (I-294) between 95th Street and LaGrange Road Phase II - Drainage Design Lead for this project which involved Phase II engineering services and project related permits for a proposed reconstruction of the Tri-State Tollway (I-294) between 95th Street (M.P. 17.8) and LaGrange Road (M.P. 20.7). The section features challenging geometrics through the toll plazas, extensive coordination requirements, and multiple locations with recorded drainage issues. Responsibilities included coordinating with the Tollway and governmental permitting agencies and managing drainage design activities, providing guidance on hydrology computations and hydraulics modeling using SUDA, review of drainage design computations, and overseeing the submittal of design and construction documents.			
03/18-06/19	Northern Indiana Commuter Transportation District (NICTD), West Lake Corridor New Starts Project, Lake County, IL - Drainage Design Manager for a nine-mile extension of the South Shore Line (SSL), known as the West Lake Corridor, to provide new passenger rail service to the municipalities of Hammond, Munster, and Dyer. The project provides new transit service between Dyer, Indiana and Metra’s Millennium Station in Downtown Chicago which is a total distance of approximately 30 miles. He supervised hydraulic modeling of bridge crossings, along with the drainage infrastructure design for track embankment, new stations, a maintenance yard, and green infrastructure initiatives. Co-ordinated with multiple local, state and federal agencies, including the USACE’s Chicago District, to determine acceptable design features for permitting requirements and mitigation of adverse impacts. Also served as the Drainage Lead during procurement services.			

02/14-09/17	Illinois Department of Transportation, US 51 Environmental Impact Study - Project involved the study, preparation, and submission of an EIS and Design Report for US 51 along a 70-mile corridor in central Illinois. The study included an evaluation of the feasibility of several alignments based on social, economic, environmental and engineering issues. The goal of the EIS was obtain a Record of Decision (ROD) that identified a Preferred Alternative for transportation improvements that would meet local and regional needs while improving safety and enhancing mobility. Mr. Das supervised and performed hydrologic computations and hydraulic modeling, along with the preparation of hydraulic reports for more than 36 cross-drainage structures which included structures located within a FEMA designated Floodway.
05/15-03/16	Illinois Department of Transportation, Central Avenue/BRC Railroad Grade Separation Phase I Study, Chicago, IL - As Senior Drainage Engineer, Mr. Das was part of a team to conduct a Phase I Study for the grade separation of Central Avenue and the Beltway Rail Company Railroad. The study was conducted using the principles of Context Sensitive Solutions (CSS) for stakeholder involvement while engaging a host of City of Chicago agencies. Also included the preparation of an EA and Combined Design Report. Mr. Das managed the preparation of the Location Drainage Study for the project location and supervised hydrology computations, hydraulics modeling and preliminary design.
02/14-12/15	Clarkson Construction and Kiewit Infra J.V., Johnson County Gateway, Kansas City, MO - Served as the Managing Senior Water Resources Engineer for the first ever design-build project for Kansas DOT. The scope of work included reconfiguring two system interchanges which included the design and construction of 27 bridges of varying complexity, 20 miles of state-owned multi-lane urban freeway, 3.5 miles of primary arterials street network and 14 ADA-compliant signalized intersections. Rajat supervised and performed the QA/QC reviews for hydraulic and hydrologic modeling of proposed storm sewer systems, major cross-drainage structures, and preparation of construction documents.
01/13-02/14	RTD Eagle P3, Denver, CO - Senior Drainage Engineer for the Eagle P3 Project which comprised elements of Design-Build, Finance, Operation and Maintenance (DBFOM) for approximately 33 miles from the Denver city center on three new lines of commuter rail to multiple suburban locations and the Denver International Airport. The overall design included 14 stations, 29 at-grade crossings, 36 bridges, and the relocation of 4 miles of BNSF mainline track. Mr. Das reviewed and managed design modifications during the construction of proposed storm sewer systems, coordinated with multiple reviewing and permitting governmental agencies, and supervised the preparation of construction documents.

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	David Verno, P.E.		Years of experience with this employer	28
Title	Sr. Project Manager / Senior Bridge Engineer		Years of experience with other employer(s)	5
Degree(s) / Years / Specialization		B.S. / 1993 / Civil Engineering		
Active registration number / state / expiration date		#13640 / WV / 12-31-2026		
Year registered	1998	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities		QA/QC Task Lead / Alternate Delivery Technical Services David has more than 33 years of bridge design and engineering experience involving complete bridge design, composite deck designs, and retaining structures. A 26-year veteran of TRC, he has worked on numerous bridge replacement and rehabilitation projects for a variety of bridge types including adjacent concrete box beams, prestressed concrete beams, steel I-beams, steel plate girders, and reinforced concrete box culverts. In addition to traditional Design-Build-Build, he has led the bridge design for several alternative delivery projects which has included his involvement in various pre-procurement activities.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
06/17-08/25	Quality Assurance Management (QAM) Services, I-64 Six Lane Widening and Improvements Design-Build Project, Putnam County, WV – \$225 million Design-Build project involving the widening of Interstate 64 (I-64) from four to six lanes for approximately 3.8 miles. As Bridge Project Manager, Mr. Verno participated in a variety of pre-procurement activities that included developing the RFQ and RFP documents, attendance at planning meetings with the owner, and oversight of the necessary testing, preliminary analysis and design to help advance the project. The project’s bridge structures consist of the widening/replacement of three Interstate overpass bridges, two new Interstate ramp bridges, replacement of a County Route overpass bridge, and replacement of the existing 1,400’ long Kanawha River Bridge. During construction, Mr. Verno transitioned to Project Manager and also performed design reviews during construction in addition to attending project meetings and coordinating closely with WVDOH staff.			
07/15-03/20	US Route 35: WV 869 to Mason CR 40 (Design-Build/Public-Private Partnership), Putnam and Mason Counties, WV – Served as TRC’s Bridge Project Manager for a new \$196 million four-lane section of U.S. Route 35 that extends 14.6 miles (13.8 miles of actual construction) from WV 869 in Putnam County to north of County Route 40 in Mason County. This was the second P3 project to be undertaken in the State of West Virginia and the largest construction contract ever let by the state at the time. US 35 over CR 29 was a twin, two-span (170’ – 210’) steel plate girder bridge carrying US 35 over CR 29 and Little Sixteenmile Creek. Tasks included span arrangement determination, contouring substructure units and MSE wall layout. He coordinated with multiple design teams to oversee preliminary and final plan development, and worked closely with hydraulic engineers to relocate a portion of Little Sixteenmile Creek to avoid a conflict with the bridge piers. US 35 over CR 40 was a twin, curved, two-span (195’ – 155’) steel plate girder bridge carrying US 35 over CR 40 and Upper Ninemile Creek. Tasks included span arrangement determination, contouring substructure units and MSE wall layout. He coordinated with multiple design teams to oversee preliminary and final plan development, and worked closely with roadway engineers to relocate CR 40 in order to eliminate the potential for vehicular collision force to the bridge piers.			
07/14-08/19	Coalfields Expressway: Mullens to E CO 12/1 and Mullens Connector (Design-Build/Public-Private Partnership), Wyoming County, WV – \$45 million accelerated Design-Build/P3 project which involved the design and construction of a 4-lane, fully-controlled access facility on new location for a total distance of nearly 3 miles. Bridge Project Manager responsible for preliminary design and project oversight for a 1,175’, four-sided concrete box culvert with a 6.5’ x 6.5’ opening. The culvert was placed under 266’ of fill and carries US Route 121. The culvert was designed using the induced trench method of construction using geofoam to reduce the design forces applied to the culvert itself. Mr. Verno worked closely with TRC geotechnical and hydraulic engineers and was the direct point of contact with the contractor regarding the culvert. He also participated in regular meetings and conference			

	calls with the contractor and the WVDOH to help ensure completion of the culvert plans and ensure compliance with the project requirements and specifications.
03/21-12/25	West Virginia Division of Highways, Coalfields Expressway PIE Study, Wyoming County, WV - Bridge Project Manager. Project involved the completion of a Preliminary Investigation Engineering (PIE) Study for completing the remaining 47 miles of the Coalfield Expressway Corridor from Welch in Wyoming County to the WV/VA State Line in McDowell County. The project's second phase involved alignment development, preliminary design, and environmental re-evaluation for a 15-mile section of the Corridor from the WV 16 Interchange at Indian Creek to Mullens. Mr. Verno managed the generation of span arrangement reports, including 30% plan sheets, for three twin structures designed by TRC which carry four lanes of mainline traffic (Guyandotte River bridge, Indian Creek bridge, and Still Run bridge). He also oversaw the design of two twin structures (Pinnacle Creek bridge and Mullens bridge) completed by a subconsultant.
01/18-10/20	West Virginia Division of Highways, I-70 Bridges Rehabilitation, Ohio County, WV - Bridge Project Manager for TRC's role as a subconsultant responsible for the rehabilitation design of seven bridges (six in West Virginia and one in Ohio) that are part of a 26 bridge package of I-70 Bridge rehabilitations. Directed multiple in-house design teams for the work which consisted of the rehabilitation of all substructure units, one superstructure replacement, four deck replacements, joint replacements, use of link slabs, semi-integral abutment conversions, structural steel repairs and bridge load ratings. This project was on an accelerated schedule that required close coordination with the WVDOH, ODOT, various TRC offices and other design consultant team members. Upon award of the construction contract, Mr. Verno was responsible for answering contractor's requests for information (RFI's), construction submission reviews and shop drawing reviews.

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Paul Misch Jr., P.E.		Years of relevant experience with this firm/employer	22
Title	Senior Bridge Engineer		Years of relevant experience with other firm(s)/employer(s)	6
Degree(s) / Years / Specialization			M.S. / 1999 / Civil Engineering B.S. / 1996 / Civil Engineering	
Active registration number / state / expiration date			#PE.0034416 / LA / 09-30-2027	
Year registered	2009	Discipline	Civil Engineering Other Pertinent Training / Certifications NHI Course #130055, Safety Inspection of In-Service Bridges, 2005 NHI Course #130053, Bridge Inspection Refresher Course (2015) NHI Course #130056 – Safety Inspection of Bridges for Professional Engineer, 2024	
Contract role(s) / brief description of responsibilities			Bridge Design / Bridge Inspection Paul offers more than 28 years of new and rehabilitation bridge design experience which has encompassed the design and detailing of steel and concrete superstructures, as well as substructure design, including integral and semi-integral abutments, hammerhead and rigid frame piers, steel piling, drilled caissons and spread footings. In addition, he has designed temporary works for bridge contractors.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the time specified in the applicable MPR(s).			
03/18-02/19	WVDOH, I-70 Bridges, Rehabilitation of Greenwood Bridge WB & EB (I-70 WB & EB Over Wheeling Creek), Ohio County, WV - Member of the design team that developed rehabilitation plans for these curved and skewed steel girder bridges having span lengths of 89’-137’-83’. Responsible for detailing modifications to the bridges for conversion to semi-integral abutments. Detailed demolition limits for the existing abutment backwalls and portions of the wingwalls. Developed plan details for new shear blocks and concrete end diaphragms to be built in phases for maintenance of traffic purposes. Also detailed modifications to existing steel end crossframes for embedment in the new concrete end diaphragms.			
03/18-02/19	WVDOH, I-70 Bridges, Rehabilitation of Elby’s Bridge WB & EB (I-70 WB & EB Over Ramp B, Ramp C and Wheeling Creek) – Ohio County, WV - Member of the design team that developed rehabilitation plans for the seven span, steel rolled beam bridges with span lengths ranging from 39’ to 92’. Responsible for detailing modifications to the bridges for conversion to semi-integral abutments. Detailed demolition limits for the existing abutment backwalls, pedestals and portions of the wingwalls. Developed plan details for new shear blocks, pedestals, concrete end diaphragms and end zone regions of the deck slabs. Also detailed modifications to existing steel end crossframes for embedment in the new concrete end diaphragms.			
06/13-04/15	WVDOH, Phill G. McDonald Memorial Bridge Rehabilitation, I-64 Over Glade Creek, Raleigh County, WV – Bridge Design Engineer responsible for developing the rehabilitation plans for this five-span (125’-560’-784’-560’-150’) bridge consisting of a three-span continuous steel deck truss and two welded plate girder approach spans. The overall bridge length is 2,179' with a roadway width of 72'. Tasks included bearing replacements, strip seal deck joint replacements, neoprene trough replacement at finger joints, addition of gusset plate stiffening angles, miscellaneous bolt replacements, bird screen repairs, addition of chord member drain holes, spot painting, concrete patching/crack sealing on the deck and piers, and pier door replacements.			
03/14-06/15	WVDOH, Kanawha Falls Bridge Rehabilitation, County Route 13 over Kanawha River, Fayette County, WV – Bridge Design Engineer responsible for developing rehabilitation plans for this historic (1928) four-span (265’-400’-265’-73’) bridge which consists of three through trusses, a rolled beam approach span and a roadway width of 21.5'. Tasks included compiling quantities, designing a phone conduit system and an 8” diameter waterline			

	connection to the floor system, checking of the span 4 deck slab design and coordinating the development of rehabilitation plans between four (4) design offices.
07/12-07/12; 07/15-07/15; 07/16-07/16	WVDOH, Fifth Street Bridge, Wood County, WV - Team Leader for the in-depth inspection of this 905' two-span Warren through truss over the Little Kanawha River and CSX Railroad. The inspection included fracture critical steel bents. He provided a written inspection report and CAD drawings of the deterioration.
10/11-10/11 10/12-10/12 10/14-10/14	WVDOH, Inspection of 35th Street Bridge and Ramps A & B, Kanawha County, WV – Team Leader performed an in-depth inspection of 8 welded steel plate girder spans and substructure consists of one full height reinforced concrete cantilever abutment and 9 two-column reinforced concrete pier bents. He provided a written inspection report and CAD drawings of the deterioration.
01/13-01/13	WVDOH, Kanawha Falls Bridge, Fayette County, WV – Participated in the in-depth inspection as part of a rehabilitation of this three-span (265 feet-400 feet-265 feet) through-truss and simple span two-girder plate girder bridge over the Kanawha River, CSX and Norfolk Southern Railroad and County Route 13/2. All elements of the bridge were either verified from shop drawings or documented when no existing information was available.
05/11-05/11 08/12-08/12	WVDOH, I-470 Approach Bridges Inspection, Ohio County, WV - Inspector performing an in-depth inspection of this 29-span twin-bridge structure which consists of multiple continuous spans of welded steel plate girders. The bridge has concrete hammer-head piers, two-column concrete piers with fracture critical steel pier caps, and a full height abutment. The overall length is 3545 feet.
09/05-08/10	WVDOH, Phill G. McDonald Memorial Bridge Inspection over Glade Creek, Raleigh County, WV - Team Leader performed in-depth and routine inspections for 5 cycles of this five-span bridge which consists of a three-span steel deck truss and two-span welded plate girders. He performed a load rating analysis of the gusset plates using the LFR method for the three-span steel deck truss bridge. This bridge is regarded as one of the highest truss bridges in the world.
10/03	WVDOH, Veteran's Memorial Bridge Inspection, Brooke County, WV – Assigned as an Inspector to perform periodic inspection of this cable-stayed bridge spanning Ohio River. The bridge consists of a single 360' inverted Y-shaped concrete tower. Twenty-six (26) paired cables reach across the 690-foot West Virginia back span and the 820-foot main river span to two Ohio approach spans of 314 and 140 feet. He inspected the concrete deck, steel superstructure, approach span piers and portions of the concrete tower.
02/13-02/14	WVDOH, WV Thomas Buford Pugh Memorial Bridge Replacement (WV Rt. 41 Over the New River), Fayette County, WV - Responsible for the Superstructure Type, Size and Location Study for this three-span (217'-250'-190'), curved steel plate girder bridge. Tasks included framing plan development and preliminary design of steel girders with 125' radii and sharply skewed abutments.
06/11-08/14	WVDOH, Bridge Street Bridge Replacement, Taylor County, WV - Responsible for preliminary studies and the final design of this two-span (173'-130') steel plate girder bridge carrying Bridge Street over the Three Fork Creek and CSX Railroad in the City of Grafton, WV. Tasks included designing steel plate girders, deck slab, rigid frame concrete pier with drilled caissons, extensive MSE wall layouts, conceptual bridge demolition and erection schemes over several CSX rail lines. Also checked the design for the integral abutments founded on steel H-piles.

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Staci Danna, P.E.		Years of relevant experience with this employer	8
Title	Area Manager		Years of relevant experience with other employer(s)	25
Degree(s) / Years / Specialization			M.S. / 2003 / Business Administration B.S. / 1999 / Environmental Engineering	
Active registration number / state / expiration date			#PE.0031561 / LA / 03-31-27	
Year registered	2004	Discipline	Environmental Engineer	
Contract role(s) / brief description of responsibilities			Environmental Permitting Support	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the time specified in the applicable MPR(s).			
04/18-Present	Commonwealth LNG LLC, LNG Export Terminal, Federal Energy Regulatory Commission (FERC) National Environmental Policy Act (NEPA) Environmental Report (ER) and Federal/State/Local Permitting, Louisiana - Continuing to provide comprehensive environmental support of the authorization process for the 9.5 MTPA Commonwealth LNG liquefaction and export facility, located on the west bank of the Calcasieu Ship Channel. Provided support for preparation of FERC ER in support of NEPA analysis for the NGA Section 3 Application (Docket No. CP19-502), agency consultations, and preparation of applications for USACE §404/§10/§408 authorization, Louisiana Department of Energy and Natural Resources (LDENR) Coastal Use Permit (CUP) and other federal/state/local permits. TRC prepared a Dredged Material Management Plan (DMMP) for the 1.7 million cubic yards of dredging required to construct the Project’s marine berth, coordinated with Duplantis Design Group (DDG) on design of a DMMP Area for management of the sediment under LDENR’s Beneficial Use of Dredged Material (BUDM) requirements (LAC Title 43, Part I, Section 723.H), and developed a Mitigation Plan for a 25-acre Marsh Creation Area (MCA) to offset impacts on 11.9 acres of brackish marsh. TRC also worked closely with Delta Land Services to secure compensatory wetland mitigation credits sourced from four banks to address impacts on 155.3 acres of emergent and forested wetlands.			
08/19-Present	Trunkline LNG, Lake Charles LNG Export Terminal, FERC NEPA and Federal/State/Local Permitting, Louisiana - Currently supporting extensions and modifications of permits and agency approvals/authorizations and maintaining tracking documents as the Project moves toward Final Investment Decision (FID). Construction began in February 2023. TRC originally provided the environmental support for the Project’s FERC Order, federal / state / local permitting, and initial construction phase in early 2016. The Lake Charles Liquefaction Project includes construction of liquefaction trains and appurtenant facilities at a site immediately north of Lake Charles LNG’s existing LNG import terminal in Calcasieu Parish, Louisiana.			
01/18-Present	Marathon Petroleum Company, Section 10/404 Permitting, Coastal Use Permitting and Pontchartrain Levee District Permitting, Garyville, Louisiana - Project Manager for the performance of environmental permitting services for multiple heavy haul transports over the Mississippi River Flood Protection Levee at the Garyville Refinery. Activities included obtaining a CUP from the OCM, a Section 10/404 Permit from the New Orleans District USACE, Louisiana Department of Environmental Quality (LDEQ) Section 401 Water Quality Certification (WQC), Pontchartrain Levee District (PLD) Permit, and Section 408 Authorization for construction of a temporary modular bridge from the crown of the levee, over River Road, and into the Marathon property. Responsibilities included preparing and/or reviewing request Letters of No Objection and drawings; Joint Permit Application and associated drawings; draft permits; and WQC response. Also assisted the client in responding to agency comments and requests for additional information.			
08/21-Present	Pine Gate Renewables, Environmental Due Diligence & Permitting Support, Multiple Solar Projects, Various Parishes, Louisiana - Managing the environmental due diligence for multiple photovoltaic solar and battery energy storage system projects in Louisiana, Mississippi, Alabama and Georgia. Scopes of work included performing wetland and waterbody delineations; preparing wetland delineation reports and requests for jurisdictional determinations; preparing critical issues analyses; performing threatened & endangered species habitat assessments; performing cultural resource deskton			

	reviews and cultural surveys; coordination with U.S. Fish & Wildlife Service and State Departments of Wildlife & Fisheries; and conducting Phase I environmental site assessments. JDs were obtained from the USACE New Orleans, Vicksburg and Mobile Districts.
04/23-Present	NextEra Energy Resources, Environmental Services, Various Parishes, LA - Managing environmental services for multiple solar projects in Louisiana: 2,465-acre site in Morehouse Parish; 1,477-acre site in Lafayette Parish; 3,268-acre site in Sabine Parish; 1,939-acre site in Webster Parish and 2,173-acre site in Natchitoches Parish. Scope of work consisted of performing desktop wetland reviews, wetland delineation field surveys, and preparation of wetland delineation reports. Some projects included wetland delineations accompanied by a threatened and endangered species habitat assessment and report. Additional tasks include preparation of requests for jurisdictional determination, nationwide permit requests, desktop cultural resources reviews and memorandum, and permit matrices. Projects include coordination with multiple U.S. Army Corps of Engineers Districts, including New Orleans, Vicksburg, and Forth Worth.
08/22-2023	Kinder Morgan/Tennessee Gas Pipeline Company, L.L.C., 507K Supply Lateral Abandonment Project, Louisiana - TRC provided environmental support including biological (wetlands, protected-species habitat) and cultural resource field surveys, preparation of FERC NEPA Environmental Report (ER) for Section 7(b) Natural Gas Act (NGA) Application, agency consultations, and applications for federal/state permits for the abandonment-by-sale of approximately 33 miles of natural gas pipeline and modification of associated aboveground facilities, including within the Louisiana Coastal Zone. Ms. Danna is supporting the NEPA analysis and permitting.
06/19-10/21	Southern Natural Gas Company/Kinder Morgan, Evangeline Pass Expansion Project, FERC NEPA ER and Federal/State/Local Permitting, Mississippi/Louisiana - Supported preparation of FERC NEPA ER for §7(c) NGA Application, agency consultations, and applications for federal/state permits for a new compressor station (Rose Hill, MS) and modification of 17 aboveground facilities in Mississippi and Louisiana, including within the Louisiana coastal zone (Docket No. CP20-51-000).
02/20-02/21	Louis Dreyfus Company, LLC, Port Allen, LA - Project Manager for obtaining a U.S. Army Corps of Engineers Section 10/404 Permit and Atchafalaya Basin Levee District Permit, including Letters of No Objection from the Coastal Protection and Restoration Authority and the Completed Works Branch of the Army Corps of Engineers, for the installation of four (4) new guide piles in the Mississippi River for an existing barge unloading facility in Port Allen, Louisiana.
02/20-11/20	Atlantic Alumina LLC / Noranda Alumina LLC, Gramercy, LA - Project Manager for environmental permitting services to modify/repair the bumper/guide assembly for monopile #5 at Noranda's alumina loadout barge dock on the left descending bank of the Mississippi River near Gramercy, Louisiana. TRC obtained the U.S. Army Corps of Engineers Section 10/404 Permit and Louisiana Department of Natural Resources Office of Coastal Management Coastal Use Permit. TRC also prepared documents to obtain Letters of No Objection from the Coastal Protection and Restoration Authority and the Completed Works Branch of the US Army Corps of Engineers, as well as Pontchartrain Levee District approval.
02/18-Present	Levee Board Permitting for Subsurface Activities within 1,500 feet of the Centerline of the Mississippi River Levee – Louisiana. Managing the preparation of requests for letters of no objection to agencies; prepared permit drawings; and coordinated with the Levee District, the U.S. Army Corps of Engineers, and Coastal Protection and Restoration Authority on issuance of approvals for the following: • Blue Cube Operations LLC, Plaquemine, LA – Tank farm Excavations (multiple submittals) • Noranda Alumina, Gramercy, LA - Monitoring Well Installations & Light Pole Replacements • Louis Dreyfus Co. LLC, Port Allen, LA - Excavations for Routine Maintenance Work; Installation of Helical Piles for Belt Conveyor. • Confidential Client, Plaquemines Parish, LA - Plaquemines Parish Permit for Test Piles

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Jim LeBlanc		Years of relevant experience with this employer	6
Title	Senior Environmental Scientist		Years of relevant experience with other employer(s)	41
Degree(s) / Years / Specialization			B.S. / 1981 / Marine Biology	
Active registration number / state / expiration date			N/A	
Year registered		Discipline	Other Pertinent Training / Certifications Army Corps of Engineers Wetlands Delineation & Management Training Program-Richard Chin Environmental Training, January 2005 U.S. Fish & Wildlife -Wetlands Classification, 1984 U.S. Fish & Wildlife Service – Habitat Evaluation Procedures, 1984	
Contract role(s) / brief description of responsibilities			Environmental/Permitting Support	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the time specified in the applicable MPR(s).			
02/17-04/19	Blue Cube Operations LLC/The Dow Chemical Company, Grand Bayou Operations, Belle Rose, Louisiana – Lead Scientist for development of the Joint Permit Application (JPA) needed to construct a new well pad and support infrastructure to install a new brine well at the Grand Bayou Operations facility. Providing coordination for a geologic review meeting; Section 106 coordination with the State Historic Preservation Officer; obtaining Louisiana Department of Environmental Quality 401 Water Quality Certification ; coordinating with approved mitigation banks to satisfy permit requirements for compensatory mitigation; and coordinating with U.S. Fish & Wildlife Service and the Louisiana Department of Wildlife & Fisheries on inactive bald eagle nest and colonial wading bird colonies in the general vicinity.			
10/18-03/19	Hilcorp Energy Company, Cartwright Prospect, Terrebonne Parish, LA - Permit Lead responsible for acquiring the Section 10/404 permit from the Corps of Engineers, a Coastal Use Permit from the Office of Coastal Management and approval from the Terrebonne Parish Consolidated Government for the construction of a new well pad needed to drill a new production well. Permitting activities include coordinating mitigation for unavoidable impacts, purchasing of mitigation credits from an approved mitigation bank, and acquisition of a 401 Water Quality Certification for LDEQ.			
06/19-06/20	Nucor Steel Louisiana, Convent, LA - Permit Lead for acquisition of the Section 10/404 permit from the Corps of Engineers, a Coastal Use Permit from the Office of Coastal Management, and approval from the Pontchartrain Levee District for maintenance dredging activities in the Mississippi River at their ship dock and barge loadout facility. Permitting activities included the acquisition of a 401 Water Quality Certification for LDEQ and Letters of No Objection (LONO) from the Completed Works Branch of the Corps and the Coastal Protection and Restoration Authority at the Louisiana Department of Natural Resources.			
05/22-Present	Marathon Oil Company, Garyville, LA - Permit Lead for the acquisition of approval from the Pontchartrain Levee District to transport numerous large process vessels over the Mississippi River Flood Protection Levee at an existing location used for previous heavy haul transports. He is providing coordination of the stability analysis using Method of Planes under preparation by a local geotechnical firm to receive Letters of No Objection from the Completed Works Branch of the Corps of Engineers and CPRA at the Louisiana Department of Natural Resources. Additionally, activities will require the preparation of a Joint Permit Application (JPA) for a Coastal Use Permit (CUP) and a Section 10/404 permit from the Corps of Engineers. Construction of a temporary modular bridge across the levee crown will also require a 408 review by the Corps.			

03/19-01/20	Noranda Alumina LLC, Gramercy LA - Permit Lead for the acquisition of a Section 10/404 permit from the Corps of Engineers and a Coastal Use Permit from the Office of Coastal Management for the repair of damage guide piles at the alumina dock and maintenance dredging behind both docks for removal of sediment accumulation creating loading problems on the dock piles. Permitting activities included approval from the Pontchartrain Levee District for all the activity within 1,500 feet of the Mississippi River Flood Protection Levee. Permitting activities included the acquisition of a 401 Water Quality Certification for LDEQ and Letters of No Objection (LONO) from the Completed Works Branch of the Corps and the Coastal Protection and Restoration Authority at the Louisiana Department of Natural Resources.
10/19- 10/20	Noranda Alumina LLC, Gramercy, LA – Permit lead for acquisition of the Section 10/404 permit from the New Orleans District of the Corps of Engineers, a Coastal Use Permit from the Office of Coastal Management, and approval from the Pontchartrain Levee District for construction of a new wetcake conveyor, along with the repair and rehabilitation of an existing liquid barge dock for bulk transfer operations at Noranda Alumina facility in Gramercy, Louisiana. Installation of new piles and dolphins in the river was to be authorized under a Nationwide Permit. Additionally, a 408 Authorization from the Corps of Engineers was required for construction activities within the Mississippi River Flood Protection Levee easement. Prior to submitted the Joint Permit Application (JPA), a wetlands delineation was performed on the river batture in order to identify the extent of jurisdictional wetland potentially impacted by construction activities. Before the permitting could be completed, the project was cancelled due to design delays and cost escalations.
07/18-09/18	Louis Dreyfus LLC, Atchafalaya Basin Levee District Permitting, Port Allen, LA - Levee Permit Lead for acquiring approval from the Atchafalaya Basin Levee District to perform temporary excavation maintenance work within 1,500 feet of the centerline of the Mississippi River Flood Protection Levee. Included the preparation of a request letter to accompany the vicinity map, plan view and cross-section drawing for the project, and responding to requests for additional information from the Corps of Engineers and CPRA.
06/20-06/21	Louis Dreyfus LLC, Port Allen, LA – Permit Lard for an Atchafalaya Basin Levee Board permit to install fur new guide piles at the existing barge unloading terminal needed to force barge tows from crashing into the outer bumper system in order to line up with the barge pulley system. Activities included coordination with the design engineer to provide lateral load calculation for the piles required by CPRA and the Corps for Letters of No Objection.
03/07-09/09	Marathon Oil Company, Garyville, LA - Permit lead for the acquisition of a Section 10/404 permit from the Corps of Engineers, Coastal Use Permit from the Office of Coastal Management and approval from the Pontchartrain Levee District for the construction of a new marine terminal (dock) in the Mississippi River as part of a \$3.2 billion expansion at the Garyville refinery.

16. Staff Experience:

Firm employed by		TRC Engineers, Inc.		
Name	Keith Suderman, PhD		Years of relevant experience with this employer	12
Title	Project Manager		Years of relevant experience with other employer(s)	13
Degree(s) / Years / Specialization		PhD / 2001 / Biological Oceanography M.S. / 1997 / Biological Oceanography B.A. / 1989 / Chemistry		
Active registration number / state / expiration date		N/A		
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities		Permitting Support		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc.			
03/14-Present	Commonwealth LNG LLC, LNG Export Terminal, Federal Energy Regulatory Commission (FERC) National Environmental Policy Act (NEPA) Environmental Report (ER) and Federal/State/Local Permitting, Louisiana - Managed early support (e.g., fatal-flaw analysis, regulatory review), field survey (wetlands, protected-species habitat, cultural resources), agency consultation, preparation of FERC ER in support of Natural Gas Act (NGA) §3 Application and applications for U.S. Army Corps of Engineers (USACE) §404/§10/§408 permit, Louisiana Department of Natural Resources (LDNR) Coastal Use Permit (CUP), Louisiana Department of Environmental Quality (LDEQ) Water Quality Certification (WQC), National Marine Fisheries Service (NMFS) and U.S. Fish & Wildlife Service (USFWS) Section 7 clearances, and other federal/state/local permits for this LNG export terminal (Docket No. PF17-8, CP19-502).			
05/14-06/16, 01/19-Present	Trunkline LNG, Lake Charles LNG Export Terminal, FERC NEPA ER and Federal/State/Local Permitting, Louisiana. Managed post-submittal support of the FERC ER and §3/§7(c) Application and applications for USACE §404/§10/§408, LDNR CUP, LDEQ WQC, NMFS/USFWS Section 7 clearances, and other federal/state/local permits for this LNG export terminal (Docket Nos. CP14-119, CP14-120, and CP14-122). Completed implementation plan; received limited notice to proceed. Managed extension of federal/state/local permits and clearances. Louisiana Department of Wildlife and Fisheries (LDWF) Scenic River permit planned. Extensive wetlands in difficult environments (e.g., wetland mosaics) required close coordination with resource agencies.			
05/16-03/19	Driftwood LNG Project, FERC Third-Party NEPA Environmental Impact Statement (EIS), Louisiana. As Project Manager, provided third-party support of the FERC in the preparation of an EIS (Docket No. PF16-6, CP17-117, 118) for a proposed LNG liquefaction and export facility and natural gas pipeline project on the Calcasieu Ship Channel. The proposed project would consist of a 27.6-MTPA LNG liquefaction facility, berths for three LNG carriers, a material offloading facility, and an approximately 96-mile-long, 48-, 42-, and 36-inch-diameter pipeline to transport natural gas from existing pipeline systems to the LNG terminal facilities. Construction began in 2022.			
02/19-07/21	Southern Natural Gas Company/Kinder Morgan, Evangeline Pass Expansion Project, FERC NEPA ER and Federal/State/Local Permitting, Mississippi/Louisiana. Supported preparation of FERC NEPA ER for §7(c) NGA Application, agency consultations, and applications for federal/state permits for a new compressor station (Rose Hill, MS) and modification of 17 aboveground facilities in Mississippi and Louisiana, including within the Louisiana coastal zone (Docket No. CP20-51-000).			
02/21-Present	Louisiana Department of Transportation and Development (LA DOTD), I-10 Lake Charles Calcasieu River Bridge Project, Public-Private Partnership Support – Calcasieu Parish, Louisiana. Provided environmental support through the development of Environmental, Socioeconomics, and Environmental Justice Technical Provisions (TPs) in support of the procurement of construction services for the replacement of the aging infrastructure of the existing bridge.			

01/07-10/11	Chevron Products Company, USACE/MDMR Wetlands Permitting, Pascagoula, Mississippi. Wetlands and dredging permitting discipline lead for Chevron's \$1.3B Pascagoula Base Oil Project. USACE §404 permit, Mississippi Department of Marine Resources (MDMR) CUP, and Mississippi Department of Environmental Quality (MDEQ)WQC were issued within 6 months. Prepared a Biological Assessment and received clearance for impacts to Gulf sturgeon critical habitat.
02/17-Present	Energy World USA, Fourchon LNG Export Terminal, FERC NEPA ER and Federal/State/Local Permitting, Louisiana. Managing FERC ER for project's NGA Section 3 Application. Supporting federal, state, and local permitting. Project is a unique, elevated platform design in Port Fourchon's industrial setting. Docket No. PF17-9-000.
02/14-07/16	Spectra Energy, Loudon Expansion Project, FERC NEPA ER and Federal/State/Local Permitting, Tennessee. Managed preparation of FERC ER for NGA §7(c) Application, agency consultations, and applications for Nationwide Permit No. 12 (NWP-12) and other federal/state/local permits for a 10-mile pipeline project (Docket No. CP15-91). Supported the preparation of an Environmental Assessment (EA) with the Tennessee Valley Authority (TVA) as a cooperating agency. Addressed protected bat species issues through agency consultation.
05/06-11/06	Gulfstream Pipeline Company, LLC, FERC NEPA ER and Federal/State/Local Permitting, Tampa Bay, Florida. Managed the preparation/submittal of a NEPA ER and applications for a Florida Department of Environmental Protection Environmental Resource Permit, Tampa Port Authority Standard Work Permit and Public Easement Permit, and Pinellas County permit, for an 18-mile offshore natural-gas pipeline in Tampa Bay, Florida.
02/06-03/09	Southern Natural Gas, NEPA and Permitting Support, Coastal Georgia. SNG's Cypress Pipeline Project is a 167-mile natural gas pipeline through pine flatwoods, herbaceous marsh, and estuarine environments of coastal Georgia. Assisted with wetland delineation and NEPA Environmental Report. Technical support of experimental design and analysis for post-construction wetland monitoring study that documented the efficacy of the natural-revegetation method (via topsoiling in wetlands vs. labor-intensive planting methods).
05/12-12/14	USACE, Third-Party EIS for the Glades Reservoir. Hall County, Georgia. Analysis of NEPA-required reasonable alternatives and USACE §404(b)(1) practicable alternatives for water-supply sources and reservoir sites. Coordination and organization of existing-conditions chapter of EIS, under direction of the USACE, Savannah District, to evaluate a pumped storage reservoir located near the Chattahoochee River and Lake Lanier. Scoping outreach included the States of Georgia, Alabama, and Florida.
01/04-05/05	Southern Natural Gas, NEPA and Permitting support, North Georgia. Prepared Resource Reports 2, Water Use and Quality; 3, Fish, Wildlife, and Vegetation; and 7, Soils, for FERC's NEPA Environmental Report. Conducted wetland and waterbody delineation and threatened-and-endangered species habitat surveys and prepared the Wetland/Waterbody Delineation Report for Southern Natural Gas' (SNG's) Triangle Pipeline-Looping Project in north Georgia.

16. Staff Experience:

Firm employed by WSP USA, Inc.			
Name	Hilda Ortiz	Years of relevant experience with this employer	3
Title	Assistant Vice President, Environmental Planning	Years of relevant experience with other employer(s)	25
Degree(s) / Years / Specialization	B.S. / Environmental Engineering		
Active registration number / state / expiration date	N/A		
Year registered	N/A	Discipline	N/A
Contract role(s) / brief description of responsibilities	Environmental Lead (Satisfies MPR #4) NEPA Practitioner with over 25 years of experience, including more than five years responsible for authoring NEPA documents . Responsible for preparation and support of NEPA documentation (Categorical Exclusions, Environmental Assessments, and Environmental Impact Statements), including coordination of multidisciplinary environmental studies (biological, cultural, water resources, hazardous materials, and socioeconomic), integration of technical analyses, and support of agency coordination with TxDOT, FHWA, and resource agencies. Provides support for the development, review, and delivery of environmental documentation in accordance with NEPA and applicable state and federal requirements.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
07/23-Present	US 281 Corridor, Blanco Co, TX - Technical lead and contributing author for the EA. Supports Section 7–Golden-cheeked Warbler (GCW) and Section 106–Historic Rural Landscape (HRL) compliance. Multiple design iterations have been evaluated to avoid and minimize impacts to sensitive HRL resources.		
07/23-Present	US 281/SH 71 Interchange, Burnet Co, TX - Technical lead and contributing author for the EA for reconstruction of an existing cloverleaf interchange to a turbine interchange, supporting Section 7–GCW compliance. Multiple design iterations have been evaluated to avoid and minimize community impacts, including reducing displacements.		
02/26-Present	US 290 Extension, Travis and Bastrop Co, TX - Technical lead and contributing author of biological, hazardous materials, and surface water technical analyses supporting the EA for a corridor expansion with tolled and non-tolled facilities.		
09/23-Present	Regional Parkway, Nueces and Kleberg Co, TX - Supports the Environmental Impact Statement (EIS) development for a new corridor project, including agency coordination and environmental impact analysis.		
08/23-Present	US 69 Relief Route, Tyler Co, TX - Supports pre-NEPA public involvement and environmental coordination for a proposed relief route improving safety, reducing congestion, and accommodating freight demand.		
08/25-06/26	Telephone Road Revitalization, Harris Co, TX - Technical lead and contributing author for the project's Categorical Exclusion (CE) documentation. Coordinated with local agencies and integrated environmental considerations into project development.		
05/25-12/25	CapMetro Transit-Oriented Development (TOD) Site Assessment, Travis Co, TX - Technical lead conducting environmental planning evaluations supporting site selection, including identification of environmental constraints and coordination of planning-level considerations.		
07/23-04/25	SL 335 Loop, Potter Co, TX - Technical lead and contributing author for the EA across multiple segments. Coordinated environmental studies and integrated results into NEPA documentation for corridor improvements.		
07/23-05/24	CHIPS Act Project, Central Texas Region, TX - Conducted environmental compliance reviews for a federally funded development and evaluated impacts to environmental and socioeconomic resources. Supported preparation and authoring of the EA.		
01/17-11/23	FM 812 Project, Travis and Bastrop Co, TX - TxDOT Environmental Project Manager (PM) for the EA. Led environmental resource studies, managed consultant teams, and was responsible for review and integration of technical analyses into NEPA documentation.		

01/18-11/23	City of Austin Corridor Improvement Programs, Travis Co, TX - TxDOT Environmental PM supporting NEPA compliance across multiple corridor projects. Oversaw technical studies, managed consultant teams, and directed integration of environmental considerations into planning and documentation.
09/20-06/23	RM 620 / Anderson Mill Project, Travis and Williamson Co, TX - TxDOT Environmental PM for the EA in environmentally sensitive karst terrain. Led environmental analyses, managed consultant teams, and oversaw review and integration of technical studies into NEPA documentation and stakeholder coordination.
01/17-06/22	US 79 Project, Williamson Co, TX - TxDOT Environmental PM for the EA. Managed consultant teams, led technical studies addressing historic properties and federally listed species, and oversaw review and integration into NEPA documentation.
02/21-01/22	FM 3349 / CR 101 Project, Williamson Co, TX - TxDOT Environmental PM for the EA and resulting Finding of No Significant Impact (FONSI). Led environmental studies, managed consultant teams, and was responsible for preparation, review, and integration of environmental documentation.
01/21-12/21	Kyle Siding Relocation, Hays Co, TX - TxDOT Environmental PM supporting NEPA documentation and environmental review. Managed consultant teams, coordinated technical inputs, and oversaw integration of environmental requirements into project development.
01/19-01/20	CapMetro Downtown Station Relocation, Travis Co, TX - TxDOT Environmental PM preparing a CE for a transit facility relocation. Led environmental coordination with local agencies and stakeholders, managed consultant teams, and was responsible for review and integration of environmental documentation into project development.
06/15-07/20	FM 110 Project, Hays Co, TX - TxDOT Environmental PM for the EA that was prepared for a new location roadway. Led environmental studies, managed consultant teams, and was responsible for agency coordination and review and integration of technical analyses addressing aquifer and biological resources into NEPA documentation.
01/06-01/08	Valenciano Reservoir Project, Juncos, Puerto Rico - Environmental lead and contributing author for the EIS and permitting. Coordinated multidisciplinary studies, supported USACE permit application, and integrated environmental analyses into documentation and public involvement process.
01/02-01/05	Port of the Americas, Ponce, Puerto Rico - Lead author of the EIS, USACE individual permit application, and land use approvals for a deep-draft marine terminal. Coordinated technical studies and integrated environmental analyses into project documentation.

16. Staff Experience:

Firm employed by		WSP USA, Inc.	
Name	Shirley Nichols	Years of relevant experience with this employer	3
Title	Vice President, Environmental Planning	Years of relevant experience with other employer(s)	32
Degree(s) / Years / Specialization		B.S. / 1987 / Geography and Planning B.S. / 1987 / Environmental Studies	
Active registration number / state / expiration date		N/A	
Year registered		Discipline	N/A
Contract role(s) / brief description of responsibilities		Environmental Permitting Lead (Satisfies MPR #4) Shirley has over 35 years of progressive experience in NEPA compliance, environmental analyses, and public engagement in the planning and infrastructure field for manufacturing, transportation, electrical transmission, energy production, water and wastewater transmission, treatment and storage, and water reclamation projects. She has an extensive background in regulatory compliance, environmental analyses, and public engagement in support of multi-sector infrastructure projects. Shirley has built and managed teams of planning and environmental professionals with a collaborative solutions-based approach which includes more than five years authoring NEPA documents.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
06/23-Present	TxDOT, Corpus Christi District, Regional Parkway, North Padre Island, Environmental Impact Statement, TX - Environmental Project Manager for the Environmental Impact Statement to analyze highway improvements south of the City of Corpus Christi in Nueces and Kleberg Counties, Texas. The project builds on decades of feasibility and preliminary environmental linkages (PEL) studies to evaluate four new location alternate routes and the potential to upgrade the existing route along State Highway (SH) 358 from SH 286 in Nueces County crossing the Laguna Madre to Park Road (PR) 22, on Padre Island, in Kleberg County. The EIS process has begun with the Agency Scoping Meeting. Over 25 agencies have been invited to cooperate or participate including the US Fish and Wildlife Service and National Marine Fisheries Service for potential to impact federally threatened and endangered species in the environmentally-sensitive Laguna Madre and connected habitats; the Texas Historical Commission for NRHP eligible historic resources including the King Ranch; the US Coast Guard for bridge permitting; the USACE for WOTUS permitting; the National Park Service for the National Padre Island Seashore along with the regional local governments and the MPO. Comprehensive public outreach began with the public scoping meeting and is currently in the early alternative alignment analysis phase. The project is a high priority with the governor to provide an alternate island evacuation route during emergency events.		
04/23-Present	TxDOT (TxDOT Beaumont District), US69, Woodville-Colmesneil Relief Route, Feasibility Study and Environmental Assessment, Beaumont, TX - Environmental PM for an alternate south-north evacuation route in the growing area of Southeast Texas. The proposed project would improve safety by providing a relief route to reduce congestion on existing US69, address demand from freight traffic and provide an alternate/secondary route from south of Warren to north of Colmesneil. Comprehensive public outreach including stakeholder and public meetings is ongoing for determination of a preferred alternative. As part of the NEPA analyses, studies of the alternative’s potential impacts will include USACE waters of the US, biological resources, noise, air, socioeconomics, environmental justice, and cultural resources.		
04/16-08/23	TxDOT (Austin District), IH-35 Capital Express Central Environmental Impact Statement, Austin TX - Environmental Supervisor. This project was federally funded through FHWA and coordinated, reviewed and approved by FHWA through NEPA Delegation of Authority to TxDOT. Shirley led the highly technical team of subject matter experts, environmental scientists, and planners along with public engagement professionals garnering local government, agency and stakeholder support to conduct detailed environmental analyses and public outreach through the EIS process. Improvements		

	included removing the existing I-35 decks, lowering the roadway, and adding two non-tolled high-occupancy vehicle managed lanes in each direction along I-35 from US 290 East to SH 71/Ben White Boulevard. The project included reconstruction of east-west cross-street bridges, railroad coordination at multiple crossings of IH-35, additional pedestrian and bicycle paths, and additional safety and mobility improvements within the project limits. The lowering of the design allows for the reconnection of the historically segmented downtown and potential stitches and caps covering as much as 14 acres to provide green space, amenities and services. The EIS was approved with a Record of Decision on time August 2023.
08/12-12/17	TxDOT (Austin District), Oakhill Parkway Environmental Impact Statement, Austin, TX - Environmental Project Manager as a consultant to TxDOT and then as the Environmental Supervisor with TxDOT Austin District leading the complex EIS for U.S. Highway (US) 290/State Highway (SH) 71 West from State Loop 1 (MoPac) to west of Ranch-to-Market Road (RM) 1826 and from US 290 to Silvermine Drive in Travis County, Texas. Project was federally funded through FHWA and coordinated, reviewed and approved by FHWA through NEPA Delegation of Authority to TxDOT. The project included direct connectors at the intersection of US 290 and SH 71, controlled access along both highways in Oak Hill, and an overpass for US 290 at William Cannon Drive. The design included three main lanes in each direction with adjacent one-way, two- to three-lane frontage roads in each direction. Aesthetic enhancements and bicycle/pedestrian facilities along the corridor are also proposed. The evaluation of project impacts to two federally listed salamanders required consultation with the U.S. Fish and Wildlife Service. Shirley and her team assisted designers in developing innovative partnerships with the key stakeholders, property owners and neighborhood groups through extensive public engagement developing solutions in gaining consensus on the project design. The Final EIS evaluating the social, economic, and environmental effects of the proposed roadway including an assessment of the impact of the proposed project on resources such as land use, farmlands, socioeconomics, air quality, noise, wetlands, floodplains, water quality, biological resources, cultural resources, hazardous/regulated materials, and visual aesthetics was completed, and a Record of Decision was signed in December of 2018. The project is currently under construction.
05/13-09/14	TxDOT, NEPA Assignment and Delegation of Authority of FHWA Application and Memorandum of Understanding (MOU) for environmental review and clearance of CEs, EAs and EISs, TX - As Deputy Project Manager, Shirley worked directly with the TxDOT Environmental Affairs Division Director and administration leadership as well as with FHWA's local and DC offices in policy and procedure development for the new program. Worked directly with TxDOT and FHWA to develop TxDOT's application and the MOU for NEPA Delegation. Collaboratively negotiated terms and guidance based on existing policies and programmatic agreements with federal and state agencies. Facilitated workshops among SMEs and FHWA to develop guidance and policy. Developed an outreach program and interagency teams to gather input, disseminate program information and collaboratively develop guidance, policy and procedure for MPOs, local governments and professional associations. Along with the team, Shirley developed and implemented a statewide training plan for all TxDOT environmental staff on the new policies and procedures for the NEPA Assignment Program. Successfully obtained FHWA's approval of the application and MOU for TxDOT's NEPA Delegation of Authority, officially signed 10/16/2014.

16. Staff Experience:

Firm employed by		WSP USA, Inc.		
Name	Sentel Rodgers, P.E.		Years of relevant experience with this employer	8
Title	Civil Design Engineer		Years of relevant experience with other employer(s)	3
Degree(s) / Years / Specialization			M.S. / 2014 / Environmental Engineering B.S. / 2012 / Civil Engineering	
Active registration number / state / expiration date			#125376 / TN / 02-29-2028	
Year registered	2022	Discipline	A&E Engineer	
Contract role(s) / brief description of responsibilities			Hydraulics / Drainage Engineer Sentel is a civil design engineer with over 11 years of engineering design experience ranging from concept development, feasibility study/preliminary design, and final design. Early in his career, he spent two years working outside the continental United States as a member of the Peace Corps where he designed and managed the construction of a rural water distribution system that served a small community in Panama. The project consisted of constructing two distribution tanks and two miles of water supply pipeline. Currently, Sentel provides engineering and design services to support stormwater improvement programs for local, Federal, and State clients. He is responsible for the development of grading/drainage plan development, levee/dam/structure design plan development, stormwater drainage system design, and water/sewer plans. He also supports the development of Opinions of Probable Construction Costs (OPCC).	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
01/18-Present	Metro Water Services of Nashville, Stormwater Division, Program Assistance & Design Services, Davidson County, TN - Sentel served as the lead engineer for over 100 drainage improvement projects. Tasks include survey, design and plan development, utility coordination, TDEC and USACE permit applications, easement documents and acquisition, cost estimates, and bid documents. Drainage improvement project scopes include hydraulic modeling, culverts (pipe and box), manholes, sanitary sewer relocation, retaining structures (gabions, concrete and rock walls), cast in place concrete, asphalt paving, grading, and erosion/sediment control. Project responsibilities also include USACE and TDEC permitting, biological assessments for endangered species (Nashville Crayfish), coordination and communication with affected property owners and community groups.			
04/23-Present	Tennessee Board of Regents, Statewide Stormwater Consultant Contract, Statewide, TN - Provides third-party reviews of Erosion Prevention and Sediment Control (EPSC) plans, Storm Water Pollution Prevention Plans (SWPPPs), and stormwater design for TBR institutions statewide.			
04/23-Present	Environmental Permitting, TDOT, Tennessee - Manages the review of EPSC plans provided by project designers, preparation of SWPPP narratives and evaluation of water quality features as identified in TDOT’s Environmental Boundaries Report (EBR).			
06/21-Present	Yazoo River Levee Design (2 phases – 9 miles), Mississippi Soil and Water Conservation Commission (MSWCC), Yazoo City, MS - Lead Civil Engineer responsible for design plan development for 9 miles of levee as part of two phases of design currently underway. Sentel is also responsible for preliminary borrow area design/estimates. Design also includes geotechnical analysis (drilling/lab/modeling) of the proposed levee route, civil design, hydraulics, large hydraulic gate design, cultural resources coordination, permitting, survey, property acquisition, and public involvement.			
08/20-Present	South Delta Ditches, Ditch C Reconstruction, MSWCC, Yazoo City, MS - Design engineer for a ditch restoration project. Responsibilities included hydrology and hydraulics of affected area, alternative design analysis, detailed plan production, site grading, and erosion and sediment control plan production.			

11/22-02/24	Greasy Creek Dam Removal and Conversion, MSWCC, Lafayette County, MS - Lead civil designer for the design of the removal of a dam in Lafayette County MS and conversion to a weir structure considered by NRCS to be a 378 Pond. Design included grading plan, detailed plan production, and erosion and sediment control.
03/24-Present	Needmore Road Improvements Phase 2, TDOT, City of Clarksville, TN - Served as drainage engineer for roadway widening project. Project scope includes hydraulic modeling of culverts, pipe networks, drainage conveyances and injection wells. Design included grading plan, detailed plan production, cost estimating and erosion and sediment control.
01/24-Present	Old Lebanon Dirt Road Safety Improvement Project, TDOT, Wilson County, City of Mount Juliet, TN - Drainage design engineer for a roadway widening project. Project scope includes hydraulic modeling of culverts, box culvert, pipe networks and drainage conveyances. Design included grading plan, detailed plan production, cost estimating and erosion and sediment control.
02/25-Present	SR-30, TDOT, Rhea County, Dayton, TN - Drainage design engineer for roadway widening project. Project scope includes hydraulic modeling of culverts, box culvert, pipe networks and drainage conveyances. Design included grading plan, detailed plan production, cost estimating and erosion and sediment control.
09/23-12/25	Anderson Branch Stream Mitigation Project, Jefferson County, TN - Project engineer assisting with plans development in the OpenRoads Designer software. This project involves the relocation and in-place stabilization of Anderson Branch and associated tributaries including the installation of EPSC measures and general stream mitigation practices.
08/23-06/25	Pistol Creek Dam Removal, Blount County, TN - Project engineer assisting with plans development in MicroStation V8i (SS2). This project involves the removal of Pistol Creek Dam near Williams Mill Road in Blount County. Responsibilities included plan production of dam removal plan, grading plan and erosion and sediment control plans.
09/25-Present	Wiley Oakley Drive Crossover Bridge, Sevier County, TN - Design engineer assisting with the drainage assessment associated with replacing an at-grade bridge with a new overpass. Drainage assessment and design includes both existing conditions analysis of drainage surrounding the bridge and drainage design of proposed conditions. Includes the use of OpenRoads designer software for production of the analysis, plan and profile and erosion and sediment control plans.
11/19-04/26	Richland Creek Exposed 48" RCP Improvements, Davidson County, TN - Served as review for the stabilization of bank along Richland Creek that was exposing a 48" sewer main. Provided reviews on projects constructability and Erosion Prevention and Sediment Control measures.

16. Staff Experience:

Firm employed by				WSP USA, Inc.			
Name		Ryan Waldron, P.E., BCCE		Years of relevant experience with this employer		<1	
Title		Vice President, Water and Coastal Engineering		Years of relevant experience with other employer(s)		18	
Degree(s) / Years / Specialization			M.S. / 2008 / Civil Engineering (Water & Coastal) B.S. / 2005 / Physics				
Active registration number / state / expiration date			#PE.0037706 / LA / 09-30-2027				
Year registered		2013		Discipline		Civil Engineer	
				Other Pertinent Training / Certifications Academy of Coastal, Ocean, Port and Navigation Engineers - Board Certified Coastal Engineer / 12-31-2026			
Contract role(s) / brief description of responsibilities				Hydraulics / Drainage Engineer Ryan has over a decade and a half of experience in all aspects of coastal, riverine, and waterways engineering focused in Coastal Louisiana. Such experience covers all phases of a project from planning, modeling, and analysis, to all phases of design and bid-phase support, on through construction oversight. His design work spans various projects of all scales, including shoreline restoration, marsh creation, river diversions, shoreline protection, port and harbor development, coastal parks and recreational facilities, and hydrologic restoration in bays, bayous, lakes, canals, inlets, and deltas for various public and private clients. His modeling experience includes the development of hydrodynamic, hydraulic, wave, sediment transport, morphologic, and hydrologic models. He has performed numerous water-level and relative sea-level rise analyses to establish design criteria for coastal projects.			
Experience dates (mm/yy–mm/yy)		Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).					
03/26-Present		Three Mile Lake Flood Reduction, Port Barre, LA - Senior Quality Reviewer. Performed an Independent Technical Review for the design of flood risk reduction improvements around Three Mile Lake for the Louisiana DOTD, including a proposed stoplog gate structure and roadway elevation improvements. Acting independently from the design team, Mr. Waldron performed a senior-level review focused on plan completeness, technical clarity, and constructability, identifying issues relevant to design coordination and future construction.					
03/26-Present		PRASA Valenciano Dam and Reservoir Project Management, Valenciano - Senior coastal engineer. Leading the development of a project-specific methodology to assess wind-driven wave impacts on a bridge deck integrated into the dam structure. Ryan’s work include fetch-limited wave generation; wave transformation; and the evaluation of vertical, horizontal, and impulsive wave loads using FHWA HEC 25 guidance and published wave-in-deck impact formulations. He developed the analytical tools used for analysis, oversaw the team applying these tools, and prepared a technical memorandum documenting assumptions, equations, and design load envelopes for use in the structural design.					
08/21-02/26		University Lakes Flood Risk Reduction Design, Baton Rouge, LA - Engineer of Record. Supervised all engineering design tasks and production of construction plans & specifications for dredging hundreds of acres of lakes and beneficially reusing dredged spoils. The beneficial reuse focuses on creating wetlands to serve as vegetative buffers along the shorelines to improve water quality, reduce flood risk, and increase natural habitat to promote ecosystem restoration. The design also aims to achieve water quality and flood risk improvements through improving hydrologic connections between the lakes by replacing and upgrading various hydraulic structures (culverts, bridges, gates, and weirs). Oversaw design efforts including sediment budget analysis, construction means and methods analysis, geotechnical analysis, and hydrologic, hydrodynamic, wave, sediment transport, and morphology modeling. Coordinated with landscape architecture, surveying, geotechnical sampling & testing, permitting, and the Master Designer to ensure the dredging and					

	placement design is compatible with landscape and mobility design. Reviewed and approved construction submittals and prepares responses to construction RFIs.
09/24-09/25	Lake Pontchartrain Barrier Project, St. Tammany Parish, LA - Project Technical Lead was responsible for overseeing all technical work on the project to conduct a pre-feasibility analysis for a project to install gated barriers across Chef Menteur Pass and The Rigolets to reduce storm surge entering the Lake Pontchartrain Basin during tropical cyclones. The project included a data gap analysis, modeling framework development, and preliminary numerical model development utilizing ADCIRC+SWAN. Also included is a pre-feasibility level cost-benefit analysis.
06/19-12/24	Mid-Breton Sediment Diversion, Plaquemines Parish, LA - Coastal engineer provide engineering design for dredged material placement task, identifying areas for beneficial reuse of dredged material, and evaluate risk reduction and habitation restoration features that could be constructed as part of this sediment diversion project to build, sustain, and restore the community & coastal ecosystem. Oversaw the development of a numerical for interior drainage system to verify that water surface elevations were not adversely altered by construction of the project. Assisted on hydrodynamic, water quality, vegetation (ecology), sediment transport, and morphologic modeling development task. Participated in design of the outfall channel and establishment of armoring requirements for bank stabilization and erosion protection.
06/15-06/19	Port Improvements, Port of Gulfport (MSPA), Gulfport, MS - Project engineer. Designed various Coastal and Civil components of the port redevelopment. These included design of the Small Craft Harbor, and the associated site civil layout (spanning from the road access/parking onto the tie-in with the piers), water service, and sewerage pump out lines for piers; the design of a shoreline armoring section to protect an existing bulkhead, adjacent to the Small Craft Harbor; and the design of drainage for Southwestern portion of the port terminating at a coastal drainage outfall into Mississippi Sound (outfall includes a treatment unit and bypass gate). Tasks also included preparation of Stormwater Pollution Prevention Plans and Port Drainage System Operations and Maintenance Manuals.
03/16-06/19	U.S. 90 Pearl River Bridge Replacements Environmental Analysis, LA DOTD, St. Tammany Parish, LA - Hydraulics lead. Collected available information from previous analyses, numerical modeling studies, and physical measurement concerning the nature of the five Pearl River channels that cross U.S. 90. Provided information for the planning phase of the project to assist in the determination of the types of bridge structures that should be considered in the alternatives analysis, and subsequent alternative selection.
08/17-06/19	South City Parkway Extension, City of Lafayette, LA - Numerical modeling lead. Modified an existing unsteady hydraulic model of the Vermillion River to include a proposed bridge for extension of the South City Parkway in Lafayette. After flooding in the Vermillion River due to the Aug 2016 rain in the area, the model was calibrated to flow & stage data recorded during that flood event. Flood data was then correlated to an annual exceedance probability.
02/12-10/14	Port Improvements, Port Manchac, Manchac, LA - Project Engineer developed design for the improvements to the port that includes dredging a shipping canal, disposal of dredged material, installation of a bulkhead, and configuration of several laydown yards.

16. Staff Experience:

Firm employed by WSP USA, Inc.			
Name	Britton Wells, CFM		Years of relevant experience with this employer
Title	Assistant VP, Water Resources Engineer		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization	B.S. / 2004 / Civil & Environmental Engineering		
Active registration number / state / expiration date	N/A		
Year registered	N/A	Discipline	N/A
			Other Pertinent Training / Certifications Certified Floodplain Manager (#US-08-03865)
Contract role(s) / brief description of responsibilities			Hydraulics / Drainage Engineer Britton has extensive experience working on hydrologic and hydraulic modeling of large riverine watersheds, and urban storm water networks serving a variety of city, state and federal clients. His experience includes model calibration and validation, streamflow forecasting, pre- and post-development analysis, technical reviews, FEMA guidelines and specifications, floodplain mapping, levee interior drainage, rainfall and streamflow measurement, roadway drainage, hydraulic bridge design, topological and as-built surveys, and stream morphological surveys. He is highly knowledgeable in many modeling software programs including HEC-RAS, HEC-HMS, EPA-SWMM, XPSWMM, PCSWMM, PondPack, CulvertMaster, HY-8, Bently ORD, and SRH-2D. He is also experienced in disaster management and recovery following major flooding events, conducting damage assessments for residential and commercial infrastructure.
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
06/22-06/25	Louisiana Watershed Initiative, Louisiana Department of Transportation and Development (LADOTD), Region 3 Watershed Modeling, Baton Rouge, LA - H&H Engineer responsible for development and calibration of watershed scale models for the LWI program to serve as the basis for analysis of future developments, flood mitigation feasibility studies, watershed management strategies and consequence and risk assessment across four watersheds in Region 3. Hydrologic and hydraulic analyses include both one- and two-dimensional models developed using Hydrologic Engineering Center’s (HEC) suite of software products.		
01/24-Present	Old Lebanon Dirt Road Widening, City of Mt. Juliet, TN - Lead Hydraulic Engineer responsible for the design of the conveyance system to assist in addressing the flooding along Old Lebanon Dirt Road. Tasks include modeling of the roadway drainage and cross drain system in GeoPak, FEMA HEC-RAS No-Rise analysis, and SRH-2D modeling for analysis of a diversion canal.		
03/24-Present	Needmore Road Improvements, City of Clarksville, TN - Lead Hydraulic Engineer responsible for the design of the drainage system supporting roadway improvements of approximately 1.6 miles of Needmore Road in a rapidly developing area of the City. Modeling of the roadway drainage and cross drain system conducted in Bently ORD. Design included avoiding negative impacts to numerous adjacent sinkhole areas.		
07/16-05/19	I-285 & SR-400 Improvements, GDOT, Atlanta, GA - Project Engineer responsible for hydrologic and hydraulic study consisting of modeling on- and off-site drainage through cross-drain systems and design of detention and energy dissipation solutions to ensure impacts are contained within the right-of-way. H&H Analyses consisted of PondPack, HEC-RAS steady flow modeling, and CulvertMaster.		
07/16-05/19	Special Drainage Studies, GDOT, Statewide, GA - Assisted with detailed hydraulic and hydrologic analyses and infrastructure designs to solve drainage/flooding problems along the Department's roadways. Services included site reconnaissance, agency coordination, topographic surveys, hydrologic and hydraulic modeling and recommendation of infrastructure improvements.		

01/19-12/19	Design-Build Bridge Replacement Program (FY2016 and FY2018), GDOT, Statewide, GA - Project Engineer part of the team responsible for hydrologic and hydraulic study 17 off-system bridges to be replaced using a Design-Build delivery method. Detailed scour analyses were conducted using HEC-18 procedures and guide bank and scour countermeasures were designed using HEC-23 procedures. HEC-RAS software was used to model the existing and proposed bridge configurations for one-dimensional, steady flow applications.
06/22-Present	SR9 Bridge Replacements over Yalobusha River Floodplain, MDOT, Calhoun County, MS - Hydraulic Engineer responsible for analysis and design of a multi-phased bridge replacement of eleven floodplain crossings in Calhoun County, MS. Project includes two-dimensional hydraulic analysis utilizing SRH-2D to determine the optimal bridges size/type and span configurations, scour analysis, and countermeasure design.
09/24-Present	Scour, MDOT, Union County, MS - Hydraulic Engineer responsible for scour evaluation and countermeasure design for four bridges along I-22 and SR-178 in Union County, MS. Project includes hydraulic modeling utilizing SRH-2D, detailed scour analysis using HEC-18 procedures, and scour countermeasure design using HEC-23 procedures.
09/23-Present	SR-76 Improvements, TDOT, Carrol County, TN - Hydraulic Engineer responsible for hydrologic and hydraulic study consisting of modeling on- and off-site drainage through cross-drain systems and design of energy dissipation solutions to ensure impacts are contained within the right-of-way. H&H analyses consisted of GeoPak, StormCAD, and HY-8.
02/25-Present	SR-30 Improvements, TDOT, Rhea County, TN - Lead Hydraulic Engineer responsible for the design of the drainage system supporting roadway improvements of approximately 3.2 miles of SR-30 in Rhea County. Modeling of the roadway drainage and cross drain system conducted in Bentley ORD. Design of energy dissipation solutions to ensure impacts are contained within the right-of-way.
01/18-06/22	I-75/I-24 Interchange Improvements, TDOT, Chattanooga, TN - Hydraulic Engineer. Served as Owners Representative for TDOT for the I-75/I-24 Interchange Design-Build project in Chattanooga, TN. Tasked with hydraulic design to determine the optimal bridges size/type and span configurations in the development of preliminary plans. Conducted design review to ensure final design met regulatory requirements.
11/16-05/19	Continuing Drainage services Contract, TDOT, Statewide, TN - Project Engineer responsible for performing drainage complaint inspections, detailed hydrologic and hydraulic modeling/analyses, topographic surveys, technical reports, construction cost estimates, and construction plans for multiple complex drainage problem sites across the State.
01/21-06/22	US-601 over Colonel's Creek Bridge Replacement, SCDOT, Richland County, SC - Project Engineer responsible for Hydraulic Design and Scour Analysis of a replacement bridge within a FEMA Special Flood Hazard Area. Hydraulic Modeling Analyses were performed in order to meet regulatory requirements and to determine the optimal bridge size/type and span configuration. HEC-RAS software was used to model the existing and proposed bridge configurations. Detailed scour analyses were conducted using USGS Envelope Curves and HEC-18 procedures and scour countermeasures were designed using HEC-23 procedures.

16. Staff Experience:

Firm employed by		WSP USA, Inc.		
Name	Wesley (Wes) R. Weir, P.E., SPRAT 1		Years of relevant experience with this employer	8
Title	Senior Project Manager		Years of relevant experience with other employer(s)	31
Degree(s) / Years / Specialization			B.S. / 1989 / Civil Engineering	
Active registration number / state / expiration date			#PE.0035035 / LA / 03-31-2028	
Year registered	2009	Discipline	Civil Engineer Other Pertinent Training / Certifications FHWA-NHI Course #130055 - Safety Inspection of In-Service Bridges / 1997, 2016 FHWA-NHI Course #130110 - Tunnel Safety Inspection FHWA-NHI Course #130078 - Fracture Critical Inspection for Steel Bridges FHWA/NHI Course #130053 - Bridge Inspection Refresher Training SPRAT – Level 1 Rope Access Technician OSHA 10-Hour Construction Safety	
Contract role(s) / brief description of responsibilities			Bridge Inspection Team Leader Wes has experience in the design, rehabilitation, inspection, and load rating of bridges. He has been heavily involved with technical climbing and rigging of complex, high-level, difficult access bridges, confined space inspections, and the inspection of movable bridges. Wes has served as Project Manager, Project Engineer, senior Structural Engineer, and resident engineer on numerous inspections, rehabilitations, and design projects. He is an expert in inspection safety and inspection systems, including inspection vehicles, rigging systems, and technical climbing techniques. He has supervised multiple design and inspection teams composed of both in-house personnel and subconsultants and has participated in assignments involving underwater inspection and scour analysis, material sampling and testing, various non-destructive testing and maintenance, and protection of traffic. He has also been a design engineer for the rehabilitation of fixed and movable bridges, including steel, concrete, masonry, timber, and cable (cable-stayed and suspension) structures. His responsibilities have included training personnel, preparation of contract documents, specifications, construction cost estimates, rating calculations, condition evaluation, and rehabilitation reports.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
08/16-Present	TxDOT, On-Call Complex Bridge (NSTM) and Tunnel Inspections, Statewide, TX - Sr. Project Manager. Responsible for fracture critical inspections of bridges throughout Texas. Wes is responsible for organizing and performing fracture-critical bridge inspections, writing and reviewing inspection reports, and analyzing structural elements as required to assess the severity of defects. He stays in close coordination with personnel from various public and private entities and is required to coordinate access and equipment needed to perform hands-on inspections. Bridges have ranged from off-system low average daily traffic structures to signature bridges, often requiring the use of technical climbing and rope access techniques. Ross also performs non-destructive testing as necessary on fatigue-prone details, primarily to determine limits of fatigue cracks found in fracture-critical members. WSP is providing inspection services for tunnels and fracture critical bridges across the state of Texas. The bridges have ranged from off-system low average daily traffic structures to signature bridges, often requiring the use of technical climbing and rope access techniques.			

08/16-Present	TxDOT, Statewide Routine Bridge Inspections, Statewide, TX - Project Manager for the NBIS of over 10,000 NBIS routine bridge inspections for TxDOT over the past 10 years in addition to hundreds load ratings. Load ratings were performed based on the 2020 TxDOT Load Rating Guide and AASHTO Manual for Bridge Evaluation, 3rd Edition. The load rating software used was AASHTO BrR (Version 6.8.4 and 7.0). The Inspections and load ratings have included reinforced concrete slabs, steel floor system superstructures, steel rolled and plate girders, and prestressed concrete girders for simple and continuous spans. Under this contract, TxDOT requested WSP's assistance to perform load testing of 30 culverts and use a systematic program to extrapolate the data obtained to provide a method of load posting avoidance across the entire inventory of 14,000+ culverts, thus saving the state millions of dollars in unnecessary culvert replacements. WSP also assisted with emergency post-Hurricane Harvey bridge inspections in the Houston area. Eight inspection teams were quickly mobilized to perform these emergency assessments with WSP completing 340 post-hurricane emergency assessments in 1 week.
01/25-Present	SCDOT, Bridge Inspection, Load Rating, Material Testing, and Load Testing Contract, Districts 2 & 7, South Carolina - QA/QC Manager. Wes provided QA/QC management for this project that included the site assessment and determination of the load capacity ratings for 2,558 structures in South Carolina Districts 2 & 7. WSP reviewed the plans, inspection reports, previous load ratings and all other available relevant bridge documents. The load ratings were completed using the information provided by SCDOT and supplemented with information from our field inspections. All load ratings were completed in accordance with current AASHTO standards using AASHTOWare BrR. In addition, WSP performed 520 material/NDT tests and 160 load tests involving instrumenting the bridges with strain gauges and driving known loads across the bridge. The results of the test were used to create corrected effective structural models to increase and remove load postings from bridges across the state.
02/21-Present	Cleveland Center Street Swing Bridge Rehabilitation Design, Cleveland, OH - Senior project manager for a rehabilitation of the historic Center Street bob-tail swing bridge. The project includes structural repairs, upgrades to the operator's house, painting, and minor mechanical and electrical improvements. The scope also includes replacing the pedestrian sidewalk, enhancing the bridge lighting system, and installing custom motor brake covers. The 225-foot swing span is supported by a 28-foot-diameter slewing ring bearing. The goal is to repair and replace deficient structural, mechanical, and electrical components to extend the bridge's service life. Efforts include field inspection of the existing bridge condition, rehabilitation of select operating machinery, span-balance ring bearings, and performance of balance adjustments.
04/20-Present	KYTC Carroll Lee Cropper Bridge, Lexington, KY - Quality assurance and quality control engineer and team leader for the 2020 and 2021 fracture critical bridge inspection and load rating of five major Ohio River crossings between Kentucky, Ohio, and Indiana. Wes worked on five bridges, including the historic 2,161-foot Roebling Suspension Bridge built in 1867; the 3,258-foot-long Carrol Lee Cropper continuous through truss bridge; the 10-span, 5,385-foot-long Irvin Cobb Bridge in Brookport, Indiana; and the 2,277-foot 12th Street and 2,314-foot 13th Street through truss bridges in Ashland, Kentucky. He calculated the load rating of the Carroll Lee Cropper bridge using AASHTOWare Bridge Rating and Midas Civil load rating software. Inspection access included various types of aerial lift equipment; under-bridge cranes; and rope access methods using Society of Professional Rope Access Technicians Level 1, 2, and 3 engineers. WSP is providing operations services to the KYTC for 25 Ohio River bridges. The project includes the National Bridge Inventory, element level, and fracture critical inspections. The Carroll Lee Cropper Bridge is a three-continuous long truss span bridge carrying four lanes of traffic between Ohio and Kentucky over the Ohio River. The outer spans of the bridge are truss-shaped and span 503.75 feet. The middle span is a truss-shaped arch with suspension cables and tie beams spanning 750 feet. The total width of the bridge from center to center of the truss is 68 feet.
03/19-Present	Virginia Department of Transportation Statewide Highway Structures Safety Inspections, Virginia - Provided quality assurance and quality control reviews. WSP, as a subcontractor, is providing safety inspections of Virginia Department of Transportation-owned highways, bridges, and support structures for traffic control devices.

16. Staff Experience:

Firm employed by		WSP USA, Inc.		
Name	Amy Robards, P.E.		Years of relevant experience with this employer	1
Title	Technical Director, Structural Engineering		Years of relevant experience with other employer(s)	14
Degree(s) / Years / Specialization			B.S. / 2012 / Civil Engineering	
Active registration number / state / expiration date			#PE.0041718 / LA / 09/30/2027	
Year registered	2017	Discipline	Civil Engineer Other Pertinent Training / Certifications FHWA-NHI-130055, Safety Inspection of In-Service Bridges, 2018 FHWA-NHI-130053, Bridge Inspection Refresher Training, 2022 FHWA-NHI-130078, Fracture Critical Inspection Techniques for Steel Bridges, 2022	
Contract role(s) / brief description of responsibilities			Bridge Inspector Amy Robards has 13 years of experience with National Bridge Inspection Standards (NBIS) bridge inspections. Key experience includes directly supervising all field inspection personnel to completion of assignments, acting as Inspection Team Leader of projects, and conducting all types of inspections. She also has experience reviewing client specific operational procedures to ensure compliance and preliminary structural analysis. Amy has implemented the Specifications for National Bridge Inventory (SNBI) into inspections, a new requirement by the Federal Highway Administration (FHWA). Within the last year, Amy specialized in routine bridge inspections, specifically culverts. She also assisted in overhead sign inspections and updating company-specific manuals. Amy also has over five years of experience in Construction, Engineering, and Inspection (CE&I). During this time, Amy assisted the engineer of record, working as the Resident Engineer on multiple rehabilitation and replacement bridge projects. Projects included the Company Canal Bridge Replacement and Causeway Safety Bay Additions. Amy also acted as the LADOTD Structural Concrete Inspector and client-contact during the CE&I work.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
02/25-Present	WMATA Bridge and Culvert Inspections 2024-2029, District of Columbia - Assisted in the routine inspection work for multiple structures, including structures at Minnesota Aerial Avenue and Grosvenor Avenue. Amy also assisted with reports. She worked in confined spaces and helped with managing subcontractors. WSP is performing bridge and culvert inspections of WMATA bridges			
01/25-12/25	NTTA, GEC 05464, TX: Initial inspection of NTTA Gleneagles, NTTA Customer Service Center Bridge - Amy assisted the team leader and signed/sealed the final report.			
09/24-12/25	BCC Engineering, Contract No. 88-2IDP5053 WA 6, 7, and 8, Odessa, San Antonio, and Yoakum Districts, TX - While with VRX, Amy worked as a subcontractor to BCC Engineering. She completed the routine inspection and reports of multiple culverts in the Texas Odessa, San Antonio, and Yoakum Districts.			
09/24-01/25	Northgate, DFW Connector CMA 2024-2028, Dallas, TX - Inspection of 75 structures, bridges and culverts, on DFW connector pathways. Amy acted as team lead during this inspection.			

09/24-12/24	TranSystem NSTM Inspection, TX - Nonredundant steel tension member (NSTM) structure 17-198-1210-02-009. One day inspection completed utilizing an under bridge inspection vehicle. Amy completed the inspection and signed/sealed the NSTM report for TXDOT
04/23-08/24	LADOTD, Bridge Inspection Services: Shreveport, Lake Charles, and Krotz Springs, LA - As Structural Inspector, Amy was responsible for leading the inspection services team in a routine and fracture-critical inspection of multiple complex bridges in Louisiana: Red River (Jimmie Davis), Red River's (Miller's Bluff), Calcasieu River (West Fork), and US 190 Krotz Springs. The project's role included an inspection Team Leader, conducting the inspection, preparing reports, developing a traffic control plan and managing subconsultants. The structure was accessed using under-bridge inspection vehicles and manlifts. Findings and recommendations were inputted into the owner's asset management system.
10/23-10/23	MDSHA Movable On-Call, Potomac River, MD - As Structural Inspector, Amy assisted in routine and critical fracture inspections of the US 340 bridge over the Potomac River. The structure is a fourteen-span bridge carrying US340 between Virginia and Maryland. Technical access, MDTA TCS, and MDTA bridge inspection certifications were utilized during the inspection. The structure was accessed using technical access. Findings and recommendations were inputted into the owner's asset management system.
04/23-03/24	Mississippi DOT, Box Girder Inspections, Meridian, MS - As Structural Inspector, Amy was responsible for leading the inspection services team in a routine inspection of two box girder bridges. Scope included identifying various elements to be inspected, developing the inspection scope, conducting the inspection, preparing reports, developing a traffic control plan, working with subconsultants, and completing the complex bridge inspection
09/22-08/24	LADOTD, H.013897.6 I-10 & I-12 College Drive Flyover Ramp, Baton Rouge, LA - As Structural Inspector, Amy provided Quality Assurance to the contractor, oversaw concrete placement and asphalt paving, and assisted in construction progress meetings
11/20-08/24	LADOTD, LA 24 & LA 316 Company Canal Bridge Replacement, Bourg, LA - As Resident Engineer, Amy was responsible for leading the construction engineering and inspection services required during the lift bridge replacement project. The construction activities included communication with LADOTD, bridge removal, asphalt paving, concrete placements, preparation of daily reports, overseeing structural, electrical, and mechanical installation, leading construction progress meetings and completing monthly estimates
10/18-08/21	Greater New Orleans Expressway Commission, Lake Pontchartrain Causeway Safety Bay Improvements CE&I, Jefferson & St. Tammany Parishes, LA - As Structural Inspector, Amy provided construction engineering and inspection services required during the safety bay improvement project. The scope of work included management of the fabrication of pre-stressed piles, girders, caps, and decks as well as all other construction activities including field monitoring, documentation, preparation of daily reports, participation in construction progress meetings, and construction close-out. Amy worked as a essential worker during this time

16. Staff Experience:

Firm employed by		WSP USA, Inc.		
Name	Brian Hundt, P.E.		Years of relevant experience with this employer	8
Title	Senior Civil Engineer		Years of relevant experience with other employer(s)	9
Degree(s) / Years / Specialization			B.S. / 2009 / Civil Engineering	
Active registration number / state / expiration date			#PE.0039459 / LA / 09-30-2027	
Year registered	2015	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities			Roadway Engineer Brian has over 16 years of experience as a civil engineer on numerous roadway design, waterline replacement, drainage design, passenger rail platform design, construction administration, and inspection, all in accordance with local, state, federal and host railroad requirements. Throughout his professional career, Mr. Hundt has worked closely with Louisiana Department of Transportation, Jefferson Parish, Amtrak, New Orleans Sewerage and Water Board, City of New Orleans Department of Public Works, and St. Charles Parish. Brian has a comprehensive knowledge of Inroads, Openroads, Autodesk Civil 3D and Excel.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
02/22-12/22	LA23 Rail Extension, LADOTD, Plaquemines, LA - Located in Plaquemines Parish, the project is the design and future construction of an approximate 8-mile rail extension to the south of the existing New Orleans and Gulf Terminal Railway Company (NOG) single track at the existing terminus just south of Myrtle Grove, LA. Amtrak. As the Civil Roadway task lead, his duties included designing an access road parallel to the track, creating roadway plan and profiles for 12 rail crossings, and propose alignment changes for LA 23. The design followed AASHTO, AREMA, Union Pacific and LADOTD design guidelines.			
09/20-09/24	Bonnabel Boulevard Roadway Improvements (Metairie Rd. to I-10), Jefferson Parish Jefferson, LA - Project Engineer. The project, which is a Federal aid program with joint FHWA and Jefferson Parish funding, will provide a 3” mill and overlay of the roadway surface, full depth concrete patching and curb replacement. As project engineer, Brian coordinated with Jefferson Parish and LADOTD engineering staff, created preliminary drawings per LADOTD standards, established a proposed profile to aide surface drainage and create proposed cross sections. The design work was performed with Inroads SS2. Design guidelines followed included Jefferson Parish, LADOTD and AASHTO.			
06/18-01/20	Texas High Speed Rail, Confidential Client, Dallas, TX - The project is a design-build job for the design and construction of a high speed rail from Houston to Dallas. As project engineer, he created plan sheets for proposed realignments of 40 existing rural and collector roadways that were affected by the proposed rail alignment. Design work also included creating access road alignments adjacent to the proposed rail track. In addition, he created vertical and horizontal alignments for 10 proposed road over rail crossings. The design work was performed with InRoads SS2 and SS4. Local county, TXDOT and AASHTO design guidelines were followed for the design of realigned roadways.			
02/19-04/19	I-440 and Glenwood Ave. Interchange, NCDOT, Raleigh, NC - As a civil engineer on this project, Brian created a conceptual layout that determined the possible right of way impact for an interchange improvement. The conceptual design called a proposed partial cloverleaf interchange, a flyover ramp and widening of the existing interchange. His duties included designing the proposed horizontal and vertical alignments for 8 ramps that included loop, flyover, and entrance and exit ramps. The design work was performed in Geopak SS2. NCDOT and AASHTO guidelines were followed for the conceptual design of the interchange.			
01/20-05/20	NC 73 Highway Widening, NCDOT, Mecklenburg County, NC - The project purpose is to widen 3 miles of NC73 Hwy., a principal arterial roadway, from a two lane undivided highway to a four lane divided highway with a 30’ wide median. The project has been designed as a reduced conflict intersection/superstreet. His duties were to create temporary traffic plans for the construction phasing. To maintain an uninterrupted flow of traffic in both			

	directions and prevent turn lane closures, a four-phase temporary traffic control plan was created with lane shifts from the existing roadway to the proposed widened roadway. All proposed traffic control devices and lanes shifts were design per NCDOT and MUTD guidelines.
08/20-02/21	State Route 40, Georgia DOT, Charlton County, GA - Project engineer for the two mile widening of the existing minor arterial two lane State Route 40 to a four lane divided highway with a 24' wide median. Brian's duties were to create a permanent pavement marking plan for the highway's travel lanes, turn lanes and pedestrian crossings. His duties also include creating typical sections for the proposed widening. All design work performed according to GDOT, MUTCD and AASHTO guideline.
07/21-Present	Program Management, Port of South Louisiana, Board of Commissioners Port of South Louisiana, St. Charles, St. James and St. John Parishes, LA - Project Manager/Project Engineer. The Program Management assignment includes but is not limited to providing design reviews of plans and specifications of roadway projects that include the 1000 LF reinforced concrete pavement heavy access road and drainage that connected existing Port Globalplex facility roads to tenant leased property, the 4100 LF W10th St. (LA 637) connector roadway that would provide roadways access for future heavy industrial tenants to Port owned property and the reconstruction of the Port's main roadway entrance along LA 44. Designs were checked for compliance to AASHTO and LADOTD guidelines.

16. Staff Experience:

Firm employed by		WSP USA, Inc.	
Name	Marlena Cutura, P.E.	Years of relevant experience with this employer	6
Title	Roadway Engineer	Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		B.S. / 2020 / Civil Engineering	
Active registration number / state / expiration date		#PE.0050441 / LA / 03-31-2028	
Year registered	2025	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities		Roadway Engineer Marlena is an experienced civil engineer with a specialization in roadway engineering, including roundabouts. Her project experience includes geometric design, corridor modeling, multi-discipline coordination, and plan production in accordance to applicable guidelines. In addition, Marlena has experience using the following software: MicroStation/Inroads, Open Roads, AutoTurn, Microsoft Suite, and Geographical Information System (GIS).	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
10/21-02/25	Interstate 285 at Interstate 20 W. Interchange General Engineering Consultant, Atlanta, GA - Engineer Intern. WSP is serving as the general engineering consultant and owner’s representative during the pre-let and post-let phases of this design-build project. The project includes new lane miles along Interstate 20, interchange operational performance enhancements, new collector-distributor lanes, and connections to the Express Lanes system. WSP’s scope also included environmental documentation, preliminary design, procurement support and construction engineering inspection services related to the owner’s verification firm role. As an Engineering Intern, Marlena produced the right-of-way plans for the entirety of the project, calculating R/W area takes and easements for coordination. She has conducted various sight distance studies including ISD and SSD by utilizing InRoads Sight Visibility Tool. She has also aided in creating Design Exception/Variance documents and exhibits for approval such as sight distance variance exhibits and spot shoulder reduction exception exhibits. She created the initial phases of erosion and sediment control plans using and quantifying best management practices (BMPs). She calculated pavement quantities as well for this project.		
08/21-Present	City of Summerville SR 1/US 27 Bypass Design Services, Chattooga County, GA - Design Engineer. WSP is providing design services for the construction of a new bypass south of the City of Summerville to connect with an existing section of State Route 1/U.S. Route 27. The State Road 1/U.S. Route 27 facility will also be widened as part of this project. The bypass will alleviate congestion along the State Route 1/U.S. Route 27 corridor by shifting through traffic away from downtown Summerville and accommodate current and future demand due to the route’s inclusion as part of the GRIP System and the state’s Freight Corridor Network. As a design engineer on this project, Marlena designed and modeled three roundabouts, two hybrid and one single-leg, along the corridor and produced roundabout verification documents and exhibits utilizing AutoTurn software and other design checks in concurrence with the GDOT Roundabout Design Guide. She also produced typical sections, modeled and created cross sections for the bypass and side roads, calculated quantities, Right of Way plans, and various other roadway related items.		
03/23-Present	SR 54 at Gordon Road Safety Improvement, Roundabout, Georgia DOT, Coweta County, GA - Design Engineer. WSP is providing design services for a proposed roundabout at the intersection of SR 54 and Gordon Road for safety improvement to reduce crash frequency and severity and improve operational efficiency. Marlena designed the roundabout including geometrics, models/grading, cross sections, roundabout design check documents, right of way, typical sections, and other applicable roadway items.		
04/24-Present	SR 215 at SR 257, Intersection Improvement, Georgia DOT, Dooly County, GA - Lead Design Engineer. WSP is providing design services for the intersection improvement of SR 215 and SR 257. This intersection is at a skew with all way stop control. There are high crash rates at this intersection, and this project is aimed to reduce crash frequency and severity while reducing traffic congestion. Marlena is leading the design of this roundabout, proposing		

	an elliptical roundabout with outside truck aprons to accommodate the skew and OSOW vehicle movements. Marlena designed the plan layout, HZ & VT geometry, models and grading plans, cross sections, right of way and other applicable roadway-related items.
01/25-Present	SR 22/US 80 at I-75 SB Exit Ramp, Georgia DOT, Bibb County, GA - Roadway Design Lead. WSP is providing design services for the intersection improvement of SR 22/US 80 and the I-75 SB Exit Ramp. This intersection meets at the overpass of an interstate and is signal controlled. The project proposes a multi-lane hybrid roundabout with shared use paths and turbo roundabout features. Marlena is serving as the roadway design lead for this project and produced the conceptual layout and preliminary geometry for this project.
08/23-04/24	I-285 PCC Replacement Project, Georgia DOT, Cobb and Fulton County, GA - Engineer Intern. WSP is providing services for PCC pavement replacement structures, inside shoulder widening, cross-slope and stopping sight distance corrections, guard rail and median barrier replacement and ITS system reconstruction along I-285 from CS 843/Collier Road to CR 2838/Paces Ferry Road. As an EI on this project, Marlena assisted in creating Erosion Control plans such as the 54-series (BMP Location Details) for the length of the project, 51-Series (ESPCP General Notes), as well as calculating various erosion control quantities.
04/22-03/23	SR8/US 278 from SR280 to CS 6701/Stiff Street (D.L. Hollowell Parkway Road Diet), Georgia DOT, Fulton County, GA - Engineer Intern. WSP is acting as a consultant on this project. The project consists of 7 signalized intersections along the corridor and proposes a 4-to-3-lane road diet for safety improvements. As an intern on this Project, Marlena created preliminary plan sets, coordinated with the traffic team for signing and marking details, as well as right-of-way coordination and paving quantities.
08/21-11/25	I-85 Widening Phase III Design-Build From US 129 to US 441, Georgia DOT, Jackson and Banks Counties, GA - Engineer Intern. WSP is providing the design-build services to widen I-85 one lane toward the inside median in the northbound and southbound directions beginning at US 129 in Jackson County and ending at US 441 in Banks County. The Project will also include replacement and widening of two pairs of mainline bridges, the first pair crossing over North Oconee River, and the second pair crossing over Ridgeway Church Road. As an engineering intern on this project, Marlena assisted with collecting various quantities, creating erosion and sediment control plans, and conducting profile optimization of the vertical alignments.

16. Staff Experience:

Firm employed by		WSP USA, Inc.		
Name	Matthew Woodhouse		Years of relevant experience with this employer	12
Title	Vice President		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			B.A. / 2014 / Government	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Finance and Grants / Project Tolling. Matt is a Vice President in WSP’s Economics, Finance and Grants group with a strong knowledge of transportation policy, planning and finance. He has worked extensively in toll road operations, from developing operations and maintenance plans to assessing toll collection systems to conducting gross to net revenue evaluations. He has overseen the assessment, procurement, development, integration and testing of several toll collection systems. In addition, Matt has helped to advise clients on the operational and financial impacts of toll policies from the perspective of public toll operators and P3 concessionaires.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
05/23-07/23	Louisiana Department of Transportation & Development, I-10 Calcasieu River Bridge Project - Supported a review of the sponsor and proposers' traffic and revenue forecasts including a review of the toll rates and schedules, travel demand modeling inputs, willingness to pay analysis, socio-economic growth estimates and value of time analysis.			
08/14-Present	Maryland Transportation Authority, Transportation Consulting, Baltimore, MD - Supported E-ZPass operations in the design and implementation and operation of a new image-based tolling system. He mapped existing processes, helped to identify process improvements and helped to ensure compliance with newly passed legislation. He assisted in the development and review of interface control documents with the state collection unit and department of motor vehicles. Matt supported the development of financial models to track E-ZPass operations costs and collection costs which were used to support policy decisions on civil penalties and other toll enforcement methods. Matt also conducted a national review of methods for customer transaction feedback in all electronic tolling environments. Matt supported an analysis of the organization of the MDTA Operations Division, developing recommendations for organizational realignment based on best practices from toll industry peers. Additionally, he conducted a review of the Authority Operations Center (AOC) staffing levels to identify headcount levels that would align with national best practices. He is currently supporting MDTA in evaluating potential toll policy scenarios to meet future financial needs.			
03/21-06/22	Dominion Blvd Veterans Bridge Back Office Violation System Procurement, Chesapeake, VA - Assisted in the development of the technical provisions for the back-office violation enforcement system for an AET facility operated by the City of Chesapeake. He mapped existing process flows, identified improvements and developed the technical requirements for the procurement documents. Additionally, he developed capital and operating cost estimates for the new system. Mr. Woodhouse served as a technical advisor to the City’s procurement office during the review of submitted proposals.			
07/25-02/26	Ayalon Highways, Tel Aviv, Israel - Served as a technical advisor for the procurement and implementation of a toll collection system for a 3-ring congestion pricing program in the Tel Aviv metro area.			
05/25-02/26	Delaware Department of Transportation Toll Audit - Led an audit of the DelDOT roadside and back-office toll systems to identify areas for improvement in operations to reduce leakage and improve revenue collections.			
06/25-Present	Alabama Department of Transportation, I-10 Mobile River Bridge - Serving as a technical advisor to ALDOT on strategies for designing and procuring roadside, back office, customer service and delinquent toll back-office vendors to support the implementation of the DOT’s first toll project.			

04/23-Present	Washington State Department of Transportation, General Toll Consultant - Serving as a technical advisor for the toll system implementation at the Tacoma Narrows Bridge as it transitions to a hybrid cash/ORT configuration. He has also supported the development of toll system technical requirements for the extension of the SR 167 Express Toll Lanes and the greenfield SR 509 toll road. Matt also supported the development of a Request for Qualified Quotes (RFQQ) for 6C Transponders, supporting the RFP development and serving as an SME for proposal review. Matt is currently supporting the development of requirements for the procurement of a new state-wide roadside toll collection system.
05/22-03/24	Oregon Department of Transportation, Oregon Toll Program - Served as a technical advisor for several aspects of the program. He has supported the traffic and revenue modeling and gross to net revenue forecasting efforts for the I-205 Abernethy Bridge Project, the Regional Mobility Pricing Program on I-5 and I-205 and a sketch level managed lanes analysis. Mr. Woodhouse presented to the Oregon Legislature's Joint Committee on Transportation Special Subcommittee on Transportation Planning in a "Deep Dive" on the many forms of toll diversion and their potential outcomes, citing multiple examples from across the country of effects of the introduction of tolls to previously free facilities.

16. Staff Experience:

Firm employed by		WSP USA, Inc.		
Name	Bhart Sankaran, P.E.		Years of relevant experience with this employer	8
Title	Vice President, Data Science		Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization		PhD / 2017 / Civil Engineering M.A. / 2014 / Civil Engineering B.S. / 2011 / Civil Engineering		
Active registration number / state / expiration date		PE#150387 / TX / 09-30-2026		
Year registered	2023	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities		Project Tolling Bhart is a Vice President and data scientist at WSP with the National Tolling and Mobility Business Line. He works with data science and AI in areas such as toll and traffic operations, transportation planning, and project finance. Bhart has worked with several State DOTs and toll authorities to create AI applications for production, assist in financial modeling for net revenue forecasting in tolling and parking facilities, conduct benefit-cost analyses for infrastructure projects, contribute to ConOps and facility design for express lanes projects, and study funding gaps and alternative revenue sources. He brings deep expertise in spatial data analytics using multiple programming platforms (ESRI, Python, SQL), cloud solutions (AWS, GCP), and BI tools including Tableau and Power BI. With these technologies, he develops automated dashboards and predictive analytical models (AI/ML) for toll and traffic operations data from various sources, supporting decisions related to dynamic pricing, toll revenue recovery, project prioritization, traffic safety, and real-time monitoring of toll systems KPIs.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
06/16-Present	Central Texas Regional Mobility Authority (CTRMA), Data Analytics, Tolling Operations and Systems Monitoring, Austin, TX - Lead Data Scientist. Bhart was responsible for development and continuous support of reporting and analytics systems to support information and decision-making using Oracle, ArcGIS, Tableau/Power BI, and Python. Developed operations report highlighting the transactions, operational, and safety performance of the MoPac Express Lanes using Tableau and advanced visualization tools. He analyzed sensor-level performance data from the reporting systems and interfaces to develop dashboards for speed heatmaps, travel time comparisons, and peak period volume studies. He also conducted traffic simulation experiments for analyzing alternatives of construction proposed for the US 183N and MoPac Interchange using VISSIM. WSP is providing project management, feasibility evaluation, environmental documentation, planning, conceptual and final design, financing, construction engineering, and inspection services for five CTRMA highway improvement projects. The firm is also providing services related to tolling, ITS, ROW, utility relocation, maintenance oversight and support, public involvement, scheduling, asset management, and administrative support.			
04/26-04/26	Harris County Toll Road Authority, Predictive Analytics Landscape Analysis, Houston, TX - Research Lead. Performed review of industry practices and use cases for leveraging advanced predictive analytics for toll customers market segmentation and customer service center performance enhancement; Proposed a phased approach to support HCTRA with their ongoing deployment and testing of Call Center solutions to integrate relevant AI applications (such as Sentiment Analysis)			
07/25-12/25	Delaware DOT, Toll System Audit, Dover, DE - Transaction Reconciliation Analytics Lead. Provided analytics leadership to audit the existing DelDOT toll violation detection system, reviewing the billing and invoicing system along with a thorough analysis of collections data to evaluate the effectiveness			

	of existing recovery strategies highlighting opportunities to improve customer service and response times. Developed and validated detailed transaction activity waterfall with leakage rates for SR 301, i-95 and I-5 by integrating trips, violation, collection and invoice datasets.
08/24-09/25	North Texas Tollway Authority, Proof-of-Concept AI Application, Dallas, TX - Deputy project manager and technical lead who develops and implements an AI model in Google Cloud's Vertex AI Platform to support the toll agency's initiative to collect unpaid tolls through analyzing large datasets in BigQuery warehouse related to customer trips, socio-demographics, travel patterns (violators), and invoices. Leads the team in tasks related to feature engineering, model training, validation, and testing, and prepare a final demonstration and reporting on the ML pipeline in Google Cloud to the members of the executive team and the Board.
03/18-Present	WSDOT, Toll Financial Planning, Seattle, WA - Lead Data Scientist and Toll Financial Modeler. Bhart is responsible for ongoing support for review and updates of system-wide cost allocation and net revenue model forecasts for WSDOT facilities; development of toll rate setting tool for SR 520 and SR 99 to test net revenue sufficiency for meeting debt obligations; review of WSDOT's O&M and R&R estimation, approaches, transponder sales and cost data and recommends improvements; and data analytics of transaction disposition data to reconcile disposition lifecycle and estimate revenue leakages, invoice payment rates, and civil penalty collection rates.
06/2019-12/2019; 11/2025-05/2026	LADOTD, Level 1 Toll Feasibility Studies for Mississippi River Bridge and Peters Road Bridge Extension, Baton Rouge, LA - Toll Financial Modeler. Bhart is responsible for modeling and development of annualized gross traffic and revenues, assessment of capital, annual operating, and repair and rehabilitation costs for toll systems, determination of revenue leakage assessment, and reconciliation of net revenues to assess sufficiency for public financing and P3 project delivery. He conducted financial risk assessment to test sensitivity of various parameters
04/23-04/26	Illinois State Tollway Highway Authority, Toll O&M Estimation Support, Chicago, IL - Financial Analyst. Bhart was responsible for development of detailed forecasts for various cost items for department-wise Maintenance and Operations Cost model; development of estimates for payroll costs, materials, equipment and supplies, and Services to support Department wide O&M cost model for the agency; and support of the development of interactive dashboards and deviance analysis with prior year estimates
04/21-12/21	LA Metro, I-605 Express Lanes ConOps Development, Los Angeles, CA - Toll Analyst. Review and research support for Concepts of Operations (ConOps) plan for I-605 facility. Bhart reviewed and assisted write-up for chapters on discussion of alternatives, facility-design, signage development

16. Staff Experience:

Firm employed by WSP USA, Inc.				
Name	Auden Kaehler		Years of relevant experience with this employer	13
Title	Vice President, Advisory Services		Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization		B.S. / 2003 / International Business and Supply Chain Management M.A. / 2012 / Finance, Transportation Economics		
Active registration number / state / expiration date		N/A		
Year registered		Discipline	N/A	
Contract role(s) / brief description of responsibilities		Project Tolling Advisor		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
09/25-Present	LADOTD, Peter’s Road Toll Bridge Study - Project manager and financial consultant who leads toll revenue modeling development and oversight in support of evaluating Level 1 traffic and revenue projections for a proposed bridge crossing as part of a Peter’s Road extension south of New Orleans. Specific role includes management of project schedule and budget, review and QAQC of tolling related content, lead on tasks associated with evaluation of net toll revenue generated after consideration of routine operating and maintenance costs and periodic repair and replacement costs, and financial modeling.			
01/20-04/21	LADOTD, Mississippi River Bridge Third Crossing (Baton Rouge) Toll Bridge Study - Project manager and financial consultant who led toll revenue modeling development and oversight in support of evaluating Level 1 traffic and revenue projections for a proposed third Mississippi river crossing in Baton Rouge south of I-10. Tasks included evaluation of potential revenue generation for three scenarios and analysis of potential contributions from toll revenue to support debt issuance including toll backed bonds. Financial analysis evaluated P3 opportunities, debt repayment schedules, underlying financial analysis factors, and toll collection cost analysis and projections over the 40-year forecast horizon.			
10/13-Present	Washington State Department of Transportation, Statewide Toll T&R and Financial Consultant - Financial consultant who provided toll and financial planning and project development services for multiple existing and planned toll facilities in the State, including a current statewide tolling study to identify high priority toll facilities. Work under the two statewide contracts include financial Plan updates, funding identification and forecasting analysis, monthly and quarterly auditing of gross and net toll revenue, traffic and revenue forecast review and net revenue projections, and general financial analysis and grant support.			
04/14-04/24	San Francisco County, Treasure Island Mobility Plan and Tolling System - Financial consultant who oversaw the development of a financial model to evaluate annualized costs and revenue associated with ferry service, tolling, parking, and transit for various operational scenarios, including establishment of cross-elasticity factors for modal shift between driving, transit, and ferry service. WSP devised an integrated, multimodal transportation system that maximizes mobility and financial sustainability, while reducing the traffic impacts of the development project. The mobility plan has greatly enhanced transit service, including bus and ferry service, parking controls and transportation demand management programs. The system utilizes congestion pricing mechanisms by tolling private vehicles for access to the San Francisco-Oakland Bay Bridge, creating a significant incentive to use alternative means of transportation. The study evaluated the travel demand and characteristics, different tolling policies and levels, discount and subsidy programs for residents and employees on the Island by income quintile, and the long-term financial sustainability of the integrated system.			
03/18-04/19	Oregon Department of Transportation, Oregon Open Tolling Architecture - Technical lead on business rules and industry best practices, Auden supported ODOT in their evaluation and future procurement and implementation of open road tolling. ODOT was the first agency in the United States and one of the first in the world to implement a system that created a competitive environment for customer account management and adaption of new technologies for toll declaration, both reducing toll collection costs and improving the customer experience.			

05/17-12/17	SamTrans, Dumbarton Bridge Net Revenue Analysis - Financial consultant who led the net revenue analysis for several different tolling and transit options on the Dumbarton Bridge and parallel rail bridge. Analysis included the evaluation of local, state and federal funding measures, private funding contributions and discretionary grants. Toll analysis started with provided modeled traffic and gross toll revenue potential values which were then evaluated under different operational scenarios with revenue leakage, fees and cost projections developed for rail, bus rapid transit, and toll operations over a forty year forecast horizon. Key findings included benefit cost analysis for evaluating the various alternatives, phasing approaches for capital project delivery, and evaluation of net revenue available to support pay-go and financing options.
12/17-01/21	New York Department of Transportation, Long Island Sound Crossing Funding and Financial Evaluation - Financial consultant who managed the task for evaluating the net revenue generation from four different Long Island Sound Crossing concepts under various toll rate scenarios. The modeling work included annualization of daily traffic and revenue results, calculation of revenue leakage rates based on the payment options offered, and estimation of toll operating and maintenance and repair and replacement cost reserve contributions over the assumed period of financing to derive the net revenues available to cover initial capital costs.
05/17-09/17	Wyoming Department of Transportation, I-80 Tolling and Financial Analysis - Financial consultant who led the financial modeling development and oversight in support of evaluating tolling options on the I-80 corridor through Wyoming. Tasks included evaluation of diversion factors applied to freight traffic as a result of tolling, potential contributions from toll backed revenue bonds and repayment schedules, underlying financial analysis factors, and toll collection cost analysis and projections over a 40 year forecast horizon.
09/17-Present	Washington State Department of Transportation, US 2 Trestle Capacity Improvements and Westbound Trestle Replacement Study, Everett, WA - Financial consultant who led two separate studies on the financial viability of tolling on the US 2 trestle in Snohomish County in 2017 and most recently starting again in 2024. The financial analysis built on traffic analysis from the Dynamic Traffic Assignment model developed by WSP and used to evaluate various alternative bridge configurations and toll rates. The resulting traffic analysis supported gross toll revenue potential analysis and was further refined through revenue adjustments and cost analysis to derive the resulting net revenue available to help fund future repair and replacement costs and debt service.

16. Staff Experience:

Firm employed by		WSP USA, Inc.		
Name	Hatem Seliem, PhD, P.E.		Years of relevant experience with this employer	4
Title	Technical Director, Structural Engineering		Years of relevant experience with other employer(s)	16
Degree(s) / Years / Specialization		PhD / 2007 / Civil Engineering (Structural) M.S. / 2002 / Structural Engineering B.S. / 2000 / Civil Engineering		
Active registration number / state / expiration date		#PE00.39759 / LA / 9-30-2027		
Year registered	2015	Discipline	Civil Engineer	
		Other Pertinent Training / Certifications Traffic Control Technician (TCT) Traffic Control Supervisor (TCS)		
Contract role(s) / brief description of responsibilities		Bridge Design (Satisfies MPR #11) Hatem has 20 years of experience in structural engineering with a special emphasis on design and the behavior of reinforced and prestressed concrete structures and bridges. He has served as the lead design engineer on several projects and brings significant expertise with the analysis of complex bridges as well as retrofitting structures using Fiber Reinforced Polymers (FRP) materials. Hatem has been working on Louisiana projects for the past 10 years which has involved him with design, load rating, evaluation, and rehabilitation of bridge structures encompassing simple slab span to complex bridges.		
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).			
06/25-Present	ALDOT, Replacement of I-59/I-20 Bridges over Valley Road, Jefferson County, AL - Lead Design Engineer responsible for the structural design and plans development of the superstructure and substructure of the two replacement bridges. Tasks also included coordinating with geotechnical and hydraulic engineers for design of deep foundations. Further Hatem was the designer of the steel plate girder span crossing the I-59/I-20 off ramp. The two bridges superstructure consists of precast prestressed concrete (PPC) girders supported by reinforced concrete column bents with drilled shafts.			
03/25-Present	NCDOT, I-26 Connector Design-Build (DB), Buncombe County, NC - Design engineer responsible for the design and plans development of the two-span, curved steel plate girder spans with a total length of approximately 400 ft. Further, he is responsible for the design of the reinforced concrete column bents supporting the steel spans. In addition, Hatem was the design engineer of the 90 ft. span post-tensioned straddle bent crossing the Smith Creek.			
10/19-10/22	LADOTD, MacArthur Interchange Completion, Phase II, Louisiana - Bridge EOR responsible for the structural design of the superstructure and substructure, deck drainage design, and construction cost estimate. Further Hatem was the Project Manager to coordinate with subconsultants and LADOTD Project Manager. The project constitutes Providing two new, on-ramp and off-ramp connections between the eastbound of the elevated West Bank Expressway (US 90-Z) and Frontage Road, demolish the existing off-ramp, and widening of the US 90-Z bridge structure to accommodate the new ramps.			
09/20-06/21	LADOTD, Load Rating of 396 Bridges, Louisiana - Team Leader responsible for the load rating analysis and critical review of Finite Element models and structural analysis. This project involved the load rating of 396 existing off-system bridge structures by the Load and Resistance Factor Rating method (LRFR). Bridge types included prestressed concrete girder bridges, steel girder bridges, precast and CIP slab bridges, concrete culverts, swing bridges, and timber bridges. Three-dimensional finite element modeling is used as necessary for the complex bridges.			

02/20-11/20	LADOTD, Evaluation of Bridge Deficiencies-Concrete Piles Repair, Louisiana - Led the research team, developed the final report, developed repair plans. Deteriorated concrete piles exhibit different signs of distress, depending on exposure environments, stress level, and construction quality. The scope of this work was to research and identify effective repair systems and/or methods to be used for routine and typical maintenance, of RC and PPC piles for above water and underwater applications.
03/19-09/19	LADOTD, Evaluation and Load Rating of 27 Complex Off-System Bridges, Louisiana - Team Leader responsible for the load rating analysis and critical review of Finite Element models and structural analysis. Included evaluation and load rating of 27 complex off-system bridges. The bridge types included 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.
04/18-04/19	LADOTD, LA 182 Over Atchafalaya River (Berwick Bay), Louisiana - Provided QC/QA review of rehab design including FRP, jacking design for bearings replacement; QC/QA review of construction plans; developed the Specifications of Non-Standard items. The simple through truss bridge carries LA 182 over the Atchafalaya River has a total length of 3,746 ft. The approach spans consist of RC slab spans, RC T-beam spans, and two deck truss spans. The navigational spans consist of three through truss spans. Scope of work included evaluation of the existing bridge, rehabilitation design; developing construction plans; perform diagnostic load testing on RC
05/16-04/18	LADOTD, US 80 Red River Bridge Inspection, Load Rating, and Rehabilitation, Louisiana - Provided structural analysis of the main span trusses using refined analysis, inspection team leader conducting hands-on inspection and ultrasonic testing of steel pins; and QC/ QA review activities: load rating analysis; evaluation report; design of truss members rehabilitation; design of substructure rehabilitation; and construction plans. The bridge built in 1934 is a historic bridge carrying US 80 over the Red River at Shreveport with a total length of 2,895 ft. The approach spans consist of RC T-beam spans, steel girders, and steel deck trusses. The main spans are three-span steel truss with a total length of 884 feet. Scope of work included in-depth inspection of the entire bridge structure; evaluation of the structural strength; load rating of the deficient structure; rehabilitation design; plans development; and construction support.
08/14-08/15	LADOTD, LA 66 Big Bayou Sara Bridge, Louisiana - Analyzed the “pony” trusses under the effect of different loads; and detailed review of rehabilitation design and construction plans. The historic bridge was built in 1949. It consists of five, 100 ft. steel pony truss spans and five 40 ft. steel I-beam approach spans. Services included: inspection and evaluation of the existing structure, rehabilitation design for the superstructure and substructure, development of construction plans, and design of temporary two-lane detour steel panel bridge to maintain traffic during construction.
05/23-12/23	GDOT, Sidney Lanier Cable-Stayed Bridge over Brunswick River, GA - Design Engineer. Hatem carried out the structural analysis of the cable-stayed spans to jack the bridge for replacing bearing pads at the two towers. Accordingly, a detailed Finite Element model was developed to analyze the bridge under full-service loads while jacking the bridge. Hatem also designed the jacking system and the structural components of the jacking assembly, and participated in developing special provisions for the bearing replacements.
09/22-01/23	MDOT, US 82 Greenville Cable-Stayed Bridge over Mississippi River, MI - Design Engineer. Responsible for structural analysis of the cable-stayed spans. Furthermore, Hatem carried out a vibration analysis of the stay cables to determine their current tension forces based on the field measured natural frequencies of the cables. The vibration analysis and dynamic test results were compiled in a report and submitted as part of an in-depth inspection report of the bridge.

16. Staff Experience:

Firm employed by		WSP USA, Inc.		
Name	Jonathon Seddelmeyer, P.E.		Years of relevant experience with this employer	8
Title	Senior Vice President, Structural Engineering		Years of relevant experience with other employer(s)	19
Degree(s) / Years / Specialization			M.A. / 2000 / Structural Engineering B.S. / 1997 / Civil Engineering	
Active registration number / state / expiration date			#PE.0049811 / LA / 09-30-2027	
Year registered	2003	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities			Bridge Design / Construction Support Jonathon is a senior supervising engineer experienced in the structural engineering and inspection of conventional and long-span bridges, retaining walls, overhead signs, and other transportation structures. His project management duties have included supervising and coordinating the work of teams of engineers and technical personnel. Jonathon's responsibilities have included quality control, project scheduling, progress reporting, preparing client presentations, preparing budgets, performing conceptual engineering and feasibility studies, preparing final contract documents and construction cost estimates, coordinating sub-consultants, and technical reviews of structural plans. His career focuses on delivering quality structural plans and providing technical support through the end of construction. Jonathon is experienced with the design-bid-build, design-build, and construction manager at risk project delivery methods. He has served as an extension of the owner's staff as a prime management consultant. In addition, Jonathon has amassed proficiency in several software programs, such as Mathcad, LARSA 4D, LUSAS, Midas, DESCUS, and Texas Department of Transportation Bridge and Geometry Programs.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
07/21-Present	TxDOT, I-35 Capital Express Central (Lady Bird Lake), Austin, TX - Bridge task leader for structural design of this \$764M project to widen 3.55 miles of I35, add managed lanes, and improve pedestrian access from SH 71 to the south end of downtown Austin. Jonathon was EOR for eight of the bridges, including the four new Lady Bird Lake bridges that are designed for Colorado River flood and scour conditions. The project also features an elevated SPUI at E Riverside Blvd that accommodates future CapMetro light rail lines. One pedestrian lake bridge also carries a 24” force main for City of Austin Water. Significant interdisciplinary coordination incorporated aesthetics, shade structures and other pedestrian amenities, landscaping irrigation, and underbridge lighting within a tight design schedule. Jonathon provides ongoing construction phase services for this project			
10/19-12/24	TxDOT, I-35E, Lewisville, TX - Bridge task leader/EOR for the four mainline bridges on this \$218M project to widen and add managed lanes for I35E, which is on the freight network. The roadway is being flipped at Corporate Drive to carry I35E mainlines on bridge and eliminate vertical clearance limitations. Business 121 is a wide cross-street with high skew and Texas turnarounds, and Jonathon value engineered the steel girders from the schematic design to prestressed concrete girders. Structure depth needed to be minimized to provide 18’-6” vertical underclearance, and Jonathon designed Tx46 girders and straddle bents with post-tensioned inverted-t caps. Three construction stages are required for each overpass to maintain traffic on this critical corridor.			
08/15-02/23	CTRMA US 183 Bergstrom Expressway Corridor Aesthetics Design, Austin, TX - Project engineer responsible for post-design and construction-phase services that include converting an existing culvert to a direct-drive condition for the Central Texas Regional Mobility Authority project. WSP provided design services to U.S. 183 in East Austin. The expressway served as a gateway to Austin-Bergstrom International Airport and as a bypass to I-35. It			

	reduced travel times and improved mobility for commuters, local drivers, and people who prefer to use public transit, ride their bikes, and walk. The project was a new tolled expressway with three lanes in each direction along an 8-mile section of U.S. 183 between U.S. 290 and SR 71.
03/15-03/18	Ship Channel Bridge, Harris County, TX - PMC Main Bridge Coordinator and extension of HCTRA staff responsible for managing three consultant design teams to replace 2.6 miles of Beltway 8 that includes removing the functionally obsolete Ship Channel Bridge. The main bridge and approaches have an overall length of 11,081', and the 1,320' cable-stay main span provides 175' vertical navigation clearance and has 514' tall pylons placed on land to allow future widening of the Channel. Jonathon was responsible for the day-to-day progress of the project that included developing contract scope, schedule, design criteria, and submittal checklists, verified consultant compliance through regular progress meetings and invoice reviews, obtained necessary survey, geotechnical, and SUE information, and performed constructability or QA reviews of all submittals. Jonathon worked with the USCG, UPRR, PTRR, Kinder Morgan Deep Water, and franchise utilities within "Pipeline Alley" to obtain the necessary permits, approvals, or agreements. He also prepared the project-specific specification book, final contract documents, bid item lists, and other forms provided to contractors for bidding
10/13-03/15	TxDOT, North Carolina Drive, El Paso, TX - Bridge Task Lead. Jonathon was EOR for the North Carolina Dr. Overpass, which is 656' long and crosses three UPRR main tracks, a future track, a yard lead track, the historic Franklin Canal, access roads, and numerous utilities. North Carolina Dr. is a major traffic lifeline that connects Alameda Ave. with Stiles/Franklin Ave. within approximately 75' of ROW. The replacement bridge satisfies all railroad criteria, eliminated the functionally obsolete rating, improves traffic flow and pedestrian access by changing from four lanes to two with a center turn lane and wider sidewalks, and has 6% approach grades. Jonathon designed a three-span continuous steel plate girder main span unit and two Tx46 prestressed girder end spans that are on a tangent alignment with 45° skew. Innovative lean-on bracing was used to reduce steel quantities. Bolted splice locations were carefully chosen so that temporary shoring satisfies railroad construction clearance, and AutoTURN analyses were performed to ensure girder sections could be delivered via access roads. Main span bents required crash walls. Aesthetic ornamental fences were designed to protect the UPRR and adjacent businesses.

16. Staff Experience:

Firm employed by		WSP USA, Inc.		
Name	Marguerite Lucila		Years of relevant experience with this employer	6
Title	Senior Vice President		Years of relevant experience with other employer(s)	15
Degree(s) / Years / Specialization			B.S. / 1999 / Social Science & Sociology PhD / 2004 / Law	
Active registration number / state / expiration date			Juris Doctor Attorney licensed in New York (2012), Philippines (2010)	
Year registered	2009	Discipline	Law	
Contract role(s) / brief description of responsibilities			Alternate Delivery Procurement Support Marguerite is a consultant with the alternative delivery advisory services group. She has extensive experience in the development, procurement, and contract management of transportation projects via alternative delivery methods, including significant expertise in public-private partnerships (P3s). Marguerite's recent experience includes managing the \$3.3 billion procurement of the Interstate 64 Hampton Roads Bridge-Tunnel Expansion in Virginia, currently the largest contract of the Virginia Department of Transportation. Other experience includes leading the Philippine Department of Transportation's \$1.2 billion (2014 dollars) post-award turnover of operations of the light rail transit Line 1 from a public rail authority to the private concessionaire and the \$26.9 million (2014 dollars) go-live of the Beep Card Automated Fare Collection System in three independently operated rail lines in Manila.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
03/22-Present	Kentucky Transportation Cabinet (KYTC), Kentucky - Assisting the KYTC in building its Progressive Design-Build and Construction Manager/General Contractor program through the development of procurement and contract documents, alternative delivery processes, and project-specific procurement and implementation assistance.			
10/21-Present	Illinois Tollway Contract Documents Template, IL - Assisting the Illinois Tollway in building its Design-Build program through the development of procurement and contract documents, alternative delivery processes (Design-Build, Progressive Design-Build, CM/GC), and project-specific procurement assistance.			
06/20-Present	New Oahu Community Correctional Center (OCCC), Hawaii - Assisted the Hawaii Department of Administration and General Services and the Hawaii Department of Public Safety in the P3 procurement of their new OCCC, a relocated and replacement facility with a new 500+ bed detention facility. Support included conducting a Request for Information (RFI) process, and development of the Request for Qualifications (RFQ) documents. Procurement for the project is subject to legislative approval			
10/22-03/26	New Jersey Transit, Hudson Bergen Light Rail (HBLR) - Advising NJ TRANSIT on the procurement and related transition following the expiration of a 30-year Design-Build-Operate-Maintain contract for operation and maintenance of the HBLR.			
01/21-06/21	I-95 at Belvidere Road Interchange, Maryland - Assisted the Maryland Transport Authority in the Request for Proposal (RFP) phase of a Design-Build procurement for an interchange along the I-95 corridor. Support included RFP addenda development, management of the questions-and-answers process and proprietary meetings with proposers, and evaluation of proposals.			
06/20-06/21	Local Alternative Mobility Network, Florida - Assisted an affiliate of Tavistock Development Company, a private entity sponsored by a public agency, with the development of procurement documents (including Request for Qualifications and Request for Proposals documents) for a new network of multi-			

	use corridors, dedicated commuter ways, a mobility hub, and infrastructure to support Automated Vehicles that was planned to be delivered using the Construction Manager/General Contractor delivery model under a Better Utilizing Investments (BUILD) grant.
11/17-05/20	Hampton Roads Bridge Tunnel Expansion Project – As Program Manager for the VDOT P3 Office, managed a \$3.3B procurement of the I-64 Hampton Roads Bridge-Tunnel Expansion Project involving the design and construction of a new bridge-tunnel complex approximately 3.5 miles long and generally parallel to the existing Hampton Roads Bridge-Tunnel, along with other land-side improvements to the project corridor.

16. Staff Experience:

Firm employed by		WSP USA, Inc.		
Name	Max Nassar		Years of relevant experience with this employer	9
Title	Senior Vice President, Local Business Leader		Years of relevant experience with other employer(s)	35
Degree(s) / Years / Specialization			B.A. / 1976 / Psychology	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Govt & Stakeholder Liaison Max is a native of Jefferson Parish, Louisiana and has spent 30 years in executive level positions in Fortune 500 Companies in both the manufacturing/industrial sector and architectural engineering consulting services sector. Over the past 20 years, he has overseen a multiplicity of infrastructure projects in the southeast United States, and Central America, with a value in the billions. Many of these projects have been in southeast Louisiana and have been performed for a variety of public and private clients including Louisiana Department of Transportation and Development, The Mississippi Department of Transportation, The Louisiana Department of Natural Resources, The New Orleans Regional Planning Commission, The New Orleans Regional Transit Authority, and others. Max’s international experience includes port and harbor consulting at Puerto Cortes in Honduras, and construction oversight of the Port Connector Roadway in Honduras and Guatemala. He has successfully led negotiations and mediations for a variety of private clients.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
04/25-Present	Louisiana Department of Transportation and Development (LADOTD), Contract for Five Movable Bridges: Vermillion, St. Martin, Assumption, and Cameron Parishes, LA - Project Principal. WSP USA was selected to both inspect and to develop a rehabilitation or replacement plan for five movable bridges located in various Parishes across Louisiana. As part of the project scope, WSP will perform site inspections and an LRFR Load Rating and/ or NBIS In-Depth inspection on the five bridges. The load rating shall be based on the current condition, capacity, and loading of the bridge structure, and shall be performed on all load carrying members including approach spans and movable spans. The development of preliminary and final plans as well as all construction related engineering services are also included in the assignment. As a part of the Construction Plan Set, WSP will prepare and submit a Transportation Management Plan. Many bridges in Louisiana have been designated “Historic” in the Section 106 document “Programmatic Agreement Regarding Management of Historic Bridges in Louisiana."			
06/20-Present	LADOTD, 23, Belle Chasse Bridge and Tunnel Public-Private Partnership (P3), LA - Project Principal. Assisted and supported the LADOTD in Contract Administration of the P3 Comprehensive Agreement and Technical Provisions as well as Reviews of Project Management Plans. Reviews included Demolition and Abandonment Baseline Inspection of Vertical Bridge and Element Condition Report, Review of Toll Management Plan including design and installation procedures, testing plan, manuals, documentation and FAT results and review of Toll Management Plan. The project also included Design Support Services and Project Oversight and Acceptance as related to the Vertical Lift Bridge Demolition or Maintenance and for the Toll Collection System.			
04/21-Present	Program Management, Port of South Louisiana, Board of Commissioners Port of South Louisiana: St. Charles, St. James and St. John Parishes, LA - Project Principal. The Port of South Louisiana (The Port) is a major bulk and grain exportation facility and touts itself as the “largest tonnage port district in the western hemisphere”. The Port Jurisdiction encompasses 54 Mississippi River Miles midway between New Orleans, Louisiana and Baton Rouge, Louisiana and offers excellent intermodal opportunities via Mississippi River deep draft, East-West and North-South Interstate Highways, three Class 1 Rail Lines, and air via an existing executive airport. The Program Management assignment includes but is not limited to oversight of the Master			

	and Strategic Planning efforts including implementation, Grants Application and Management, Procurement Support including Assessment of Consultant Capabilities, Alternative Delivery and Public Private Partnerships, Design Management and Construction Administration through the life of the contract. The Program also includes the creation of a Project Controls system for the Port.
08/22-09/23	Mississippi DOT, Greenville Mississippi Cable-Stay Bridge Inspection and Testing, MS - Project Principal. WSP conducted a thorough safety inspection of the Greenville Bridge, including a Routine NBI Inspection, element-level inspection; repair assessment, identification of repair needs, fracture-critical inspection focused on critical edge girders and floorbeams, hydrographic survey of the river channel, deck elevation survey, hands-on visual inspection of the stay cables and anchorages, in-depth cable system inspection which include measuring cable force in 112 cables and ultrasonic testing of 28 anchorages, and cleaning and greasing caps to prevent corrosion at 28 locations. WSP used rope access techniques to access the exterior of the pylons with eight certified professionals, including two SPRAT Level III technicians. WSP also used drones, particularly the Skydio S2+, to inspect the cable sections beyond rope access reach. Stay-cables underwent ultrasonic testing within 10 feet of each anchorage. Cable tension was assessed through vibration methods using piezoelectric accelerometers. Each cable underwent three tests. This comprehensive inspection ensured the US 82 Bridge's safety and structural integrity, adhering to standards, using specialized equipment, and involving a highly skilled team
07/20-09/23	LADOTD Contract for Innovative Procurement and Alternative Delivery Support Services, LA - Project Principal. The project included provisions for engineering, financial management, management and administrative advice and services to assist with Innovative Project Delivery Methods in connection with administering the procurement process of Design Build, Construction Management at Risk, and/or P3 Projects. The effort included leading the procurement of the \$1 billion Calcasieu Bridge in Lake Charles, Louisiana. Included in the effort was a Level 2 Toll Study. The Calcasieu Bridge is one of the most critical projects in Louisiana's Transportation System as well as along the I-10 East West Trade Route. It has been identified as detrimental to economic development.
05/19-07/19	Port of New Orleans, Almonaster Bridge Span Replacement Project, New Orleans, LA - Project Principal. This span replacement project included structural design, coordination of the preparation of plans and specifications, and assurance of timely delivery to the client. The Almonaster Bridge is a Strauss-Trunnion Bascule Bridge over the Inner Harbor Canal in New Orleans.
02/19-02/20	Port of New Orleans, Seabrook Bridge Span Replacement Project, New Orleans, LA - Project Principal. This span replacement project included structural design, coordination of the preparation of plans and specifications, and assurance of timely delivery to the client. The Seabrook Bridge is a Strauss-Trunnion Bascule Bridge over the Inner Harbor Canal in New Orleans. The Port of New Orleans is replacing the approach spans to the main movable section of the bridge.

16. Staff Experience:

Firm employed by		WSP USA, Inc.		
Name	Michael Trueblood, P.E., PTOE		Years of relevant experience with this employer	9
Title	Senior Vice President, Senior Director		Years of relevant experience with other employer(s)	23
Degree(s) / Years / Specialization			M.S. / 1997 / Civil Engineering B.S. / 1991 / Civil Engineering	
Active registration number / state / expiration date			#PE.0051170 / LA / 09-30-2026	
Year registered	2026	Discipline	Civil Engineering Other Pertinent Training / Certifications LADOTD Traffic Engineering Analysis Process & Report Class, Modules 1, 2 & 3 (April 2026) Professional Traffic Operations Engineer (PTOE)	
Contract role(s) / brief description of responsibilities			Traffic QA/QC Michael has 32 years of experience as a transportation engineer in the areas of traffic operations, traffic control, transportation planning, and traffic design. He has served as a project manager/engineer for transportation corridor studies, route location studies, traffic signal design, signing/marking design and traffic impact studies. Michael’s traffic related computer experience includes Synchro, HCS+, SIDRA, SimTRAFFIC, CORSIM, and VISSIM. His traffic extensive simulation experience includes signalized arterials (including pedestrian and transit), roundabouts, DDI, CFI, SPUI, and freeway corridors.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
08/21-Present	Traffic Engineering/Studies & ITS IDIQ, TxDOT AUS, Austin, TX - Project manager for various on-call traffic tasks for the TxDOT Austin District. Tasks have included signal design, operational analysis, VISSIM modeling, signing & striping PS&E, and safety studies. WSP has completed 25 tasks for the Austin District.			
02/18-Present	Schematic and Environmental Contract, FM 3351 Operational Analysis, TxDOT, San Antonio, TX - Project manager for work involving traffic projections, existing conditions analysis, crash, and future operational analysis. Synchro and VISSIM models were used to compare various intersection and interchange types, including Texas Diamond, CFI, DDI, and roundabouts. Project limits extend from IH-10 to Farm to SH 46 in San Patricio County.			
08/21-11/25	Schematic and Environmental Contract, U.S. Route 69 at State Highway 73 Interchange Analysis, TxDOT, Port Arthur, TX - Project manager for work involving traffic projections, existing condition analysis, crash analysis, and VISSIM micro-simulation modeling. WSP also developed 3D visualizations of the proposed turbine interchange for use in public meetings.			
04/22-05/23	SH 130 Mainline and Frontage Road Safety Study, Travis, Caldwell, and Guadalupe, Counties, TX - Served as the Project Manager for a safety study along 41 miles of mainline and 20 miles of one-way frontage roads. The study included the review and analysis of five years of crash data along with several field visits. ArcView maps were developed to assist the project team with analyzing the crash data. CR3 reports were also reviewed at key locations to better understand underlying circumstances. Both short- and long-term improvement strategies were developed at various intersections.			
03/18-05/20	IH 10 from FM 3538 to East of Kersten Rd (approx. 2 miles), Sealy, TX - Senior traffic engineer responsible for developing a complete set of traffic control plans, and designing new traffic signals to replace existing traffic signals at SH 36. The TCP included the conversion of a four-lane interstate to six-lanes with one-way frontage roads. One of the existing interchanges was converted to an underpass, which complicated the construction phasing. The TCP set included temporary ramps, temp paving, temp walls, temp shoring and temp signing. The traffic signal plan set included general construction/notes, traffic signal layout plan, traffic signal elevation sheets, and standard construction detail sheets.			

07/20-10/22	IH 35 at Parmer Ln DDI, Austin, TX - Lead traffic engineer responsible for designing temporary and new traffic signals to replace existing traffic signals at both frontage road intersections on IH 35 and Parmer Ln. In addition, the existing signal at Parmer Ln/Lamar was redesigned based on the proposed roadway changes. City of Austin design standards were used at this location. The traffic signal plan set included construction cost estimates, general construction notes, traffic signal layout plan, traffic signal elevation sheets, and standard construction detail sheets for both temporary and permanent designs.
06/19-08/20	I-10 IAJR from FM 3180 to Grand Parkway (SH 99), Mont Belvieu, TX - Senior traffic engineer for the development of an IAJR related to the reconstruction of an existing compact-cloverleaf interchange to a typical Texas diamond interchange. In addition to a traffic operational analysis, a detailed safety analysis was also completed. VISSIM traffic simulation models were developed to analyze traffic operations due to the close spacing of the SH 99 and FM 3180 ramps.
09/17-07/23	CDOT Central 70 Corridor Project Design Services, Denver, CO - Senior traffic engineer conducted various traffic operational analyses to support the maintenance of traffic scenarios. Michael conducted quality control of signal timing plans for various maintenance of traffic phases. The synchro models were developed for several detours including ramp and roadway closures. WSP provided design services for the design-build-operate-maintain Central 70 project. The project included reconstructing a segment of I-70 to improve safety, mobility, and community connections along one of Colorado's most congested interstate segments. The scope included the addition of one new express lane in each direction, the removal of the 54-year-old viaduct, and the construction of a 4-acre cover over the interstate to create a year-round public space. It also included additional signing, ITS, and reconstruction work. The firm was responsible for designing all the components of the project, including roadways, bridges, and infrastructure improvements. The project covered both the permanent tunnel lighting and the temporary installation for bidirectional operation in the north bore during construction of the south bore. The lighting was provided for the roadway, emergency systems, and wayfinding, all integrated with a monitoring control system allowing for remote supervision and emergency management and maintenance programming for the operator with supervision by CDOT. The project reconstructed an approximately 10-mile stretch of I-70 between I-25 and Chambers Road. The miscellaneous structures on the project included 78 non-standard sign structures, 44 standard CDOT sign structures, and two fire control room structures as well as other minor structures. The design for the roadway met many challenges, including creating a vertical profile for I-70 that cleared an extremely high groundwater table and meeting clearances under the Union Pacific Railroad bridge. The project also required coordination between the roadways, structures, and drainage team.
05/19-Present	Williamson County Sam Bass Road Design Services, Williamson County, TX - Traffic engineer for QA and QC for the signal design of two stop-controlled intersections, modification of an existing signalized intersection, and signal timing and phasing updates for signalized intersection. WSP, as a subconsultant, is providing design services for a project along Sam Bass Road from FM 1431 to Wyoming Springs Drive. The project scope includes transforming the existing facility to a three-lane roadway with shoulders, a shared-use path, open drainage, and vegetative filter strips where possible. The project also includes designing new signals at Great Oaks Drive and Walsh Ranch Boulevard, at FM 1431, and signal timing modifications at Wyoming Springs Drive.

16. Staff Experience:

Firm employed by		WSP USA, Inc.		
Name	Jenifer Ross-Amato		Years of relevant experience with this employer	5
Title	Senior Vice President		Years of relevant experience with other employer(s)	26
Degree(s) / Years / Specialization			JD / 2000 / Law	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Drafting of Miscellaneous Project Agreements and Alternative Project Delivery Technical Services Jenifer leads the Third-Parties Governance in Project Delivery Practice Area for WSP's Advisory Services and Planning National Business Line where she provides advice on planning and implementing complex projects. Her expertise includes project governance and decision making; public-public partner coordination and private-public partner coordination; third-party agreements; contract development and negotiation, policies and procedures, regulatory compliance; contract oversight and program management; transit-oriented and joint development, procurement; and commercial and public partner relationship management and dispute resolution. Jenifer is a collaborative, strategic leader who brings creative solutions to establish and maintain beneficial partnerships, negotiate resolutions, and move projects forward. Prior to joining the firm, she led the legal team at the Regional Transportation District in Denver as interim general and deputy general counsel.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
06/23-Present	FrontRunner Strategic Doubletracking Project (FR2X), Salt Lake City, UT - Leading the development of cooperative agreements and other project governance mechanisms supporting the two public partners – UDOT and UTA – including agreements on FTA compliance; developed a compliance program to ensure organization-wide FTA procurement compliance; and is currently supporting procurement of a progressive design builder for civil and rail systems, a CMGC contractor for a maintenance facility, and manufacture of new DMUs. The project involves additional doubletracking, a new station, a new maintenance facility and acquisition of new rolling stock to increase frequency and reliability of a commuter rail system.			
03/22-03/26	Hudson Bergen Light Rail O&M Rebid Project, Newark, NJ - Project Manager who successfully led New Jersey TRANSIT through the hand back of a DBOM contractor and installation of a new O&M contractor for the light rail system. The project included analysis of delivery models, review and development of a new contract, integration with design build project extensions, installation of organizational oversight team, procurement process facilitation and transition support.			
02/24-Present	Sacramento Valley Station Governance and Operations Project, Sacramento, CA - Project Manager that led an evaluation and selection process for a new, regional governance and operations structure for the historic station building and station area to implement the planned redevelopment.			
11/22-11/25	Advanced Rapid Transit Projects, San Antonio, TX - Advised on strategy and negotiation of a partnership agreement between VIA, the transit agency, and the City of San Antonio to implement the first of several bus rapid transit projects funded by FTA CIG grants; advised on various utilities agreements for multiple projects.			
11/21-11/24	California High-Speed Rail Authority (CHSRA), CA - Facilitated development of a partnership agreement to formalize the relationship between the Authority and the City of Palmdale to pursue a station master plan. WSP was the program management consultant for CHSRA.			

07/22-01/23	SunRail, Central Florida - Led efforts to advise on the transition of contracts and agreements for an FTA-funded rail system and supported with implementation of a new governance structure for a change of oversight of the commuter rail system by the state DOT to a separate entity comprised of multiple local jurisdictions. WSP was the prime consultant leading the effort for the new oversight organization for the Central Florida Commuter Rail Commission.
11/20-11/24	West Valley Connector BRT Project, San Bernardino, CA - Led the task for procurement of contracts and development of third-party agreements focusing on FTA compliance. WSP is providing program management services to SBCTA for the implementation of a new BRT service using battery electric buses in the West Valley Corridor.

16. Staff Experience:

Firm employed by		WSP USA, Inc.		
Name	Mark Polston		Years of relevant experience with this employer	8
Title	Managing Director, Project Development		Years of relevant experience with other employer(s)	16
Degree(s) / Years / Specialization			JD / 2002 / Degree of Law B.A. / 1995 / Political Science	
Active registration number / state / expiration date			Virginia State Bar; District of Columbia Bar (JD)	
Year registered	2005	Discipline	Law	
Contract role(s) / brief description of responsibilities			Drafting of Miscellaneous Project Agreements Mark is a senior manager with the alternative delivery advisory services group. He advises clients in the procurement, financing, and implementation of complex infrastructure projects, with an emphasis on alternative delivery methods, including public-private partnerships (P3s). Mark assists project owners in determining goals, identifying constraints, and allocating risk in a manner that puts them in the best position to deliver their projects. He helps clients through the entirety of the procurement and implementation processes, including drafting evaluation criteria, selecting proposers, negotiating agreements to achieve successful commercial and financial closings, and administering the agreements. Working collaboratively with clients, Mark develops user-friendly strategies for change management and alternative delivery project implementation over the life of a project. Mark is the former deputy director of the USDOT's Build America Bureau Credit Programs. In his role with USDOT, Mark was involved with every P3 project that achieved financial close in the U.S. since 2010 using federal transportation credit support. His leadership and counsel on many of these projects contributed to achieving financial close and proceeding into implementation. In addition, Mark has led a team of expert underwriters in making \$18 billion in loans directly facilitating more than \$60 billion in infrastructure between 2013 and 2018. He has served on the strategic leadership team, including technical management of consultancy contracts, and played a principal role in merging USDOT's credit programs into a single, customer service-focused center for transportation infrastructure financing.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
02/22-06/23	PennDOT Pathways Major Bridge Tolling Planning, PA - Provided strategic advice for risk management, the application of lessons learned, and innovative financing pursuit for a nine-bridge PDB/ P3 across multiple districts. Mark worked to mitigate programmatic and project risks and set up a long-term risk assessment and mitigation tool for the entire project life cycle. WSP provided planning services for toll facilities, bridge replacements and rehabilitations with minor approach work, environmental studies, roadway improvements, minor capital upgrades for bridges and roads, railroad grade crossing projects, minor location studies, and Pathways Program work.			
05/20-Present	LADOTD, Advisory Services for the Procurement of Alternative Delivery Projects (Calcasieu Bridge), Calcasieu Parish, LA - Solicitation/Evaluation. This significant Design-Build-Operate-Maintain (DBFOM) Toll Revenue Risk project replaces the 70-year-old Calcasieu River Bridge, increases the capacity of I-10 through the Lake Charles region, and relieves a national freight bottleneck. The Louisiana Department of Transportation & Development (LADOTD) selected WSP as the Technical Advisor to work side-by-side with LADOTD in its management of the P3 procurement and upcoming negotiation process. WSP is also providing Level 2 Traffic and Revenue (T&R) Analysis forecasts in support of the P3 procurement process. WSP is currently serving as Technical Advisor leading development of the technical provisions and providing commercial advisory for development of other procurement documents including the Instructions to Proposers and Contract Documents. To develop the technical provisions, WSP hosted frequent workshops with the multitude of relevant technical disciplines to prepare the documents and define the performance-based and			

	prescriptive technical criteria. Furthermore, WSP is supporting the questions and answers (Q&A) process as well as the one-on-one meetings with the shortlisted proposers providing support to LADOTD in review of Alternative Technical Concepts and other avenues for potential contractor innovation helping to refine the RFP documents.
02/20-08/22	Michigan Department of Transportation Innovative Contracting Best Practices and Manual Update, MI - Lead risk manager who advised the Michigan Department of Transportation on a significant update and revision to its innovative contracting guidance documents to streamline the program and incorporate industry best practices. He assisted the Michigan Department of Transportation in identifying, measuring, allocating, and mitigating "alternative delivery" project risks. WSP is providing services to the Michigan Department of Transportation to investigate alternative delivery best practices around the country and update their program and manuals accordingly. The project involves identifying national innovative contracting best practices, documenting effective methods that could be applied to Michigan projects, identifying gaps in Michigan's existing innovative contracting program, and updating the Michigan Department of Transportation's innovative contracting guidance according to research findings.
05/19-12/20	Straits of Mackinac Line 5 Replacement and Tunnel Facility, MI - Advised on the Construction Manager/General Contractor (CM/GC) procurement of a contractor and designer for the construction of a tunnel under the Straits of Mackinac and the Line 5 replacement pipeline, which carries petroleum products from Wisconsin to Ontario, via Michigan. Assisted the client on the drafting and negotiation of CM/GC contracts with the design engineer and constructor, as well as evaluation criteria, statements of work and other Request for Proposal (RFP) documents.
03/18-Present	ADOT I-10 Broadway Curve P3 General Engineering, Phoenix, AZ - Advising ADOT on procurement document preparation and development, project goal setting, best practices, and risk management for a \$620 million urban interstate highway reconstruction project. WSP, as the general engineering consultant, is assisting ADOT with delivering best-value, high quality I-10 corridor improvements between I-17 and SR 202 Santan and South Mountain Freeway via a P3 project. The project includes the reconstruction of the I-10, SR 143, and U.S. 60 system improvement and widening of 11 miles of general-purpose and high-occupancy vehicle lane.

16. Staff Experience:

Firm employed by HDR Engineering, Inc.				
Name	Wesley Jacobs, P.E.		Years of relevant experience with this employer	11
Title	Transportation Group Manager/Associate Vice President		Years of relevant experience with other employer(s)	17
Degree(s) / Years / Specialization			B.S. / 1998 / Civil Engineering	
Active registration number / state / expiration date			#PE.0030774 / LA / 09-30-2026	
Year registered	2003	Discipline	Civil Engineer	
			Other Pertinent Certifications and Training Maintenance and Rehabilitation of Historic Bridges (4/12/2016)	
Contract role(s) / brief description of responsibilities			Project Management / Bridge Design (Satisfies MPR #11) Wesley has over 28 years of demonstrated expertise in several aspects of civil and structural design/inspection, including bridges (high-level river crossings, movable bridges, overpasses, rail bridges with common elements such as complex geometry, PPC girder, steel plate girder, curved steel plate girders, pier design/protection, cofferdams, column and pile bent design), sign structures, and urban/rural roadway/drainage design. Through this experience, he has gained a solid foundation in civil and structural design, driven by the complexity of projects completed, including CMAR/ECI and D/B (with estimated construction costs exceeding \$10 billion). His responsibilities have included independent technical review, plan production, structural design, seismic review, forensic analysis, civil design, geometrics, drainage design, structural inspection, specification development, cost estimation, bridge rehabilitation, and project management.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
11/22-05/24	LADOTD, Bridge Preservation IDIQ - LA 577 at I-20 Repair PS&E, Waverly, LA - Project Manager & Engineering Lead. Task orders were issued for inspection, rehabilitation design, and load rating of the LA 577 precast concrete girder overpass in North Louisiana, which was damaged by a dump truck collision. The scope included emergency services for inspection, load rating, and PS&E for the demolition of the existing span and the redesign of a new AASHTO T3 PPC span.			
04/25-Present	LADOTD, Contract 5 for Movable Bridges (6): Lafayette, Calcasieu, Cameron, Saint Martin & Vermillion Parish, LA - Project Manager. Wes led the movable bridge multi-disciplinary team (structural, mechanical, electrical, and architectural) to develop and perform NBIS In-Depth and routine inspections/reports, LRFR load ratings, scope of work/report development to rehabilitate six vertical lift bridges: Old Abbeville, Abbeville Bypass, Parks, Milton, West Fork, and Ellender. He coordinated with subconsultants and teams to inspect the six bridges across two mobilizations, including rope-access inspectors.			
11/19-03/24	LADOTD, Statewide In-Depth Complex Bridge Inspections IDIQ, Statewide, LA - Project Manager. Wes led the movable bridge main span inspections (fieldwork and report preparation) of the Jackson Street Lift Bridge spanning the Red River and the lift bridges spanning Teche Bayou. Wes oversaw the team that performed structural, mechanical, and electrical inspections of the towers, main span truss, substructure, and machinery, using rope access and manlift methods for in-depth inspections. Additionally, over 25 more bridges were inspected as part of the contract, including seven steel girder swing span bridges in St. Tammany, Tangipahoa, and Livingston Parishes, one steel swing truss bridge (US 90 East Pearl River), and 17 smaller concrete slab span and timber bridges.			

10/23-05/25	Port of New Orleans, Movable Bridge Inspection On-Call Contract, New Orleans, LA - Project Manager. Wes led the annual in-depth movable bridge inspections for the Seabrook and Almonaster single-leaf truss bascule bridges (117 ft main span with 240 ft total). The bridges were built in 1923 and 1919, respectively, and span the Inner Harbor Navigation Canal (river crossing). Wes led a multidisciplinary team of structural rope access, mechanical, and electrical inspectors to conduct annual in-depth inspections, prepare reports, and issue remediation recommendations.
01/11-01/12	Valero Port Arthur Refinery, Taylor Bayou (Joint Outfall Canal) Movable Bridge (Steel Swing Span), Port Arthur, TX - Project Manager & Engineer of Record. For this river crossing, Wes was in responsible charge of the preliminary designs and plans for an unequal-arm steel swing-span movable bridge (129 ft) supported by a pivot pier on steel-pipe pile foundations, with PPC girder approach spans. Due to close similarities with recent projects in Louisiana, the project was designed in accordance with LADOTD design criteria and specifications.
01/10-10/11	LADOTD, Chef Menteur Pass Bridge Replacement EA, S.P. No. 700-36-0125, Orleans Parish, LA - Structural Lead. Wes was in responsible charge for the preliminary design of the high-level (75 ft vertical clearance) fixed bridge alternatives for replacing a historical swing span bridge in Orleans Parish for this river crossing. The span arrangements comprised PPC AASHTO Type 3 (80 ft) and BT 78 (130 ft) approach spans, with steel-composite girders for the main spans (200 ft and 270 ft). Wes developed conceptual designs for deep river concrete piers with water-level footings supported by large-diameter PPC cylinder piles.
02/10-12/11	TxDOT Dallas District, Collin County US 75 Bridge Layouts, Dallas, TX - Engineer of Record. Wes was in responsible charge of the design of the preliminary and final bridge layouts for five bridge structures. Three bridges were highway underpasses of the main lanes for US 75 (a six-lane interstate-type system), and two were overpass ramp structures. The bridge layouts were developed using the new TX prestressed concrete girder shapes (Tx46, 54, and 62) supported by multi-column bents and drilled shaft foundations. Phased construction was utilized on one of the underpass bridges, along with complex curved and skewed geometry for the ramp bridges.
01/11-12/12	USACE New Orleans District, LPV 145 – Bayou Bienvenue Movable Steel Swing Span Bridge, New Orleans, LA - Project Manager & Engineering Lead. Wes developed the preliminary and final designs, plans, and specifications for a 135 ft unequal-arm steel swing-span structure. The swing span is supported by a reinforced concrete pivot pier with prestressed concrete pile foundations. The approach spans were comprised of reinforced concrete slab spans that tied into an existing limestone access road. The bridge was designed to provide vehicular access to LPV 145, a 6-mile-long isolated levee reach in Chalmette, LA. The bridge was designed and constructed on the protected side of the existing sector gate structure on an offset alignment. The timber guidewall/fender system for the new bridge was designed to tie into the existing system at the sector gate. The bridge was designed in accordance with the LADOTD Bridge Design Manual and AASHTO–LRFD specifications.
10/12-05/15	TxDOT/LADOTD, US 84 Sabine River Bridge, Logansport, LA - Engineer of Record. Wes was in responsible charge of the final design, plans, and specifications for two bridge structures (eastbound and westbound) in accordance with AASHTO-LRFD specifications. The bridges were comprised of the new Tx shapes (Tx62's and Tx70's), with span lengths ranging from 120 ft to 160 ft. The substructure consisted of multi-column reinforced concrete bents with strutted columns at the main channel locations, supported by drilled shaft foundations. Although not a navigable channel at this location, the bridges were designed with adequate geometry to provide the necessary freeboard above the 100-year flood levels and superelevation rotation on the eastbound structure.
06/03-05/05	LADOTD, US 171 South Railroad Overpass, Mansfield, LA - Engineer of Record. Wes was in responsible charge of the final design for the TIMED program, including twin bridge structures with concentric curves, bobtail spans, and skewed spans crossing the KCS railroad main line. Each bridge was approximately 700 ft long. The spans were comprised of precast prestressed concrete girders supported by precast prestressed concrete pile bent substructure.
05/09-10/10	TxDOT Austin District, SH 95 Brushy Creek, Williamson County, TX - Engineer of Record. Wes was in responsible charge of the final designs and plans for this bridge replacement project. The bridge spans Brushy Creek near Coupland, TX. The bridge is 520 feet in length and comprised of seven PPC Type C girder spans varying in length from 70 feet to 90 feet. The superstructure is supported by reinforced concrete column bents founded on drilled shafts. The bridge was designed for split-phased construction due to the location of the existing structure. The bridge was designed in accordance with the TxDOT standard and the LRFD specifications.

16. Staff Experience:

Firm employed by				HDR Engineering, Inc.			
Name		Sarah De Moya, P.E.		Years of relevant experience with this employer		13	
Title		Bridge Group Lead		Years of relevant experience with other employer(s)		6	
Degree(s) / Years / Specialization				M.S. / 2007 / Structural Engineering B.S. / 2006 / Civil Engineering			
Active registration number / state / expiration date				#PE.0038011 / LA / 03-31-2027			
Year registered		2013		Discipline		Civil Engineer	
Contract role(s) / brief description of responsibilities				Quality Control/Peer Reviews; Bridge Design (Satisfies MPR #11) Sarah’s experience includes structural design and analysis of bridges. She has experience across each stage of bridge design, including preliminary planning, structural design, and construction-phase services. Sarah has served as a bridge engineer for numerous public clients, including LADOTD, TxDOT, FDOT, NYSTA, ADOT, USACE, and various Texas cities and counties.			
Experience dates (mm/yy–mm/yy)		Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).					
05/22-05/26		Texas Department of Transportation (TxDOT) Houston, North Houston Highway Improvement Project (NHHIP) Segment 3B Design Oversight GEC, Houston, TX - Structures/Geotech Task Lead / Structures Subject Matter Expert. Sarah organized and led a team of structural and geotechnical subject matter experts to review design plans, specifications, estimates, reports, exhibits, and supporting documentation for NHHIP Segment 3B at the IH 69/ SH 288 Interchange. This project includes 19 bridges, over 50 retaining walls (including 30 ft tall tied-back drilled shaft walls), deep storm sewer (including tunneling), and various miscellaneous structures. Sarah coordinated with the PS&E design team, TxDOT Houston district staff, and TxDOT Bridge Division staff to close out review comments and provide information needed to advance design, including criteria, TxDOT preferences, and custom aesthetics.					
11/22-07/23		LADOTD, Bridge Preservation IDIQ – LA 577 at I-20 Repair PS&E, Waverly, LA - Bridge Lead/Engineer of Record. Sarah was in responsible charge of bridge preservation and design and developed demolition and rehabilitation plans, specifications, and estimates to replace the bridge span damaged by a truck impact. Some existing bridges were partially damaged, including prestressed concrete beams, bridge railing, and bridge deck. In Phase 1, Sarah load-rated the damaged bridge to determine whether a portion of it was safe to open to traffic. Sarah developed a letter bid plan for demolishing damaged beams and bridge deck, along with temporary traffic control, immediately following the load rating. The bridge reopened to one lane of traffic while the design for span replacement was ongoing. Phase 2 design included AASHTO Type 3 girders, designed using LEAP Bridge Concrete, with modifications to the existing substructure to accommodate additional girders due to phased construction. The design and LRFR load rating followed LADOTD BDEM, and the team developed bridge design, technical memos, and plans using DOTD CadConform.					
10/16-09/20		Brazoria County Toll Road Authority, SH288 Tollway General Engineering Consultant (GEC), Brazoria County, TX - Structures Lead / Bridge Subject Matter Expert. Sarah reviewed bridge plans and other miscellaneous structure details. She supervised the development of the project's standard structural details. Additionally, Sarah oversaw the structural design of custom retaining walls, traffic-railing transition details, toll gantries, and overhead sign structures, as well as project-wide aesthetic details. Sarah provided a custom cast-in-place retaining wall solution to address stakeholder concerns and aesthetic preferences.					
04/20-Present		TxDOT Corpus Christi, US77 Schematic and PS&E, Sinton, TX - Bridge Lead/ Engineer of Record. Sarah was in responsible charge of bridge design and bridge preservation. Sarah led the design for four new bridges, four bridge replacements, and six bridge rehabilitations. She performed a cost-comparative analysis to determine the optimum bridge length and retaining wall limits. Sarah designed prestressed concrete beams, concrete bents, and drilled shaft foundations. The four bridges over Chiltipin Creek were designed for 12 feet of scour, and the low chord was set above the 100-year design					

	flood event. The overpass bridges were designed with pier protection for vehicle collision loading. The bridge rehabilitation plans incorporated typical TxDOT repair solutions to prolong the bridges' service life while reducing costs. Concrete repairs were in accordance with the TxDOT Concrete Repair Manual.
06/19-12/20	TxDOT Beaumont, Old US 90 at Baird's Bayou Bridge Replacement, Orange County, TX - Deputy Project Manager/Bridge Lead. Sarah coordinated with TxDOT, subconsultants, and the internal production team to progress design and deliver this project on a tight schedule. Sarah coordinated environmental documentation, utility relocation, and retaining wall construction. She developed a scheme for end-on-end bridge demolition and construction due to existing bridge conditions and difficult site access in a rural area. Sarah reviewed prestressed concrete pile trestle bents and slab-beam superstructure designs.
01/18-09/19	City of Alvin, FM 528 Extension from SH 35 to SH 6 – Bridge over BNSF Railroad, Brazoria County, TX - Bridge Lead Engineer. This two-lane rural bridge on the new location was designed for future widening. Sarah led the design of prestressed concrete I-girders, concrete piers, and drilled shaft foundations. She also developed Exhibit A and located bridge piers outside the BNSF railroad ROW. Sarah developed the design of noise walls, retaining walls, and custom project aesthetics.
08/15-Present	Harris County Toll Road Authority (HCTRA), Sam Houston Tollway East – Ship Channel Bridge Replacement, Harris County, TX - Bridge Lead Engineer/Deputy Project Manager/ Engineer of Record. Sarah assisted in developing the schematic during the preliminary engineering phase and was in responsible charge of bridge design during PS&E phase. Sarah designed bridge substructure and foundation elements for new twin bridges to replace the existing Houston Ship Channel Bridge, which carries Sam Houston Tollway-East over the Houston Ship Channel. Each approach bridge is over a mile long with a combined deck area of nearly 800,000 square feet. Sarah led the bridge layout and structural design, influenced by difficult site constraints, including nine railroad tracks, access roads, existing bridge foundations, poor soil, highly skewed box culverts, an operating petcoke facility, and roughly 90 utilities. Despite many obstacles, the new bridge was designed so that only overhead power lines needed to be relocated. Sarah checked superstructure designs and developed go-by details utilized by the bridge design teams.
01/14-06/15	Metropolitan Transit Authority of Harris County (METRO), Union Pacific Railroad (UPRR), Harrisburg Overpass, Houston, TX - Structural Engineer. This fast-track project included bridge design services for a nine-span bridge consisting of two light rail tracks, two highway lanes, and two sidewalks over UPRR tracks. Bridge design included pre-stressed concrete I-girders, deck design, substructure design, special railing details, track plinth design, rail structure interaction model, approach slab design, cased drilled shafts due to contaminated soil, OCS pedestal details, and OCS/light pole anchorage design. Sarah checked the design of prestressed concrete girders, substructure, foundations, OCS pedestals, and anchorage.
01/13-01/14	City of Memphis, Harahan Bridge Restoration, Memphis, TN - Structural Engineer. This project rehabilitated a 1916 steel-truss railroad bridge and an unused wagon path to be used as a pedestrian and bicycle path over the Mississippi River between Memphis, TN, and Crittenden County, AR. Sarah performed structural capacity calculations for the cantilevered pedestrian boardwalk supported by an existing steel-truss railroad bridge in service. She analyzed cantilevered bracket connections for moment and shear capacity. She estimated loads for various boardwalk deck and pedestrian overlook options. The final design was completed with a 12-foot wide mixed-use walkway that included 54" tall pedestrian railings and a 10-foot tall, curved fence on the inside of the walkway. The existing stringers were reused with additional framing as required for final design loads.
01/12–11/12	Central Texas Regional Mobility Authority, US 290 Manor Expressway, Manor, TX - Structural Engineer. Sarah designed and analyzed truss structures for overhead sign bridges, cantilever sign structures, DMS structures, and toll gantries, utilizing RISA and AASHTO LTS criteria. Sarah reviewed the shop drawings and approved sign structure/DMS/toll gantry trusses, sealed expansion joint assemblies, drainage structures, pedestrian railing, and prestressed concrete beams. The design includes 6.2 miles of a six-lane, grade-separated tollway reconstruction with three general-purpose lanes in each direction. It includes a roadway, 32 bridges, retaining walls, drainage, sign structures/toll gantries, and a 10-foot shared path, in accordance with AASHTO LRFD, TxDOT, FHWA, and ADA design criteria.

16. Staff Experience:

Firm employed by HDR Engineering, Inc.			
Name	Daniel Marsalone, P.E.	Years of relevant experience with this employer	1
Title	Bridge Engineering Leader	Years of relevant experience with other employer(s)	31
Degree(s) / Years / Specialization	B.S. / 1994 / Civil Engineering		
Active registration number / state / expiration date	#PE.0028554 / LA / 09-30-2027		
Year registered	1999	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities	Bridge Design Lead (Satisfies MPR #11) Daniel has over three decades of bridge engineering experience and is HDR's Bridge Engineering Leader in Baton Rouge. Daniel has supported Louisiana DOTD on multiple assignments and understands the department's standards, procedures, and expectations for maintaining safe, reliable structures. His practice centers on practical, data-driven preservation solutions that extend service life, from condition evaluation and load rating through repair conceptualizing, plans and details, and construction-phase support. He is skilled at prioritizing needs across diverse bridge inventories, selecting cost-effective treatments, and resolving field issues quickly to minimize traffic impacts. He integrates seamlessly with inspection, materials, and construction teams to deliver clear recommendations, buildable details, and responsive support that keep bridges in service and budgets on track.		
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
10/25-Present	LADOTD, Contract 5 for Movable Bridges (6), Statewide, LA - Lead Bridge Engineer / Engineer of Record. The project consisted of inspecting and load rating six movable bridges in southern Louisiana. Daniel was in responsible charge of the bridge rating team, coordinating their efforts, providing quality control for the in-depth bridge inspection reports, and providing guidance and quality control for the load ratings and reports, as well as developing a prioritized scope of repairs for the preservation of each bridge based on inspection and load rating findings.		
01/26-02/26	Norfolk Southern Corporation, Old Pearl River Bridge Emergency Repairs, Pearl River, LA - Lead Bridge Engineer & Engineer of Record. Daniel was in responsible charge of performing bridge design and leading the bridge design team to provide emergency repairs for the two fixed trusses and moveable truss following the bridge's inspection, in which there were critical findings: severe corrosion with significant loss of section for several fracture-critical members, fatigue issues with floorbeams, and severe deterioration of floorbeam connections. He designed repairs to the bottom chords of the trusses, modifications to the floor beams, and repairs to the floor beam connections.		
08/21-10/22	LADOTD, Causeway and Earhart Boulevard Interchange, Jefferson Parish, LA - Lead Bridge Engineer / Project Manager / Engineer of Record. Daniel was in responsible charge of leading the bridge design of two elevated ramp superstructures within a major traffic interchange. The ramps also crossed the Kansas City Southern Railway (KCS). The superstructures included AASHTO prestressed concrete girder spans and curved steel girder spans. Additionally, Daniel supervised substructure and foundation design, coordinated with KCS to confirm that rail service would not be hindered and that pier and foundation locations met KCS approval, and performed LRFR bridge rating calculations. He provided oversight to confirm the project complied with state and federal standards.		
05/20-10/21	City of Tuscaloosa, Jack Warner Extension to MLK - Kansas City Southern Railroad Bridges, Tuscaloosa, AL - Lead Bridge Engineer / Project Manager / Engineer of Record. Daniel was in responsible charge of leading the bridge substructure design for two railroad bridges on active lines, requiring innovative solutions to maintain service during construction. The design featured reinforced concrete piers and abutments on drilled shaft foundations. Daniel's work provided structural integrity while meeting strict operational constraints for the KCS Warrior Mainline and Goodrich Spur.		

09/16–11/16	LADOTD, US 190 Mississippi River Bridge Repairs, Baton Rouge, LA - Lead Bridge Engineer / Engineer of Record. Daniel was in responsible charge of leading an in-depth bridge pier inspection where severe damage was noted during a routine inspection (at the east bank westbound approach). Daniel also determined the cause of the pier damage near the bearings, provided alternative designs to rehabilitate the pier and bearings for bridge preservation, and produced an in-depth inspection, analysis, and rehabilitation report for the pier.
06/16–10/16	LADOTD, US 190 Phase II, Mississippi River Railroad Bridge Maintenance and Rehabilitation, Baton Rouge, LA - Lead Bridge Engineer / Project Manager. Daniel was in responsible charge of engineering during construction, shop drawing review, responses to RFIs, and plan changes due to differing field conditions. Significant plan changes were necessary. Daniel was in responsible charge of the design of replacement rocker bearings, anchor bolts, and bent post angles.
04/15-04/16	LADOTD, Wisner Boulevard Bridge over I-610/Norfolk Southern Replacement, New Orleans, LA - Lead Bridge Engineer / Project Manager / Engineer of Record. Daniel was in responsible charge of performing bridge design and LRFR load rating for the replacement bridge's superstructure, substructure, and foundations. Additionally, he provided construction engineering services, including RFI responses with additional bridge design calculations due to a mislocated pier, steel girder shop drawing reviews, and material submittal evaluations. Daniel also coordinated with Norfolk Southern (NS) during the design and construction phases to confirm that rail operations were maintained and that the pier and foundation location and protection met NS approval.
07/14-03/15	Baton Rouge Department of Public Works, Lower Zachary Road Bridge Replacement, Zachary, LA - Lead Bridge Engineer / Project Manager / Engineer of Record. Daniel was in responsible charge of bridge design for the replacement of four slab-span bridges, performing structural design and hydraulic and scour analyses. Daniel verified compliance with safety standards and optimized performance for long-term durability.
05/14-11/14	Jefferson Parish Department of Public Works, Bridge Inspection and Load Rating Report for Causeway Boulevard/Airline Drive Interchange - Metairie, LA - Lead Bridge Engineer / Project Manager / Engineer of Record. Daniel was in responsible charge of leading the bridge inspection, conducting field assessments, preparing bridge inspection reports, calculating bridge load ratings, and preparing load rating reports for the multiple structures within the interchange. He provided recommendations for prioritized structural repairs and drainage improvements required for bridge preservation. In addition, Daniel produced the temporary traffic control plans utilized during the inspections.
11/04–08/05	LADOTD, Church Street Bridge Over Cane River, Natchitoches, LA - Lead Bridge Engineer / Project Manager / Engineer of Record. Daniel was in responsible charge of leading the bridge inspection for the historic Cane River Bridge and evaluating bridge load rating, as well as proposing methods of bridge preservation and rehabilitation.
07/03-04/04	LADOTD, Florida Avenue Bridge Design, New Orleans, LA - Lead Bridge Engineer / Project Manager / Engineer of Record. Daniel was in responsible charge of the bridge design of one mile of elevated bridge approaches, including AASHTO Type III, Type IV, and bulb-tee prestressed concrete girders. The bridge deck, girders, and piers were designed to meet AASHTO LRFD specifications. Daniel provided structural analysis and coordination to verify safe and efficient construction.
01/95-06/96	LADOTD, Rehabilitation of Sunshine Bridge Over the Mississippi River, Gonzales, LA - Bridge Engineer. Daniel designed structural modifications to the bridge deck support system and the bridge deck trusses (to handle increased loads from the new slab deck and to eliminate fatigue problems associated with the original structure's welded connections), conducted the main truss analysis, and performed geometric realignment of the approaches.

16. Staff Experience:

Firm employed by					HDR Engineering, Inc.				
Name		Venkata Sathiraju, P.E.			Years of relevant experience with this employer			2	
Title		Bridge Engineer			Years of relevant experience with other employer(s)			5	
Degree(s) / Years / Specialization				M.S. / 2019 / Structural Engineering B.T. / 2016 / Civil Engineering					
Active registration number / state / expiration date				#PE.0048436 / LA / 03-31-2028					
Year registered		2023		Discipline		Civil Engineer			
						Other Pertinent Training / Certifications FHWA-NHI-130055, Safety Inspection of In-Service Bridges			
Contract role(s) / brief description of responsibilities				Bridge Design / Bridge Inspection Venkata has over seven years of experience in bridge design, inspection, and load rating. He completed his master’s degree with a thesis focused on bridge design and the handling of prestressed I-beams. He has worked on bridge projects for various public clients, including LADOTD, TxDOT, TDOT, FDEP, INDOT, and various cities and counties in Indiana.					
Experience dates (mm/yy–mm/yy)		Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).							
04/25-6/26		LADOTD, Contract 5 for Movable Bridges (6) - Statewide LA - Bridge Designer. Venkata served as the site coordinator and coordinated with district bridge engineers for the in-depth inspection of the six vertical-lift bridges. He was part of the structural inspection team and worked on the submission of six in-depth reports. He also signed and stamped the load rating reports for the main span portion of the four of these six movable bridges using AASHTOWare and other internally developed spreadsheets.							
01/25-Present		Port of New Orleans (PONO), Independent Structural Design Review (ISDR), ESB Highway Bridge, St. Bernard Parish, LA - Bridge Designer. HDR provided ISDR for the ESB Highway Bridge design. Venkata conducted independent calculations to verify bridge geometry, prestressed girder, and substructure designs based on the 60% and 95% plans, and participated in the comment resolution meeting with the designers. He also developed a draft review report and a comment-resolution matrix, which were used to address potential conflicts noted in the original design.							
02/25-Present		CSX, Rigolets Project, Rigolets, LA - Bridge Designer. Venkata performed structural repairs and upgrades to the swing-span bridge at Rigolets, LA. The upgrades included extending the access platforms around the piers, adding stairs to them, and installing a new over-track platform. Venkata has also helped develop plan sheets for 60% and 90% submissions.							
10/24-12/24		PONO, Movable Bridge Inspection On-call Contract, New Orleans, LA - Bridge Inspector. Venkata assisted with the structural portion of the inspection for Seabrook and Almonaster Bridges over the Inner Harbor Navigational Canal. He also provided a 30-day memo with preliminary findings, along with draft inspection reports for both bridges.							
8/24-Present		TxDOT Houston, Seawolf Parkway at Pelican Island Channel Bridge Replacement, Galveston, TX - Bridge Designer. The proposed project will replace the existing lift bridge with a new fixed bridge. Venkata designed prestressed girders and abutments for the project at 60% phase. Using PGSuper software, Venkata analyzed and designed Tx40 and Tx70 girders for two representative span units. For the abutment design, he used CAP18 software and internally developed spreadsheets to complete the analysis and design.							
06/24-11/24		LADOTD, Bridge Preservation 2022 Contract, Bridge Optimization Study, Statewide, LA - Bridge Engineer. HDR provided design aids that will be used by the bridge design engineers to determine a preliminary optimal layout through analysis that incorporates various variables, such as bridge super- and substructure types, girder spacing, girder concrete strength, span length, super- and substructure material costs, and project size/location. Venkata							

	reviewed the analysis in this optimization tool and developed a unit price estimate tool for the items used in the analysis, using cost-estimating tools available on the LADOTD website.
04/23-06/24	LADOTD, Statewide Complex Bridge Inspection Project, Statewide, LA - NHI Certified Bridge Inspector. Venkata assisted with inspections and completed bridge inspection reports. The inspected bridges include the Old US 51 bridge over Pass Manchac near Akers, and the US 11 bridge over Norfolk Southern railroad in Slidell.
04/23-06/24	Tennessee Department of Transportation, Complex and Standard Bridge Load Rating, Statewide, TN - Bridge Inspector. Venkata rated approximately 10 bridges. Bridges included SR 311 over Candies Creek in Candies Creek, I-65 over SR 273 in Giles County, and I-81 over Pitt Rd in Greene County. AASHTOWare BrR software was used to perform load ratings. Bridge types included reinforced concrete slab bridges, T-beam bridges, prestressed concrete I-beams, and prestressed concrete box beam bridges.
08/23-01/24	Florida Department of Environmental Protection, Lover's Key State Park Rehabilitation, Fort Myers, FL - Bridge Inspector. Rehabilitation of various parts of the Lover's Key State Park is underway after the destruction caused by Hurricane Ian. The project scope included load rating checks on the Tram bridge connecting parts of the park to the beach. Venkata performed load rating checks on the tram bridge in accordance with the FDOT Bridge Load Rating Manual. It is a 725-foot-long bridge with identical 25-foot spans supported by prestressed concrete box beams.
12/22-03/23	LADOTD, H.014465 - Rehabilitation of Vertical Lift Bridge, Perry, LA - Bridge Inspector. LADOTD proposed to rehabilitate the Perry vertical lift bridge over the Vermilion River on State Hwy 82 by replacing the existing superstructure on approach spans and lift span, and making necessary adjustments to towers. The 383 ft 11-span bridge consists of 10 approach spans, a 30-foot span, and 1 lift span. Venkata has designed the approach-span steel beams and reviewed the design and load rating of the vertical lift span for the 60% submission.
11/22-12/22	PONO, Inner Harbor Navigational Canal, Seabrook Bridge Load Rating, New Orleans, LA - Bridge Inspector. The Seabrook Railroad Bridge consists of the east and west approach spans, a tower span, and a bascule span for navigational access. Venkata assisted with checking the load rating calculations for the east and west approach spans to the Seabrook Railroad Bridge. Approach spans are approximately 30 feet long with timber deck ties on steel rolled beams. Load rating checks followed the Manual for Railway Engineering (MRE) guidelines, as set by AREMA, and were performed using internally developed spreadsheets.
05/20-09/21	Miami County, Wayne Street Bridge 501 Rehabilitation, Miami County, IN - Bridge Designer. The project included a complete superstructure replacement with pedestrian improvements on the Wayne 501 bridge. Venkata designed the deck and plate girders for the superstructure. Plate girder design was performed using Merlin-Dash software. Venkata also conducted design checks, including splice design, top-of-splice elevation calculations, bearing pad selection, bearing stiffener and weld design, and camber calculations.
03/21-05/22	INDOT, North Split Project, Indianapolis, IN - Bridge Designer. The project involved reconstruction design for multiple bridges at the I-65/I-70 split near downtown Indianapolis. Venkata designed superstructure and substructure elements for bridges on New York, East Ohio, East Michigan, and St. Clair Streets using LEAP Bridge Concrete/RC Pier, with prestressed I-beam superstructures, integral/semi-integral end bents, and multi-column pile-supported piers. He also designed a widening between N. Alabama and N. Delaware Streets on the west leg, including complex flared geometry with added steel girders. Design and rating were performed using Merlin Dash, AASHTOWare BrR, and RC Pier.
07/20-08/22	Vigo County, New Bridge over Railroad Crossing, Terre Haute, IN - Bridge Designer. There are existing at-grade railroad crossings at 8th Avenue and North 13th Avenue. The project scope is the replacement of these at-grade crossings with a bridge with two roundabouts to access 8th Avenue and North 13th Avenue. Venkata designed the bridge superstructure and substructure. Prestressed concrete girders were used for the superstructure. Bridge cross-section geometry was flared to accommodate the sight distance restrictions from the bridge to the roundabout. LEAP Bridge concrete and RC Pier software were used during the design phase.
08/19-06/20	INDOT, I-69 Finish Line Project, Johnson County, IN - Bridge Designer. Six bridges were designed and constructed at the SR 37/SR 144 interchange using prestressed girders and integral end bents. Venkata designed the girders, deck, and substructure units, utilizing LEAP Bridge Concrete/RC Pier software.

16. Staff Experience:

Firm employed by HDR Engineering, Inc.			
Name	Erin O'Malley, P.E. (SPRAT 3)		Years of relevant experience with this employer
Title	Senior Bridge Engineer		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization	M.S. / 2010 / Structural Engineering B.S. / 2008 / Architectural Engineering		
Active registration number / state / expiration date	#PE.0043899 / LA / 03-31-2028		
Year registered	2019	Discipline	Civil Engineer
Other Pertinent Training / Certifications FHWA-NHI Course No. 130055, Safety Inspection of In-Service Bridges FHWA-NHI Course No. 130053, Bridge Inspection Refresher Training FHWA-NHI Course No. 130078, Fracture Critical Inspection Techniques for Steel Bridges NHI Course No. 130078A, Bridge Inspection Techniques for Nonredundant Steel Tension Members (NSTM) Refresher SPRAT Level 3 Rope Access Technician (#131089, expires 02/02/2027)			
Contract role(s) / brief description of responsibilities Bridge Inspector (Rope Access)			
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
05/25-06/25	LADOTD, Contract 5 for Movable Bridges (6), Statewide, LA - Bridge Inspection Team Leader. Erin performed rope access inspections of lifting towers for six bridges near Lafayette and Lake Charles. She assembled the rope access inspection team, including a rope access site supervisor and the other inspectors. The structural inspections were performed separately from the mechanical and electrical inspections, but coordination with operations for boat traffic was still required. Erin wrote or reviewed the tower sections of the reports for each of the bridges.		
02/20, 12/20, 04/23	LADOTD, Statewide In-Depth Complex Bridge Inspections, Statewide, LA - Bridge Inspection/Rope Access Site Supervisor. Erin performed rope-access inspections of lifting towers, floor systems, and truss members where other access methods were impractical for the Red River and Teche Bayou lift bridges and the Pearl River Swing Truss. As the rope access site supervisor, Erin created the SPRAT-certified inspectors' work plans and safety plans and rigged the rope access system. She also performed some inspection work when additional SPRAT Level 3 staff were on site. The structural inspections were coordinated with the mechanical and electrical inspections and accommodated bridge openings as needed for boat traffic. Erin wrote and reviewed the structural sections of the report for each bridge.		
11/23, 10/24	Port of New Orleans, Movable Bridge Inspections On-Call Contract, New Orleans, LA - Bridge Inspection Team Leader. Using rope access, Erin led a five-person team to inspect two bascule trusses and their counterweight structures in 2023 and again in 2024. The bridges carry Class 1 railroads over the Inner Harbor Navigation Canal, so the work required coordination with a railroad flagger and the bridge operator to maintain train and boat traffic. Erin wrote the above-deck structural sections of both reports and reviewed the below-deck structural, mechanical, and electrical sections.		
10/20-11/20	Texas Department of Transportation (TxDOT), Movable Bridges Asset Maintenance, Rio Hondo, TX - Bridge Inspection/Rope Access Site Supervisor. Erin supervised rope access inspection of the Rio Hondo lift bridge towers above deck that were beyond the reach of the bucket truck, including the side faces over water and the majority of the lift-span and approach-span faces. The scope included a general inspection to assess the bridge's condition since its 2017 rehabilitation and a detailed inspection of elements requiring potential repairs and maintenance. Erin created the work and safety plans for two SPRAT Level 1 inspectors and rigged the rope access system. The structural inspection was performed separately from the mechanical and electrical inspection, but coordination with operations for boat traffic was still required. She wrote the tower sections of the report.		

05/12-09/21; 07/24-Present	TxDOT, Non-Redundant Steel Tension Members (NSTM) (formerly Fracture Critical) and Complex Bridge Inspection Contract, Statewide, TX - Bridge Inspection Team Leader. Erin has worked on five full contract cycles since 2012, advancing from Assistant to Team Leader to Rope Access Leader for the state. She is currently working on HDR's 6th cycle on this contract. Structure types include plate girders, plate caps, tub girders, box caps, floor beams, trusses, railcar bridges, and signature tower and cable structures. Erin coordinates each aspect of the inspection, from planning to mobilization to reporting. Additionally, this contract includes load ratings. Erin has performed load ratings for small rural structures, steel I-beams, plate girders, through trusses, deck trusses, floor beams, and gusset plates.
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16. Staff Experience:

Firm employed by		HDR Engineering, Inc.		
Name	Matthew Bruno, PE (SPRAT 3)		Years of relevant experience with this employer	18
Title	Transportation Industrial Rope Access Program Leader		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			B.S. / 2008 / Civil Engineering	
Active registration number / state / expiration date			PE#51856 / CO / 10-31-2027	
Year registered	2013	Discipline	Civil Engineer Other Relevant Training / Certifications SPRAT Level 3 Rope Access Technician (#100807, expires 02/12/2027) FHWA-NHI 130053, Bridge Inspection Refresher Training FHWA-NHI 135047, Stream Stability and Scour at Highway Bridges for Bridge Inspectors FHWA-NHI 130110, Tunnel Safety Inspection FHWA-NHI 130125, Tunnel Safety Inspection Refresher FHWA-NHI 130087, Inspection and Maintenance of Ancillary Highway Structures	
Contract role(s) / brief description of responsibilities			Bridge Inspection (Rope Access) Matt has successfully supported numerous bridge projects in project management, rating analysis, design, and inspection. He has specialized training and certification in the application of rope access and advanced climbing techniques. He uses access techniques that include industrial rope access, underbridge inspection cranes, manlifts, bucket trucks, and confined-space entry. He has hands-on experience with in-depth/fracture-critical (NSTM) bridge inspections, including the Golden Gate Bridge (CA), the East Huntington Bridge (WV), the Margaret Hunt Hill Bridge (TX), and the Corpus Christi Harbor Bridge (TX). Matt is experienced with hands-on, NBIS in-depth, and NSTM bridge inspections, which verify and code structural inventory and appraisal (SI&A) information, determine condition ratings, and develop inspection reports with recommended repairs, rehabilitation, and/or corrections needed.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
05/09-Present	Texas Department of Transportation (TxDOT) Bridge Division, Fracture Critical In-Depth Inspections, Statewide, TX - Bridge Inspection Team Leader. HDR provided in-depth and fracture critical inspection of several signature, complex bridges throughout the state of Texas, including the Corpus Christi Harbor Bridge, Margaret Hunt Hill Bridge, Fred Hartman Bridge, and Rainbow Bridge. In addition, HDR has completed multiple inspections of interstate/highway interchanges in major metropolitan areas throughout the state. Conventional and industrial rope access techniques were used. Matt is providing rigging and safety support for the inspections as the Level 3 on-site.			
05/08-12/21	Oregon Department of Transportation, Statewide Bridge Inspection On-Call Services, Statewide, OR - Bridge Inspection Team Leader and Assistant Team Lead. HDR provided in-depth fracture critical, fatigue-prone, and routine inspections of the Steel Bridge (vertical lift), Morrison Bridge (bascule), St. John’s Bridge, Ross Island Bridge, Fremont Bridge, and East/West interchange structures, East/West Marquam interchange structures, and Banfield interchange structures. Matt helped develop the field notes; in-depth fracture, critical, fatigue-prone, and routine inspection reports; bridge inspection (PONTIS) reports; and photo logs. Each inspection used conventional and industrial rope access techniques. Matt provided rigging and safety support for the inspection as the Level 3 on-site.			

02/15-Present	Golden Gate Bridge Highway and Transportation District, Golden Gate Bridge Inspection, San Francisco, CA - Bridge Inspection Team Leader, Rope Access Coordinator, Deputy PM. HDR performed fracture critical (NSTM) inspections on the Golden Gate Bridge on the South Approach Viaduct, Fort Point Arch, Main Span, and North Approach Viaduct in 2015, 2017, and 2019. In 2021, 2023, and 2025, the bridge's previous elements were reinspected, with the addition of NSTM inspections of 200+ floor beams in the main suspension spans. Inspection of the floor beams and truss members was completed solely via industrial rope access. HDR performed the first-ever close-up inspections of the Golden Gate Bridge main towers in 2018. The towers were inspected using only industrial rope access. This was an element-level inspection using the new coding guidelines. Prior to the 2015, 2017, and 2019 inspections, Matt compiled and produced the field notes for the inspectors to improve efficiency and ease inspection. During inspections since 2015, Matt was one of the team leaders on site, co-leading the entire inspection team, coordinating daily tasks, and performing inspections of assigned components. In 2024, HDR performed an inspection of miscellaneous elements across the bridge, including top/bottom lateral bracing, pylon spans, and the north abutment beam span.
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16. Staff Experience:

Firm employed by				HDR Engineering, Inc.			
Name		Steven Pierce, P.E. (SPRAT 2)		Years of relevant experience with this employer		6	
Title		Materials Engineer		Years of relevant experience with other employer(s)		2	
Degree(s) / Years / Specialization				BS / 2018 / Chemical Engineering and Material Science			
Active registration number / state / expiration date				PE#2026 / CA / 09-30-2026			
Year registered		2022		Discipline		Metallurgy	
				Other Pertinent Training / Certifications SPRAT Level 2 Rope Access Technician (#2001753, expires 2/2/2027)			
Contract role(s) / brief description of responsibilities				Bridge Inspector (Rope Access) Steven performs direct and indirect corrosion inspections of metallic and concrete transportation, water, and wastewater type structures, including pipelines, penstocks, dams, bridges, and lift stations. Some of the field-testing procedures include soil resistivity/corrosivity measurements, structure-to-electrolyte potential surveys, concrete chemical testing, and non-destructive thickness testing.			
Experience dates (mm/yy–mm/yy)		Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).					
06/25-06/25		LADOTD, DOTD Control 5 Movable Bridges (6): Vermillion, Lafayette, St. Martin, and Calcasieu Parishes, LA - Bridge Coatings Inspector. Steven performed coating inspections of lifting towers, lift span floor systems, and truss members using a MEWP for the West Fork and Ellender lift bridges. The coating inspections were coordinated with the structural inspections and accommodated bridge openings as needed for boat traffic. Steven wrote and reviewed coating inspection sections of the report for each bridge.					
07/25-09/25		Port of Hood River (PoHR), PoHR Bridge Repair and Painting, Hood River, OR - Bridge Coating Inspector. Using rope access, Steven led a three-person team to inspect the condition of the existing coating of the lifting towers, lift span floor systems, and truss members. He tabulated the areas of coating damage and recommended areas for coating repair to extend the bridge's life by an additional 15 years, until a new, larger bridge can be constructed.					
07/24-07/24		Kansas Department of Transportation (KDOT), Intercity Viaduct Rating, Kansas City, KS - Bridge Inspector. Using rope access, Steven inspected lower-chord fracture-critical members for coating and corrosion damage. Metal losses due to corrosion were tabulated and used to calculate the bridge's structural rating in its current condition, to inform future repair recommendations.					
10/23-05/24		Silicon Valley Power (SVP), Stony Gorge Penstock and Black Butte Penstock Inspections, Statewide, CA - Coatings Inspector. Steven used rope access to inspect the internal sloped portions of three penstocks and performed a hands-on coating inspection. This work included visual inspection of the full pipe length interior and coating condition assessments, including non-destructive evaluation. Steven also assisted with preparing and evaluating the safety and rescue plans required to complete the interior inspection. HDR provided the rope access means and methods for safe entry and rescue response.					
12/24-12/24		Port of Long Beach (POLB), Pier B ODRS Facilities Program; Crescent Warehouse, Long Beach, CA - Corrosion and Coatings Inspector. Steven performed a coating and corrosion inspection of roof truss members at the Crescent Warehouse in preparation for building modifications. The condition of the roof trusses was used to determine if the existing load rating would meet the requirements for the future building modifications. Rope access and a MEWP were used to reach each portion of the roof truss. The building's tenants currently use it for shipping and receiving large crates from the port. Steven consistently coordinated access around moving forklifts and occupants.					
06/24-07/24		USACE, Pittsburgh District Dams and Locks, Statewide, PA - Structural Engineer. Steven used rope access to inspect the upstream and downstream faces, internal structures, and lift-arm mechanisms of the dam radial gates at the New Cumberland and Charleroi USACE Lock and Dam sites. Steven wrote and reviewed the dam inspection sections of the report.					

16. Staff Experience:

Firm employed by				HDR Engineering, Inc.			
Name		Riley Boone, P.E. (SPRAT 1)		Years of relevant experience with this employer		13	
Title		Project Manager Engineering		Years of relevant experience with other employer(s)		0	
Degree(s) / Years / Specialization				B.S. / 2013 / Civil Engineering			
Active registration number / state / expiration date				PE#131800 / TX / 06-30-2026			
Year registered		2018		Discipline		Structural Engineering	
				Other Pertinent Training / Certifications FHWA-NHI-130055, Safety Inspection of In-Service Bridges FHWA-NHI 130078, Fracture Critical Inspection Techniques for Steel Bridges FHWA-NHI 135047, Stream Stability and Scour at Highway Bridges for Bridge Inspectors SPRAT 1 Rope Access Certification (#2100237, expires 2/12/2027)			
Contract role(s) / brief description of responsibilities				Bridge Inspector (Rope Access) Riley specializes in bridge inspection, design, and scour evaluations. Riley’s primary focus is on maintaining the safety of bridges and related structures, including inspection, design of repairs, and scour evaluations. Riley has nine years of experience in bridge design and inspection, including routine, fracture-critical, and condition assessments. Riley has been a risk-based inspection (RBI) team leader in Texas for seven years and a Nonredundant Steel Tension Member (NSTM) Team leader for three years. Riley’s inspection experience includes various steel, concrete, and timber bridges in varied environments, from small stream crossings over county roads to large urban viaducts, and includes both on- and off-system bridges (elemental and non-elemental).			
Experience dates (mm/yy–mm/yy)		Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).					
04/23-04/23		LADOTD, Statewide In-Depth Complex Bridge Inspection, Statewide, LA - Bridge Inspector. Riley performed an in-depth visual and hands-on inspection of fracture-critical elements and a visual/routine inspection of other elements for two inspections.					
11/23-11/23		Port of New Orleans, Movable Bridge Inspection On-Call Contract, Statewide, LA - Bridge Inspector. Riley performed an in-depth visual and hands-on inspection of fracture-critical elements and a visual/routine inspection of other elements for two movable rail truss bridges in the Port of New Orleans. Members were accessed and inspected from the rope.					
07/17–06/23 06/23-Present		Texas Department of Transportation (TxDOT) Bridge Division, NSTM In-Depth Bridge Inspection IDIQ, Statewide, TX - Bridge Inspector. Riley has inspected various bridges with NSTMs throughout Texas, including, but not limited to, large and small steel truss bridges, movable bridges, extra-dosed bridges, two-girder superstructures, steel plate caps, and steel box caps. Access methods include rope access, ladders, bridge inspection vehicles, bucket trucks, and man lifts. Riley performed inspections, communicated significant findings requiring immediate attention, prepared inspection reports, and made maintenance recommendations. Notable bridges include the Rainbow Bridge, the Martin Luther King Jr/Gulfgate Bridge, the Waco Brazos River Bridges, the Rio Hondo Moveable Bridge, the Pelican Island Moveable Bridge, and the Pennybacker Bridge.					
09/21–09/22		North Dakota Department of Transportation, Routine and Fracture Critical Bridge Inspection, Statewide, ND - Assistant Bridge Inspector. Riley inspected small truss bridges and plate caps. Access methods included rope access and ladders.					
02/17-06/19 06/19-Present		TxDOT, Routine Bridge Inspections, Statewide, TX - Bridge Inspector. Riley has performed routine bridge inspections for both on- and off-system bridges. He has been the team leader on 15+ separate work authorizations, inspecting over 1,250 bridges. Riley performed inspections, reviewed previous					

	inspections and bridge documents (including scour documentation), communicated significant findings requiring immediate attention with TxDOT, prepared inspection reports, and recommended repairs.
10/17-Present	TxDOT, On-System Condition Assessments, Statewide, TX - Bridge Inspector. Riley conducted several condition assessment inspections, including an in-depth visual and hands-on inspection of bridge elements and the documentation of defects. After some inspections, Riley helped develop repair recommendations, cost estimates, and repair details. Notable bridges include Corpus Christi Harbor Bridge (rope access), Arroyo Colorado Lift Bridge (rope access), and several segmental bridges throughout San Antonio.
05/21-01/24	TxDOT Dallas, Scour Evaluations, Dallas, TX - Technical Lead/Evaluator. Riley led a team of engineers to evaluate nearly 500 bridges to determine their current and future vulnerability to scour and to provided repair and preventive recommendations to protect them from further scour.

16. Staff Experience:

Firm employed by HDR Engineering, Inc.				
Name	Peter Harrison, PE (SPRAT 1)		Years of relevant experience with this employer	12
Title	Bridge Inspection Section Lead		Years of relevant experience with other employer(s)	16
Degree(s) / Years / Specialization			B.S. / 1998 / Civil Engineering	
Active registration number / state / expiration date			#PE.0039771 / LA / 09-30-27	
Year registered	2015	Discipline	Civil Engineer Other Pertinent Training / Certifications FHWA/NHI #130055 - Safety Inspection of In-Service Bridges (2008) FHWA/NHI #130053 - Bridge Inspection Refresher Training (2022) FHWA/NHI #130078 - Fracture Critical Inspection Techniques for Steel Bridges (2003) FHWA/NHI #130110 – Tunnel Safety Inspection (2016) FHWA/NHI #130124 - Tunnel Safety Inspection Refresher (2021) SPRAT Rope Access Technician – Level 1 (#150291, expires 2/2027)	
Contract role(s) / brief description of responsibilities			Bridge Inspector (Rope Access) Peter has over two decades of experience in bridge design, inspection, and project management. He has experience with inspections and repairs involving steel, concrete, and timber. He has worked on a diverse range of structural types, including segmental concrete, truss, cable-stayed, tied-arch, and movable bridges.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
04/25-Present	LADOTD, Contract 5 for Movable Bridges (6): Lafayette, Calcasieu, Cameron, Saint Martin, & Vermillion Parish, LA - QA/QC. Peter conducted in-depth quality control reviews of NBIS, routine inspections, LRFR load ratings, and inspection report development for six vertical-lift bridges: Old Abbeville, Abbeville Bypass, Parks, Milton, West Fork, and Ellender. He reviewed bridge inspection reports and load rating documentation to confirm technical accuracy, consistency, and compliance with NBIS requirements, and coordinated with inspection team leads and discipline specialists to resolve comments and confirm that final deliverables reflected observed conditions across inspection mobilizations, including rope-access inspections.			
05/20-04/21	TxDOT Bridge Division, JFK Causeway over Gulf Coast Intracoastal Waterway Rehabilitation, Corpus Christi, TX - Inspection Team Lead. Peter coordinated logistics for two field teams over a three-week inspection effort, including coordination with the United States Coast Guard (USCG). He led field inspection activities and the development of a comprehensive condition assessment report documenting observed deficiencies and recommending concrete repairs and the installation of a cathodic protection system. Inspection findings were used to support rehabilitation planning and subsequent design efforts.			
01/14-Present	TxDOT Bridge Division, Non-Redundant Steel Tension Member (NSTM) (Fracture-Critical) Inspection IDIQ, Statewide, TX - Bridge Inspector/Team Leader. Peter manages and leads field inspections and report preparation for fracture-critical bridge inspections statewide. To date, the team has inspected approximately 2,000 bridges, with Peter serving as on-site team leader for approximately 25% of the structures. Notable structures include the Corpus Christi Harbor Bridge, Margaret Hunt Hill Bridge (Dallas), Rainbow Bridge (Port Arthur), Fred Hartman Bridge (Baytown), Pennybacker Bridge (Austin), West 7th Street Bridge (Fort Worth), and the Pelican Island Bascule Bridge (Galveston).			
10/23-03/24	Port of New Orleans, Movable Bridge Inspection On-Call Contract, New Orleans, LA - Structural QA/QC. HDR led the annual in-depth movable bridge inspections for the Seabrook and Almonaster single-leaf truss bascule bridges (117-foot main span with 240-foot total). The bridges were built in			

	1923 and 1919, respectively, and span the Inner Harbor Navigation Canal (river crossing). Peter reviewed the proposed inspection methods and performed a quality review of the final report.
08/15-Present	TxDOT, Routine Bridge Inspection, Statewide, TX - Project Manager/Inspection Team Leader. Peter manages and leads routine bridge inspections and report preparation statewide. He coordinates multiple inspection teams and confirms compliance with TxDOT and FHWA requirements. This contract has included the inspection of approximately 15,000 bridges. Peter has served as the on-site team leader for approximately 20% of the structures.
12/19, 11/22, 11/26	TxDOT Bridge Division, Arroyo Colorado Lift Bridge Routine Bridge Inspection, Rio Hondo, TX - Bridge Inspector. Peter led the NSTM (fracture-critical) inspection of this structure, including the use of industrial rope access methods to inspect NSTM members that were difficult to reach with conventional methods.
02/14-08/15	LADOTD, LA 12 Sabine River Bridge Stage 0 Bridge Evaluation, Calcasieu, LA - QA/QC Reviewer. HDR analyzed the feasibility of rehabilitation and/or replacement of a historic swing-span bridge on the Texas-Louisiana border. The 327-foot five-span bridge contains four concrete approach spans and one steel girder movable span, which has been immobilized. Peter provided QA/QC for the bridge inspection, load rating calculations, and the report summarizing inspection, load rating, and alternatives analysis.
11/17-04/26	Golden Gate Bridge Highway and Transportation District, Golden Gate Bridge Fracture Critical Bridge Inspection, San Francisco, CA - Bridge Inspector. Peter is part of a team that inspects the fracture-critical members of this structure using industrial rope access, which are difficult to access through conventional methods.
06/09-12/09	Nebraska Department of Roads (NDOR), Fracture Critical Inspection and Rating, Statewide, NE - Inspection Team Leader. Peter led the inspection and load rating of 108 fracture-critical bridges. Load ratings were performed to determine inventory and operating loads following NDOR standards using LARS rating software. Most bridges were pony trusses of varying lengths.

16. Staff Experience:

Firm employed by HDR Engineering, Inc.			
Name	Patrick Hickox, P.E.	Years of relevant experience with this employer	13
Title	Transportation Director of Professional Services	Years of relevant experience with other employer(s)	23
Degree(s) / Years / Specialization	B.S. / 1990 / Civil Engineering		
Active registration number / state / expiration date	#PE.0030405 / LA / 03-31-2027		
Year registered	2002	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities	Alternative Project Delivery Technical Services Patrick has extensive experience in bridge design, innovative procurement, and P3 projects throughout the US. His experience highlights include design, construction, engineering, and inspection and/or maintenance/repair of 10 built cable-stayed bridges with span lengths up to 1,583 feet; design of multiple segmental bridges using span-by-span and balanced cantilever construction; and alternative project delivery experience (Design-Build, Private and Public-Private Partnership) on several mega-projects worth more than \$10B in construction.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
02/98-12/03	AirTrain JFK, New York, NY - Design Manager. One of the first mega design/build/operate/maintain for transportation the US. This light rail project was built for the Port Authority of New York and New Jersey to serve the JFK Airport using an 8.7-mile dual-track automated system with linear induction motor (LIM) propulsion. Responsible for the overall superstructure design, design of contractor-erected equipment, and on-site technical support services.		
12/03-12/06	Penobscot Narrows Bridge and Observatory, Bucksport, ME - This new 2,120' cable-stayed bridge has a 1,160' main span along with a three level observatory platform in the western pylon. The bridge was opened to traffic on December 30, 2006 - in just 42 months - through an innovative owner-facilitated design/build process called Special Experimental Project No. 14 (SEP 14) for the use of innovative contracting processes. Mr. Hickox assisted with the preliminary design concepts for the cable stay bridge, assisted MDOT with procurement of the selected contractor, developed project specifications, conducted public involvement, and established erection concepts while working closely with the Contractor.		
01/09-08/12	New South Norfolk Jordan Bridge, City of Chesapeake, VA - This new 5,375' bridge features two 12' wide traffic lanes, two 8' wide shoulders and an 8' wide pedestrian sidewalk. Funding for the new bridge used no local, state or federal money and used an innovative privately developed delivery method. Mr. Hickox assisted with the development of procurement documents and construction contracts, permitting, project specifications, contract administration and development of the preliminary design, full construction estimate, construction schemes and QC Manual.		
09/15-Present	Alabama DOT I-10 Mobile River Bridge (ALDOT), Mobile, AL - Project Manager. Responsible for the preliminary design, permitting, public involvement and bridge type studies. The 10-mile I-10 Mobile River Bridge and Bayway Widening Project features a new six lane, 1,250-ft long cable stay bridge crossing of the river that will provide 215 feet of vertical and 800 feet of horizontal clearance to the navigational traffic within the busy port. In Sept. 2017, ALDOT changed the delivery method to P3. Mr. Hickox's responsibilities included developing ALDOT's first P3 procurement including program management, procurement documents, technical provisions, design-build specifications, reference plans/documents, leading the technical team for the owner, reviewing and coordinating ATCs, and conducting one-on-one meetings with Concessionaire teams.		
04/12–09/16	Eagle P3 Project, Denver, CO - Bridge and Structures Director. Responsible for providing overall management and technical support of the bridge design for this \$1.65 billion project. This project comprised elements of design-build-finance-operation-maintenance for the East Corridor, Gold Line, Northwest Electrified Segment, and Commuter Rail Maintenance Facility. The Eagle P3 project extends commuter rail from the city center of Denver on two new lines to suburban locations – most of it on existing freight railroad right-of-way (ROW) and the remaining alignment extending to Denver International Airport on the Airport ROW. HDR was the designer to the Denver Transit Partner team led by Fluor/Macquarie which included 37 miles of commuter rail track and the relocation of four miles of BNSF mainline tracks.		

16. Staff Experience:

Firm employed by HDR Engineering, Inc.				
Name	James Truong, P.E., DBAI		Years of relevant experience with this employer	16
Title	Transportation Infrastructure Procurement Director		Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization			B.S. / 1999 / Civil Engineering	
Active registration number / state / expiration date			#PE.64270 / CA / 06-30-2027	
Year registered	2003	Discipline	Civil Engineer	
			Other Pertinent Training / Certifications Designated Design-Build Professional (# D-3562, 12-31-2027)	
Contract role(s) / brief description of responsibilities			Alternative Project Delivery Technical Services James has more than two decades of experience in transportation engineering and procurement, with a national leadership role in alternative delivery. He leads the development of alternative delivery strategies and procurement processes for complex transportation projects. His experience spans the full procurement lifecycle, including risk identification and mitigation, development of RFQ and RFP documents, and establishment of evaluation criteria for consultant selection and contract award. James brings over a decade of dedicated procurement experience supporting alternative delivery projects across 12 states, totaling approximately \$10B in construction value. His procurement documents have been adopted by clients as templates for subsequent projects. This experience, combined with his background in design and project delivery, positions him to support DOTD in advancing alternative delivery initiatives and providing technical advisory services.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
08/17 – 09/19	Alabama Department of Transportation, Mobile River Bridge and Bayway Project, Mobile, AL - Procurement Document Manager. James prepared the Public/Private Partnership (P3) procurement documents, including the technical Provisions, and assisted with various procurement tasks. The new \$2B I-10 Mobile River Bridge will be the highest and one of the largest cable-stayed bridges in the US. The ten-mile, I-10 Mobile River Bridge and Bayway Widening project features a new state-of-the-art, six-lane, 1,380-foot-long cable-stayed bridge crossing the river that will provide 215 feet of vertical and 800 feet of horizontal clearance to navigational traffic within the busy port. The bridge's high-level approach spans will begin approximately 5,500 feet east and west of the navigation channel to achieve the required vertical clearance and minimize impacts on the shipping industry and the environment. The existing 7.4 miles of Bayway Bridges will be replaced with two parallel structures, each with four lanes in each direction, from the high-level approach spans to the Eastern Shore US 90/98 interchange in Daphne. Five interchanges along I-10 will be reconstructed: Virginia Street, Canal/Water Streets, East Tunnel Portal (US 90/98), Midbay (US 90/98), and the Eastern Shore (US 90/98 in Daphne).			
08/14 – 07/16	Arizona Department of Transportation (ADOT), South Mountain Freeway Project, Phoenix, AZ - Procurement Document Manager. James managed and prepared the design-build technical provisions. He also assisted with developing the other procurement documents, including the RFQ and ITP, working directly with ADOT and FHWA. He also assisted ADOT with answering proposer questions, preparing addenda, and participating in the evaluation process of the proposals. As the first major P3 highway project in Arizona, HDR assisted ADOT with procurement of the South Mountain Freeway. The \$2B Project completed the Loop 202 from I-10 (Maricopa Freeway) to I-10 (Papago Freeway), a distance of approximately 22 miles, in the southwestern quadrant of the Phoenix metropolitan area.			

12/22 – 12/25	ADOT, I-10 Gila River Indian Community Project, Maricopa County, AZ - Procurement Lead. James was responsible for leading the procurement process for the GEC and for managing the development of the Request for Qualifications (RFQ), Statement of Qualifications (SOQ) Evaluation Manual, Instructions to Proposers (ITP), Design-Build Agreement (DBA), Proposal Evaluation Manual, and assisting with the development of other procurement documents. James also assisted and participated in other procurement tasks. The \$430M Project is approximately 12 miles in length and is located within the City of Chandler, City of Phoenix, the Gila River Indian Community, Maricopa County, and Pinal County, Arizona, from approximately SR 202L (Santan/South Mountain) to approximately Milepost 172.75. The purpose of the Project is to improve the operational characteristics of I-10 and the associated traffic interchanges within the Project limits and add capacity to meet future year 2040 traffic demands.
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16. Staff Experience:

Firm employed by HDR Engineering, Inc.				
Name	Nathan Macek, AICP		Years of relevant experience with this employer	5
Title	Infrastructure Finance Director		Years of relevant experience with other employer(s)	20
Degree(s) / Years / Specialization			M.S. / 2001 / Regional Planning B.A. / 1999 / Political Economy	
Active registration number / state / expiration date			N/A	
Year registered	2005	Discipline	N/A	
			Other Pertinent Training / Certifications American Institute of Certified Planners (#019578, expires 09-30-2026)	
Contract role(s) / brief description of responsibilities			Financial Plans, Grant Applications and Agreements Nathan brings experience applying innovative approaches to public agencies' budgetary challenges. He assists infrastructure owners in evaluating options and developing strategies to secure grants and other funding. He has developed financial models to evaluate funding, alternative delivery, and financing for transportation projects worldwide. He has prepared financial plans for more than 10 major projects awarded federal grants totaling \$12 billion. Nathan also contributes to industry advancements as the author of multiple papers on transportation finance.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
05/25-Present	Virginia Department of Transportation, Programmatic Cost Review, Statewide, VA - Project Manager. Nathan leads a comprehensive study examining the trends and drivers of Virginia DOT maintenance and operations costs and the resulting impacts on funding available for construction programs. Nathan identifies underlying growth factors across cost categories and develops a shadow model to support 30-year projections of funding needs, improving VDOT’s cost-forecasting capabilities for future highway funding projections			
04/22-03/25	Ohio Department of Transportation (ODOT), Discretionary Grant Services, Statewide, OH - Project Advisor. Nathan supported the Ohio Department of Transportation (ODOT) in developing USDOT discretionary grant applications and associated benefit-cost analyses. The project included application coordination, narrative development, project visualization, benefit-cost analysis calculations, and benefit-cost analysis narrative development. Nathan led a task to help ODOT screen and prioritize which projects should pursue funding from each federal grant program.			
11/24-Present	Northern Virginia Transportation Commission/Virginia Department of Rail and Public Transportation, I-66 Needs Assessment, Statewide, Northern VA - Project Manager. Nathan managed the financial analysis portion of this study to evaluate alternative approaches for allocating funds dedicated to transit from tolled express lanes in the Interstate 66 corridor outside Washington, DC. HDR prepared scenarios evaluating the application of funding to operating and capital uses and analyzed the net present value of applying capital funding on a pay-as-you-go or debt-financed basis. The study is informing plans regarding future investment of toll revenue in capital projects and transit operations in the corridor.			
12/21-Present	CapMetro/ATP Project, Austin, TX - Project Advisor. Project Connect is a major capital program to invest in transit throughout the Austin area, including new light rail, a subway, and more services across the city. Nathan evaluated capital funding and financing approaches, as well as financial feasibility, for multiple design alternatives under consideration for delivery under the program.			
07/22-06/25	Metropolitan Atlanta Rapid Transit Authority (MARTA), Financial Planning, Atlanta, GA - Project Manager. Nathan is preparing financial planning scenarios for the MARTA. He is developing a comprehensive financial model that is being used to build future capital plans and operating budgets. The			

	project will help MARTA to examine its financial capacity to construct and operate capital expansion projects funded by recent “More MARTA” ballot measures in the City of Atlanta and Clayton County.
08/22-Present	Santa Clara Valley Transportation Authority (VTA), Capital and Operations Financial, San Jose, CA - Project Manager. This project includes the funding and financing to implement Phase II of the Silicon Valley Rapid Transit (SVRT) program, which will connect Bay Area Rapid Transit (BART) to San Jose. Nathan is advising on financial capacity projections of VTA’s various sales tax measures. He is supporting the application for FTA Capital Investment Grant funding. This builds on previous support for Phase I of the SVRT program, which received its full funding grant agreement in 2012.

16. Staff Experience:

Firm employed by				HDR Engineering, Inc.			
Name		Marissa Witkowski		Years of relevant experience with this employer		18	
Title		Principal Financial Consultant		Years of relevant experience with other employer(s)		3	
Degree(s) / Years / Specialization				M.A. / 2008 / Economics B.A. / 2005 / Economics and Psychology			
Active registration number / state / expiration date				N/A			
Year registered		N/A		Discipline		N/A	
Contract role(s) / brief description of responsibilities				Grant Applications and Agreements Marissa is a principal financial consultant and economist with 20 years of experience in infrastructure decision analysis, transportation economics, funding evaluations, and grant writing. She leads analyses in transportation planning, project prioritization, risk analysis, lifecycle costing, economic development, and funding and finance. Further, Marissa is adept at combining quantitative and qualitative information to highlight the merits of programs or projects and their alignment with funding programs. She has extensive experience identifying potential funding sources and capital investment opportunities. Marissa believes that a key element of project success is collaboration and mutual understanding, and she works closely with internal and external team members to reach consensus and deliver quality products. Marissa’s efforts have secured federal discretionary grants totaling more than \$2.1B for nearly 40 projects across the country.			
Experience dates (mm/yy–mm/yy)		Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).					
11/23-03/25		Alabama Department of Transportation, Mobile River Bridge and Bayway Project, Mobile, AL - Benefit-Cost Analyst. Marissa worked on the benefit-cost analysis in support of discretionary grant applications for the Mobile River Bridge Project. Specifically, she helped identify potential benefits, assisted junior economists in reasoning through the calculations, and conducted quality-control reviews of the models. The new I-10 Mobile River Bridge will be the highest and one of the largest cable-stayed bridges in the US. The benefit-cost analysis supported a successful grant application that secured \$550 million in Bridge Investment Program funds.					
03/15-04/16		Massachusetts Port Authority (Massport), Conley Terminal Intermodal Improvements and Modernization FASTLANE Grant Application, Boston, MA - Project Manager/Grant Writing Lead. Marissa led the complete development of a FY2016 FASTLANE grant application, including the narrative and technical analysis required for this federal grant. During project development, she met weekly with key Massport staff to gather the required information and update the team on the status of various project components. She produced a 25-page narrative, conducted the benefit-cost analysis, and provided relevant documentation. Massport was awarded \$42M for the proposed improvements in September 2016.					
10/16-12/18		Massport, Conley Terminal Container Storage and Freight Corridor BUILD Applications, Boston, MA - Project Manager/Grant Writing Lead. Building on the success of the FY2016 FASTLANE application, Marissa coordinated with Massport to identify additional improvements that would best align with the needs of both Massport and the USDOT to seek further funding for necessary improvements at Conley Terminal. Marissa developed the application and conducted the economic analysis, which led to the successful award of an additional \$20M in FY 2019 BUILD funding to further support the enhancements and modernization of Conley Terminal.					
02/23-12/23		Confidential Client, Grant Identification and Prioritization, Nationwide - Principal Economist. HDR worked closely with our client to match capital projects with available funding opportunities. This evaluation aligned all known information on funding availability from various relevant sources, including discretionary grants, with projects identified in the client’s capital program to maximize available funding and project outcomes. Marissa conducted extensive research on available funding opportunities, including the timing and amounts available through various programs, funding					

	restrictions, and details on specific evaluation criteria. This information was then combined into a modeling tool that prioritized projects and matched them with available funding opportunities based on suitability and readiness. The outcomes of this product have been used to support grant application development.
05/22-09/22	South Carolina Department of Transportation (SCDOT), CLRB Bridge Grant – Investing in South Carolina’s Rural Bridges, Union County, SC - Lead Economist. HDR worked with SCDOT to develop a complete FY22 BIP application package to replace six critical rural bridges in Union County in northwest South Carolina, near the Appalachian Mountains. The bridges provide key community and freight connectivity and are in a state of disrepair. Marissa developed the benefit-cost analysis model and helped the team develop the application narrative for this project, which was awarded \$51.2M in funding.
02/22-04/22	City of Salina, Old Smoky Hill River Bridge Replacement, Salina, KS - Lead Economist. HDR worked with local stakeholders to develop and submit a FY2022 RAISE grant application to improve mobility, reduce congestion, and reconnect parts of the City of Salina. Key project elements included replacing 7 bridges over the Old Smoky Hill River, constructing 3.4 miles of multi-use trails, improving 7 pedestrian crossings, installing trail lighting, upgrading several culverts prone to flooding, and other improvements. Marissa worked closely with the project team to develop the benefit-cost analysis and documentation supporting the grant application narrative. The project was awarded \$22.1M in RAISE grant funding.
03/22-05/22	Colorado Department of Transportation, I-70 Floyd Hill to Veterans Memorial Tunnels Improvements INFRA Grant, Evergreen and Idaho Springs, CO - Lead Economist. HDR provided support services to CDOT Region 1 to prepare and submit a FY2022 INFRA grant application, which successfully secured \$100M. The project will improve approximately 8 miles of the I-70 Mountain Corridor by adding a third westbound travel lane, a new frontage road, and improved sight distances, among other elements. The project aims to alleviate congestion and improve safety. Marissa led the development of the benefit-cost analysis, including accounting for unique aspects of this project, such as seasonality and rockslides.
08/22-09/22	City of Portland, FY22 Burgard Bridge – Bridge Investment Program Application, Portland, OR - Grant Writer. Marissa prepared a BIP bridge grant application for the replacement of the Burgard Bridge, which carries North Lombard Street over the UPRR tracks. In addition to preparing the full grant application narrative, Marissa led a supporting economic analysis, identified project needs, and aligned with grant criteria. She evaluated project readiness and technical feasibility for both Oregon and federal requirements. The application was awarded the full requested funding of \$13.9M.
01/21-02/23	City of Blaine, TH 65 FY 2021 INFRA & RAISE Grant Applications, Blaine, MN - Lead Analyst. Marissa conducted the benefit-cost analysis for the recently submitted INFRA and RAISE application in support of the Trunk Highway 65 reconstruction project in the City of Blaine. The analysis used key information from traffic and safety analyses, documenting assumptions in accordance with Minnesota and US DOT standards. The project was awarded \$20 million in FY 2022 RAISE grant funds and state economic development funds.
4/23-12/25	Bay Area Toll Authority (BATA), Asset Management Support Services On-Call, Bay Area, CA - Lead Lifecycle Cost Analyst. HDR was selected by BATA to provide Asset Management Support Services for the seven state-owned toll bridges in Northern California. These long-span bridges vary significantly in age and type. BATA desired to study their 50-year needs to make cost-effective investments and identify reasonable expenditures on these bridges. The HDR team was engaged to conduct a detailed evaluation of the bridges and their lifecycle costs to inform BATA’s first Toll Bridge Asset Management Plan. Marissa led lifecycle cost modeling development and used it to evaluate investment scenarios for each structure, documenting the results.

16. Staff Experience:

Firm employed by		HDR Engineering, Inc.		
Name	Rachel Bernhard, P.E., CVS		Years of relevant experience with this employer	9
Title	Value Engineering/Project Risk Management Director		Years of relevant experience with other employer(s)	3
Degree(s) / Years / Specialization			B.S. / 2016 / Biological Systems Engineering B.S. / 2016 / Global Resource Systems	
Active registration number / state / expiration date			PE#144950 / TX / 07-31-2027	
Year registered	2022	Discipline	Environmental Other Pertinent Certifications/Training Certified Value Specialist (CVS) (#202308001, expires 8-31-2029)	
Contract role(s) / brief description of responsibilities			Value Engineering Rachel has over a decade of industry experience. As HDR’s National Director of Value Engineering and Project Risk Management, she facilitates value engineering (VE), cost and schedule risk analysis (CSRA), and combined cost risk assessment and value engineering (CRAVE) workshops to enhance projects of all sizes. Rachel has led or served as a key team member for more than 170 VE and risk workshops for multiple agencies and municipalities across the United States and Canada. Her approach to VE brings specialized knowledge that reduces project costs and improves performance.	
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).			
05/24-08/24	TXDOT, State Loop 335 Segment D, Amarillo, TX - Value Engineering Lead. Rachel, as facilitator, led the VE team through the VM Job Plan to identify 15 alternatives to the \$573.35M baseline concept that could add value to the project. TxDOT will improve safety and accommodate future economic and community growth in Amarillo. Project components include providing adequate freight clearances to verify the safe transportation of industrial, commercial, and hazardous materials. Rachel led the team to identify \$50.12M in cost savings and improved performance by 54% by combining several VE recommendations into a VE strategy.			
03/25-06/25	Mississippi DOT, SR 27 Utica Bypass, Hinds County, MS - Value Engineering Lead. Rachel, as facilitator, led the VE team through the VM Job Plan to identify 13 alternatives to the \$220M baseline concept that could add value to the project. MDOT will improve safety by correcting existing design deficiencies and adding capacity to SR 27 as referenced in the Vision 21 program. Near the town of Utica, these improvements include realigning SR 27 south of the current intersection with the north leg of SR 27 and SR 18, and away from the existing south-leg intersection of SR 27 with SR 18. Rachel led the team in identifying a key recommendation to construct a 2+1 roadway section, saving the project \$58M in costs, which MDOT accepted for implementation.			
05/25-08/25	TXDOT, State Highway 4, Cameron County, TX - Value Engineering Lead. Rachel led the VE team through the VM Job Plan to identify 13 alternatives to the \$178M baseline concept that could potentially add value to the project. TxDOT will widen SH 4 for approximately 14 miles and provide a 3.75-mile bike path to increase traffic capacity, improve safety, address facility deficiencies, and enhance multimodal connectivity. TxDOT plans to utilize concrete pavement to improve maintainability and enhance pavement strength to accommodate rocket transport between the port and SpaceX Starbase.			
05/25-07/25	Dorchester County, US 78 Widening Phase 3A, Dorchester County, SC - Value Engineering Lead. Rachel led the VE team through the VM Job Plan to identify 13 alternatives to the \$102M baseline concept that could potentially add value to the project. The County will increase capacity along certain segments of US 78 and improve efficiency by reducing traffic delays. Since the workshop was held just prior to 90% design, Rachel focused the team on constructability and identified over \$12M dollars in potential cost savings.			

12/23-02/24	TXDOT, US 83 Laredo, Laredo, TX - Value Engineering Lead. Rachel, as facilitator, led the VE team through the VM Job Plan to identify ten alternatives to the \$56.5M baseline concept that could add value to the project. TxDOT will rehabilitate the existing highway and add passing lanes to improve safety and connectivity due to ongoing oilfield activity and an increased traffic flow associated with the Ports to Plains travel corridor. The project was at 100% design, so Rachel focused the VE team on implementable constructability improvements. Five recommendations were accepted by the District for implementation.
07/24-01/25	Utah DOT, I-15 from Farmington to Salt Lake City, Salt Lake City, UT - Value Engineering Lead. Rachel led the VE team, as facilitator, through the VM Job Plan to identify 21 alternatives to the over \$2B baseline concept that could potentially add value to the project, either through improved performance, cost savings, or a combination of both. Utah DOT will improve safety, replace aging infrastructure, improve mobility for all travel modes, strengthen the state and local economy, and better connect communities along I-15. The design-build project includes reconstructing five general-purpose and one high-occupancy toll lane in each direction, adding auxiliary lanes, numerous interchange and cross-street reconfigurations, and improving pedestrian and bicycle facilities. Rachel led the team to develop complementary combinations of individual VE recommendations into two VE strategies for implementation.
10/24-04/25	Berkeley-Charleston-Dorchester Council of Governments, Lowcountry Rapid Transit Operations and Maintenance Facility, Charleston, SC - Value Engineering Lead. Rachel, as facilitator, led the value team through the VM Job Plan to identify 11 alternatives and numerous design considerations for the \$37.8M baseline concept. The Berkeley-Charleston-Dorchester Council of Governments-sponsored project includes a 34,300-square-foot maintenance and operations facility for the 21.3-mile dedicated bus rapid transit corridor. The 5.21-acre lot includes bus maintenance and administrative spaces, a bus wash building with automatic drive-through bus wash and chassis, canopy bus storage for 60-ft buses, Battery-Electric Bus charging infrastructure, parking spaces, and above-ground stormwater detention.
11/25-02/26	Florida DOT, Iron Triangle, Miami-Dade County, FL - Value Engineering Lead. Rachel facilitated a VE on this \$120M project to address operational deficiencies, improve capacity to relieve congestion and accommodate projected increases in transportation demand, enhance safety, and improve the multimodal capabilities of the roadways. The Iron Triangle is a heavily traveled urban interchange that also features the intersection of the Greater Miami Expressway Agency (GMX) SR 112/Airport Expressway and provides access to and from the Miami International Airport. The project crosses the Miami Canal and traverses the City of Miami Springs, the City of Hialeah, the City of Miami, unincorporated Miami-Dade County, and the Village of Virginia Gardens. The assembled team of subject matter experts, led by Rachel, generated 52 creative ideas and developed five VE recommendations to identify over \$17M in cost savings and improved performance.
04/23-08/23	Minnesota DOT, US 53 Rock Ridge School, Miami-Dade County, MN - Value Engineering Lead. Rachel, as facilitator, led the VE team through the VM Job Plan to identify nine alternatives to the \$29.5M baseline concept that could add value to the project, either through improved performance, cost savings, or a combination of both. MnDOT and St. Louis County will improve the transportation network to support planned growth and development between US 53 and TH 37. The project also includes improving multimodal accommodations for pedestrians, bicycles, snowmobiles, and All-Terrain Vehicles (ATVs) to enhance school access safety.
04/20-06/20	USACE, Freeport Harbor Channel Improvements, Galveston, TX - Value Engineering Co-Facilitator, Technical Editor, Report Writer. Rachel was the assistant team leader and technical editor for a VE study on a project involving channel widening and deepening, bend easing, and the construction of turning notches. This \$202M project, divided into four economic reaches, will address the need for deeper access by enabling the existing fleet to load more fully, introducing larger vessels, and reauthorizing the upper reaches of the harbor. The VE team identified nine VE alternatives to add value to the project through cost savings, risk reduction, or performance improvement.
02/26-04/26	Colorado DOT, US 85 Sedalia, Sedalia and Castle Rock, CO - Value Engineering Lead. Rachel, as facilitator, led the VE team through the VM Job Plan to identify 22 alternatives to the \$83M baseline concept that could add value to the project, either through improved performance, cost savings, or a combination of both. Rachel also led the team in combining the best VE alternatives into a single VE Strategy that improved value by 63%. The project includes widening 4.5 miles of US 85 from two lanes to four lanes and is the last segment in the US 85 corridor widening. Major scope items include replacing 13 existing crossing culverts, upgrading drainage facilities, widening new PCCP, installing a 10-ft shared-use path, installing new retaining walls, acquiring right of way, and relocating utilities.

16. Staff Experience:

Firm employed by		HDR Engineering, Inc.		
Name	Andrew Cadmus, P.E.		Years of relevant experience with this employer	9
Title	Toll System Development and Operations Lead		Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization			M.S. / 2009 / Business Administration B.S. / 2004 / Civil Engineering	
Active registration number / state / expiration date			PE#0402059064 / VA / 03-31-2028	
Year registered	2018	Discipline	Professional Engineer	
Contract role(s) / brief description of responsibilities			Project Tolling; Tolling Implementation, Design, and Support Services Andrew is an engineer, project manager, and consultant with decades of experience in the public and private sectors of the transit, highway, and tolling industries. He has led multidisciplinary teams in the development and delivery of complex projects, including strategic consulting services, financial modeling, IT projects, and dashboards. Project management includes effectively coordinating across disciplines and overseeing and implementing project controls, scheduling, estimating, and project documentation to maintain a high level of quality while remaining on time and on budget. His projects have often included external and internal communication with stakeholders, requiring consensus-building and the development of trusted relationships. Andrew specializes in consulting for public agencies in transportation economics, data analysis, cost-benefit analysis, process improvements, capital cash flow management, and tolling operations. During his career, he also served as a design engineer, construction inspector, and project manager, providing him with a unique perspective on the full life cycle of roadway project development and delivery.	
Experience dates (mm/yy–mm/yy)		Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
07/17-08/18; 07/23-Present		Alabama Department of Transportation, Mobile River Bridge P3, Mobile, AL - Tolling Lead. Andrew is providing advisory services to the Alabama Department of Transportation for the Mobile River Bridge Public-Private Partnership project. These services have included developing policies and a revised draft of legislation for the new tolling agency within the state (Alabama Toll Road, Bridge, and Tunnel Authority). Andrew used these policies and legislation as the foundation to develop a Concept of Operations for the proposed facility. He continued supporting the project by adapting the Concept of Operations into procurement documents for a 50-year Design, Finance, Build, Operate, and Maintain (DFBOM) concession. These procurement documents include technical provisions for the procurement of a concessionaire, for contributing to the concessionaire agreement (contract), for the development of key performance indicators, and for other advisory services. Today, HDR is the engineering representative responsible for reviewing all designs and contract documents developed by the P3 partner. The procurement documents Andrew and his team developed have served as the foundation for that procurement.		
03/18-10/18		LADOTD, P3 Advisory Services – Belle Chasse Bridge and Tunnel Tolling Study, New Orleans, LA - Tolling Lead. HDR served as the P3 Advisor to LADOTD, evaluating the potential for tolling as a funding source for Louisiana’s transportation improvement program. The process involved qualitative screening of all projects on the five-year improvement program. Six projects were recommended from the screening, and the HDR team prepared capital cost estimates, revenue forecasts, and operations and maintenance estimates to test the feasibility of the most viable project. Andrew supported the analysis of the Belle Chasse Bridge and tunnel replacement as a potential toll facility. He supported the development of the Level 2 traffic and revenue study and developed a comprehensive cash flow model that included capital cost, operations and maintenance cost, and revenue forecasts. He advised on tolling policies, including providing discounts or exceptions for residents and military personnel, and on federal, state, and legislative requirements and how they could be used to support tolling.		

01/22-04/25	Connecticut Department of Transportation (CTDOT), Automated Work Zone Speed Control Pilot, Statewide, CT - Technical Lead. HDR provided design, procurement, implementation, operations, and maintenance services on this project as the Program Administrator representing CTDOT in the implementation of the pilot and oversight of the vendor deploying and operating the system (the System Administrator). This program was part of Senate Bill No. 1202, Public Act No. 21-2, which permits the Department to establish a two (2) year automated speed enforcement pilot program in active highway work zones at up to three locations in the state at any one time. HDR developed the request for proposal in “record time” to onboard an automated speed equipment vendor and operator. HDR also oversaw vendor compliance with system requirements, final design, testing, contract compliance, quality control, and performance metrics. The pilot went live with enforcement in April 2023 and concluded in January 2024. This program required significant coordination among CTDOT, the Connecticut Department of Motor Vehicles (DMV), the Connecticut Department of Emergency Services and Public Protection (DESPP), administrative courts, and regional/local entities. The pilot culminated in a final report to the Connecticut Legislature on the program's effectiveness. Due to the program's success and the public's positive reception, the legislature passed a bill to implement a permanent program.
11/21-Present	Hidalgo County Regional Mobility Authority, 365 Tollway System Procurement and Implementation, McAllen, TX - Tolling Project Manager. HDR is providing implementation services on this new project, which includes a 14.9-mile limited-access toll facility connecting the Pharr-Reynosa and Anzalduas International Bridges, the McAllen Foreign Trade Zone, and key industrial and warehouse areas in McAllen, Mission, and Pharr to relieve congestion and support cross-border trade. Andrew has led the project from concept development through procurement and ongoing implementation, including the concept of operations, preliminary design, business rules, system requirements, and procurement documents. He also led procurement support, including addenda, proposal evaluation, and Board vendor selection, resulting in a competitive, best-value procurement with five qualified proposers and a bid within the engineer's estimate. Andrew also led the development of a financial model tracking construction, general and administrative, bond, and operations and maintenance costs, including actual and forecast cash flows. He continues to oversee the toll system vendor through final design, development, testing, commissioning, and coordination with stakeholders and the third-party back-office provider. HDR added value by refining the design from a dual- to single-gantry solution and expanding vehicle classification capabilities to reduce capital cost and increase expected net revenue.
02/19-01/25	Metropolitan Transportation Authority, Bridges & Tunnels, Congestion Pricing Project, New York, NY - Deputy Program Manager (Phase 1). HDR provided engineering services on this project for the New York Central Business District Tolling Program, a cordon-based congestion tolling project covering Manhattan south of 60th Street. Cordon congestion pricing has only been implemented in a few major cities worldwide and will be the first of its kind in the US. The project includes the procurement of a design-build-operate-maintain (DBOM) contractor to install infrastructure and a roadside toll collection system. The resulting system will toll vehicles entering and remaining in the zone. Andrew coordinated various aspects of the project, including support for back-office and toll collection systems during the concept and procurement phases; led the development of the program cost estimates for capital and operations; and led the development of over a dozen policy white papers covering potential discount plans, business rules, tolling schemes, reporting, and FHWA coordination. His team produced the procurement documents on a very aggressive schedule and supported the TBTA in awarding the contract one month early. As the program manager, HDR has overseen the preliminary design and development of the infrastructure and toll system, as well as the environmental evaluation. The program went live on January 5, 2025, and has been successful in reducing congestion, pollution, and travel times.
08/21-07/23	Florida Department of Transportation, Managed Lanes General Engineering Support Contract, Statewide, FL - Tolling & Managed Lanes Consultant. HDR is providing engineering services for FDOT's Statewide Managed Lanes program on an as-needed basis. To date, Andrew has been the co-author of a four-hour training course on managed-lane alternatives, covering screening, design considerations, policy, planning, and other topics to support the evaluation, deployment, and operations of managed lanes in Florida. Andrew has also supported the high-level evaluation of three corridors for a variety of managed lane types, completed within days of the requests using readily available information.

16. Staff Experience:

Firm employed by HDR Engineering, Inc.				
Name	Amber Robinson, PWS		Years of relevant experience with this employer	13
Title	Environmental Practice Lead		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		B.S. / 2012 / Environmental & Sustainable Resources B.S. / 2008 / Business Management		
Active registration number / state / expiration date		N/A		
Year registered	N/A	Discipline	N/A	
		Other Pertinent Training / Certifications Professional Wetland Scientist (#3286, expires 10/22/2030)		
Contract role(s) / brief description of responsibilities		Environmental and Permitting Services Amber has over a decade of environmental experience with an emphasis on Federal and State permit and agency coordination[AS1.1] in support of bridge replacement and maintenance projects Technical areas of expertise include: delineation of waters of the US, US Corps of Engineers, Section 10 navigable waters and waters of the US permit coordination; Section 408 Engineering Review coordination, Parish/City floodplain permit coordination, State coastal use permit coordination, US Coast Guard bridge advance approvals and exemptions; NEPA documentation, T&E species habitat evaluations; wetland ecology assessments; and compliance monitoring. The Federal, State, and local permitting agencies she routinely works with include the USACE, USCG, USFWS, LaDEQ, LDWF, La Department of Conservation and Energy, Office of Coastal Management, and Parish and City Floodplain Administrators.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
04/26-06/26	Confidential Client, Pre-NEPA CRISI Grant Application Program; TX, LA, MS - Sr. Environmental Scientist. HDR is providing grant application advisory services to a confidential client for the 2026 cycle of Consolidated Rail Infrastructure and Safety Improvements (CRISI) Grants. Amber is providing quality control reviews of pre-NEPA documentation to support four CRISI grant applications. The pre-NEPA documentation Amber is reviewing includes a Class of Action Memo, Categorical Exclusion Worksheet, Permit Matrix, and resource exhibits.			
09/25-Present	Norfolk Southern Railroad, NS MP 5.2 Railway Bridge Maintenance Project, Orleans Parish, LA - Environmental Task Lead. Amber led a team of professionals to conduct a wetland delineation and habitat assessment (a threatened and endangered species survey) of the project area. She also led the preparation and is currently serving as the applicant agent of the Joint Permit Application to comply with Section 404 of the Clean Water Act and the Louisiana Coastal Management Program. She also led the development of the LDWF Natural and Scenic Rivers Permit Application. The applications were submitted in March of 2026. The OCM issued an exemption the same month of application submittal; the LDWF issued its permit in May of 2026; and USACE permit authorization is expected in June 2026.			
01/23-Present	CSX Transportation, LA Railroad Movable Bridge Program, Orleans & St. Tammany Parish, LA - Environmental Task Lead. Amber serves as the environmental permitting technical lead for professional permitting services for electrical upgrades, including the replacement of submarine cables, for three railroad movable bridges along the CSX NO&M corridor. The bridges crossed Chef Menteur Pass, the Rigolets, and Pearl River. Amber led a team of professionals who performed wetland delineation and habitat assessments (a type of threatened and endangered species survey) for each movable bridge maintenance project. She also led the preparation and served as the applicant agent of the Joint Permit Application to comply with Section 10 of the Rivers and Harbors Act and the Louisiana Coastal Management Program. Permitting is complete for movable bridge crossings at Chef Menteur and Pearl River.			

	Permitting of the Rigolets Movable Bridge crossing is still underway. Amber is also leading monthly compliance monitoring during construction for three projects.
07/23-Present	CSX Transportation, CSX NO&M Gulf Coast Hardening 20 Mile Project, CSX Transportation, Orleans Parish, LA - Environmental Task Lead. Amber serves as the technical lead for professional permitting services for the approximately 20-mile-long roadbed hardening project for the CSX railroad near New Orleans, Louisiana. The purpose of the roadbed hardening is to address the continual erosion of the embankment, which is exacerbated during hurricane conditions. Amber is leading a team of professionals responsible for a wetland delineation and habitat assessment (a type of threatened and endangered species survey) of the 20-mile project. She also led the preparation of the Joint Permit Application, including a mitigation plan, Hydrologic Modification Impact Assessment and Needs and Justifications Analysis. She serves as the applicant agent for CSX to assist with agency coordination, including hosting a pre-application meeting with the State of Louisiana, the USACE Vicksburg District, and the New Orleans District. Currently, she is responsible for leading permit compliance during the construction of a two-mile segment of the project.
03/21-Present	Illinois Central RR, Baton Rouge Subdivision MP 431 Bridge Reconstruction Permitting Project, Norco, LA - Environmental Scientist/Project Manager. Amber led the wetland delineation and habitat assessments, a type of threatened and endangered species survey, for the proposed project area, which will replace a railroad bridge crossing the Bonnet Carre Spillway at Milepost 431 on the Baton Rouge Subdivision. She also led the development and submission of a joint permit application, request for Section 408 review, request for USCG advance approval and lighting exemption, and draft Stormwater Pollution Prevention Plan for an 8,000-foot-long railroad bridge replacement project that spans the USACE's Bonnet Carré Spillway. She led the team that received authorization under Section 106 for an unmarked Civil War-era burial ground without the need for a costly excavation investigation. Authorizations were accomplished within 11 months of the original joint permit application submittal. The project is currently under construction and is expected to be completed by December 2026. Amber and her team are responsible for annual compliance monitoring of the project during construction.
07/16-01/24	Illinois Central RR, Bonnet Carré Spillway Bridge Replacement Project, La Place, LA - Environmental Scientist/Project Manager. Amber conducted the wetland and stream delineation and proposed jurisdictional determination in support of two proposed alternatives to replace a railroad bridge that crosses the Bonnet Carre Spillway at Milepost 891 on the McComb Subdivision, including preparation of a Preliminary Wetland Delineation and Proposed Jurisdictional Determination Report. She coordinated with the Louisiana Office of Coastal Management to complete the purchase of mitigation bank credits, finalized the Coastal Use Permitting process, prepared baseline and impact sections for an Environmental Assessment led by the USCG and USACE, and coordinated with the USACE Operations Division throughout project construction. Amber led compliance monitoring, including mitigation compliance for impacts to waters of the U.S. and a historic bridge, during construction, which was completed in May 2022. Amber worked with federal and State permitting agencies to close out the project in January 2024.
05/13-Present	Union Pacific Railroad, Bridge Replacement Program Field and Professional Permitting Services; LA, TX, and AR - Environmental Scientist/Project Manager. Amber conducted wetland and stream delineations and performed permitting evaluations for the replacement of more than 60 bridges in Louisiana, Texas, and Arkansas since 2013 in support of Union Pacific Railroad's ongoing bridge replacement program. Other project tasks have included vegetation community assessment, habitat mapping, hydrologic evaluation, permit coordination activities for USACE Nationwide and State of Louisiana Coastal Use Permits, and mitigation plan development and compliance. Amber develops permit application packages and coordinates permitting with State and Federal agencies. Additionally, she is tracking HDR's permitting efforts for Union Pacific Railroad, from site survey through construction, within a web-based permit tracking system for many bridge replacement projects in Louisiana.

16. Staff Experience:

Firm employed by				HDR Engineering, Inc.	
Name	Kyle Halligan, P.E.		Years of relevant experience with this employer		9
Title	ITS Team Lead		Years of relevant experience with other employer(s)		7
Degree(s) / Years / Specialization			B.S. / 2010 / Mechanical Engineering		
Active registration number / state / expiration date			PE#144976 / TX / 07-31-2027		
Year registered	2022	Discipline	Civil Engineer		
Contract role(s) / brief description of responsibilities			ITS Design & Support Kyle has served as a task lead for several Texas ITS projects leveraging his expertise in ITS, fiber optics, broadband, ATMS, and networking. His design experience includes traditional ITS deployments incorporating CCTV, DMS, and vehicle detector installations; fiber-optic middle- and last-mile communications; wireless communications; and tolling infrastructure.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
02/25-05/26	TxDOT El Paso District, Rural Rest Area Broadband Initiative, El Paso, TX - ITS Lead. Kyle supported the planning and design of broadband and communications infrastructure for remote rest areas as part of the El Paso District Rural Rest Area Broadband Initiative. Responsibilities included site investigation, evaluation of existing infrastructure, and development of communications and power design concepts. Kyle coordinated with TxDOT, a regional ISP, and federal partners to develop scalable, cost-effective solutions while confirming the design supports future ITS deployments such as real-time monitoring and traveler information systems.				
04/23-06/26	TxDOT Corpus Christi, US 77 Improvement Project, Sinton, TX - ITS Task Lead. Kyle is serving as the ITS Task Lead for the US 77 corridor expansion project near Sinton, Texas. The project includes deployment of new ITS infrastructure, such as CCTV, dynamic message signs (DMS), hub cabinets, and conduit systems for future fiber-optic installation. Kyle is responsible for developing device layouts, communications and power plans, as well as for coordinating with roadway design teams to integrate ITS elements into the corridor and improve safety and operations.				
05/23-04/25	TxDOT El Paso, Arcraft Road Improvement, El Paso, TX - ITS Engineer. Kyle is leading the ITS deployment for the Arcraft Road and IH 10 roadway improvements project. The ITS deployment includes closed-circuit television (CCTV), DMS, vehicle detectors, a road weather information system (RWIS), lane management systems, and fiber-optic cable to implement the ITS master plan and improve safety in the corridor.				
02/23-02/25	North Texas Tollway Authority (NTTA), Chisholm Trail Parkway, Fort Worth, TX - ITS Task Lead. Kyle is leading the development of ITS and tolling improvements along Chisholm Trail Parkway. These improvements include added CCTV coverage for automated incident detection, a new mainline toll gantry for the new lanes being constructed in the corridor, and fiber optic connections to existing devices impacted by the project.				
02/23-07/23	North Texas Tollway Authority (NTTA), Dynamic Message Sign (DMS) Gap Project, Dallas, TX - ITS Engineer. Kyle worked with designers to develop power and communications plans for 12 new DMS sites developed for NTTA. He met with NTTA representatives in the field to review and verify existing infrastructure to be used for the deployment of DMS sites.				
09/22-02/23	TxDOT Houston, FM 518 Signal Interconnect, Friendswood, TX - ITS Engineer. Kyle prepared fiber interconnect design plans for six signalized intersections. Kyle met with TxDOT staff and contractors in the field to establish new fiber-optic routes and connections despite limited as-built information for the existing fiber-optic network.				
03/21-04/22	Iowa DOT, Sioux City Fiber Network Verification, Sioux City, IA - ITS Engineer. The project consisted of field verification of existing fiber-optic network links in the Sioux City area, development of fiber-optic splicing repair plans, and development of updated fiber-optic network ring as-built documentation. Kyle conducted field visits to verify network links and architecture.				

05/18–02/20	Iowa DOT, IH-29 Improvement Fiber Optic Deployments, Sioux City, IA - ITS Engineer. Kyle developed fiber-optic splicing and testing plans for the newly installed fiber. Two separate splicing packages were put together, and HDR provided oversight of splicing operations. HDR also provided two device deployment plan packages for ITS devices in the area.
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16. Staff Experience:

Firm employed by		HDR Engineering, Inc.		
Name	Garland Pennison, PhD, P.E.		Years of relevant experience with this employer	13
Title	Senior Project Engineer Professional Associate		Years of relevant experience with other employer(s)	33
Degree(s) / Years / Specialization			PhD / 2020 / Systems Engineering M.S. / 1993 / Environmental & Water Resources Engineering B.S. / 1979 / Civil Engineering	
Active registration number / state / expiration date			#PE.0020931 / LA / 09-30-2026	
Year registered	1983	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities			Hydraulics / Drainage Garland has over four decades of experience in project planning, engineering, design, and management across diverse civil and coastal infrastructure projects. His previous work experience with other employers included numerous LADOTD transportation and bridge hydraulic projects. His diverse experience includes transportation, coastal, urban land-use, and infrastructure design and planning projects. He has expertise in hydrodynamic and numerical modeling of complex coastal, estuarine, and riverine systems. Garland is a PhD graduate in systems engineering from the University of South Alabama, with research focused on coastal transportation systems and the physical damage caused by intensifying coastal hazards, including bridge spans damaged by storm surge.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
10/19-Present	LADOTD, Louisiana Watershed Initiative (LWI) Modeling Region 5, South Central Parishes, LA - Project Manager. Garland led the development of hydrologic and hydraulic (H&H) models for the LWI Region 5, which covers the Atchafalaya, Bayou Teche, Vermilion, Mermentau, and Mermentau Headwaters HUC-8 watersheds. The project involves assessing drainage conditions over 10,000 square miles using HEC software and incorporating coastal ADCIRC data as modeled boundary conditions. The watershed models are the most advanced to date for this complex coastal region. Task Order 4 developed design storms and consequence models for the entire 16-parish Region 5 boundaries. Work is ongoing on Task Order 5 which involves cataloging and applying models to proposed improvements.			
01/23-Present	Lafayette Consolidated Government (LCG), Bridge Hydraulic Studies, Lafayette City Parish, LA - Project Manager. Garland is completing FEMA analyses of proposed bridge hydraulics for various LCG projects. This includes evaluating existing and proposed FEMA models for no-rise certifications associated with proposed bridge hydraulics, and submitting a letter of map revisions in the event FEMA flood insurance maps require revision. This requires an extensive knowledge of drainage systems within the Vermilion and Mermentau watersheds.			
06/24-Present	LCG, Vermilion Watershed Hydraulic Studies, Lafayette City Parish, LA - Project Manager. Garland is completing hydrologic and hydraulic analysis of various existing and proposed improvements within the Vermilion and Mermentau watersheds. This includes evaluating existing and proposed RAS 2D models for various major drainage improvements and/or modifications within the watersheds. This requires applying complex H&H models to evaluate impacts on existing and future drainage conditions.			
07/15-02/17	Bayou Lafourche Freshwater District (BLFWD) Union Pacific Railroad Bridge, Donaldsonville, LA - Project Manager. The project consists of replacing existing culvert crossings with a new railroad bridge, in a fast-track effort to remove flow restrictions and increase freshwater supply capacity from the Mississippi River through Bayou Lafourche. Garland completed RAS analysis for alternative bridge designs. A five-span bridge was designed by HDR and installed during a 72-hour UPRR-programmed track stoppage window.			

01/15-05/17	Pennsylvania Department of Transportation, Rapid Bridge Replacement Program, Statewide, PA - H&H Team Lead. Garland led a modeling team that provided hydrologic and hydraulic analysis and design support for a fast-track design-build program involving 550+ bridge replacements. Models included hydrology, RAS 1-D, scour analysis, and environmental design requirements.
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16. Staff Experience:

Firm employed by		HDR Engineering, Inc.		
Name	Donald (Don) Hendon, P.E., CFM		Years of relevant experience with this employer	6
Title	Hydraulics/Hydrology & Coastal Project Mgr.		Years of relevant experience with other employer(s)	12
Degree(s) / Years / Specialization			M.S. / 2015 / Civil Engineering (Coastal Emphasis) B.S. / 2013 / Civil Engineering (Coastal and Environmental Emphasis)	
Active registration number / state / expiration date			#PE.0044893 / LA / 03-31-2027	
Year registered	2020	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities			Hydraulics / Drainage Don has experience in the analysis and design of hydraulic structures while leveraging advanced numerical hydrodynamic modeling technologies. His project work spans riverine and coastal environments and includes bridges, culverts, levees, and weirs. His expertise covers hydraulic bridge design, scour analysis for new and existing structures, evaluation and design of countermeasures, floodplain analysis, riverine modeling, moving-vehicle impact analysis, spectral wave and storm-surge modeling, and hydraulic loading assessments. Don contributed to the FHWA’s EDC initiative, C.H.A.N.G.E., providing assistance to state DOTs in implementing 2D hydraulic modeling.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
10/21-04/22	LADOTD, Louisiana Watershed Initiative, Region 5, LA - Hydraulic Engineer. The project analyzed watershed flow patterns to determine how precipitation will affect infrastructure. Don oversaw the hydrologic modeling portion using HEC-HMS and worked with multiple junior staff members. He conducted quality control reviews of their HEC-HMS models for Region 5 in the Lafayette area.			
02/22-02/24	Mississippi Department of Transportation (MDOT), SR 53 Bridge Hydraulic Design, Harrison County, MS - Project Manager. Don oversaw design of the replacement of two structures in the Wolf River’s one-mile-wide floodplain, which contains a FEMA Regulatory Floodway. He developed the design based on the SRH-2D model and prepared a no-rise certification for the floodway.			
01/20-12/20	MDOT, I-20 Emergency Scour Countermeasure Design, Warren County, MS - Project Manager/Hydraulic Engineer. The project addressed the rapid bank instability that threatened the bridge structure. Due to the complex nature of the flow, Don performed a 2D hydraulic analysis using SRH-2D. He also designed a countermeasure solution to bank instability. This project had an accelerated timeline. The design was completed less than a year after MDOT was notified of the problem, and a couple of months later, the countermeasure was in place.			
09/22-06/23	VDOT, Route 156 over the James River, Benjamin Harrison Bridge, Jordan Point, VA - Hydraulic Engineer. Provided final design services for the full replacement of the fender system on the Benjamin Harrison Bridge over the James River with a total of eight 30-foot-diameter dolphin structures: four to the left (north) of the main channel and two connected by a fender system protecting the main span piers, which are located at the edge of each side of the main channel. Don performed the hydrologic, hydraulic, and scour analysis. He developed an SRH-2D model for this project.			
08/22-12/24	MDOT, Bridge Scour Evaluations, Hancock County, MS - Project Manager/Hydraulic Engineer. Don performed a qualitative and quantitative hydrologic/hydraulic analysis of three sites on the Mississippi Gulf Coast. He developed an SRH-2D model for each site and a MIKE21 storm-surge/spectral-wave model for the area to determine the parameters required for scour analysis at the three locations.			
08/22-12/24	MDOT, Bridge Designs and FEMA No-Rise, Harrison County, MS - Project Manager/Hydraulic Engineer. Don led hydraulic analysis and design support for the replacement of two SR 53 bridges over Wolf River Relief and Mill Creek. He developed 1D/2D models (HEC-RAS and SRH-2D) to evaluate floodplain connectivity, overtopping dynamics, and bridge hydraulics, supporting span selection and scour countermeasures; achieved FEMA no-rise certification for the Mill Creek floodway crossing.			

16. Staff Experience:

Firm employed by				HDR Engineering, Inc.			
Name		Mitchell Wisniewski, P.E.		Years of relevant experience with this employer		14	
Title		Sr. Electrical Engineer		Years of relevant experience with other employer(s)		23	
Degree(s) / Years / Specialization				BS / 1988 / Applied Science and Technology Certificate / 1981 / Electrical Technology			
Active registration number / state / expiration date				PE#087778 / NY / 11-30-2027			
Year registered		2010		Discipline		Electrical	
Contract role(s) / brief description of responsibilities				Roadway & Aesthetic Lighting Mitchell has over 30 years of electrical engineering experience, largely focused on electrical power and control systems for heavy movable structures in marine and industrial environments, associated electromechanical systems, and related support technology. His recent project focus includes supporting design-build projects, providing electrical systems for fixed bridges. He has performed inspection, review, and/or design work for more than 100 movable highway and railroad bridges. He is involved in each project phase, including inspection, planning, design, and construction.			
Experience dates (mm/yy–mm/yy)		Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).					
04/24-Present		FHWA, Fundamental Research Support Services for the FHWA Office of Bridge Technology, Washington, DC - Principal Investigator. Mitchell provides guidance to owners, structural engineers, and inspectors on the basics of movable-bridge electrical systems, interviews movable-bridge owners, recommends inspection scope/interval for movable-bridge electrical elements, and develops inspection and coding methods for movable bridges that conform to the NBIS. The overall scope of this research project involves developing guidance and training documents for safety inspection and evaluation of functional systems for highway tunnels and movable bridges.					
05/24-Present		NY Thruway Authority, Larchmont Parking Deck Tunnel, Larchmont, NY - Senior Electrical Engineer / Engineer of Record. Mitchell oversaw and guided junior staff through design and construction services for the complete replacement of a tunnel lighting system. The electrical design replaced all power distribution, lighting, and lighting control equipment and updated the prior installation to modern standards, including the current IES RP-8-22 recommendations and current NFPA 70 and 502 requirements. Electrical service was upgraded from 208V to 480V.					
07/24–01/25		NJDOT, Route 88 Bridge over the Point Pleasant Canal, Point Pleasant, NJ - Detail Checker / QC Reviewer. Mitchell performed a detailed check and quality review of the electrical design for replacing submarine cables with aerial cables for movable bridge operation. The design included termination schedules, riser cabinet details, a cable-and-conduit block diagram, and machinery room layouts.					
06/22-Present		NJDOT, Route 52 Causeway Bridge Accent Lighting Replacement, Somers Point and Ocean City, NJ - Senior Electrical Engineer. Mitchell guided junior staff through the design and construction of a replacement aesthetic lighting system for the Route 52 Causeway Bridge. The electrical design effort included a field investigation to identify failure points in the existing system, the selection of new materials, and the design of a complete replacement system to address the prior failures.					
11/22 and 11/24		NJDOT, Elevator Replacement, Route 1 and 9 Bridges over the Passaic and Hackensack Rivers, Newark, South Kearny, and Jersey City, NJ - QC Reviewer. Mitchell performed a quality review of project plans and reviewed construction submittals for compliance with the design documents. The project entailed the design and replacement of four vertical-lift bridge elevators for the Route 1 and 9 Truck (vertical-lift) Bridges over the Passaic and Hackensack Rivers. The design included power distribution, lighting, fire alarm equipment, and cables and conduits.					

03/2019-Present	Connecting Miami (Construction Joint Venture of Archer Western-de Moya), I-395 Signature Bridge, Miami, FL - Senior Electrical Engineer. Mitchell guides junior staff, coordinates with multiple HDR offices and subconsultants, and collaborates with other engineering consultants for electrical engineering support to design the electrical systems for a signature bridge as part of FDOT's \$803M design-build project. The electrical design includes providing power, conduit, and/or wiring for aesthetic lighting, FAA obstruction lighting, maintenance lighting, ITS, and a structural health monitoring system for the bridge's six arches, northbound and southbound superstructure, and electrical and control rooms. Coordination efforts were also provided for support of corrosion monitoring and corrosion protection systems. Construction support is being provided in addition to the design effort. HDR is the engineer-of-record for the signature bridge, which will feature the largest precast concrete segmental arch in North America and the third largest in the world. The tallest of the bridge's six arches will soar 325 feet above the ground and span 650 feet across.
10/21 and 12/24	SCDOT, Wappoo Creek Bridge, Charleston County, SC - Lead Electrical Engineer. Mitchell led the electrical engineering for the rehabilitation of the span lock system for a highway bascule bridge carrying SC Route 171 over the Intracoastal Waterway. Project requirements included minimizing highway traffic outages while implementing power and control system modifications to accommodate the replacement of three of seven existing span locks and to create a control system mode that allows changing the operational status of four of the seven existing span locks by operating a switch.
07/23-07/23	SDOT, Ship Canal Bridge, Seattle, WA - QC Reviewer & Senior Electrical Engineer. HDR assisted SDOT in prioritizing the modernization of bascule bridge operational components for the University, Fremont, and Ballard Ship Canal Bridges to improve safety and reliability. Mitchell provided a quality review of an electrical field inspection report.
09/23-09/23	VDOT, Benjamin Harrison Bridge Span Drive Repair, Jordan's Point and Charles City, VA - Senior Electrical Engineer. Mitchell assisted in procuring emergency repair parts and developed a schematic diagram with instructions for configuring substitute parts to perform the function of a failed, obsolete part, and restore operation of the main movable bridge drive system. This effort was part of a larger scope that included providing consultations and assistance during operations to diagnose and/or resolve movable-bridge operational issues involving mechanical and electrical systems, such as drive machinery, electrical systems, and gates.
12/21-12/21	BNSF, Berwick Bridge, Morgan City, LA - Lead Electrical Engineer. Mitchell led electrical engineering for the replacement of four variable-frequency drives (VFDs) for a tower-drive vertical-lift bridge. The technical effort included encoder replacement, construction staging design, and integration of the new drives into the existing PLC-based control system. Project goals included minimizing marine or rail traffic outages during staging of the replacement of primary and backup drives.
04/20-05/20	LADOTD, IDIQ Bridge Inspections, Pineville, LA - QC Reviewer. Mitchell performed a QC review of bridge inspection reports for two lift bridges. The project consisted of structural, mechanical, and electrical inspections of complex structures, including cantilever trusses, cable-stayed bridges, steel vertical-lift bridges, and plate-girder bascule bridges, for statewide projects.
04/17-04/17	HAKS / NJDOT, Movable Bridge Inspections, Various Locations, NJ - QC Reviewer. Mitchell performed a QC review of the electrical field inspection report.
09/17-10/17	HAKS / CONNDOT, 2016 Movable Bridge Inspection, New Haven, CT - QC Reviewer. Mitchell performed a QC review of the electrical field inspection report.
08/11-11/15	VDOT, Moveable Bridge On-Call Contract, Various Locations, VA - Senior Electrical Engineer. The project includes 13 movable bridges: vertical-lift, swing, and bascule designs. Mitchell responded to emergencies (operational failures), conducted field inspections, prepared rehabilitation scoping reports, prepared permitting packages, prepared rehabilitation designs/contract documents, and provided contractor oversight during construction.

16. Staff Experience:

Firm employed by HDR Engineering, Inc.				
Name	Jacob Porter, EIT		Years of relevant experience with this employer	11
Title	Electrical EIT		Years of relevant experience with other employer(s)	11
Degree(s) / Years / Specialization			B.S. / 2015 / New Jersey Institute of Technology	
Active registration number / state / expiration date			#EIT-04483 / NJ / 01-11-2032	
Year registered	2022	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Roadway Lighting Design Lead	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
11/25-Present	NY Thruway Authority, Larchmont Parking Deck Tunnel, Yonkers, NY - Electrical EIT / Lead Electrical/Lighting Designer. The electrical portion of this effort involves redesigning the lighting along the 2.6-mile section of I-87. The drafting for this effort was done in MicroStation, meeting NYSDOT CAD Standards, and Lighting Calculations were done in AGi32. Jacob performed lighting calculations, drafting, and electrical calculations.			
06/25-04/26	Ohio Department of Transportation (ODT), Craig Memorial Bridge Rehab, Toledo, OH - Electrical EIT / Lighting Designer. Jacob provided interior lighting that meets AASHTO compliance requirements for the working spaces in the electrical/mechanical areas of this structure. He calculated lighting in AGi32 and drafting in MicroStation. He also provided load and voltage drop calculations.			
05/24-Present	NY Thruway Authority, Larchmont Parking Deck Tunnel, Larchmont, NY - Electrical EIT / Lead Electrical/Lighting Designer. The electrical portion of this effort is a redesign of the existing tunnel structures' lighting, which was not in operable condition per modern IES RP-8-22 recommendations and NFPA 70 and 502 requirements. This included an updated service to 480V from the existing 208V. The existing lighting and conduit for that system are to be removed and replaced with a new and modern tunnel lighting control system. The drafting for this effort was done in MicroStation, meeting NYS DOT CAD Standards, and Lighting Calculations were done in AGi32. Jacob performed lighting calculations, drafting, and electrical calculations.			
11/24-05/25	New York City Department of Sanitation (DSNY), Bronx Districts 9/10/11 Garage, New York City, NY - Electrical EIT / Lighting Designer. The electrical efforts consisted of providing lighting calculations in Visual Lighting 2022 for the roadways along the new structures to assess whether the proposed utility pole locations with new roadway arms would provide adequate lighting per NYCDOT Division of Street Lighting standards. Jacob performed lighting calculations, drafting, and electrical calculations.			
06/22-Present	NJDOT, Route 52 Causeway Bridge Accent Lighting Replacement, Somers Point and Ocean City, NJ - Electrical EIT / Lighting Designer. The electrical portion of this effort was to evaluate in the field the possible cause of failure, document existing conditions, and provide new power and controls for the proposed light fixtures, addressing the current issues with the failing system. This included drafting drawings in MicroStation and preparing an engineering estimate. Jacob performed drafting and electrical calculations for this effort.			
06/22-Present	Amtrak, Rotational ADA Amtrak Contracts, USA - Electrical EIT / Lead Electrical/Lighting Designer. This effort consists of several active contracts with Amtrak for rehabilitation or establishing new Platforms to meet ADA compliance in various cities across the US (Columbus WI; Taylor and Mineola, TX; Price, WV; Paul’s Valley and Ardmore, OK; Niles, Dowagiac, East Lansing, and Battle Creek, MI; Santa Clara and Pomona, CA; Camden, Denmark and Dillon, SC; Hamlet NC; Detroit Lakes, MN; Wisconsin Dells, WI; Williamsburg and Lynchburg, VA; Hammond, LA; Creston, IA; Altoona, PA; and Gallup, NM). The electrical portion consists of providing lighting, power, and controls to meet Amtrak lighting requirements while avoiding glare for the conductor. Some fieldwork was also conducted to establish existing conditions and document any items that were not present on the survey. The lighting design was performed in Visual Lighting 2020/Ag32, and the Design Drawings were prepared in AutoCAD and Revit. Specs were also provided as part of this work. Jacob performed lighting calculations, drafting, and electrical calculations.			

11/17-Present	New York City Department of Parks and Recreation (NYCDPR), Rotational Parks Projects, New York City, NY - Electrical EIT / Designer. The electrical efforts include removing existing lighting assemblies and designing new lighting for the playground area. This has required coordination with the NYC DOT DSL (Division of Street Lighting) and other disciplines to verify lighting calculations meet current standards and to address any obstructions from utilities and structures. This project is currently working towards the 100% submission. This effort has included electrical design documentation, AutoCAD drafting, lighting design using Visual 3D Lighting (VSL), cost estimating, voltage drop calculations, and conduit fill calculations. Jacob performed lighting calculations, drafting, and electrical calculations.
06/19-08/21	US Army Corps of Engineers (USACE), New York District, Coastal Storm Risk Management Project, Contracts 3, 5, and 6, New York City, NY - Electrical EIT / Designer. The electrical effort for this project consisted of lighting the promenade along the flood wall and providing power and controls for the flood gates. This required coordination with the mechanical and structural teams to verify the loads and locations of the new equipment, as well as to implement various design changes. This effort has included electrical design documentation, AutoCAD drafting, lighting design in Visual 3D Lighting (VSL), voltage drop calculations, and conduit fill calculations. Jacob performed lighting calculations, drafting, and electrical calculations.
05/18-03/19	New York City Department of Transportation (NYC DOT), 11th Ave., New York City, NY - Electrical Designer. The electrical effort for this project consisted of removing the existing electrical infrastructure on the bridge section of 11th Ave between 33rd and 35th streets. This required coordination with the NYC DOT DSL (Division of Street Lighting), the Jacob Javits Center, and other disciplines to verify that the lighting calculations meet current standards, handle existing lights on the Javits Center property, and address any obstructions to the new structural system. This project is on indefinite hold at 90% by NYC DOT due to a construction plan that conflicted with other ongoing projects in the area. This effort included electrical design documentation, AutoCAD drafting, lighting design using Visual 3D Lighting (VSL), cost estimating, voltage drop calculations, and conduit fill calculations. Jacob performed lighting calculations, drafting, and electrical calculations.
01/17-05/20	New York City Department of Transportation (NYC DOT), Riverside Drive, New York City, NY. Electrical Designer. The project included redesigning and calculating lighting for roadways and sidewalks. Included in this was a refurbishment of the control box and the redesign of the electrical infrastructure in the roadway decking, while preserving the historic parapet fixtures. The project involved coordinating with the structural and civil disciplines, as well as the NYC DOT Division of Street Lighting (DSL), to accomplish this effort. The design of the new sidewalk and roadway lighting complied with the NYC DOT Division of Street Lighting (DSL) standards. This effort included electrical design documentation, lighting design using AGi32, cost estimating, voltage drop calculations, construction support (requests for information and submittals), and conduit fill calculations. Jacob performed lighting calculations, drafting, and electrical calculations.
05/18-07/19	New Jersey Department of Transportation (NJ DOT), Route 19, Patterson, NJ - Electrical Designer. The electrical effort for this project was to examine existing conditions at various intersections and determine whether they met the state's lighting requirements. Where it was determined that the existing design did not meet the requirements, a new design was constructed using a mix of new and existing lights to meet the requirements. Lighting calculations were performed in Visual-3D, and CAD was performed in MicroStation. New electrical design documentation was generated for each new or modified area. Jacob performed lighting calculations, drafting, and electrical calculations.

16. Staff Experience:

Firm employed by		HDR Engineering, Inc.		
Name	Brian Blanchard, P.E.		Years of relevant experience with this employer	7
Title	Area Highways Market Sector Leader		Years of relevant experience with other employer(s)	37
Degree(s) / Years / Specialization			B.S. / 1982 / Engineering	
Active registration number / state / expiration date			PE#39029 / FL / 2-28-2027	
Year registered	1988	Discipline	Professional Engineer	
Contract role(s) / brief description of responsibilities			Quality Control/Peer Reviews Brian is a practicing professional engineer with over 40 years of public and private experience, including providing executive leadership to help build the Florida Department of Transportation’s work program, managing district operations, and working with transportation agencies throughout the US through AASHTO. Prior to joining HDR, Brian spent 8 years as the FDOT Assistant Secretary, 3 years as the Chief Engineer, and held many other positions in the Central Office and the District. He helped shape the agency's direction and led FDOT with a work program budget exceeding \$10B in one of the fastest-growing states. Brian has experience leading an agency to be innovative, engaging employees and consultants, and aggressively pursuing alternative contracting techniques and emerging technologies. His career has focused on all phases of transportation projects, including initial project development, design, construction, and maintenance.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
10/20-10/25	FDOT Central Office, Structures Review Contract, Statewide, FL - Principal in Charge. HDR served as the owner’s representative for independent design reviews on design-build projects. This contract provided support services for the department’s structures design office with expertise in the design and review of rail bridges, segmental concrete bridges, steel box or steel I-girder superstructures, and other Category 2 bridges, and bridge substructures. Brian provided executive oversight of the contract, confirming overall performance, client coordination, and adherence to quality standards while guiding technical delivery and supporting quality assurance efforts. Brian also provided peer and project reviews, and quality control/quality assurance effectiveness reviews for the overall contract, including the independent design reviews (I-75 over the Manatee River, Dupont Bridge on US 98, etc.).			
02/23-Present	ALDOT, Mobile River Bridge Project, Mobile, AL - Principal in Charge. HDR is serving as the owner’s representative for ALDOT's design submittal reviews on this progressive design-build project. Brian provided executive oversight of the contract, confirming overall performance, client coordination, and adherence to quality standards while guiding technical delivery and supporting quality assurance efforts. Brian provided peer reviews of the overall contract, including quality control and cost-estimating support for initial planning and federal grant applications for the project.			
09/19-09/22	Florida’s Turnpike Enterprise, Northern Turnpike Corridor Owner’s Representative, Marion, Sumter, Citrus, and Levy Counties, FL - Program Manager. HDR served as the owner’s representative to Florida’s Turnpike Enterprise for the Northern Turnpike Corridor (NTC), part of the Multi-use Corridors of Regional Economic Significance (M-CORES) Program. The NTC will extend Florida’s Turnpike (SR 91) from its current terminus at Wildwood in Sumter County to the Suncoast Parkway, approximately 40 miles. As owner’s rep, HDR was performing program management, task force support, public involvement, planning, and corridor analysis. Brian oversaw the task force meetings, public involvement, planning, and corridor analysis.			

16. Staff Experience:

Firm employed by				HDR Engineering, Inc.	
Name	Francis Diegelman, P.E.			Years of relevant experience with this employer	16
Title	Texas Gulf Coast Construction Services Lead			Years of relevant experience with other employer(s)	25
Degree(s) / Years / Specialization			B.S. / 1987/ Civil Engineering		
Active registration number / state / expiration date			PE#136250 / TX / 09-30-2026		
Year registered	2019	Discipline	Civil		
Contract role(s) / brief description of responsibilities			Construction Support Francis has decades of experience in construction management, quality management, and inspection of small to large construction projects throughout the Country. He has managed bridges, highways, and light transit, as well as the quality programs for large highway projects. He has extensive experience with a variety of construction management software programs and a background in roadway, traffic, and bridge design, enabling him to effectively manage construction processes for a range of structures and facilities.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
07/25-06/26	HCTRA, Beltway 8 Segment 2 Barrier Free Project, Harris County, TX - Resident Engineer. This project consists of widening, rehabilitation, and the addition of new tolling facilities along 6.2 miles of the Sam Houston Tollway. Francis provided constructability reviews of the 60%, 95%, and 100% design drawings.				
12/20-08/21	TxDOT Odessa, US 285 Widening, Odessa, TX - Construction Manager. The US 285 widening project consisted of approximately 15 miles of widened highway with new drainage and expanded intersections. Francis conducted field inspections to determine paving limits, wrote project correspondence and meeting minutes, and assisted the inspection staff with plan interpretation.				
01/21-08/21	TxDOT El Paso, Culberson County Safety Rest Area, Van Horn, TX - Construction Manager. The project consisted of constructing a \$25M IH-10 rest area. Francis generated cost estimates and wrote project correspondence. He also generated a cost analysis to expand the proposed parking lot to accommodate additional tracker-trailer parking.				
06/17-01/20	Arizona Department of Transportation, South Mountain Freeway, Phoenix, TX - Quality Manager (Design and Construction). The \$1.05B South Mountain Freeway project consisted of 22 miles of new freeway, 41 new bridges, new MSE retaining walls, and the relocation of various utilities. Francis provided direct oversight of quality processes, generated and updated quality checklists, created the quality management plan, managed construction inspectors and testing technicians, facilitated quality-related meetings, and provided oversight of the independent quality firm.				
02/20-11/20	TxDOT, I-635 LBJ East Freeway, Dallas, TX - Quality Manager. This \$1.7B design-build project consisted of the reconstruction of over 11 miles of freeway, the reconstruction of the I-30 Interchange, the construction of 48 bridges, including a steel arch structure, the installation of new sanitary sewer lines, the replacement of waterlines, and the construction of numerous soil nail and MSE walls. Francis directly oversaw the project's construction quality process, managing the construction quality coordinators, overseeing the IQF firm, and developing, maintaining, and managing the project's construction quality management plans.				
08/21-06/25	San Francisco Public Utilities Commission (PUC), New Headworks Facility, San Francisco, CA - Field Contract Administrator/Construction Manager. This project consisted of constructing a new \$650 million sanitary sewer facility. Francis reviewed contractor-submitted RFIs for potential extra costs, negotiated with the contractor regarding change orders and extra work requests, wrote change orders, coordinated with the client on contractual changes and changes in contract cost, and worked with inspection staff on change-order modifications.				

16. Staff Experience:

Firm employed by		Gresham Smith, Inc.	
Name	Richard Savoie, P.E.	Years of relevant experience with this employer	7
Title	Senior Roadway Engineer	Years of relevant experience with other employer(s)	40
Degree(s) / Years / Specialization	B.S. / 1978 / Civil Engineering		
Active registration number / state / expiration date	#PE.0020936 / LA / 09-30-2026		
Year registered	1983	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities	Senior Roadway Engineer (Satisfies MPR #10) Richard will assist the roadway design teams and provide QA/QC. Richard has a wealth of experience from his past employment with the LADOTD in progressively increasing roles, culminating as the LADOTD Deputy Chief Engineer and Chief Engineer. He spent 26 years in the LADOTD Road Design section where he supervised employees designing roadway projects and also supervised consultants designing roadway projects for the department. As Chief Engineer, Richard was responsible for establishing engineering directives and standards, policies, budgets, expenditures, programs and procedures that guided project and program delivery, construction, and preservation of transportation projects and systems.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
03/21-04/24	Louis Armstrong New Orleans International Airport (MSY), Task 4: Entrance Road Capacity, Kenner, LA - Senior Engineer. Gresham Smith is currently providing design and project management for the City of New Orleans to widen the main exit road at MSY from 2 lanes to 3 lanes. The project included the widening of approximately 1/4-mile of roadway, extending the roundabout slip lane exit from the roundabout and tying into the design-build flyover project currently under construction (S.P. H.011670). The completed widened road will connect the design-build freeway operated by LADOTD to the existing roundabout on the airport property, improving the flow of traffic from MSY. Richard performed Quality Control reviews on the final preliminary design submission and oversaw Quality Control during the final design process.		
09/18-12/20	LADOTD, SRTS/LRSP Task Order 6 and 21: Endom Bridge Preliminary and Final Design, West Monroe, LA - Senior Engineer. The project consisted of roadway realignment at the bridge approach to improve roadway geometry and safety. Right-of-way was acquired at one quadrant of the intersection and Richard assisted with the coordination between the right-of-way plans and the roadway requirements. Richard also performed Quality Control reviews on the final preliminary design submission and oversaw Quality Control on the final design process.		
04/20-11/22	City of Central (LA), Hooper Road (LA 408) at Sullivan Road (LA 3034) Roundabout Design - Senior Engineer. Gresham Smith was tasked with the full roundabout design which was in accordance with LADOTD's Roadway Design Manual geometric requirements and LADOTD's Complete Streets Policy to accommodate both pedestrians and bicycles through this intersection. Richard was responsible for overall Quality Control on the project. He mentored the engineering staff on the field evaluation requirements, reviewed all potential improvements, and performed QC reviews on the preliminary and final design plan submissions.		
08/22-Present	City of Gonzales, US 61 Superstreet (Lowes Ave to LA 44), Gonzales, LA - Project Manager. Gresham Smith is currently performing the design to convert this section of US 61 to a Superstreet. This design will remove all of the uncontrolled median breaks and replace them with directional median U-Turn or J-Turn with exclusive turn lanes. These J-Turns will be controlled by a 2 phased traffic signal which will only stop one direction of US 61 so that the U-Turns can be made. Additionally, the existing signalized intersection of US 61 at Lowes and US 61 at LA 44 will be converted to Restricted Crossing U-Turns (RCUTs).		
06/21-01/24	EBR DTD, MOVEBR Plank Road Corridor Enhancement, Baton Rouge, LA - Project Manager. Gresham Smith was selected to perform the corridor enhancement of Plank Road between Dawson Drive to Harding Boulevard. This project included a topographic survey, a design study for bicycle and		

	pedestrian facilities, improved drainage, transit facilities, new traffic signals and street lighting. Presently under construction, the project will result in a revitalized corridor with improvements for all users. Richard managed the project on a day-to-day basis and led the coordination with sub-consultants.
09/18-01/20	LADOTD, SRTS/LRSP Task Order 18: Denham Springs Striping Design, Livingston Parish, LA - Senior Engineer. This project includes the site evaluation of 9 local roadways with the highest accident rate history in the City of Denham Springs. Gresham Smith performed ball bank evaluations for every curve on the 9 routes and evaluated driveway locations, intersection geometry and signing issues. Richard was responsible for overall Quality Control on the project. He mentored the engineering staff on the field evaluation requirements, reviewed all potential improvements, and performed QC review on the preliminary and final design plan submissions.
10/18-05/21	LADOTD, SRTS/LRSP Task Order 16: Tangipahoa Striping Design, Tangipahoa Parish, LA - Senior Engineer. This project included the site evaluation of 39 state and local roadways with the highest accident rate history in the Parish. Gresham Smith performed ball bank evaluations for every curve on the 39 routes. Richard was responsible for overall Quality Control on the project. He mentored the engineering staff on the field evaluation requirements, reviewed all potential improvements, and performed QC review on the preliminary and final design plan submissions.
07/23-05/24	LADOTD, LA 3089 Serv Rd / LA 70 Up Stage 0 Study, Donaldsonville, LA - Project Manager. Richard served as Project Manager for this Stage 0 Study that Gresham Smith delivered under a retainer contract for Stage 0 Studies. Richard was responsible for day-to-day operations and overall management of the project. This Stage 0 Study was completed two months ahead of schedule and was completed at nearly \$80,000 under budget.
02/90-03/14	LADOTD, Project and Program Delivery - Richard was the PM for the I-49 North project in Caddo Parish, from I-220 to the Arkansas State Line. The project started with the Corridor Selection Study and progressed to the Environmental Impact Study. Once the alignment was selected plan development began and thence project delivery for this \$670 million project. As the Deputy Chief and Chief Engineer, he met with program managers in the Engineering Division and approved and recommended changes to their budget partitions and project schedules. Worked with District Administrators to exchange mileage with local entities when new roadways were being added to the department's roadway mileage. Was the Engineering Division's voting member on the LADOTD's Project Delivery Steering committee responsible for the department's different programs budget partition approval and overall project delivery. Richard was the LADOTD's 1st Value Engineering Director beginning in 1998 when the department was recognized by FHWA with the "Big Kahuna Award" for an outstanding program.
05/80-02/06	LADOTD, Road Design - Design Engineer/Project Manager. Richard spent 26 of his 34-year LADOTD career in Road Design. Starting as an EIT 1, he progressed to Asst. Road Design Engineer responsible for project management of roadway design by staff and design consultants preparing roadway plans and developing roadway design projects.

16. Staff Experience:

Firm employed by Gresham Smith, Inc.			
Name	Brennon Hughes, P.E.	Years of relevant experience with this employer	8
Title	Lead Roadway Design Engineer	Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization	B.S. / 2011 / Civil Engineering		
Active registration number / state / expiration date	#PE.0039985 / LA / 03-31-2028		
Year registered	2015	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities	Lead Roadway Design Engineer (Satisfies MPR #10) Brennon will lead the roadway design tasks, including cost estimates and development of bid packages. He joined Gresham Smith after six years at the Louisiana Department of Transportation and Development (DOTD), including over five years working in the road design section. During his time at DOTD, Brennon gained experience as a designer on a number of different types of projects, varying in size and scope, including roadway widenings, roundabouts, turn lane additions and new alignment roadways. Since joining Gresham Smith, Brennon has built upon this foundation in design by serving in a project management role for several projects and retainer contracts. He now leads the roadway group in the Gresham Smith Baton Rouge office.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
03/21-04/24	Louis Armstrong New Orleans International Airport (MSY), Task 4: Entrance Road Capacity, Kenner, LA - Lead Roadway Design Engineer. Gresham Smith provided design and project management for the City of New Orleans to widen the main exit road at MSY from 2 lanes to 3 lanes. The project included the widening of approximately 1/4-mile of roadway, extending the roundabout slip lane exit from the roundabout and tying into the design-build flyover project currently under construction (S.P. H.011670). The completed widened road will connect the design-build freeway operated by LADOTD to the existing roundabout on the airport property, improving the flow of traffic from MSY.		
08/17-12/20	LADOTD, SRTS/LRSP Task Order 6 and 21: Endom Bridge Preliminary and Final Design, West Monroe, LA - Lead Roadway Design Engineer. Brennon led the design and the preparation of preliminary and final plans and cost estimates. This project involved safety and operations improvements for the intersection realignment, curb and gutter drainage design, sidewalks, and turnouts. The project is currently under construction.		
10/15 – 08/17	LADOTD, Multilane Roundabout LA 22 at LA 70 and LA 22 Geometric Improvements near I-10, Ascension Parish, LA - Lead Roadway Design. This was a widening and intersection improvement project located at the intersection of LA 22 and LA 70 in Ascension Parish to north of I-10. This project complex urban highway project included widening of LA 22, a double lane roundabout at LA 22 and LA 70 with a slip lane, along with two J-Turns north of I-10 and two J-Turns south of I-10 along LA 22. Brennon’s role was to lead the design and the preparation of preliminary and final plans and cost estimates. He developed these plans from initial survey request up to 60% final plans.		
10/24-Present	LADOTD, Roundabout at Valhi Blvd and Civic Center Blvd, Houma, LA - Project Manager. Gresham Smith is designing a multi-lane concrete roundabout at Civic Center Blvd. and Valhi Blvd. to accommodate existing traffic and bike routes. The design maintains current lane configurations, adds a 10’ shared-use path and 4’ bike lanes, and includes sub-surface drainage for a 25-year storm. Completed 95% of Preliminary Plans as of April 2026, with geometric details, joint layouts, construction sequencing, and detour plans developed. A plan-in-hand meeting is scheduled for June 2026, followed by final design completion.		
04/20-11/22	City of Central (LA), Hooper Road (LA 408) at Sullivan Road (LA 3034) Roundabout Design - Lead Roadway/ Roundabout Design Engineer. Gresham Smith was tasked with the full roundabout design which was developed in accordance with LADOTD's Roadway Design Manual geometric requirements and LADOTD's Complete Streets Policy to accommodate both pedestrians and bicycles through this intersection. Brennon led the design and the preparation of preliminary and final plans and cost estimates.		

08/22-Present	City of Gonzales, US 61 Superstreet (Lowes Ave to LA 44), Gonzales, LA - Lead Roadway Engineer. Gresham Smith is currently performing the design to convert this section of US 61 to a Superstreet. This design will remove all of the uncontrolled median breaks and replace them with directional median U-Turn or J-Turn with exclusive turn lanes. These J-Turns will be controlled by a 2-phased traffic signal which will only stop one direction of US 61 so that the U-Turns can be made. Additionally, the existing signalized intersection of US 61 at Lowes and US 61 at LA 44 will be converted to Restricted Crossing U-Turns (RCUTs). Brennon is the lead engineer on this project, providing roadway design and signal design oversight.
06/21-01/24	EBR DTD, MoveBR Plank Road Corridor Enhancement, Baton Rouge, LA - Lead Roadway Design Engineer. Gresham Smith was selected to perform the corridor enhancement of Plank Road between Dawson Drive to Harding Boulevard. This project included a topographic survey, a design study for bicycle and pedestrian facilities, improved drainage, transit facilities, new traffic signals and street lighting. Construction is underway which will result in a revitalized corridor with improvements for all users.
09/17-06/19	LADOTD, SRTS/LRSP Task Order 7: McMillan Street at Blanchard Street Design, West Monroe, LA - Lead Roadway Design Engineer. This was a striping and intersection improvement project. Brennon's role was to lead the design and preparation of preliminary and final plans and cost estimates. The scope included the design and installation of an ADA ramp and a new crosswalk for pedestrian safety.
09/21-12/23	LADOTD - SRTPPP TO #2 (Bonner Street Ped Improvements) (Ruston), Ruston, LA - Project Manager. LADOTD initially contracted with Gresham Smith to prepare and coordinate a design study report which presented a project scope, progress schedule and preliminary cost estimate for engineering and construction of curbing, bulb-outs, pavement markings, signs, walkway lighting, and other safety enhancements at the Bonner Street Bridge in downtown Ruston, Louisiana. Subsequently, a design project was initiated which included the following engineering services: topographic surveying along with the preparation of preliminary and final plans and cost estimates. Brennon led the design and preparation of preliminary and final plans and cost estimate.
10/25-Present	LADOTD, Natchitoches Safe Streets Revitalization, Natchitoches, LA - Project Manager. Gresham Smith is under contract with the City of Natchitoches to provide design services, including sidewalk design, pedestrian crossing enhancements, bike lane design, lighting, drainage, and pavement rehab design.
07/22-01/26	LADOTD, SRTPPP Greenwell Springs & Wooddale Sidewalks, Baton Rouge, LA - Transportation Engineer. Gresham Smith provided design services in connection with the installation of sidewalks and other pedestrian safety features along Greenwell Springs Road and Wooddale Blvd. Brennon led the design and preparation of preliminary and final plans and cost estimate.

16. Staff Experience:

Firm employed by		Gresham Smith, Inc.		
Name	Ronnie Robinson, P.E.		Years of relevant experience with this employer	10
Title	Senior Roadway Engineer		Years of relevant experience with other employer(s)	33
Degree(s) / Years / Specialization			B.S. / 1982 / Civil Engineering	
Active registration number / state / expiration date			#PE.0024040 / LA / 03-31-2028	
Year registered	1988	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities			Senior Roadway Engineer Ronnie will assist on the roadway design team.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
02/17-12/20	LADOTD, SRTS/LRSP Task Order 6 and 21: Endom Bridge Preliminary and Final Design, West Monroe, LA - Senior Engineer. Ronnie’s responsibilities included developing preliminary and final plans and construction cost estimates. His efforts included coordination of the contaminated waste investigation, drainage layout and quality control for the preliminary design.			
10/24-Present	LADOTD, Roundabout at Valhi Blvd and Civic Center Blvd, Houma, LA - Senior Engineer. Gresham Smith is contracted by Terrebonne Parish Consolidated Government to design a multi-lane concrete roundabout at the intersection of Civic Center Blvd and Valhi Blvd in Houma, LA to accommodate existing road features and a city bike route. The design maintains current lane configurations with two through lanes on Civic Center Blvd. and one on Valhi Blvd. and includes a 10-foot shared-use path and 4-foot bike lanes around the roundabout. Sub-surface drainage is designed for a 25-year storm, and geotechnical details are incorporated into the 60% preliminary plans completed as of October 2025. The project has advanced with 90% plans, including construction sequencing and detour plans, with no road closures permitted during construction.			
03/21-04/24	Louis Armstrong New Orleans International Airport (MSY), Task 4: Entrance Road Capacity, Kenner, LA - Senior Engineer. Gresham Smith provided design and project management for the City of New Orleans to widen the main exit road at MSY from 2 lanes to 3 lanes. The project included the widening of approximately 1/4-mile of roadway, extending the roundabout slip lane exit from the roundabout and tying into the design-build flyover project currently under construction (S.P. H.011670). The completed widened road will connect the design-build freeway operated by LADOTD to the existing roundabout on the airport property, improving the flow of traffic from MSY.			

16. Staff Experience:

Firm employed by		Gresham Smith, Inc.		
Name	Ryan Richard, P.E.		Years of relevant experience with this employer	<1
Title	Senior Engineer		Years of relevant experience with other employer(s)	23
Degree(s) / Years / Specialization			B.S. / 2002 / Civil Engineering	
Active registration number / state / expiration date			#PE.0033290 / LA / 09-30-2027	
Year registered	2007	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			Senior Roadway Engineer Ryan will support the Roadway team.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
02/26-Present	LADOTD, Natchitoches Safe Streets Revitalization, Natchitoches, LA - Senior Engineer. Gresham Smith is under contract with the City of Natchitoches to provide design services including sidewalk design, pedestrian crossing enhancements, bike lane design, lighting, drainage, and pavement rehab design.			
02/26-Present	LADOTD, SRTPPP TO #4, LA 60: Bogalusa, Bogalusa, LA - Senior Engineer. Gresham Smith is conducting a pedestrian safety assessment along LA 60 in front of Bogalusa High School to address heavy student crossing demand during key times. The study follows LADOTD’s Traffic Engineering Process and identified multiple deficiencies such as worn crosswalks, inconsistent sidewalks, and parking encroachments. Several improvement alternatives, including school crossing signals, road diet, and sidewalk installation, are being evaluated. Coordination with LADOTD, school officials, and local stakeholders is ongoing to inform about potential access changes.			
02/26-Present	LADOTD, SRTPPP TO #11 Community College Dr SUP, Baton Rouge, LA - Senior Engineer. Gresham Smith is providing design services for the construction of a sidewalk and shared-use path along Community College Drive adjacent to and on the Baton Rouge Community College campus.			
12/25-Present	LADOTD SRTPPP, Donaldsonville Sidewalk Improvements, Donaldsonville, LA - Senior Engineer. Gresham Smith is currently performing design for the installation sidewalks, sub-surface drainage structures, and ADA crossing enhancements for this SRTPPP project.			
05/13-05/15	LADOTD, US 190: Roundabout at Eden Church Road, Livingston Parish - Engineer of Record. Ryan was the engineer of record for the design and plan preparation of a roundabout at the intersection of US 190 and Eden Church Rd. Replacing the signalized intersection with the roundabout improved the safety and efficiency of the intersection.			
11/20-11/25	LADOTD, LA 675 @ Airport Rd Roundabout, New Iberia, LA - Project Manager. Ryan was the Project Manager for this Urban System Project to construct a roundabout at the intersection of LA 675 and the US 90 Frontage Rd.			
11/20-11/22	LADOTD, Acadian Road Roundabout, Thibodaux, LA - Project Manager. Ryan was the Project Manager for this Urban System Project to construct a roundabout that incorporates 5 different routes improving the safety and efficiency for vehicles and pedestrians.			
05/20-05/21	LADOTD, US 190 (Gause Blvd) Sidewalk Improvements, Slidell, LA - Project Manager. Ryan was the project manager for this Urban System Project to replace sidewalk and curb ramps on both sides of US 190 from Front. St. to 14 th St.			
06/21-06/22	LADOTD, LA 24 Sidewalk Rehab, Houma, LA - Project Manager. Ryan was the project manager for this Urban System Project to replace sidewalk and curb ramps along LA 24 in downtown Houma from Barataria St. to New Orleans Ave.			
06/21-06/22	LADOTD, Alexandria Bike/Ped Plan Implementation, Phase 1, Alexandria, LA - Project Manager. Ryan was the project manager for this Urban System Project to place striping for bicycle and shared use lanes on multiple routes enhancing pedestrian and bicycle mobility in Alexandria.			
12/22–12/24	LADOTD, Downtown Thibodaux Sidewalks, Thibodaux, LA - Project Manager. Ryan was the Project Manager for this Urban System Project to replace sidewalk and curb ramps along 5 streets in downtown Thibodaux.			

16. Staff Experience:

Firm employed by		Gresham Smith, Inc.		
Name	Logan Michel, P.E.		Years of relevant experience with this employer	<1
Title	Engineer		Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization			B.S. / 2015 / Civil Engineering	
Active registration number / state / expiration date			#PE.0032970 / LA / 03-31-2028	
Year registered	2019	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities			Roadway Engineer Logan will assist the roadway design team	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
10/24-Present	LADOTD, Roundabout at Valhi Blvd and Civic Center Blvd, Houma, LA - Engineer. Gresham Smith is designing a multi-lane concrete roundabout at Civic Center Blvd. and Valhi Blvd. accommodating existing traffic and bike routes. The design maintains current lane configurations, adds a 10’ shared-use path and 4’ bike lanes, and includes sub-surface drainage for a 25-year storm. Completed 95% of Preliminary Plans as of April 2026, with geometric details, joint layouts, construction sequencing, and detour plans developed. A plan-in-hand meeting is scheduled for June 2026, followed by final design completion.			
10/25-Present	LADOTD, Roddy Rd at Black Bayou Rd Roundabout, Ascension Parish, LA - Engineer. Gresham Smith is designing a single lane asphalt roundabout at the Roddy Rd and Black Bayou Rd (LA 934) intersection in Ascension Parish. The project is currently in preliminary design and features some project constraints such as existing gas lines, City of Gonzales water wells, and Right-of-Way which must be considered. The project will include sub-surface drainage. Logan is responsible for overall plan development, including alignments and roundabout modeling.			
12/25-Present	LADOTD SRTPPP, Donaldsonville Sidewalk Improvements, Donaldsonville, LA - Engineer. Gresham Smith is currently performing design for the installation of sidewalks, sub-surface drainage structures, and ADA crossing enhancements for this SRTPPP project. Logan is assisting with the preparation of plans for this project, including sidewalk layout and quantities.			
01/26-Present	LADOTD, SRTPPP TO #11 Community College Dr SUP, Baton Rouge, LA - Engineer. Gresham Smith is providing design services for the construction of a sidewalk and shared-use path along Community College Drive adjacent to and on the Baton Rouge Community College campus. Logan is serving as project manager and lead project professional.			
10/25-Present	LADOTD, Natchitoches Safe Streets Revitalization, Natchitoches, LA - Engineer. Gresham Smith is under contract with the City of Natchitoches to provide design services, including sidewalk design, pedestrian crossing enhancements, bike lane design, lighting, drainage, and pavement rehab design. Logan is assisting with the preliminary plans development including sidewalk layout and modeling.			
08/22-05/25	I-10 & I-12 College Drive Flyover Ramp Design-Build Project: East Baton Rouge Parish, LA - Design Engineer. Mr. Michel was a Roadway Designer for the GEC/Boh Bros. team that was responsible for engineering and design quality control services as necessary to complete the design and construction for the I-10 & I-12 College Dr Flyover Ramp Design-Build urban freeway transportation project. The design was in accordance with Louisiana Standard Specifications for Highways and Bridges and LADOTD’s Roadway Design Procedures and Details Manual. Mr. Michel developed and revised the Maintenance of Traffic (MOT) plans for all phases of construction and was responsible for editing current or future design and revising previously approved plan sheets as the project progressed. He worked closely with the contractor to provide safe and effective ongoing construction for all parties.			
08/22-09/25	I-10 Widening, Williams to Veterans: Jefferson Parish, LA - Project Engineer. The project included the design for adding a lane to the existing interstate and widening/replacement of bridges to accommodate the additional lane. Mr. Michel reviewed GEC’s final plans in accordance with LADOTD’s Roadway Design Procedures and Details Manual. Mr. Michel has also coordinated with the project’s geotechnical engineer to prepare technical plan sheets for surcharge construction.			

08/22-12/24	Bainbridge Ave. Roadway & Drainage Improvements: Kenner, LA - Project Engineer. GEC prepared plans for the drainage design of the Bainbridge project. Mr. Michel's role consisted of preparing hydraulic calculations and drainage plan and profile sheets based on sub-consultant coordination, coordination with Jefferson Parish, and implementation of Parish standards. Also, Mr. Michel prepared technical specifications and an OPCC (Opinion of Probable Construction Cost) for GEC's portion of the design for each submittal stage.
10/23-09/25	IIJA Off-System Bridge Program, District 61 Less EBR: East & West Feliciana, Iberville, Pointe Coupee, West Baton Rouge, Ascension, and Assumption Parishes, LA - Design Engineer. Projects included the design of a bridge spot replacement of off-system bridges. The design was in accordance with Federal Aid Off-System Highway Bridge Program and the Off-System Hydraulic Design Guidelines. Mr. Michel's tasks included horizontal and vertical geometry, guardrail design, hydraulic analysis of the project area and the existing bridge, hydraulic modeling and reporting, establishing approximate required right-of-way (ROW) limits, plan/pro-sheet development, cross section development, development of additional plan sheets, and preparing cost estimates for proposed design.
08/22-09/25	Bluebonnet Blvd (Perkins Rd to Picardy Avenue): East Baton Rouge Parish, LA - Roadway QA/QC Engineer. This MOVEBR project consisted of providing engineering related services for Bluebonnet Blvd. from Perkins Rd. to Picardy Ave., which consisted of a design study and based on those findings, required final construction plans, signal design plans, traffic signal inventory, and green infrastructure details. Mr. Michel's responsibilities included QA/QC review of final roadway plans, subconsultant coordination and plan changes based on design review comments from City-Parish and LADOTD and updating cost estimates and quantities based on any additional plan changes.

16. Staff Experience:

Firm employed by		Gresham Smith, Inc.		
Name	Herbert “Bert” Moore, II, P.E., PLS, PTOE		Years of relevant experience with this employer	11
Title	Project Executive		Years of relevant experience with other employer(s)	16
Degree(s) / Years / Specialization			B.S. / 1999 / Civil Engineering	
Active registration number / state / expiration date			#P.E.0031065 / LA / 09-30-2026 #PLS.5043 / LA / 09-30-2026	
Year registered	2004 (PE) 2010 (PLS)	Discipline	Civil Engineer (PE) Land Surveying (PLS) Other Pertinent Training / Certifications Professional Traffic Operations Engineer – PTOE (#2728, expires 9/30/2027) Traffic Engineering Analysis Process & Report – Module 1 (June 2018) Traffic Engineering Analysis Process & Report – Module 2 (June 2018) Traffic Engineering Analysis Process & Report – Module 3 (October 2018) Traffic Control Supervisor Refresher-LA State Specific (4/7/2023 – 4/7/2027) ATSSA Certified Flagger (5/9/2023 – 5/8/2027)	
Contract role(s) / brief description of responsibilities			Traffic Engineering Lead (Satisfies MPR #5) Bert is a professional engineer with more than 27 years of experience designing and managing projects in the fields of traffic and transportation engineering. He previously spent six years as the district traffic operations engineer for LADOTD where he was responsible for the daily maintenance and operation of signs, striping and traffic equipment for 2,000 miles of roadway and over 600 traffic signals in the Department’s Baton Rouge district. His experience is in traffic operations, traffic control, signal warrants, traffic signal timing and design, safety studies, the implementation of access management principles, temporary traffic control for work zones, Transportation Management Plans (TMP), and bicycle and pedestrian accommodations the roadway network.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
04/20-11/22	City of Central (LA), Hooper Road (LA 408) at Sullivan Road (LA 3034) Roundabout Design - Project Executive. Gresham Smith was tasked with the full roundabout design which was developed in accordance with LADOTD's Roadway Design Manual geometric requirements and LADOTD's Complete Streets Policy to accommodate both pedestrians and bicycles through this intersection. Bert assisted the team with roundabout analysis, temporary traffic control and sequencing of construction.			
10/24-Present	LADOTD, Roundabout at Valhi Blvd and Civic Center Blvd, Houma, LA - Project Executive. Gresham Smith is designing a multi-lane concrete roundabout at Civic Center Blvd and Valhi Blvd. to accommodate existing traffic and bike routes. The design maintains current lane configurations, adds a 10’ shared-use path and 4’ bike lanes, and includes sub-surface drainage for a 25-year storm. Completed 95% of the Preliminary Plans as of April 2026, with geometric details, joint layouts, construction sequencing, and detour plans having been developed. A plan-in-hand meeting is scheduled for June 2026, followed by final design completion.			
08/22-Present	City of Gonzales, US 61 Superstreet (Lowes Ave to LA 44), Gonzales, LA - Project Executive. Gresham Smith is currently performing the design to convert this section of US 61 to a Superstreet. This design will remove all of the uncontrolled median breaks and replace them with directional median U-Turn or J-Turn with exclusive turn lanes. These J-Turns will be controlled by a 2-phased traffic signal which will only stop one direction of US 61 so that the U-Turns can be made. Additionally, the existing signalized intersection of US 61 at Lowes and US 61 at LA 44 will be converted to Restricted Crossing U-Turns (RCUTs).			

03/21-04/24	Louis Armstrong New Orleans International Airport (MSY), Task 4: Entrance Road Capacity, Kenner, LA - Senior Transportation Engineer. Gresham Smith provided design and project management for the City of New Orleans to widen the main exit road at MSY from 2 lanes to 3 lanes. The project included widening approximately 1/4-mile of roadway, extending the roundabout slip lane exit from the roundabout and tying into the design-build flyover project currently under construction (S.P. H.011670). The completed widened road will connect the design-build freeway operated by LADOTD to the existing roundabout on the airport property, improving the flow of traffic from MSY.
02/17-12/20	LADOTD, SRTS/LRSP Task Order 6 & 21: Endom Bridge, West Monroe, LA - Project Executive. The project consisted of roadway realignment at the bridge approach to improve roadway geometry and safety. Right-of-way was acquired at one quadrant of the intersection and Gresham Smith assisted with the coordination between the right-of-way plans and the roadway requirements. Bert was responsible for overseeing the data collection, analyzing the traffic counts to determine appropriate lane configuration and geometry, and support and coordinate the overall design.
02/16-6/20	LADOTD, SRTS/LRSP Task Order 2: McMillan Road Intersection Traffic Study, West Monroe, LA - Project Manager. Bert used his knowledge of LADOTD's traffic signal program to identify areas for improvement in the local roadway network and to work with local officials and LADOTD Maintenance staff to identify the most appropriate intersection improvements to meet the project needs.
08/17-02/19	LADOTD, SRTS/LRSP Task Orders 9 & 14: Farmerville Sidewalks Report and Design, Farmerville, LA - Project Executive. Gresham Smith developed design plans that removed the existing sidewalks that were in poor condition and installed new concrete sidewalks. This project connects to major areas of commerce, governmental buildings that include the Town Hall and Union Parish Courthouse, library, shopping, restaurants, etc. This project connected this portion of town to an existing project that the Town of Farmerville was simultaneously designing to enhance the appearance of the downtown area by adding accessible walkways with lighting that will make the downtown area more attractive for visitors and residents, as well as making more areas available for health. Bert was responsible for support and coordination of the design report and QA/QC.
09/17-11/17	LADOTD, SRTS/LRSP Task Order 8: Design Reports for LR West Feliciana Striping, West Feliciana, LA - Project Executive. Bert was responsible for support and coordination of the design report and QA/QC.
06/21-01/24	EBR DTD, MOVEBR Plank Road Corridor Enhancement, Baton Rouge, LA - Project Executive. Gresham Smith was selected to perform the corridor enhancement of Plank Road between Dawson Drive to Harding Boulevard. This project included a topographic survey, a design study for bicycle and pedestrian facilities, improved drainage, transit facilities, new traffic signals and street lighting. Once the design study was completed, the project moved into the development of design plans. The project is under construction and will result in a revitalized corridor with improvements for all users.
03/16-10/17	LADOTD, Farmerville State and Local Road Traffic Study, Farmerville, LA - Project Executive. Gresham Smith was selected to perform a formal traffic study of all the intersections (57) within and around Farmerville. The project included data collection, crash review, development of growth rates, developing alternatives, analysis of existing and proposed conditions and benefit/cost analysis. Bert was responsible for the overall study and led meetings with local officials and agencies.

16. Staff Experience:

Firm employed by		Gresham Smith, Inc.		
Name	Alben Cooper, III, P.E., PTOE		Years of relevant experience with this employer	2
Title	Senior Traffic Engineer		Years of relevant experience with other employer(s)	17
Degree(s) / Years / Specialization			B.S. / 2006 / Civil Engineering	
Active registration number / state / expiration date			#PE.0036291 / LA / 09-30-27	
Year registered	2011	Discipline	Civil Engineer	
			Other Pertinent Training / Certifications Professional Traffic Operations Engineer – PTOE (#3206, expires 5/2/2027) Traffic Engineering Analysis Process & Report – Module 1 (July 2018) Traffic Engineering Analysis Process & Report – Module 2 (July 2018) Traffic Engineering Analysis Process & Report – Module 3 (October 2018)	
Contract role(s) / brief description of responsibilities			Senior Traffic Engineer (Satisfies MPR #5) Alben will lead the traffic management plans task. With nearly 20 years of experience in transportation engineering, Alben has been the project manager/engineer on a variety of transportation projects including safety studies, feasibility studies, signal design and timing of coordinated systems, geometric design, striping and signage design, traffic impact analysis, and transportation management plans. He has also performed studies for intersection/corridor operation and safety improvements including pedestrian facility upgrades. Alben has also managed and provided construction administration services for temporary and permanent traffic signal design, geometric design, and striping and signage design, as well as developed/managed sequence of construction and traffic control device plans for large construction projects.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
08/22-Present	City of Gonzales, US 61 Superstreet (Lowes Ave to LA 44), Gonzales, LA - Senior Engineer. Gresham Smith is currently performing the design to convert this section of US 61 to a Superstreet. This design will remove all of the uncontrolled median breaks and replace them with directional median U-Turn or J-Turn with exclusive turn lanes. These J-Turns will be controlled by a 2-phased traffic signal which will only stop one direction of US 61 so that the U-Turns can be made. Additionally, the existing signalized intersection of US 61 at Lowes and US 61 at LA 44 will be converted to Restricted Crossing U-Turns (RCUTs).			
4/24-01/26	LADOTD SRTPPP, Task Order 16 – Richwood Traffic Study - Project Manager. Gresham Smith performed a traffic study with the goal of improving the pedestrian facilities along US 165 between Richwood Road 1 and Richwood Road 2. Alben provided technical assistance and quality control for the traffic study which included data collection, safety analysis and alternative development. Potential alternatives included sidewalks, pedestrian crossings a select locations and conversion of US 165 to a superstreet corridor.			
02/25-Present	LADOTD, LA 24 Downtown Houma Study, Houma, LA - Project Manager. Gresham Smith led a traffic engineering study for the Louisiana Department of Transportation and Development to assess the operational, geometric, and safety feasibility of converting the LA 24 couplet in downtown Houma and identifying an alternate truck route. The team evaluated corridor needs and existing conditions; completed seven-day traffic counts, geometric field reviews, and origin–destination analysis; and coordinated closely with DOTD and Terrebonne Parish.			
12/24-Present	LADOTD, SRTPPP TO #4, LA 60: Bogalusa, Bogalusa, LA - Senior Engineer. Gresham Smith is conducting a pedestrian safety assessment along LA 60 in front of Bogalusa High School to address heavy student crossing demand during key times. The study follows LADOTD’s Traffic Engineering Process and identified multiple deficiencies such as worn crosswalks, inconsistent sidewalks, and parking encroachments. Several improvement			

	alternatives, including school crossing signals, road diet, and sidewalk installation, are being evaluated. Coordination with LADOTD, school officials, and local stakeholders is ongoing to inform about potential access changes. Alben performed QA/QC for the traffic study portion of the project.
10/24-Present	LADOTD, SRTPPP TO#2 Pinhook at Verot Pedestrian Improvements, Lafayette, LA - Senior Engineer. Gresham Smith is providing design services in connection with the installation of sidewalks and other pedestrian safety features along Verot School Rd and West Pinhook Rd in Lafayette, LA. Alben was the Engineer-of-Record for the traffic signal modification design. He directed the signal design and cost estimation, along with QA/QC of the signal plan sheets.
09/24-Present	LADOTD, SRTPPP TO #5 - Carrollton Ave. Pedestrian & Bike Improvements Traffic Study - Project Manager. Gresham Smith is currently performing a traffic study with the goal of improving the pedestrian facilities on S. Carrollton Avenue in the vicinity of the Pontchartrain Expressway on ramp. Alben is the Project Manager for the traffic study which includes data collection, safety analysis and alternative development. A supplement is being negotiated for Synchro and Vissim analysis to thoroughly vet the potential alternatives. Coordination is required with LADOTD as well as the City of New Orleans.
08/22-01/26	LADOTD, TO #6 (LA 14: US 90 to Power Center Pkwy) Traffic Report, Lake Charles, LA - Project Manager. Gresham Smith prepared and coordinated a traffic report to analyze no build and future conditions to identify possible pedestrian mitigation alternatives along LA 14 from US 90 (Frugé Street) to Power Centre Pkwy. This traffic report was prepared in conjunction with the LADOTD Engineering Directives and Standards Manual (EDSM). Alben was responsible for technical assistance and performed QA/QC for the traffic study.
08/24-02/26	LADOTD, Lafourche Flashing Yellow Arrow Signal Upgrades, Lafourche Parish, LA - Senior Engineer. Gresham Smith was selected by LADOTD as part of the Traffic Engineering IDIQ with performing the inspection and design services required to upgrade the existing traffic signals in Lafourche Parish to Flashing Yellow Arrow (FYA) operations. This included all of the traffic signals in Lafourche Parish that currently operate with protected / permitted left turn operations that were currently not being upgraded by existing construction projects, which were 30 traffic signals on the state highway system. Alben was the Engineer-of-Record, and his role included technical advisory, review of traffic signal design, cost estimation, plan set QA/QC and coordination with the client.
05/21-11/24	MOVEBR, Sherwood Forest Blvd. MUP, C-P Project No. 20-EN-HC-0027, Baton Rouge, LA - Senior Engineer. Gresham Smith was selected to perform a traffic study and design of the pedestrian signal accommodations and crosswalks along Sherwood Forest Blvd between South Harrell's Ferry Road and Old Hammond Highway for the Sherwood Forest multi-use path. Logan performed QA/QC for the design of the traffic signals for the I-12 at Sherwood Forest Blvd interchange including pedestrian signals for the multi-use path along the west side of Sherwood Forest Blvd.
08/20-08/21	Westbank Expressway at Whitney Ave Signal Modifications, Jefferson Parish, LA - Lead Designer. As lead designer, Alben was responsible for the design of signal modification at the intersection of Westbank Expressway and Whitney Ave. The signal modifications were required to accommodate a new multi-use path crossing at the southern portion of the intersection. The crossing included audible push button activation for a pedestrian phase to run concurrently with the existing phasing. Alben coordinated with DOTD to ensure the design met all requirements for the signalized crossing.
11/20-01/21	Livingston Counts and Crosswalk Studies, Livingston Parish, LA - Lead Engineer. This project included the collection of traffic/pedestrian data and performing crosswalk studies at four locations in Livingston Parish, LA. Alben was the lead engineer for this project and was responsible for overseeing each study, one of which included multiple school crossings. The crosswalk studies were prepared in accordance with the LADOTD Traffic Engineering Manual. Alben performed QA/QC for each study to ensure compliance with the guidelines in the manual.

16. Staff Experience:

Firm employed by		Gresham Smith, Inc.		
Name	Rebecca Murray, P.E., PTOE, RSP1		Years of relevant experience with this employer	11
Title	Traffic Engineer		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			B.S., / 2015 / Civil Engineering	
Active registration number / state / expiration date			#PE.0043788 / LA / 03-31-28	
Year registered	2019	Discipline	Civil Engineer	
		Other Pertinent Training / Certifications Professional Traffic Operations Engineer – PTOE (#4861, expires 3/26/2029) Road Safety Professional 1 - RSP1 (#611, expires 04-05-2027) Traffic Engineering Analysis Process & Report – Module 1 (July 2018) Traffic Engineering Analysis Process & Report – Module 2 (July 2018) Traffic Engineering Analysis Process & Report – Module 3 (October 2018) ATSSA Louisiana Traffic Control Supervisor Refresher (2/23/2024 - 2/23/2028) ATSSA Certified Flagger (2/21/2024 – 2/21/2028)		
Contract role(s) / brief description of responsibilities			Traffic Engineer Rebecca will assist with the traffic management plans and studies task.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
05/17-03/19	LADOTD, I-210 at LA 1138-2 (Nelson Road) Interchange Modification Re-Evaluation Study, Lake Charles, LA - Pre Professional. Gresham Smith was selected to develop a calibrated VISSIM model to model existing conditions and the future proposed diverging diamond interchange at I-210 at Nelson Road to evaluate the proposed interchange design. The project included data collection, development of growth rates, conduct a Road Safety Assessment, developing and calibrating an existing VISSIM model and evaluation of the proposed alternative. Rebecca was responsible for overseeing data collection, participating on the RSA team, conducting safety analysis, development of VISSIM models, development of alternatives, and development of the report.			
05/17-01/19	LADOTD, US 171 MLK Boulevard Traffic Study, Lake Charles, LA - Pre-Professional. Rebecca’s role was to oversee data collection, develop a data collection report, perform the safety analysis, develop VISSIM models for 6 alternatives and calibrate the models, develop presentation material for the public meeting and development of the final report.			
02/18-Present	TDOT, I-40 at Donelson Pike Interchange, Nashville, TN - Project Designer. The purpose of the proposed I-40/SR 255 (Donelson Pike) Interchange modification is to improve traffic operations at the interchange and access to the Nashville International Airport (BNA). The airport serves a large portion of Tennessee residents as well as residents from surrounding states. The interchange is the airport’s primary access point and very important to the overall success of the state and its tourist industry. The project consists of a proposed Diverging Diamond Interchange, a 1.2-mile collector-distributor road along I-40 eastbound, and 1.75 miles of new urban alignment for the relocation of Donelson Pike.			
04/18005/19	LADOTD, I-10 TMP West of LA 108 to I-210 Interchange TMP, Lake Charles, LA - Pre-Professional. Gresham Smith developed a TMP for the Rubblization and Overlay on I-10 between I-210 and the LA 108 Interchange. Included the mill and overlay of I-10, widening two flat deck bridges on I-10 to add a lane, and replacing all of the concrete panels on I-10 through the LA 108 interchange. Traffic was moved to a C/D road within the interchange and cloverleaf ramps were closed during construction. Two temporary traffic signals were designed to facilitate traffic at this interchange, and this project included data collection and queue and safety analyses and traffic signal design. Rebecca assisted with traffic counts and queue analysis, safety analysis, alternate route/detour analysis, temporary traffic control, and development of the TMP report.			

16. Staff Experience:

Firm employed by		Gresham Smith, Inc.		
Name	Kofi Ampofo-Twumasi, E.I.		Years of relevant experience with this employer	3
Title	Engineer Intern		Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization		M.S. / 2022 / Civil Engineering B.S. / 2019 / Civil Engineering		
Active registration number / state / expiration date		#EI.0035386 / LA / 09-30-27		
Year registered	2022	Discipline	N/A	
		Other Pertinent Training / Certifications Traffic Engineering Analysis Process & Report – Modules 1, 2 and 3 (February 2023) ATSSA Certified Flagger (5/31/2023 – 5/23/2027)		
Contract role(s) / brief description of responsibilities		Traffic Designer Kofi will support the traffic related tasks.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
04/24-01/26	LADOTD, Task Order 16, Richwood Traffic Study - Engineer Intern. Gresham Smith performed a traffic study with the goal of improving the pedestrian facilities along US 165 between Richwood Road 1 and Richwood Road 2. Kofi’s role on the project was to oversee data collection, develop a data collection report, perform peak hour traffic observations, determine a growth rate, perform the safety analysis/crash review, perform existing and proposed traffic analysis, develop Synchro models for Existing, Future No Build and Build alternatives, and prepare the project report.			
08/21-01/26	LADOTD, LRSP TO #6 (LA-14: US 90 to Power Center Pkwy) Traffic Report, Lake Charles, LA - Engineer Intern. Gresham Smith prepared and coordinated a traffic report to analyze no build and future conditions to identify possible pedestrian mitigation alternatives along LA 14 from US 90 (Fruge Street) to Power Centre Pkwy. This traffic report was prepared in conjunction with the DOTD Engineering Directives and Standards Manual (EDSM).			
12/24-Present	LADOTD, SRTPPP TO #4, LA 60: Bogalusa, Bogalusa, LA - Senior Engineer. Gresham Smith is conducting a pedestrian safety assessment along LA 60 in front of Bogalusa High School to address heavy student crossing demand during key times. The study follows LADOTD’s Traffic Engineering Process and identified multiple deficiencies such as worn crosswalks, inconsistent sidewalks, and parking encroachments. Several improvement alternatives, including school crossing signals, road diet, and sidewalk installation, are being evaluated. Coordination with LADOTD, school officials, and local stakeholders is ongoing to inform about potential access changes.			
04/22-Present	MOVEBR, Contract for Signal Rebuild Phase 2, Group 2 Design Services Parish Synchronization & Communication, Baton Rouge, LA - Engineer Intern. Gresham Smith is providing services through a Master Contract: 43075.00 LADOTD-Retainer-ITS CE&I Services-Statewide (Contract 44-11253, T.O. #011513) to implement the Fiber Optic Mapping & Management system in Lake Charles, New Orleans and Monroe. Our team is providing management throughout the duration of the project for all tasks.			

16. Staff Experience:

Firm employed by		Gresham Smith, Inc.		
Name	Julian Bordelon, P.E.		Years of relevant experience with this employer	7
Title	ITS / Street Lighting Design and Analysis		Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization		B.S. / 2018 / Electrical Engineering		
Active registration number / state / expiration date		#PE.0047473 / LA / 09-30-2027		
Year registered	2023	Discipline	Electrical and Computer	
Contract role(s) / brief description of responsibilities		ITS / Lighting Engineer Julian will lead the street lighting and ITS tasks.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
11/22-12/25	LADOTD, CEI H.013256, Scott to Lake Charles ITS, CEI, Lake Charles, LA - Project Engineer. Gresham Smith provided Construction Engineering Inspection Services, including a Project Engineer, on-site daily/nightly inspection and technical construction inspection, throughout the course of construction. Julian assisted in contract administration, inspection and testing oversight.			
10/20-10/24	MDOT ITS, Meridian ITS Design, Meridian, MS - TSM&O Engineer. Gresham Smith developed a system engineering analysis, ITS design plans, and specifications for I-59/I-20 between the I-59 @ I-20 interchange and the Mississippi state line. The project installed new ITS equipment including fiber, electrical systems, cabinets, camera poles, Dynamic Message Sign (DMS) structures, and a communications hub. Julian performed system engineering analysis, ITS design, voltage drop calculations, plans preparation, and field reviews.			
12/18-05/24	LADOTD, LCG Adaptive Traffic Signal Design and Implementation, Lafayette Parish, LA - Pre-Professional. Julian was responsible for field verification of traffic signal inventory (TSI) of the LCG system, design plans for adaptive signal control intersections, and integration when the system was completed.			
01/19-03/24	LADOTD, CEI H.011500.6, Lake Charles Phase 3 ITS, CEI, Lake Charles, LA - Pre-Professional. Gresham Smith provided Construction Engineering Inspection Services, including a Project Engineer, on-site daily/nightly inspection and technical construction inspection, throughout the course of construction. Julian assisted in contract administration, inspection and testing oversight.			
08/24-02/26	LADOTD, Lafourche Flashing Yellow Arrow Signal Upgrades, Lafourche Parish, LA - Project Manager. Gresham Smith was selected by LADOTD as part of the Traffic Engineering IDIQ with performing the inspection and design services required to upgrade the existing traffic signals in Lafourche Parish to Flashing Yellow Arrow (FYA) operations. This included all of the traffic signals in Lafourche Parish that currently operate with protected / permitted left-turn operations that were currently not being upgraded by existing construction projects, which was 30 traffic signals on the state highway system.			
04/21-04/24	Lafayette Consolidated Government, Johnston Street Relighting, Lafayette, LA - Lighting Engineer. Julian performed a field inspection of the existing conditions and assisted in the development of electrical and lighting plans and details for 2 miles of US 167 Johnston St in Lafayette, Louisiana.			
03/21-12/22	MoveBR, Jefferson Hwy at Bluebonnet, Baton Rouge, LA - Lighting Engineer. Julian assisted in preliminary photometric analysis and street lighting design for the portions of Jefferson Highway and Bluebonnet Boulevard adjacent to the intersection of Jefferson Highway and Bluebonnet Boulevard. Gresham Smith was selected as part of a team to perform the traffic design report and street lighting analysis and design for the portions of Jefferson highway and Bluebonnet Boulevard adjacent to the intersection of Jefferson highway and Bluebonnet Boulevard study in Baton Rouge, Louisiana. The goal of the traffic design report is to collect data at the study intersection, perform capacity analyses of existing and future traffic volumes and develop alternatives for improved capacity. The lighting analysis was performed to provide a design to relocate existing lighting to accommodate proposed roadway improvements at the intersection.			

03/21–Present	MoveBR, Bluebonnet Boulevard Sidewalks, Baton Rouge, LA - Lighting Engineer. Julian performed photometric analysis, lighting design, and electrical design for the existing system from Mall Drive 1 to Bluebonnet Centre Boulevard and proposed a pedestrian lighting and electrical system design between the I-10 EB and I-10 WB Ramps in Baton Rouge, Louisiana. Julian also performed all voltage drop, arc flash, conduit sizing, and short circuit calculations for the lighting system. This lighting project should bring the pedestrian accommodations up to IES recommendations.
01/21–01/24	MoveBR, Plank Road Corridor Enhancement, Baton Rouge, LA - Lighting Engineer. Julian was responsible for the electrical design, voltage drop, conduit sizing, and over current protection calculations for the lighting system on Plank Rd between Dawson Drive and Hooper Road. The purpose of this project is to improve the safety and mobility of both the vehicular and non-vehicular traffic through the Plank Road corridor from Dawson Drive to Harding Blvd. Gresham Smith provided the design study and lighting.

16. Staff Experience:

Firm employed by NTB Associates, Inc.			
Name	Mike J. King, PLS	Years of relevant experience with this employer	19.5
Title	Vice President	Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization	B.S. / 2012 / Construction Management, Louisiana State University		
Active registration number / state / expiration date	#PLS.0005127 / LA / 09-30-2027		
Year registered	2015	Discipline	Professional Surveyor
Contract role(s) / brief description of responsibilities	Project Manager for Surveying (Satisfies MPR# 6) Mike will serve as NTBA's Survey Project Manager for topographic surveying and hydrographic surveying services during this contract. He will manage field crews, file processing, drafting, and submittals. Mike has over 20 years of surveying experience.		
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
09/24-05/26	LaDOTD IDIQ Contract for Professional Boundary Surveying Services, LA (4400027918) - Quality Control Surveyor assisting in staffing, coordination, and team meetings for topographic surveys and property surveys in support of title take-offs, description preparations, preliminary and final right-of-way mapping in support of roadway design improvements.		
08/25-05/26	LaDOTD I-20: Sam R. Fert Dr. to Red River Bridge, Caddo Parish, LA (H.016413.5) - Survey Project Manager for Static GPS Control surveys, topographic surveys utilizing HDS 3D Terrestrial Laser Scanning methods of data collection, and surveys in support of QL C & D subsurface utility services for interstate rehabilitation along I-20, between a point southeasterly of the I-20 & I-49 interchange and the Caddo/Bossier Parish Line.		
09/20-06/24	LaDOTD IDIQ Contract for Hydrographic Surveying Services, Statewide, LA (4400019715) - Assistant Project Manager assisting with management of field crews, file processing, drafting, and submittal preparation for single beam and multibeam hydrographic surveying services for multiple bridges at scheduled intervals upstream and downstream for 289 sites to date throughout southern districts.		
01/23-04/26	LaDOTD Jimmie Davis Bridge (LA 511) Design-Build, Bossier & Caddo Parishes, LA (H.001779) - Assistant Project Manager assisting in the management of field crews and technicians for Static GPS Control surveys, topographic surveys, property surveys, title take-offs, description preparations, preliminary and final right-of-way mapping, QL A, B, C, & D utility designating/locating, and utility coordination services for the design-build project to replace the Jimmy Davis Bridge across the Red River.		
08/21-04/26	LaDOTD Rural Bridge Replacement Initiative Phase II, Districts 05, 08, & 58 (4400019337) - Assistant Project Manager assisting in the management of field crews and technicians for Static GPS Control surveys, topographic surveys, property surveys, title take-offs, description preparations, preliminary and final right-of-way mapping, and QL C & D subsurface utility services for 34 bridge and culvert replacements as a sub to BKI.		
04/21-04/26	LaDOTD Rural Bridge Replacement Initiative Phase II, Districts 02, 03, 07, 61, & 62 (4400019338) - Assistant Project Manager assisting in the management of field crews and technicians for Static GPS Control surveys, topographic surveys, property surveys, title take-offs, description preparations, preliminary and final right-of-way mapping, and QL C & D subsurface utility services for 21 bridge and culvert replacements as a sub to Waggoner.		
08/22-04/26	Delta Utilities/ CenterPoint Energy, Surveying & SUE Services, Various Parishes, LA (Various Agency Proj. Nos.) - Quality Control Surveyor assisting in staffing, coordination, and QA/QC for topographic surveys, property surveys, surveys in support of SUE, title takeoffs, boundary and right-of-way calculations, CADD drawings, and plats for maintenance and construction projects. To date, NTBA has worked on over 100 separate projects stretching from Lake Charles to Lafayette to Shreveport, and along the Northshore of Lake Pontchartrain.		
12/24-05/25	LaDOTD Contract for Topographic Surveys, Box Culvert Replacements, Tasks Orders 1-4, Evangeline, St. Landry, & Bienville Parishes (4400021975) - Project Manager directing field crews, file processing, drafting, and submittals for Static GPS Control surveys, topographic surveys, and surveys in support of QL D subsurface utility record research for preliminary designs of box culvert initiative projects.		

12/17-11/24	LaDOTD I-10: LA 415 to Essen Lane on I-10 and I-12, West & East Baton Rouge Parishes, LA (44-12323, 44-17713, 44-14660 - Multiple TOs) - Assistant Project Manager assisted in the management of field crews and technicians for topographic surveys, QL B, C, and D subsurface utility designating, and surveys in support of QL B, C, and D subsurface utility designating for approximately 13 miles of roadway.
04/22-04/23	LaDOTD I-20 Monkhouse to I-49, Caddo Parish, LA (4400017713) - Assistant Project Manager assisted in the management of field crews and technicians for Static GPS Control, topographic surveys, QL C & D subsurface utility services, drainage map preparation, and Mobile Laser Scanning for interstate rehabilitation.
03/21-03/22	City-Parish Ward Creek at Siegen Lane, East Baton Rouge Parish, LA (22-DR-US-0013) - Quality Control Surveyor reviewed and processed data for control, topographic, and property surveys along with surveys in support of QL B, C, and D subsurface utility designating services.
12/20 – 03/22	LaDOTD LA 47 IWGO Bridge Rehabilitation, Historic Bridge Improvement (HBI), Orleans Parish, LA (4400017713) - Assistant Project Manager assisted in the management of field crews and technicians for topographic surveys and surveys in support of QL C & D subsurface utility designating for bridge repair/ rehabilitation.
05/15 – 12/20	City of Bossier, Walter O. Bigby Carriageway (N. Pkwy Ext.) Bossier Parish, LA (City Proj. No. 8-15) - Quality Control Surveyor reviewed data and drafting for Static GPS Control surveys, topographic, property, and hydrographic surveying services, and QL A, B, C, and D subsurface utility designation/locating for a parkway facility design featuring new roads, additional lanes, roundabouts, and a bridge.
07/16 – 03/17	LaDOTD Bayou Fountain, Route LA 327 Spur (Gardere Lane) East Baton Rouge Parish, LA (4400006527 & H.002337.5) - Assistant Project Manager assisted in the management of survey crews and technicians for topographic surveys, surveys in support of QL B, C, and D subsurface utility designating, and drainage map preparation for roadway rehabilitation.
04/15 – 02/16	LaDOTD I-20 (Airline Drive to I-220) Bossier Parish, LA (4400005532 & H.011319.5) - Quality Control Surveyor reviewed data and drafting for topographic surveys for interstate rehabilitation.
05/13 – 10/15	Bossier Parish Police Jury, Kingston Road Improvements and Development, Bossier Parish, LA (Proj. No. Unknown) - Sr. Party Chief/ Technician ran a field crew and downloaded data for topographic surveys, property surveys, final right-of-way mapping, and drainage map preparation for the use in engineering plan and specifications.
04/15 – 09/15	LaDOTD LA 3094: Hearne Ave. Bridge Rehab, Route LA 3094, Caddo Parish, LA (4400001798 & H.011094.5) - Quality Control Surveyor reviewed data and drafting for topographic surveys, drainage map preparation, and surveys in support of QL B subsurface utility designating for bridge rehabilitation.
02/14 – 03/15	LaDOTD Earhart Expressway Extension to US 61, Route LA 3139, Jefferson Parish, LA (H.004367.5) - Sr. Survey Party Chief/Tech. ran a field crew and processed data for topographic surveying services for an overpass connection, relocation of existing lanes, and construction of additional lanes as a sub to AECOM
07/12 – 01/14	LaDOTD I-10 Loyola Ave. to Williams Blvd., Jefferson Parish, LA (H.003074.5 & H.009087.5) - Sr. Survey Party Chief/Tech. managed a survey crew and processed data for topographic surveys for interstate rehabilitation as a sub to GEC, Inc.
07/12 – 06/13	LaDOTD I-10 Williams Blvd. to Veterans Blvd., Jefferson Parish, LA (H.003074.5 & H.009087.5) - Sr. Survey Party Chief/Tech. ran a field crew and processed data for topographic surveys, QL B, C, and D subsurface utility designating, and surveys in support of QL A, B, C, and D subsurface utility designating/ locating for interstate rehabilitation as a sub to GEC, Inc.
07/10 – 10/12	LaDOTD LA 42 Widening and Improvements, District 61, Ascension Parish, LA (700-03-0125 & 701-65-1538) - Survey Party Chief/ Technician ran a field crew and processed data for topographic and property surveys in support of base and final right-of-way mapping, and title work.
02/11 – 08/11	LaDOTD I-20 Rehabilitation Westerfield Avenue to Industrial Drive, District 04, Bossier Parish, LA (H.003860.5 & 700-99-0525) - Survey Party Chief/Tech. managed a survey crew and processed data for topographic surveys for interstate rehabilitation.
09/09 – 03/10	LaDOTD Lawrence, Bogalusa, and Coburn Creek Bridges, Route LA 10, Washington Parish, LA (700-99-0484 & 701-65-1347) - Survey Party Chief/ Technician ran a field crew and processed data for topographic and property surveys in support of title work, title updates, title take-offs, and right-of-way map preparation.

16. Staff Experience:

Firm employed by NTB Associates, Inc.			
Name	Patrick C. Staiano, PLS	Years of relevant experience with this employer	6.5
Title	Staff Surveyor	Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization	B.S. / 2008 / Construction Management		
Active registration number / state / expiration date	#PLS.0005130 / LA / 09-30-2027		
Year registered	2015	Discipline	Professional Surveyor
Contract role(s) / brief description of responsibilities	Survey Project Manager (Satisfies MPR #7) Patrick will serve as NTBA's Survey Project Manager for property surveys and right-of-way mapping. Patrick will manage field crews, technicians, data processing, drafting, review and certification of maps and surveys, and submittals. He has over 16 years of surveying experience.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
09/24-04/26	LaDOTD IDIQ Contract for Professional Boundary Surveying Services, LA (4400027918) - Project Manager directing field crews, file processing, drafting, and submittals for topographic surveys and property surveys in support of title take-offs, description preparations, preliminary and final right-of-way mapping in support of roadway design improvements.		
01/23-04/26	LaDOTD Jimmie Davis Bridge (LA 511) Design-Build, Bossier & Caddo Parishes, LA (H.001779) - Assistant Project Manager assisting in the management of field crews, file processing, drafting, and submittals for Static GPS control surveys, topographic surveys, property surveys, surveys in support of QL B, C, and D subsurface utility designating, title take-offs, legal description preparation, and preliminary and final right-of-way mapping for the design-build project to replace the Jimmy Davis Bridge across the Red River as a sub-consultant to James Construction.		
09/22-04/26	LaDOTD Rural Bridge Replacement Initiative Phase II, Districts 05, 08, & 58 (4400019337) - Assistant Project Manager assisting in the management of field crews, file processing, drafting, and submittals for Static GPS control surveys, topographic surveys, property surveys, title take-offs, legal description preparations, and preliminary and final right-of-way mapping for 34 bridge and culvert replacements including surveying all sub-surface drainage structures as a sub-consultant to BKL.		
09/22-04/26	LaDOTD Rural Bridge Replacement Initiative Phase II, Districts 02, 03, 07, 61, & 62 (4400019338) - Assistant Project Manager assisting in the management of field crews, file processing, drafting, and submittals for Static GPS control surveys, topographic surveys, property surveys, title take-offs, legal description preparations, and preliminary and final right-of-way mapping for 21 bridge and culvert replacements including surveying all sub-surface drainage structures as a sub-consultant to Waggoner.		
09/22-09/25	Delta Utilities/ CenterPoint Energy, Surveying & SUE Services, Various Parishes, LA (Various Agency Proj. Nos.) - Assistant Project Manager assisting in the management of field crews, file processing, drafting, and submittals for topographic surveys, property surveying services, surveys in support of SUE, title research, title take-offs, boundary and right-of-way calculations, and reviews of CADD drawings and plats for maintenance and construction projects.		
09/22-09/25 03/18-02/21	Apache Corporation, Infrastructure Improvements, Permian Basin, Reeves Counties, TX (Agency Proj. Nos. Unknown) - Project Manager managing property surveying services and right-of-way acquisition mapping for approximately 84 miles of infrastructure improvements. Patrick has prepared approximately 131 property acquisition plats for this project.		
09/22-09/25 03/18-02/21	Targa Pipeline, Natural Gas Gathering System, Howard and Martin Counties, TX (Agency Proj. Nos. Unknown) - Quality Control Surveyor reviewing drafting and property acquisition plats as well as assisting with management of property surveying services. Patrick has prepared approximately 250 property acquisition plats for this project.		

07/23 – 05/25	LaDOTD IIJA Off-System Bridge Program, District 62 (4400025041) - Project Manager directing field crews, file processing, drafting, and submittals for Static GPS control surveys, topographic surveys, property surveys, title take-offs, legal description preparation, and preliminary and final right-of-way mapping in support of bridge replacements.
03/21 – 08/22	MOVEBR Jefferson Hwy. at Bluebonnet Intersection Improvements, LA (City Parish No. 20-CP-HC-0046) - Project Manager managed field crews and technicians for topographic surveys, property surveys, and right-of-way mapping.
03/20 – 02/21	UPRR Big Sandy Siding Survey, Upshur and Wood Counties, TX (29543/90502) - Assistant Project Manager performed property surveying services for 15 parcels along railroad consisting of approximately 3.24 miles of track to establish the existing railroad right-of-way. Prepared 8 ALTA Surveys along with the privately owned parcels for acquisition, 0.25-acre acquisition parcel in the right-of-way, and an overall right-of-way strip map.
09/19 – 02/20	DCP Midstream, MaBee Ranch Line Locates, Martin and Andrews Counties, TX (19-056-001) - Project Manager managed property surveying services in support of property acquisition services for 32 individual pipelines totaling approximately 22 miles.
03/18 – 10/18	Rogillio Resubdivision, East Baton Rouge & East Feliciana Parishes, LA (Agency Proj. No. Unknown) - Assistant Project Manager performed title take-offs, boundary, and right-of-way calculations, and reviewing CADD drawings and plats for resubdivision services for 93 acres.
04/17 – 03/18	LaDOTD LA 653 Bayou Dumar Bridge Replacement, Lafourche Parish, LA (H.008118) - Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed property surveys, prepared title work info, and right-of-way maps for a +/-0.5-mile project.
01/17 – 03/18	LaDOTD LA 450 Stoney Point Bridge Replacement, Washington Parish, LA (Proj. No. Unknown) - Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed property surveys and prepared title work info and right-of-way maps for a +/-0.25-mile project.
09/17 – 01/18	LaDOTD LA 1026: Roundabout at Buddy Ellis Rd., Livingston Parish, LA (H.011824) - Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed property surveys, prepared title work info, and right-of-way maps for a +/-0.3-mile project.
10/17 – 12/17	LaDOTD US 190B Jefferson Ave. Roundabout Covington, St. Tammany Parish, LA (H.011260) - Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed property surveys, prepared title work info, and right-of-way maps for a +/-0.1-mile project.
06/17 – 10/17	LaDOTD LA 22: Near I-10 Geometric Improvements, Ascension Parish, LA (H.011314) - Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed property surveys, prepared title work info, and right-of-way maps for a +/-0.75-mile project.
05/17 – 09/17	LaDOTD LA 59: Roundabout @ Lonesome Rd., Tangipahoa Parish, LA (H.011030) - Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed property surveys, prepared title work info, and right-of-way maps for a +/-0.5-mile project.
03/16 – 08/17	LaDOTD LA 59: Curve Realign and Tunnel at Trace, St. Tammany Parish, LA (H.010184) - Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed property surveys, prepared title work info, and right-of-way maps for a +/-0.75-mile project.
03/17 – 07/17	LaDOTD LA 1042: Bridges Near Greensburg, St. Helena Parish, LA (H.008312) - Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed property surveys, prepared title work info, and right-of-way maps for a +/- 2-mile project.
03/16 – 02/17	LaDOTD LA 22 Roundabout @ Dunson Rd., Tangipahoa Parish, LA (Proj. No. Unknown) - Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed property surveys, prepared title work info, and right-of-way maps for a +/-0.25-mile project.
03/16 – 01/17	LaDOTD LA 1024 Near Friendship, Livingston Parish, LA (Proj. No. Unknown) - Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed property surveys, prepared title work info, and right-of-way maps for a +/-0.5-mile project.

16. Staff Experience:

Firm employed by		NTB Associates, Inc.		
Name	Amy K. Schulze, PE, CFM		Years of relevant experience with this employer	8
Title	Sr. Project Engineer		Years of relevant experience with other employer(s)	20
Degree(s) / Years / Specialization			B.S. / 1998 / Civil Engineering	
Active registration number / state / expiration date			#PE.0030295 / LA / 03-31-2027	
Year registered	2002	Discipline	Civil Engineer	
		Other Pertinent Training / Certifications CFM National Certification: US-16-08839 Electro-Magnetic Locating Instruments Certified/Certificate of Locating Competency #WA2028 (Staking University)		
Contract role(s) / brief description of responsibilities			SUE Project Engineer/ Manager (Satisfies MPR #8) Amy will serve as the SUE Project Engineer/ Manager during this contract. She will supervise and manage any required subsurface utility designating/ locating services. Amy has nearly 30 years of SUE experience.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
12/25-05/26	LaDOTD/BPPJ Cong Relief Winfield Road (2025-118/H.003855.5) - SUE Project Manager for QL B, C, and D subsurface utility investigations including record reviews, surface feature surveys, underground utility designating, utility base-map development, and utility-owner coordination in support of roadway design.			
06/25-05/26	City of Baton Rouge/ East Baton Rouge Parish, Upper Ward Creek Clearing & Snagging Project, East Baton Rouge Parish, LA (25-DR-US-0013) - SUE Project Manager for QL C, B, and D surface utility designating, utility coordination services, and surveys in support of SUE for flood reduction and associated channel-improvement work.			
11/25-05/26	LaDOTD Kings Hwy: Healthcare & Development Corridor, Caddo Parish, LA (H.015724) - SUE Project Manager for surveys in support of SUE, QL B, C, & D utility designating, and utility coordination services in support of rehabilitation and design for roadway reconstruction.			
01/22-05/26	LaDOTD Jimmie Davis Bridge (LA 511) Design-Build, Bossier & Caddo Parishes, LA (H.001779) - SUE Project Manager for surveys in support of SUE, QL A, B, C, & D utility designating/ locating, and utility coordination services for the design-build project to replace the Jimmy Davis Bridge across the Red River.			
04/21-05/26	LaDOTD Rural Bridge Replacement Initiative Phase II, Districts 02, 03, 07, 61, & 62 (4400019338) - SUE Project Manager for QL C & D subsurface utility services and surveys in support of SUE for 21 bridge and culvert replacements as a sub to Sigma/ Waggoner.			
08/21-05/26	LaDOTD Rural Bridge Replacement Initiative Phase II, Districts 05, 08, & 58 (4400019337) - SUE Project Manager for QL C & D subsurface utility services and surveys in support of SUE for 34 bridge and culvert replacements as a sub to BKI.			
08/22-05/26	Delta Utilities/ CenterPoint Energy Survey & SUE Services, LA (Various Proj. Nos.) - SUE Project Manager for QL B, C, & D subsurface utility designating services and surveys in support of SUE in various parishes throughout Louisiana to assist with utility relocation activities. To date, NTBA has worked on over 100 separate projects stretching from Lake Charles to Lafayette to Shreveport, and along the Northshore of Lake Pontchartrain.			
01/25-02/25	LaDOTD Contract for Topographic Surveys, Box Culvert Replacements, Tasks Orders 1-4, Evangeline, St. Landry, & Bienville Parishes (4400021975) - SUE Project Manager for QL D subsurface utility record research services and surveys in support of SUE for preliminary designs of box culvert initiative projects.			

04/18-11/24	LaDOTD I-10: LA 415 to Essen Lane, West & East Baton Rouge Parishes, LA (H.004100.5) - SUE Project Manager for QL B, C, and D subsurface utility designating as well as for surveys in support of SUE for approximately 13 miles of roadway.
06/24-08/24	St. Tammany Parish Government Carroll Road Survey & SUE, St. Tammany Parish, LA (42200856) - SUE Project Manager for QL B, C, and D utility designating services and surveys in support of SUE throughout the approximately 1.5 miles of the project corridor of Carroll Road including all surface streets, drainage ways, and 2 major intersections within and surrounding the project corridor.
06/24-08/24	Ascension Parish Government LA 73 to LA 30 Roundabout, Ascension Parish, LA (MA-23-08) - SUE Project Manager for QL B, C, and D subsurface utility designating and surveys in support of SUE for the intersection improvements for design of a new roundabout as a subconsultant to GEC, Inc.
02/20-07/24	City of Baton Rouge/ East Baton Rouge Parish, MOVEBR Bluebonnet Blvd. (Perkins – Picardy) East Baton Rouge Parish, LA (19-CP-HC-0034) - SUE Project Manager for QL A, B, C, and D subsurface utility designating/ locating and surveys in support of SUE throughout the approximately 1.5 miles of the project corridor.
02/21-02/24	LaDOTD IDIQ Contract for SUE Services, I-10, Task Orders 1, 2, 4, & 5, East Baton Rouge Parish, LA (4400014660) - SUE Project Manager directed QL B, C, D subsurface utility designating services and surveys in support of SUE for four task orders for several additional areas around the I-10 corridor in conjunction with the on-going design-build contract.
06/22-04/23	LaDOTD I-20 Monkhouse to I-49, Caddo Parish, LA (4400017713) - SUE Project Manager for QL C & D subsurface utility services and surveys in support of SUE for interstate rehabilitation.
08/21-08/21	LaDOTD LA 47 IWGO Bridge Rehabilitation, Historic Bridge Improvement (HBI), Orleans Parish, LA (4400017713) - SUE Project Manager for QL C & D subsurface utility services and surveys in support of SUE for bridge repair/ rehabilitation.
12/20-03/21	LaDOTD LA 6: Youngs Bayou Bridge Rehab, Natchitoches Parish, LA (4400017713 & H.013821.5) - SUE Project Manager assisted in the review of survey and utility data for topographic surveying services for bridge rehabilitation.
04/18-12/20	City of Bossier, Walter O. Bigby Carriageway (N. Pkwy Ext.) Bossier Parish, LA (City Proj. No. 8-15) - SUE Project Manager for QL A, B, C, and D subsurface utility designating/locating services in support of surveys and right-of-way mapping for a parkway facility design featuring new roads, additional lanes, roundabouts, and a bridge.
07/19-02/20	LaDOTD I-10: Loyola Interchange, Kenner, Jefferson Parish, LA (H.011670) - SUE Project Manager for QL B, C, and D subsurface utility designating services and surveys in support of SUE for approximately 5 miles.
12/18-01/20	LaDOTD LA 951: Roadway Washout Repairs, East Feliciana Parish, LA (H.013643) - SUE Project Manager for QL A, B, C, and D subsurface utility designating/locating and surveys in support of SUE for approximately 2,600 feet of roadway.
12/18-03/19	City of New Orleans, West End Subdivision, Phase B125, New Orleans, LA (Agency Proj. No. Unknown) - SUE Project Manager for QL B, C, and D subsurface utility designating along with surveys in support of SUE for preliminary and final design services for FEMA-eligible street repairs.
06/18-10/18	LaDOTD I-10: Williams Blvd. to Veterans Blvd., Jefferson Parish, LA (H.003074.5 & H.009087.5) - SUE Project Manager for QL B, C, and D subsurface utility designating and surveys in support of SUE for approximately 2 miles for interstate rehabilitation as a sub to GEC, Inc.

16. Staff Experience:

Firm employed by		NTB Associates, Inc.	
Name	Bryan T. Bunch, PLS	Years of relevant experience with this employer	17
Title	Executive Vice President	Years of relevant experience with other employer(s)	15
Degree(s) / Years / Specialization	B.S. / 1988 / Survey and Land Information Systems, University of Arkansas		
Active registration number / state / expiration date	#PLS.0005014 / LA / 03-31-2028		
Year registered	2009	Discipline	Professional Surveyor
Contract role(s) / brief description of responsibilities	Assistant Survey Project Manager Bryan will serve as NTBA Assistant Survey Project Manager assisting in staff management, processing, and preparation of deliverables for topographic surveying services.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
09/24 – 05/26	LaDOTD IDIQ Contract for Professional Boundary Surveying Services, LA (4400027918) - Assistant Survey Project Manager assisting in staffing, coordination, and QA/QC for topographic surveys and property surveys in support of title take-offs, description preparations, preliminary and final right-of-way mapping in support of roadway design improvements.		
08/25 – 05/26	LaDOTD I-20: Sam R. Fert Dr. to Red River Bridge, Caddo Parish, LA (H.016413.5) - Assistant Survey Project Manager assisting in staffing, coordination, and QA/QC for Static GPS Control surveys, topographic surveys utilizing HDS 3D Terrestrial Laser Scanning methods of data collection, and surveys in support of QL C & D subsurface utility services for interstate rehabilitation along I-20, between a point southeasterly of the I-20 & I-49 interchange and the Caddo/Bossier Parish Line.		
01/23-04/26	LaDOTD Jimmie Davis Bridge (LA 511) Design-Build, Bossier & Caddo Parishes, LA (H.001779) - Survey Project Manager directing field crews, file processing, drafting, and submittals for Static GPS Control surveys, topographic surveys, property surveys, title take-offs, description preparations, preliminary and final right-of-way mapping, QL A, B, C, & D utility designating/locating, and utility coordination services for the design-build project to replace the Jimmy Davis Bridge across the Red River.		
09/24-04/26	LaDOTD IDIQ Contract for Professional Boundary Surveying Services, LA (4400027918) - Assistant Survey Project Manager assisting in staffing, coordination, and QA/QC for topographic surveys and property surveys in support of title take-offs, description preparations, preliminary and final right-of-way mapping in support of roadway design improvements.		
09/20-04/26	LaDOTD Rural Bridge Replacement Initiative Phase II, Districts 02, 03, 07, 61, & 62 (4400019338) - Survey Project Manager directing field crews, file processing, drafting, and submittals for Static GPS Control surveys, topographic surveys, property surveys, title take-offs, description preparations, preliminary and final right-of-way mapping, and QL C & D subsurface utility services for 21 bridge and culvert replacements as a sub to Waggoner.		
08/22-04/26	Delta Utilities/ CenterPoint Energy, Surveying & SUE Services, Various Parishes, LA (Various Agency Proj. Nos.) - Quality Control Surveyor assisting in staffing, coordination, and QA/QC for topographic surveys, property surveys, surveys in support of SUE, title takeoffs, boundary and right-of-way calculations, CADD drawings, and plats for maintenance and construction projects. To date, NTBA has worked on over 100 separate projects stretching from Lake Charles to Lafayette to Shreveport, and along the Northshore of Lake Pontchartrain.		
07/23-04/26	LaDOTD IJA Off-System Bridge Program, District 62 (4400025041) - Quality Control Surveyor assisted in staffing, coordination, and QA/QC for Static GPS control surveys, topographic surveys, property surveys, title take-offs, legal description preparation, and preliminary and final right-of-way mapping in support of bridge replacements.		
12/24-05/25	LaDOTD Contract for Topographic Surveys, Box Culvert Replacements, Tasks Orders 1-4, Evangeline, St. Landry, & Bienville Parishes (4400021975) - Assisted in the supervision and review of survey data and processing for Static GPS Control surveys, topographic surveys, and surveys in support of QL D subsurface utility record research for preliminary designs of box culvert initiative projects.		

12/17-11/24	LaDOTD I-10: LA 415 to Essen Lane on I-10 and I-12, West & East Baton Rouge Parishes, LA (44-12323, 44-17713, 44-14660 - Multiple TOs) - Survey Project Manager directed field crews, file processing, drafting, and submittals for Static GPS Control surveys, topographic surveys, QL B, C, and D subsurface utility designating, and surveys in support of QL B, C, and D subsurface utility designating for approximately 13 miles of roadway.
04/22-04/23	LaDOTD I-20 Monkhouse to I-49, Caddo Parish, LA (4400017713) - Survey Project Manager directed field crews, file processing, drafting, and submittals for Static GPS Control, topographic surveys, QL C & D subsurface utility services, drainage map preparation, and Mobile Laser Scanning for interstate rehabilitation.
03/21 – 03/22	City-Parish Ward Creek at Siegen Lane, East Baton Rouge Parish, LA (22-DR-US-0013) - Survey Project Manager managed field crews and technicians for control, topographic, and property surveys along with QL B, C, and D subsurface utility designating services for approximately 1,500 feet of Ward Creek.
12/20 – 03/21	LaDOTD LA 6: Youngs Bayou Bridge Rehab, Natchitoches Parish, LA (4400017713 & H.013821.5) - Assistant Project Manager assisted in the supervision and review of survey data and processing for topographic surveying services.
05/15 – 12/20	City of Bossier, Walter O. Bigby Carriageway (N. Pkwy Ext.) Bossier Parish, LA (City Proj. No. 8-15) - Quality Control Surveyor supervised south LA field crews and technicians for Static GPS Control surveys, topographic, property, and hydrographic surveying services, and QL A, B, C, and D subsurface utility designation/locating for a parkway facility design featuring new roads, additional lanes, roundabouts, and a bridge.
05/16 – 06/18	LaDOTD LA 675 & LA 87 Improvements in New Iberia, Iberia Parish, LA (4400002562 & 4400006814) - Project Manager directed field crews, file processing, drafting, and submittals for topographic surveying services as a sub to Stanley Consultants, Inc.
11/15 – 05/17	Bossier Parish Police Jury, Winfield Road Extension, East/West (LA 3 to Airline Highway) Bossier Parish, LA (DEC 15-11-03) - Quality Control Surveyor assisted in staffing, coordination, and QA/QC for control surveys, topographic surveys, property surveys, right-of-way mapping, QL D subsurface utility services, and drainage map preparation as a sub to Denmon (Volkert).
07/16 – 03/17	LaDOTD Bayou Fountain, Route LA 327 Spur (Gardere Lane) East Baton Rouge Parish, LA (4400006527 & H.002337.5) - Survey Project Manager directed field crews, file processing, drafting, and submittals for topographic surveys, surveys in support of QL B, C, and D subsurface utility designating, and drainage map preparation for roadway rehabilitation.
10/15 – 07/16	LaDOTD MacArthur Interchange Completion (Phase II) Route US 90-Z, Jefferson Parish, LA (4400005142 & H.011309.5) - Project Manager directed field crews, file processing, drafting, and submittals for topographic surveying services as a sub to SDR Engineering.
04/15 – 02/16	LaDOTD I-20 (Airline Drive to I-220) Route I-20, Bossier Parish, LA (4400005532 & H.011319.5) - Assistant Project Manager supervised south LA crew members and technicians for topographic surveying services.
05/13 – 10/15	Bossier Parish Police Jury, Kingston Road Improvements and Development, Bossier Parish, LA (Agency Proj. No. Unknown) - Quality Control Surveyor assisted in staffing, coordination, and QA/QC for topographic surveys, property surveys, final right-of-way mapping, and drainage map preparation for the use in engineering plan and specifications.
04/15 – 09/15	LaDOTD LA 3094: Hearne Ave. Bridge Rehab, Route LA 3094, Caddo Parish, LA (4400001798 & H.011094.5) - Quality Control Surveyor assisted in staffing, coordination, and QA/QC for topographic surveys, drainage map preparation, and surveys in support of QL B subsurface utility designating for bridge rehabilitation.
02/14 – 03/15	LaDOTD Earhart Expressway Extension to US 61, Route LA 3139, Jefferson Parish, LA (H.004367.5) - Project Manager directed survey crews, file processing, drafting, and submittals for topographic surveys for an overpass connection, relocation of existing lanes, and construction of additional lanes as a sub to AECOM.
07/12 – 01/14	LaDOTD I-10 Loyola Ave. to Williams Blvd., Jefferson Parish, LA (H.003074.5 & H.009087.5) - Project Manager directed survey crews, file processing, drafting, and submittals for topographic surveys for interstate rehabilitation as a sub to GEC, Inc.
07/12 – 06/13	LaDOTD I-10 Williams Blvd. to Veterans Blvd., Jefferson Parish, LA (H.003074.5 & H.009087.5) - Project Manager directed survey crews, file processing, drafting, and submittals for topographic surveys for interstate rehabilitation as a sub to GEC, Inc.

16. Staff Experience:

Firm employed by		NTB Associates, Inc.		
Name	Will Wales		Years of relevant experience with this employer	13
Title	Party Chief		Years of relevant experience with other employer(s)	20
Degree(s) / Years / Specialization			High School Diploma, 1987	
Active registration number / state / expiration date			N/A	
Year registered		Discipline	N/A	
			Other Pertinent Training / Certifications ATSSA Traffic Control Supervisor, 2/8/2023 – 2/8/2027	
Contract role(s) / brief description of responsibilities			Field Operations Manager Will will supervise field operations for all surveying services, including hydrographic surveys.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
01/23-06/26	LaDOTD Jimmie Davis Bridge (LA 511) Design-Build, Bossier & Caddo Parishes, LA (H.001779) - Field Operations Manager supervising field operations for Static GPS Control surveys, topographic surveys utilizing HDS 3D Terrestrial Laser Scanning methods of data collection, and property surveys in support title take-offs, legal description preparation, preliminary and final right-of-way mapping, and QL A, B, C, & D utility designating/locating for the design-build project to replace the Jimmy Davis Bridge across the Red River.			
08/21-06/26	LaDOTD Rural Bridge Replacement Initiative Phase II, Districts 05, 08, & 58 (4400019337) - Field Operations Manager supervising field operations for Static GPS Control surveys, topographic surveys utilizing HDS 3D Terrestrial Laser Scanning methods of data collection, property surveys in support of title take-offs, legal description preparation, preliminary and final right-of-way mapping, and QL C & D subsurface utility services for 34 bridge and culvert replacements as a sub to BKI.			
04/21-06/26	LaDOTD Rural Bridge Replacement Initiative Phase II, Districts 02, 03, 07, 61, & 62 (4400019338) - Field Operations Manager supervising field operations for Static GPS Control surveys, topographic surveys utilizing HDS 3D Terrestrial Laser Scanning methods of data collection, property surveys in support of title take-offs, legal description preparation, preliminary and final right-of-way mapping, and QL C & D subsurface utility services for 21 bridge and culvert replacements as a sub to Waggoner.			
09/20-03/25	LaDOTD IDIQ Contract for Hydrographic Surveying Services, Statewide, LA (4400019715) - Field Operations Manager/ Survey Party Chief supervised field operations, ran a field crew, and downloaded data for single beam and multibeam hydrographic surveying services and development of surface models from LiDAR data for multiple bridges at scheduled intervals upstream and downstream for 301 sites throughout southern districts.			
02/25-03/25	LaDOTD Contract for Topographic Surveys, Box Culvert Replacements, Tasks Orders 1-4, Evangeline, St. Landry, & Bienville Parishes (4400021975) - Field Operations Manager supervised field operations for Static GPS Control surveys, topographic surveys, and surveys in support of QL D subsurface utility record research for preliminary designs of box culvert initiative projects.			
12/17-03/24	LaDOTD I-10: LA 415 to Essen Lane on I-10 and I-12, West & East Baton Rouge Parishes, LA (H.004100.5) - Field Operations Manager/ Survey Party Chief supervised field operations, ran a field crew, and downloaded data for topographic surveys utilizing HDS 3D Terrestrial Laser Scanning methods of data collection, QL B, C, and D subsurface utility designating, and surveys in support of QL B, C, and D subsurface utility designating for approximately 13 miles of roadway.			
12/20-03/22	LaDOTD LA 47 IWGO Bridge Rehabilitation, Historic Bridge Improvement (HBI), Orleans Parish, LA (4400017713) - Survey Party Chief ran a field crew and downloaded data for topographic surveys utilizing HDS 3D Terrestrial Laser Scanning methods of data collection, multibeam hydrographic survey, and surveys in support of QL C & D subsurface utility designating for bridge repair/ rehabilitation.			

16. Staff Experience:

Firm employed by		NTB Associates, Inc.		
Name	Captayn Chapman		Years of relevant experience with this employer	12
Title	Party Chief		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			High School Diploma, 2006	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
			Other Pertinent Training / Certifications U.T.A. Certified Professional Utility Locator ATSSA Traffic Control Supervisor, 2/8/2023 – 2/8/2027	
Contract role(s) / brief description of responsibilities			Survey/SUE Party Chief Captayn will serve as an NTBA Survey/SUE Party Chief during this contract. He will lead a field crew and download data for topographic survey and SUE services.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
08/25 – 05/26	LaDOTD I-20: Sam R. Fert Dr. to Red River Bridge, Caddo Parish, LA (H.016413.5) - Survey/ SUE Party Chief running a field crew and downloading data for Static GPS Control surveys, topographic surveys utilizing HDS 3D Terrestrial Laser Scanning methods of data collection, and surveys in support of QL C & D subsurface utility services for interstate rehabilitation along I-20, between a point southeasterly of the I-20 & I-49 interchange and the Caddo/Bossier Parish Line.			
01/23-04/26	LaDOTD Jimmie Davis Bridge (LA 511) Design-Build, Bossier & Caddo Parishes, LA (H.001779) - Survey/ SUE Party Chief running a field crew and downloading data for Static GPS Control surveys, topographic surveys, and property surveys in support of title take-offs, title research, preliminary and final right-of-way mapping, and QL A, B, C, & D utility designating/ locating for the design-build project to replace the Jimmy Davis Bridge across the Red River.			
09/24-04/26	LaDOTD IDIQ Contract for Professional Boundary Surveying Services, LA (4400027918) Survey Party Chief running a field crew and downloading data for topographic surveys and property surveys in support of title take-offs, description preparations, preliminary and final right-of-way mapping for roadway design improvements.			
04/21-04/26	LaDOTD Rural Bridge Replacement Initiative Phase II, Districts 02, 03, 07, 61, & 62 (4400019338) - Survey/ SUE Party Chief running a field crew and downloading data for Static GPS Control surveys, topographic surveys, and property surveys in support of title take-offs, legal description preparation, preliminary and final right-of-way mapping, and QL C & D subsurface utility services for 21 bridge and culvert replacements as a sub to Waggoner.			
07/23-04/26	LaDOTD IJA Off-System Bridge Program, District 62 (4400025041) - Survey Party Chief running a field crew and downloading data for Static GPS control surveys, topographic surveys, property surveys, title take-offs, legal description preparation, and preliminary and final right-of-way mapping in support of bridge replacements.			
12/17-11/24	LaDOTD I-10: LA 415 to Essen Lane on I-10 and I-12, West & East Baton Rouge Parishes, LA (H.004100.5) - Survey/ SUE Party Chief ran a field crew for topographic surveys and surveys in support of QL B, C, and D subsurface utility designating for approximately 13 miles.			
08/21-02/22	LaDOTD LA 47 IWGO Bridge Rehabilitation, Historic Bridge Improvement (HBI), Orleans Parish, LA (4400017713) - Survey/ SUE Party Chief ran a field crew and downloaded data for topographic surveys and surveys in support of QL C & D subsurface utility services for bridge repair/ rehabilitation.			

12/20-01/21	LaDOTD LA 6: Youngs Bayou Bridge Rehab, Natchitoches Parish, LA (4400017713 & H.013821.5) - Instrument Man performed on a field crew for topographic surveys for bridge rehabilitation.
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16. Staff Experience:

Firm employed by		NTB Associates, Inc.		
Name	Belton Davis, Jr.		Years of relevant experience with this employer	7.5
Title	Party Chief		Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization			High School Diploma	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
			Other Pertinent Training / Certifications ATSSA Traffic Control Technician, 2/7/2023 – 2/7/2027 U.T.A. Certified Professional Utility Locator	
Contract role(s) / brief description of responsibilities			Survey/SUE Party Chief Belton will serve as an NTBA Survey/SUE Party Chief during this contract. He will lead a field crew and download data for survey and SUE services.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
09/24-04/26	LaDOTD IDIQ Contract for Professional Boundary Surveying Services, LA (4400027918) - Survey Party Chief running a field crew and downloading data for topographic surveys and property surveys in support of title take-offs, description preparations, preliminary and final right-of-way mapping for roadway design improvements.			
01/23-04/26	LaDOTD Jimmie Davis Bridge (LA 511) Design-Build, Bossier & Caddo Parishes, LA (H.001779) - Survey/ SUE Party Chief running a field crew and downloading data for Static GPS Control surveys, topographic surveys, and property surveys in support of title take-offs, title research, preliminary and final right-of-way mapping, and QL A, B, C, & D utility designating/ locating for the design-build project to replace the Jimmy Davis Bridge across the Red River.			
07/23-04/26	LaDOTD IJJA Off-System Bridge Program, District 62 (4400025041) - Survey/ SUE Party Chief running a field crew and downloading data for Static GPS control surveys, topographic surveys, property surveys, title take-offs, legal description preparation, and preliminary and final right-of-way mapping in support of bridge replacements.			
09/22-04/26	Delta Utilities/ CenterPoint Energy, Surveying & SUE Services, Various Parishes, LA (Various Agency Proj. Nos.) - Survey/ SUE Party Chief running a field crew and downloading data for topographic surveys, property surveying services, surveys in support of SUE, title research, title take-offs, boundary and right-of-way calculations, and reviews of CADD drawings and plats for maintenance and construction projects.			
12/24-01/25	LaDOTD Contract for Topographic Surveys, Box Culvert Replacements, Tasks Orders 1-4, Evangeline, St. Landry, & Bienville Parishes (4400021975) - Survey/ SUE Party Chief ran a field crew and downloaded data for Static GPS Control surveys, topographic surveys, and surveys in support of QL D subsurface utility record research for preliminary designs of box culvert initiative projects.			
06/18-10/24	LaDOTD I-10: LA 415 to Essen Lane on I-10 and I-12, West & East Baton Rouge Parishes, LA (H.004100.5) - Survey/ SUE Party Chief ran a field crew and downloaded data for topographic surveys, QL B, C, and D subsurface utility designating, and surveys in support of QL B, C, and D subsurface utility designating for approximately 13 miles of roadway.			
04/22-04/23	LaDOTD Monkhouse to I-49, Caddo Parish, LA (4400017713) - Survey Party Chief ran a field crew and downloaded data for topographic surveys and surveys in support of QL C & D subsurface utility services and drainage map preparation for interstate rehabilitation.			
02/21-04/21	LaDOTD LA 3125 @ LA 3274 Roundabout, St. James Parish, LA (H.014416.5) - Rodman performing on a field crew for topographic surveys and surveys in support of QL B, C, & D subsurface utility designating.			

07/19-02/20	LaDOTD I-10: Loyola Interchange, Kenner, Jefferson Parish, LA (H.011670) - Rodman performing on a field crew for QL B, C, and D subsurface utility designating, topographic surveys, surveys in support of QL A, B, C, and D subsurface utility designating/ locating for approximately 5 miles.
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16. Staff Experience:

Firm employed by		NTB Associates, Inc.		
Name	Jeremy Reppond		Years of relevant experience with this employer	9
Title	Party Chief		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			High School Diploma, 2011 / FAA UAS Remote Pilot (#4282637)	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Survey/SUE Party Chief Jeremy will serve as Survey Party Chief during this contract. He will lead a field crew and download data for topographic survey services.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
04/26-05/26	LaDOTD LA 1 Caddo Lake Bridge to Donna Annette Road, Caddo Parish, LA (H.016365) - Survey Party Chief running a field crew and downloading data for a topographic survey to collect roadway, drainage, utilities, structures, traffic features, and superelevation control data in support of roadway/bridge design and safety improvements as a sub to Halff.			
08/22-04/26	Delta Utilities/ CenterPoint Surveying & SUE Services, Various Parishes, LA (Various Agency Proj. Nos.) - Survey Party Chief running a field crew and downloading data for topographic surveys , property surveys, and surveys in support of SUE for maintenance and construction projects. To date, NTBA has worked on over 100 separate projects stretching from Lake Charles to Lafayette to Shreveport, and along the Northshore of Lake Pontchartrain.			
07/23-10/24	LaDOTD Jimmie Davis Bridge (LA 511) Design-Build, Bossier & Caddo Parishes, LA (H.001779) - Survey Party Chief. Ran a field crew and downloaded data for Static GPS Control surveys, topographic surveys, property surveys, and surveys in support of QL A, B, C, & D utility designating/locating for the design-build project to replace the Jimmy Davis Bridge across the Red River.			
09/21-08/24	LaDOTD Rural Bridge Replacement Initiative Phase II, Districts 05, 08, & 58 (4400019337) - Survey Party Chief ran a field crew and downloaded data for Static GPS Control surveys, topographic surveys, and property surveys in support of title take-offs, legal description preparation, preliminary and final right-of-way mapping, and QL C & D subsurface utility services for 34 bridge and culvert replacements as a sub to BKI.			
04/22-04/23	LaDOTD I-20 Monkhouse to I-49, Caddo Parish, LA (4400017713) - Survey Party Chief. Ran a field crew and downloaded data for Static GPS Control, topographic surveys, and surveys in support QL C & D subsurface utility services, drainage map preparation, and Mobile Laser Scanning for interstate rehabilitation.			
05/21-05/21	LaDOTD Rural Bridge Replacement Initiative Phase II, Districts 02, 03, 07, 61, & 62 (4400019338) - Survey Party Chief running a field crew and downloading data for Static GPS Control surveys, topographic surveys, and property surveys in support of title take-offs, legal description preparation, preliminary and final right-of-way mapping, and QL C & D subsurface utility services for 21 bridge and culvert replacements as a sub to Waggoner.			
10/21-02/22	LaDOTD LA 47 IWGO Bridge Rehabilitation, Historic Bridge Improvement (HBI), Orleans Parish, LA (4400017713) - Instrument Man performed on a field crew for topographic surveys and surveys in support of QL C & D subsurface utility services for bridge repair/ rehabilitation.			
02/21-02/21	LaDOTD LA 3125 @ LA 3274 Roundabout, St. James Parish, LA (H.014416.5) - Instrument Man performed on a field crew for topographic surveys for the design of a roundabout intersection.			
12/20-02/21	LaDOTD LA 6: Youngs Bayou Bridge Rehab, Natchitoches Parish, LA (4400017713 & H.013821.5) - Instrument Man performed on a field crew for topographic surveys for bridge rehabilitation.			
05/19-07/19	LaDOTD US 167, LA 2: Middle Slough & Creek Bridges, Union Parish, LA (4400009385 & H. 012037.5) - Instrument Man performed on a field crew for topographic surveying services for bridge rehabilitation/design for two separate bridge site locations.			

16. Staff Experience:

Firm employed by		NTB Associates, Inc.		
Name	Iniko Jack		Years of relevant experience with this employer	19
Title	CADD Technician		Years of relevant experience with other employer(s)	9
Degree(s) / Years / Specialization			High School Diploma, 1994	
Active registration number / state / expiration date			N/A	
Year registered		Discipline	Other Pertinent Training / Certifications Certificate of Locating Competency/ Staking University (#P3642) Electro-Magnetic Locating Instruments Certified ATSSA Traffic Control Supervisor, 2/8/2023 – 2/8/2027	
Contract role(s) / brief description of responsibilities			CADD Technician He will process field data for property surveys, perform calculations, draft base and final right-of-way mapping. Iniko has been trained in Bentley InRoads, AutoCAD, and MicroStation Software to produce maps.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
09/24-06/26	LaDOTD IDIQ Contract for Professional Boundary Surveying Services, LA (4400027918) - CADD Technician processing data, performing calculations, and drafting files for topographic surveys and property surveys in support of title take-offs, description preparations, preliminary and final right-of-way mapping in support of roadway design improvements.			
08/25-06/26	LaDOTD I-20: Sam R. Fert Dr. to Red River Bridge, Caddo Parish, LA (H.016413.5) - CADD Technician processing data, performing calculations, and drafting files for Static GPS Control surveys, topographic surveys utilizing HDS 3D Terrestrial Laser Scanning methods of data collection, and surveys in support of QL C & D subsurface utility services for interstate rehabilitation.			
09/24-06/26	LaDOTD IDIQ Contract for Professional Boundary Surveying Services, LA (4400027918) - CADD Technician processing data, performing calculations, and drafting files for topographic and property surveys, title take-offs, description preparations, and preliminary and final right-of-way mapping for roadway design improvements.			
01/23-06/26	LaDOTD Jimmie Davis Bridge (LA 511) Design-Build, Bossier & Caddo Parishes, LA (H.001779) - Field Operations/ CADD Technician supervising field staff and delivering Static GPS control, topographic (HDS 3D laser scanning), property and ROW surveys, legal descriptions, title take-offs, and QL A–D utility mapping and coordination for bridge replacement.			
08/21-06/26	LaDOTD Rural Bridge Replacement Initiative Phase II, Districts 05, 08, & 58 (4400019337) - Field Operations/ CADD Technician supervising field staff, processing data, performing calculations, and drafting files for Static GPS Control surveys, topographic surveys, property surveys, title take-offs, legal descriptions, and preliminary and final right-of-way mapping, and QL C & D subsurface utility services for 34 bridge and culvert replacements.			
04/21-06/26	LaDOTD Rural Bridge Replacement Initiative Phase II, Districts 02, 03, 07, 61, & 62 (4400019338) - Field Operations/ CADD Technician supervising field staff, processing data, performing calculations, and drafting files for Static GPS Control surveys, topographic surveys, property surveys, title take-offs, legal descriptions, and preliminary and final right-of-way mapping, and QL C & D subsurface utility services for 21 bridge and culvert replacements.			
08/23-06/26	LaDOTD IJA Off-System Bridge Program, District 62 (4400025041) - Field Operations/ CADD Technician supervising field staff, processing data, performing calculations, and drafting files for Static GPS control surveys, topographic surveys, property surveys, title take-offs, legal descriptions, and preliminary and final right-of-way mapping in support of bridge replacements.			
12/20-03/22	LaDOTD LA 47 Bridge Rehabilitation, Historic Bridge Improvement (HBI), Orleans Parish, LA (4400017713) - Field Operations/CADD Technician. Supervised field staff, processed data, performed calculations, and drafted files for topographic surveys using HDS 3D Terrestrial Laser Scanning methods of data collection, multibeam hydrographic survey, and surveys in support of QL C & D subsurface utility designating.			

16. Staff Experience:

Firm employed by		GeoEngineers, Inc.	
Name	Larry Sant, P.E.	Years of relevant experience with this employer	25
Title	Associate Geotechnical Engineer	Years of relevant experience with other employer(s)	3
Degree(s) / Years / Specialization		M.S. / 2001 / Civil Engineering B.S. / 2001 / Civil Engineering	
Active registration number / state / expiration date		#PE.0035625 / LA / 09-30-2026	
Year registered	2010	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities		Geotechnical Task Leader (Satisfies MPR #9) 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 East Baton Rouge Parish, The City of Baton Rouge, 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.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
04/24-Present	LADOTD, P3 I-10 Calcasieu River Bridge Geotechnical Engineering Services; Lake Charles, LA - Lead geotechnical 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 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	LADOTD, Jimmie Davis Bridge Prelim Explorations; Caddo and Bossier Parishes, LA - 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	LADOTD, I-10/Loyola Interchange Design Build, Kenner, LA - 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. Larry served as the lead geotechnical engineer.		
05/18-04/19	LADOTD, I-20/I-220 (Barksdale AFB) Design Build, OV/QA, Bossier Parish, LA - 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	LADOTD, I-10 Widening (Highland to LA-73) Design Build, OV/QA, Baton Rouge, LA - 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	LADOTD, US-90/LA-318 Interchange Design Build, St. Mary Parish, LA - Project manager during this design-build project in support of the proposed Interchange on US90 at LA318. He led 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 WEAP. During construction we conducted PDA/ CAPWAP testing to keep the schedule progressing.
02/13-04/13	LADOTD, I-49/US90 Widening over LA182 and BNSF Railroad, Lafayette, LA - This was a LA 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	LADOTD, I-210 at Cove Lane Interchange, Lake Charles, LA - 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 WEAP, mechanically stabilized earth (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	LADOTD, I-12 Widening (Amite River to Juban Road) Design Build, Denham Springs, LA - 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	LADOTD, US90 at LA85 Interchange Design Build, Iberia Parish, LA - 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.

16. Staff Experience:

Firm employed by		GeoEngineers, Inc.		
Name	James Aronstein, Jr., P.E., PLS		Years of relevant experience with this employer	56
Title	Senior Geotechnical Advisor		Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization			B.S. / 1965 / Civil Engineering	
Active registration number / state / expiration date			#PE.0011794 / LA / 03-31-2027 #PLS.0000458 / LA / 03-31-2027	
Year registered	1969 (PE); 1970 (PLS)	Discipline	Civil Engineer Professional Surveyor	
Contract role(s) / brief description of responsibilities			Geotechnical Quality Assurance/Quality Control (Satisfies MPR #9) 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 LA DOTD 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 LA DOTD 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	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
10/21-06/22	LADOTD, Jimmie Davis Bridge Prelim Explorations; Caddo and Bossier Parishes, LA - 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	LADOTD, I-10/Loyola Interchange Design Build; Kenner, LA - GeoEngineers completed the geotechnical exploration, testing, engineering and modeling driving in the WEAP and conducting PDA/ CAPWAP 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 served as principal-in-charge.			
05/18-04/19	LADOTD, I-20/I-220 (Barksdale AFB) Design Build, OV/QA; Bossier Parish, LA - 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	LADOTD, I-10 Widening (Highland to LA-73) Design Build, OV/QA; Baton Rouge, LA - Jim was 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	LADOTD, US-90/LA-318 Interchange Design Build; St. Mary Parish, LA - 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 WEAP. During construction, we conducted PDA/CAPWAP testing to keep the schedule progressing.			

02/13-04/13	LADOTD, I-49/US90 Widening over LA182 and BNSF Railroad; Lafayette, LA - This was a LA 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	LADOTD, I-210 at Cove Lane Interchange; Lake Charles, LA - Principal-in-charge 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 while providing 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	LADOTD, I-12 Widening (Amite River to Juban Road) Design Build, Denham Springs, LA - 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	LADOTD, US90 at LA85 Interchange Design Build; Iberia Parish, LA - 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	LADOTD, I-49 North; Caddo Parish, LA - This was a LA DOTD Priority 1 Mega Project where Jim led the GeoEngineers' team in conducting bridge and roadway borings and laboratory tests before bridges were constructed and pavement was laid on then 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.

16. Staff Experience:

Firm employed by		GeoEngineers, Inc.		
Name	Brenda Novoa, P.E.		Years of relevant experience with this employer	3
Title	Senior Geotechnical Engineer		Years of relevant experience with other employer(s)	22
Degree(s) / Years / Specialization			M.S. / 2003 / Civil Engineering B.S. / 1999 / Civil Engineering	
Active registration number / state / expiration date			#PE.0033665 / LA / 03-31-2028	
Year registered	2008	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities			Geotechnical Project Manager Brenda is a geotechnical engineer with 26 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 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, and 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.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
11/24-06/25	LADOTD, Bonne Idee Rd Bridge Geotechnical Explorations & Lab; Bonita, LA - 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	LADOTD, Spring Bayou Road over Spring Bayou; Goudeau, LA - 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-Present	LADOTD, P3 I-10 Calcasieu River Bridge Geotechnical Engineering Services; Lake Charles, LA - 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; Baton Rouge, LA - 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 also included a new drainage pump station. Retaining structures, sheet piles or otherwise, were 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; Baton Rouge, LA - 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	LADOTD, Bayou Terrebonne; Terrebonne Parish, LA - 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 LA DOTD format.
01/17-09/19	LADOTD, US-80 Overpass at KCS RR; Lincoln Parish, LA - 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 LA DOTD format.
01/17-09/19	LADOTD, Nelson Road Extension and Bridges; Calcasieu Parish, LA - 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	LADOTD, Bayou Chevreuil Bridge Widening; St. James Parish, LA - 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 LA DOTD format.
01/10-12/11	LADOTD, Bridge Scour Projects; Statewide, LA - 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.

16. Staff Experience:

Firm employed by	GeoEngineers, Inc.		
Name	Anthony (Chien-An) Ju, P.E.	Years of relevant experience with this employer	5
Title	Staff Geotechnical Engineer	Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization	M.S. / 2020 / Civil Engineering B.S. / 2018 / Civil Engineering		
Active registration number / state / expiration date	#PE.00050514 / LA / 03-31-2028		
Year registered	2025	Discipline	Civil Engineer Other Pertinent Training / Certifications Traffic Control Technician (The American Traffic Safety Services Association)
Contract role(s) / brief description of responsibilities	Geotechnical Engineer Anthony is a staff engineer who is actively involved in many of GeoEngineers' geotechnical explorations and evaluations since joining the firm in 2021. Anthony has been involved in many GeoEngineers projects, including LADOTD and CPRA projects listed below, performing field investigations using land-based, water-based, and amphibious drilling equipment.		
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
04/24-Present	LADOTD, P3 I-10 Calcasieu River Bridge Geotechnical Engineering Services; Lake Charles, LA - Project manager 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. Anthony coordinates laboratory assignments and assists with the preparation of the bridge design report.		
01/19-11/24	LADOTD, I-10/Loyola Interchange Design Build; Kenner, LA: Anthony provided field monitoring of driven piles, including PDA and CAPWAP analysis for capacity. GeoEngineers completed the geotechnical exploration, testing and engineering for this high-profile project in Kenner that will ultimately improve the Loyola Drive interchange to increase operational efficiency and traffic capacity.		
10/21-Present	CPRA, East Orleans Landbridge Restoration (PO-191); Orleans Parish, LA - Served as a staff geotechnical engineer supporting the engineering analyses by reviewing field and laboratory data and selection of design soil parameters. This project will create approximately 1,563 acres of marsh which will be created and nourished by hydraulically dredging material from two potential locations - Lake Pontchartrain and Lake St. Catherine. The fill areas will be formed by constructing earthen containment dikes around the boundaries of each marsh creation area (MCA). GeoEngineers has performed field investigations and geotechnical analyses along with laboratory testing and reporting.		
02/21-11/21	CPRA, Phoenix Marsh Creation Project - East Increment (BS-0042) and West Increment (BS-0044); Plaquemines Parish, LA - Staff geotechnical engineer providing support with engineering analyses. The objective of the East Increment is to create and nourish approximately 392 acres of marsh and the objective of the West Increment is to create and nourish approximately 411 acres of marsh. His role included organizing and managing the field exploration efforts for the marsh creation areas and the borrow area in the Mississippi River. In addition, Anthony was instrumental in the engineering analyses for the marsh creation areas including stability of earthen containment dikes and marsh settlement.		
07/20-12/22	CPRA, Cameron Meadows Marsh Creation and Terracing (CS-66); Cameron Parish, LA - Served as a staff geotechnical engineer supporting the construction monitoring collecting sediment samples of the placed marsh fill for further analysis for this multi-faceted project that included marsh creation, terraces, a water control culvert structure, and an underground highway crossing for a hydraulic fill pump line.		

16. Staff Experience:

Firm employed by	GeoEngineers, Inc.		
Name	Kyle Kilfian, WWC	Years of relevant experience with this employer	12
Title	Drilling Manager	Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization	B.S. / 2007 / Mechanical Engineering		
Active registration number / state / expiration date	Water Well License: #724 LA 06-30-2026		
Year registered	N/A	Discipline	N/A
Contract role(s) / brief description of responsibilities	Drilling Manager Kyle has been with GeoEngineers since 2014 and has excelled on a variety of projects involving geotechnical soil borings, environmental soil borings, construction monitoring, and cone penetration test (CPT) soundings. All field work has required coordination with clients, contractors, project engineers, landowners, and pipeline representatives. Kyle provides detailed daily field reports, including site photographs generated to document field activities. He also oversees the fabrication and modification of equipment depending upon project requirements and client specifications. Kyle has conducted geotechnical explorations that involved multiple CPT soundings and soil borings for several LA DOTD projects, including Caddo Lake Bridge, LA 485 Bridges, and the Tangipahoa River Bridge Replacement.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
02/24-Present	LADOTD, LA 835 Boeuf River Bridge; Near Concord, Richland Parish, LA - GeoEngineers is conducting geotechnical explorations and laboratory testing results for Phase 2 of the LA 561 Boeuf River Bridge Replacement project located near Hebert in Caldwell and Richland Parishes, LA. Kyle performed CPT soundings and soil borings for this project. The scope includes drilling eight soil borings, including five over water to depths of 110 feet below ground surface, evaluating soil properties in our laboratory, and consolidating data and findings into a report.		
01/19-11/24	LADOTD, Loyola Dr. I-10 Interchange to New Airport Terminal, Jefferson Parish, LA - GeoEngineers completed the geotechnical exploration, testing and engineering for this high-profile project in Kenner that will ultimately improve the Loyola Drive interchange to increase operational efficiency and traffic capacity. Kyle performed CPT soundings and soil borings for this project.		
08/12-07/15	LADOTD, I-210 Interchange at Cove Lane, Lake Charles, LA - Kyle performed CPT soundings and soil borings during this fast-track design and construction project in support of the proposed Interchange on I-210 at Cove Lane with a field investigation including multiple simultaneous drilling and CPT rigs, with lane closures and traffic control. GeoEngineers’ completed engineering analyses and provided recommendations for design and construction of about 8,000 driven pile foundations.		

16. Staff Experience:

Firm employed by				GeoEngineers, Inc.			
Name		Dustin Blanchard		Years of relevant experience with this employer		2	
Title		Laboratory Manager		Years of relevant experience with other employer(s)		0	
Degree(s) / Years / Specialization				B.S. / 2005 / Business Marketing			
Active registration number / state / expiration date				N/A			
Year registered		N/A		Discipline		N/A	
				Other Pertinent Training / Certifications			
				ACI Aggregate Base Testing Technician Certification (#02215574, expires 2/11/2030)			
Contract role(s) / brief description of responsibilities				Laboratory Manager Dustin manages GeoEngineers’ Baton Rouge geotechnical laboratory and the four staff that assist with running the lab. He maintains strict records for all calibrations, test forms, and other documentation that are required to keep the lab in good standing. The lab currently holds an AASHTO accreditation, DEQ accreditation, and an USACE Laboratory validation. He is also assigned to manage the soil testing database and associated upgrades and changes.			
Experience dates (mm/yy–mm/yy)		Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).					
01/24-6/24		Lafayette Consolidated Government, Verot School Rd Bridge Repair Project, Lafayette, LA - Dustin oversaw all laboratory testing and reporting during this project which involved a soil nail design and road embankment slope analysis. He managed the project from field exploration to lab testing, through technical analysis and report development.					
04/22-Present		LADOTD, I-10 Calcasieu River Bridge P3, Lake Charles, LA - Dustin has overseen the laboratory testing and reporting for this historic public-private partnership (P3) that is redesigning and renovating 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 the 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-Present		LA CPRA, East Orleans Landbridge Restoration (PO-191), Orleans Parish, LA - GeoEngineers is conducting engineering analyses by review of field and laboratory data, and the selection of design soil parameters. This project will create approximately 1,563 acres of marsh which will be created and nourished by hydraulically dredging material from two potential locations – Lake Pontchartrain and Lake St. Catherine. The fill areas will be formed by constructing earthen containment dikes around the boundaries of each marsh creation area (MCA). Dustin is conducting the laboratory and testing for this project.					

16. Staff Experience:

Firm employed by		Franklin Associates, LLC	
Name	Angela Noote	Years of relevant experience with this employer	3
Title	Project Manager	Years of relevant experience with other employer(s)	24
Degree(s) / Years / Specialization		B.A. / 1991 / Communications – Public Relations	
Active registration number / state / expiration date		N/A	
Year registered	N/A	Discipline	N/A
Contract role(s) / brief description of responsibilities		Public Outreach Lead Angela leads Franklin Associates’ project communication efforts with more than 30 years of communications experience as a writer, editor, marketer, communications director and lobbyist. She has contributed to crisis communications/reputation management for clients benefiting from her messaging and brand management experience. Her tailored communications plans emphasize increasing engagement through a variety of channels including social media, traditional media, and the web. She is certified in data analytics and focuses on capturing key engagement metrics to make data-driven decisions on messaging while providing detailed data reports to clients.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
01/24-Present	LADOTD, Belle Chasse Bridge and Tunnel Replacement Project - As Public Information Officer for this project she manages all communications for the project. Her efforts support tolling education through public channels, including newsletter, media releases, and social media posts. She fields all public inquiries and research, creates timely responses, keeps the public updated on construction progress and traffic impacts, and serves as the official media spokesperson for the project whereby she schedules, participates in, and tracks the amount, tone, and sentiment of media coverage.		
06/23-Present	LADOTD, Calcasieu River Bridge Replacement Project - As the Public Information Officer, she writes and disseminates public notices and press releases concerning project updates and impacts to the community and is responsible for maintaining documentation of and coordinating responses to inquiries related to all aspects of the project, including residents, business owners, and government leaders. Information is presented to the public via social media, open houses, community education events, and meetings with special interest groups. She also tracks and reports on monthly communications metrics.		
08/23-Present	Northwest Louisiana Council of Governments (NLCOG), I-49 Inner-City Connector - As the Communications Project Manager, she is led the public outreach efforts for the final Phase 0 public meeting for the I-49 Inner-City Connector in Shreveport. This included stakeholder engagement, media relations, meeting promotion and all meeting logistics, followed by a detailed report for the DOTD which included a summary of the tone and sentiment of public comments. She provides ongoing maintenance and updates of the project’s website content.		
08/23-Present	University Lakes Public Engagement and Communications Project, Louisiana State University Foundation - Communications Project Manager responsible for leading the project’s media relations efforts, which includes setting up interviews and media tracking.		

16. Staff Experience:

Firm employed by				Franklin Associates, LLC			
Name		James Taylor, MLA, AICP		Years of relevant experience with this employer		15	
Title		Subject Matter Expert		Years of relevant experience with other employer(s)		19	
Degree(s) / Years / Specialization				MLA / 1996 / Master of Landscape Architecture B.S. / 1989 / Horticulture			
Active registration number / state / expiration date				N/A			
Year registered		N/A		Discipline		N/A	
				Other Relevant Certifications and Training Certified Planner, American Institute of Certified Planners (##021110)			
Contract role(s) / brief description of responsibilities				Public Outreach Lead James has 34 years of experience with public sector planning, redevelopment, design, and public engagement projects. In Louisiana, he has primarily focused on public engagement conforming to NEPA policy requirements for public transportation infrastructure projects. He uses GIS, spreadsheets and other analytical tools to make sense of data through spatial mapping to reveal patterns which better identify the impact of outreach efforts or to better understand the populations potentially affected by a project. He helps clients understand the impact and return on their investments through website, social media, and email campaign analytics. He has worked on over 150 projects as a certified urban planner, which include park and recreation facility designs, regional recreation and open space master plans, commercial landscape and irrigation designs, ecological and habitat restoration plans, cultural and heritage tourism plans, and redevelopment plans			
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).					
07/25-Present		Iberville Parish Master Plan Update, Plaquemine, LA - Senior Project Manager responsible for guiding the drafting and implementation of a stakeholder engagement plan. Identifies and informs project stakeholders, provides public engagement coordination, outreach materials, content development, survey deployment and analysis, website management, and documentation of efforts.					
02/25-Present		Plan Baton Rouge III, Baton Rouge, LA - Subject Matter Expert assisting with creation of the public engagement strategy. Established engagement objectives, success measures, and outreach approaches; provides support in planning and facilitating focus groups and public participation events; and participates in analyzing community input and synthesizing data collected through engagement activities.					
11/20-Present		I-10 Widening Baton Rouge CMAR, Baton Rouge, LA - Public Engagement Lead responsible for drafting and then guiding the implementation of a stakeholder engagement plan. Identifies and informs project stakeholders; provides public engagement coordination, outreach materials, content development, survey deployment and analysis, website management, and documentation of efforts; and maintains compliance with NEPA policy guidelines and best practices.					
02/22 - Present		Mississippi River Bridge South – LA 1 to LA 30 Pre-NEPA Study, Plaquemine, LA - Public Engagement Lead responsible for coordinating public engagement, outreach materials content development, survey creation, deployment and analysis, web content management, and design for project exhibits and materials while maintaining compliance with NEPA policy guidelines and best practices. The project is now proceeding into the official NEPA Environmental Assessment phase during which Franklin’s participation in coordinating public engagement efforts continues.					
01/25-04/25		I-10 Washington St. Exit Closure, Baton Rouge, LA - Public Engagement Lead responsible for the development of an environmental justice (EJ) stakeholder and mailing list using demographic analysis and Property Assessor parcel data to support targeted outreach and NEPA-related engagement					

	requirements. Led community engagement efforts through mailed notices, door-to-door canvassing, informational materials, survey coordination, and community information kiosks to gather and document public feedback regarding the proposed exit ramp closure.
05/23-10/24	Florida Corridor Master Plan, Baton Rouge, LA – Reviewed and assisted with crafting of the public engagement plan, provided support in stakeholder identification and engagement, assisted with public meeting facilitation, designed and assisted with the facilitation of stakeholder engagement exercises, provided historical context and localized facts to the consultant team, and assisted with project documentation.
10/23-10/24	Evangeline Corridor Action Plan, Lafayette LA - Responsible for public engagement support. Assisted with the coordination of public engagement and venue preparations; facilitation of stakeholder and general public meetings, meeting documentation support and photography, planning content review and critiques, project website content preparation and formatting, and drafting of narrative.
04/23-12/23	FUTUREBR Master Plan, Baton Rouge, LA - Public Engagement Lead. Created the stakeholder and public engagement plan, led venue coordination and guided the production of promotional materials, facilitated public meetings and stakeholder interactions, and compiled event and feedback documentation.
01/21-11/22	SWLA, Baton Rouge, LA - Public Engagement Support. Assisted with creation of the stakeholder and public engagement plan; coordinated facility evaluations, venue reservations and event setup; led the production of event promotional materials and announcements; and provided public meeting facilitation assistance, stakeholder engagement, and documentation of the process and resulting feedback.
10/19-08/19	I-10 Improvements (DOTD Stages 0 and 1), Baton Rouge, LA - Public Engagement Lead. Drafted and guided the implementation of a stakeholder engagement plan; organized multiple rounds of geographically distributed public meetings; directed two scientific telephone poll surveys by the LSU School of Public Policy, augmented with an online poll advertised through traditional and social media; assisted with meeting facilitation, stakeholder and elected officials' engagement, and documentation; and led all survey development, data analysis of community stakeholder input, and project documentation.
10/11-Present	I-49 Inner City Connector (DOTD Stage 1), Northwest Louisiana Council of Governments (NLCOG), Shreveport, LA - Visioning and Public Engagement Lead. Managed multiple rounds of public engagement meetings; developed and implemented visioning exercises, advertising, neighborhood canvassing, public input documentation, agency coordination, stakeholder group facilitation, and governmental relations; and assisted with translating technical information into accessible formats during the DOTD's Stage 0 feasibility study and Stage 1 NEPA environmental impact statement for this 3.5-mile connection of I-49 through Shreveport.

16. Staff Experience:

Firm employed by Franklin Associates, LLC			
Name	Laura Livingston, MS, PMP		Years of relevant experience with this employer
Title	Project Manager		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization	M.S. / 2022 / Environmental Policy and Management, Energy, and Sustainability B.A. / 2015 / Political Science		
Active registration number / state / expiration date	N/A		
Year registered	N/A	Discipline	N/A
			Other Relevant Certifications and Training Project Management Professional (#4305587)
Contract role(s) / brief description of responsibilities			Public Outreach Lead Laura has over seven years of experience managing complex projects at all levels of implementation. She has built teams from scratch, including a multilingual staff of 10 for an emergency COVID-19 project, and continued to provide managerial support by implementing clear policies and procedures designed to increase efficiency. She can develop strategic plans for community engagement just as easily as she conducts interviews to compile feedback for clients. Laura also has experience writing grants and a track record of receiving funding, a testament to her attention to detail and ability to effectively articulate a project's scope from the beginning. Due to her background with environmental policy, Laura has led a number of projects that demand a firm understanding of energy and conservation regulations.
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
07/25-Present	Iberville Parish Master Plan Update, Plaquemine, LA - Project Manager. Drafts and executes the public engagement plan; establishes engagement objectives, success measures, and outreach approaches; plans and facilitates focus groups and public participation events; and analyzes community input and synthesizing data collected through engagement activities.		
02/25-Present	Plan Baton Rouge III, Baton Rouge, LA – Outreach Specialist. Contributes to the creation of the public engagement strategy; aids in establishing engagement objectives, success measures, and outreach approaches; provides support in planning and facilitating focus groups and public participation events; and participates in analyzing community input and synthesizing data collected through engagement activities.		
01/25-Present	I-10 Widening, Baton Rouge, LA - Outreach Specialist. Identifies and informs project stakeholders; provides public engagement coordination; supports the development of project materials and outreach surveys; and documents and analyzes outreach results.		
04/24-04/25	Capitol Region Planning Commission Regional Climate Action Plan, Baton Rouge, LA - Project Manager. Developed strategic outreach and engagement plan for the Baton Rouge MSA; organized and facilitated interviews with key stakeholders; establish and coordinate partnerships with a Community Working Group, a coalition of local outreach organizations, to assist with public engagement; design and execute public outreach events throughout the Baton Rouge MSA; facilitate four sector focus groups to solicit feedback about potential low-carbon scenarios; and analyze and summarize feedback into a comprehensive report.		
11/24-03/25	Carbon Solutions, Baton Rouge, LA - Project Manager. Developed a framework for listening sessions to solicit feedback about the client's air quality analysis tool to inform further development of the prototype; identified stakeholders to participate in the listening sessions; facilitated one virtual listening session with national stakeholders; analyzed and summarized stakeholder input into a comprehensive report; and supplied carbon solutions with all event materials for use in future events.		

05/23-06/24	DCFS Strategic Recruitment, Retention, and Public Outreach Campaign Project, Baton Rouge, LA - Project Manager. Developed strategic recruitment plan for staff and foster parents; curated and facilitated media campaign for outreach efforts; and improved awareness for DCFS supportive services through communications plans.
02/23-06/23	Great Plains Institute Carbon Management Roundtables, Baton Rouge, LA - Project Manager. Developed strategic plan for community outreach and engagement; collaborated with local environmental justice organizers to connect with community stakeholders; conducted stakeholder interviews about opinions of carbon capture, utilization, and storage projects to reduce climate change impacts; designed and facilitated four round table discussions with curated participants from communities around the state; compiled feedback into a clear and detailed report for the client's use.
10/22-02/23	National Wildlife Federation Outreach and Engagement, State of Louisiana – Analyst. Facilitated 1-on-1 interviews with key climate mitigation and carbon management stakeholders and designed and facilitated listening sessions to coordinate collaboration efforts between NWF and the public on proposed carbon management projects.
06/21-02/23	EBR ERAP, Baton Rouge, LA - Program Manager. Supervised the development and execution of an emergency COVID-19 relief program; built a multilingual team of 10 while facilitating a positive and supportive team environment; created policies and procedures using critical thinking and problem-solving skills; engaged with external partners to create a community coalition for emergency housing assistance; and completed program analysis to identify opportunities for process improvement.
06/21-02/23	EBR OCD, Critical Home Repair Program, Baton Rouge, LA - Program Manager. Conducted all case management and client relations from application through project completion; fielded inquiries about the program and explained the qualifications of participation; received applications and assisted homeowners through the application process; recorded and tracked all progress on applications and project development; and advocated for participant needs when adapting program offerings.
06/21-02/23	Habitat for Humanity of Greater Baton Rouge, Baton Rouge, LA - Program Manager. Oversaw three organizational programs intended to address social issues in the community; built a multilingual team of 10 for an emergency COVID-19 relief project while facilitating a positive and supportive team environment; created policies and procedures for a new program using critical thinking and problem-solving skills; engaged with external partners to create a community coalition for emergency housing assistance; completed program analysis to identify opportunities for process improvement; and advocated for participant needs when adapting program offerings.
05/19-06/21	Habitat for Humanity, Baton Rouge, LA - Family Selection Coordinator. Conducted community outreach to facilitate inter-organizational relationships and client referrals; supported and guided marginalized and underserved groups through the selection process; collaborated with other department members to facilitate equity-focused program development; continuously monitored and processed 50-100 active applications through a multi-level review process; and generated marketing materials for the recruitment of new clients.

17. Firm Experience:

Firm name	TRC Engineers, Inc.		Discipline(s)	Bridge, Road, Environmental, Planning
Project name	I-10 Lake Charles Calcasieu River Bridge P3 Project Support		Firm responsibility (prime or sub?)	Sub
Project number	H.03931	Owner's name	Louisiana Department of Transportation and Development	
Project location	Calcasieu Parish, LA		Owner's Project Manager	Peggy Paine
Owner's address, phone, email	1201 Capital Access Rd, Baton Rouge, LA 70802 (225) 379-1065 Peggy.Paine@la.gov			
Services commenced by this firm (mm/yy)	08/20	Total consultant contract cost (\$1,000's)		N/A
Services completed by this firm (mm/yy)	06/23	Cost of consultant services provided by this firm (\$1,000's)		\$310

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

TRC performed engineering and environmental services associated with procurement of the Calcasieu River Bridge P3 project. The project consists of improvements to a 5.5-mile corridor stretching from near Ryan Street in Lake Charles to the I-210/I-10 interchange in Westlake. Along with the new bridge and approaches, the project includes interstate roadways and ramps, I-10 service roads, and interchanges at PPG Drive, Sampson Street, and North Lakeshore/Ryan Street that connect the interstate to state roads and local streets. Sampson Street will be elevated over the railroad tracks to eliminate blockages from trains. Services completed by TRC under this project included:

Data Review - Review of available documents for the purpose of gaining full knowledge of the Project's development history to-date, understanding its challenges and major risks, and identifying missing, inconsistent or unresolved information.

Capital Construction Cost Estimation and Schedule - Assisted with development of the conceptual base capital cost estimate in accordance with good industry practice based on available information as identified in the Environmental Document, historic plans and information within the Project area, traffic and revenue forecasts, and Client standards and specifications.

Request for Proposal (RFP) Phase – Assisted with development of the technical inputs to the RFP that supported delivery of the Draft RFP. TRC provided RFP phase preliminary support that included reviews of the draft RFP package documents that consisted of Instructions to Proposers (ITP), development of the Technical Proposal Requirements, drafting of preliminary Technical Provisions and Performance Specifications, and reviewing KPIs and LDs.

Technical Provisions (TP) and Performance Specifications - Development of the Project TP, including performance-based specifications for design, construction, operations, and maintenance. Services were provided to develop technical provisions for the following:

- Environmental (Storm Water Management, Noise, Wetlands and Water Quality, Protected Species, and Cultural Resources)
- Railroad
- Demolition
- Bridge, Miscellaneous Structures, Sign Structures and Support
- Signing and Pavement Markings
- Maintenance of Traffic
- Traffic

RFP Evaluation – TRC assisted with the RFP evaluations which included RFP review and comment on evaluation and selection framework, evaluation factors and sub-factors, and weights and methodology for arriving at the recommended apparent Best Value Selection.

STAFF TO BE USED IN THIS PROPOSAL: Durk Krone, Michael Paul, Sadesh GC



17. Firm Experience:

Firm name	TRC Engineers, Inc.		Discipline(s)	Road, Bridge
Project name	LA1 / LA 415 Connector CMAR		Firm responsibility (prime or sub?)	Prime
Project number	H.005121	Owner's name	Louisiana Department of Transportation and Development	
Project location	West Baton Rouge Parish, LA		Owner's Project Manager	Nicholas Olivier, PE
Owner's address, phone, email	1201 Capital Access Road, Baton Rouge, LA 70802-4438 225.379.1133 nicholas.olivier@la.gov			
Services commenced by this firm (mm/yy)	03/20	Total consultant contract cost (\$1,000's)		\$16,061
Services completed by this firm (mm/yy)	Present	Cost of consultant services provided by this firm (\$1,000's)		\$9,500

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



This ongoing alternative delivery project, for which TRC is the prime consultant, involves the study and design of a new connector between LA 1 near LA 988 (Beaulieu Lane) and I-10 at the LA 415 interchange. The project, which is approximately 5 miles in length, includes a new four-lane roadway and bridge(s) over the Gulf Intracoastal Waterway (GIW), with **modifications to the LA 1 corridor from Phillips Lane to Antonio Road** and **modifications of the existing LA 415 Interchange with I-10**, including the evaluation and design of a Diverging Diamond Interchange. Elevated structures will be required for much of the project, including an elevated Single Point Urban Interchange (SPUI) over a reconfigured LA 1 corridor and Union Pacific Railroad (UPRR) line. This SPUI includes four (4) new ramps on walls and structures to access the newly constructed LA 415 connector.

Initiated as a Design-Bid-Build procurement, the LADOTD transitioned the project's delivery method near the end of preliminary engineering to a Construction Manager at Risk (CMAR) where TRC is the Lead Designer working hand-in-hand with the LADOTD and a CMAR contractor, and an Independent Cost Estimator (ICE) to deliver this project under an **accelerated schedule**. As part of the transition, TRC developed recommendations to establish early works packages to potentially facilitate an early project kick-off. In addition, alternative concept studies were completed in concert with the 30% CMAR submission, such as the conversion of a half diamond interchange at LA 1 to a SPUI, interchange modifications at Sun Plus to address recent geotechnical issues associated with sand boils, and Interchange modifications at I-10 to address stakeholder concerns.

A preliminary study of the corridor was conducted by TRC which included the development of a comprehensive schedule and geometric layout of the project that accounted for previously developed plans. Multiple layouts were evaluated for the connections to LA 415 at the I-10 Interchange as well as the Connector connection to LA 1 where there is a UPRR crossing. During our evaluation of the geometric layout and coordination with other agencies, it was discovered that the Port of Greater Baton Rouge was developing the Inland Rivers Chambering Yard

which includes a railroad storage yard and access road. With knowledge of this project, multiple alignments were developed and discussed with the Port and other stakeholders. A comprehensive Traffic Study was also conducted by a subconsultant to TRC. As part of an environmental re-evaluation, TRC developed exhibits, prepared renderings of the corridor, and attended a public meeting with LADOTD.

TRC recently submitted the 30% CMAR design package that includes two bridges over the GIW to provide alternative options for funding and construction of the Project. The LADOTD is working with TRC, the CMAR Contractor, and ICE in developing an Opinion of Probable Construction Cost (OPCC). Once the OPCC has been approved by LADOTD, the LADOTD's Project Manager will meet with Department executives to compare the OPCC with the available funding to determine if the whole project can be built at once or phased with a single bridge/roadway with the option to build the second bridge in the future. The current estimated construction cost of the project is approximately \$550 million.

STAFF TO BE USED IN THIS PROPOSAL: Durk Krone, Janet Crouse, Ann Truong, William Travis Barr, Michael Paul

17. Firm Experience:

Firm name	TRC Engineers, Inc.		Discipline(s)	Bridge
Project name	I-49 North (I-220 to MLK Jr. Drive)		Firm responsibility (prime or sub?)	Prime
Project number	H.003886.5	Owner's name	Louisiana Department of Transportation and Development	
Project location	Shreveport, Caddo Parish, LA		Owner's Project Manager	Paul Vaught, III, PE
Owner's address, phone, email	1201 Capital Access Road, Baton Rouge, LA 70802-4438 (225) 379-1816 Paul.VaughtIII@LA.gov			
Services commenced by this firm (mm/yy)	06/06	Total consultant contract cost (\$1,000's)		\$7,294
Services completed by this firm (mm/yy)	09/19	Cost of consultant services provided by this firm (\$1,000's)		\$3,428

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



TRC was selected by the LADOTD to provide all engineering services associated with the provision of Stage 3 Preliminary and Final Bridge Plans and Load Ratings for a fully-controlled interstate class roadway (I-49) on new alignment. Also included was a roadway alignment evaluation using InRoads software. The construction cost of the project was \$171 million.

The project begins at its proposed interchange with I-220, and proceeds in a northerly direction for approximately one mile to a proposed interchange with Martin Luther King, Jr. Drive (LA 3194). The project included the design of a portion of the I-49/I-220 interchange, and a partial cloverleaf interchange at Martin Luther King, Jr. Drive. Only connections from I-220 to I-49, to the north of I-220, from Martin Luther King, Jr. Drive to I-49, and to the south of Martin Luther King, Jr. Drive were included in the construction plans.

The project included the design and load rating for a total of seven new (7) structures. The Ramp EN (3,070'), SE (3,300') and WN (700') bridges consisted of dual designs with precast concrete segmental post-tensioned box girder and trapezoidal steel box girder superstructure alternates. The I-49 over MLK Dr. bridges (462' each) consist of BT-72 precast prestressed concrete bulb-T girder superstructures, while the I-220 over Russell Rd. bridges (322.5' each) consist of widening the existing steel plate girder bridges. To accommodate construction of the I-49 Bridge over MLK Jr. Drive, a detailed construction sequence was developed to accommodate the depression of MLK Jr. Drive under the I-49 bridges. A bridge architect was included on the TRC team to incorporate context-sensitive aesthetic concepts within the bridge design that included the incorporation of decorative lighting, decorative panels, rustications, and alternative coating system colors.

The resounding success of this project was recognized by the ACEC of Louisiana as the **Grand Award Category Winner for Category C: Structural Systems**

(TRC's Mike Paul and Durk Krone shown pictured left to right)



STAFF TO BE USED IN THIS PROPOSAL: Durk Krone, Michael Paul, Xianzhi Liu, Janet Crouse

17. Firm Experience:

Firm name	TRC Engineers, Inc.		Discipline(s)	Bridge, Road
Project name	I-64 Widening Design-Build Quality Assurance Management		Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	West Virginia Division of Highways	
Project location	Putnam County, WV		Owner's Project Manager	Deidra Begley, P.E.
Owner's address, phone, email	1900 Kanawha Boulevard East, Charleston, WV 25311 (304) 558-9684 Dee.L.Begley@wv.gov			
Services commenced by this firm (mm/yy)	06/17	Total consultant contract cost (\$1,000's)		\$7,499
Services completed by this firm (mm/yy)	12/2025	Cost of consultant services provided by this firm (\$1,000's)		\$5,374

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



TRC was under contract to the West Virginia Department of Transportation, Division of Highways (WVDOH) to provide Quality Assurance Management (QAM) services associated with design and construction of the \$225 million I-64 Widening and Improvements project that was developed as a Design-Build procurement.

I-64 is a heavily-traveled interstate that crosses West Virginia and links its population from west to east. The section of I-64 that comprised this project has the highest average daily traffic (ADT) of any road in West Virginia at over 100,000 vehicles per day. This project expanded the interstate from four lanes to six lanes and entailed several structures, including a major Nitro-St. Albans Kanawha River crossing bridge. The project involved widening I-64 from four lanes to six lanes from east of the US 35 Interchange at Crooked Creek to east of the Nitro Interchange near 40th Street. The entire project length was approximately 3.79 miles and included three twin structures carrying I-64 over other roadways, two existing roadways crossing over I-64, separate flyover ramps for the Saint Albans Interchange, and a 1,400' Kanawha River crossing between Saint Albans and Nitro.

As the WVDOH's QAM consultant, TRC was responsible for performing all quality assurance duties normally performed by the State. This included the development of various project criteria, RFQ/RFP development, development and review of project estimated costs, assisting with the development and review of all project amendments, review of proposer ATC's, attendance, and participation in the Proposer One-on-One Meetings, and participating in the review of each Proposer's Technical Proposals.

Upon commencement of the project TRC's staff participated in design reviews, pre-award meetings, preliminary design reviews for right-of-way, roadway, and bridge; final design reviews for right-of-way, roadway and bridge plans; calculation reviews for both roadway and bridge designs; erosion control plan review; preliminary and final hydraulic report review; hazardous waste disposal criteria review; and geotechnical report reviews.



STAFF TO BE USED IN THIS PROPOSAL: David Verno, Timothy Shoemaker, Paul Misch

17. Firm Experience:

Firm name	TRC Engineers, Inc.		Discipline(s)	Road, Bridge
Project name	LA 1 - Port Allen Canal Bridge Replacement		Firm responsibility (prime or sub?)	Prime
Project number	H.001234	Owner's name	Louisiana Department of Transportation and Development	
Project location	West Baton Rouge Parish, LA		Owner's Project Manager	Brian Delatte, PE
Owner's address, phone, email	1201 Capital Access Rd., Rm 405-T, Baton Rouge, LA 70802-4438 (225) 379-1823 Brian.Delatte@LA.gov			
Services commenced by this firm (mm/yy)	12/10	Total consultant contract cost (\$1,000's)		\$5,214
Services completed by this firm (mm/yy)	Present	Cost of consultant services provided by this firm (\$1,000's)		\$1,535

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



TRC initiated this \$197 million project by conducting a feasibility study to investigate three different bridge rehabilitation options and one bridge replacement option (which was ultimately selected) for the existing twin bridges that carry LA 1 over the Intracoastal Waterway. The existing bridges are each two lanes and approximately 2,480 feet long with various structural deficiencies. As part of the study, TRC developed new roadway alignment options for the bridge replacement option.

The proposed LA 1 SB and LA 1 NB replacement bridges are 2,680' and 2,700' respectively and will consist of PPC girder superstructure approach spans and 3-span continuous steel I-girder spans over the Intracoastal Waterway. The LA 1 NB bridge bifurcates at the northern end to accommodate the I-10 EB Exit Ramp geometry. The proposed new LA 1 SB bridge will consist of three 12' travel lanes and two 10' shoulders and be 2,560' long.

Due to the need for the LA 1 bridges to remain open to traffic, **phased accelerated construction options** and a temporary detour bridge option were evaluated. TRC developed two alignment options and conducted the conceptual and preliminary design for a 2,500' long temporary detour bridge consisting of a proprietary truss panel superstructure system and steel pipe pile substructure.

As part of the Preliminary Design, TRC also developed the project's associated **roadway plans** which included traffic analysis and the submittal of a Level 3 Transportation Management Plan. The roadway plans featured **1.27 miles of "Super Street" improvements to LA 1**, including the removal of eight median openings; four new signalized "J-Turns" and left-turn storage; 0.98 miles of new four lane roadway for LA 1 on new alignment including a separate exit ramp for I-10 EB traffic; and the reconstruction of existing frontage road and a railroad at-grade crossing for Ernest Wilson Road.

TRC is **currently performing Phase II construction support services** that include responding to RFIs and reviewing shop drawings. The project is expected to be complete by spring 2029.



Due to the high traffic volumes for the I-10 connections, a **detailed MOT and sequence of construction scheme** was developed to provide for continuous access to I-10 during construction and to maintain two lanes of traffic flow on LA 1.

STAFF TO BE USED IN THIS PROPOSAL: Durk Krone, Janet Crouse, William Travis Barr, Michael Paul

17. Firm Experience:

Firm name	WSP USA Inc.		Discipline(s)	Road, Bridge, Traffic, Planning, Environmental
Project name	Advisory Services for the Procurement of Alternative Delivery Projects (Calcasieu Bridge Task Order)		Firm responsibility (prime or sub?)	
Project number	H.003931.5	Owner's name	Louisiana Department of Transportation and Development	
Project location	Calcasieu Parish, LA		Owner's Project Manager	Peggy Jo Paine
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802 225.379.1065 Peggy.paine@la.gov			
Services commenced by this firm (mm/yy)	02/21	Total consultant contract cost (\$1,000's)		\$6,708
Services completed by this firm (mm/yy)	Present	Cost of consultant services provided by this firm (\$1,000's)		\$5,997

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

This significant Design-Build-Operate-Maintain (DBFOM) Toll Revenue Risk Project replaces the 70-year-old Calcasieu River Bridge, increases the capacity of I-10 through the Lake Charles region, and relieves a national freight bottleneck. The Louisiana Department of Transportation & Development (LADOTD) selected WSP as the Technical Advisor to work side-by-side with LADOTD in its management of the P3 procurement and upcoming negotiation process. WSP is also providing Level 2 Traffic and Revenue (T&R) Analysis forecasts in support of the P3 procurement process.

WSP served as Technical Advisor leading development of the technical provisions and providing commercial advisory for development of other procurement documents, including the Instructions to Proposers and Contract Documents. To develop the technical provisions, WSP hosted frequent workshops with a multitude of relevant technical disciplines to prepare the documents and define the performance-based and prescriptive technical criteria. Furthermore, WSP is supporting the questions and answers (Q&A) process as well as the one-on-one meetings with the shortlisted proposers providing support to LADOTD in review of Alternative Technical Concepts and other avenues for potential contractor innovation helping to refine the RFP documents.

WSP has also completed a Level 2 Traffic and Revenue Analysis for LADOTD. WSP customized the Imperial Calcasieu Regional Planning & Development Commission's travel demand model by incorporating toll pricing and updated demographic requirements to provide a realistic forecast of the facility's future toll revenue generation capacity. Prior to the RFP process, WSP supported the development of the Request for Qualifications (RFQ) and performed a comprehensive technical review of the submitted Statements of Qualifications (SOQ) assisting the LADOTD with its shortlisting process.

Services performed by WSP include:

- Traffic and Revenue Analysis - Level 2
- Development of performance specifications, technical provisions, and design criteria
- Technical services for evaluation of SOQs and proposals
- Technical support for 1-on-1 meetings and evaluation of ATCs
- Toll Policy and system specifications
- Federal Major Projects and Grant support



STAFF TO BE USED IN THIS PROPOSAL: Max Nassar, Mark Polston

17. Firm Experience:

Firm name	WSP USA Inc.		Discipline(s)	Bridge, ITS, Road, Traffic
Project name	I-35 Capital Express Central Lady Bird Lake		Firm responsibility (prime or sub?)	Prime
Project number	0015-13-428	Owner's name	Texas Department of Transportation	
Project location	Austin, TX		Owner's Project Manager	Jesse Bullard, PE
Owner's address, phone, email	7901 N. IH 35, Austin, TX 78753 512.832.7327 Jesse.Bullard@txdot.gov			
Services commenced by this firm (m/yy)	06/21	Total consultant contract cost (\$1,000's)		\$22,000
Services completed by this firm (mm/yy)	09/24	Cost of consultant services provided by this firm (\$1,000's)		\$17,950

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

WSP is the designer of record for this highway corridor reconstruction and neighborhood reconnection project that includes three miles of Interstate Highway 35 (I-35) from the SH71 interchange toward the north across Lady Bird Lake to Holly Street. The improved highway includes replacing three existing Lady Bird Lake bridges, building a single-point urban interchange (SPUI) at East Riverside Drive to improve traffic flow, lowering the interstate roadway, and adding two managed, non-tolled, high-occupancy vehicle lanes in each direction. The project also reconstructs cross-street bridges, adds pedestrian and bicycle shared-use paths that include two new bridges across Lady Bird Lake, builds a pedestrian bridge over I-35 near Woodland Ave., makes additional safety and mobility improvements within the project limits, and preserves the existing Butler Trail boardwalk in the lake.

WSP continues to serve TxDOT on this project under a separate construction phase services contract.



STAFF TO BE USED IN THIS PROPOSAL: Jonathon Seddelmeyer

17. Firm Experience:

Firm name	WSP USA Inc.		Discipline(s)		Traffic, Road	
Project name	Maryland I-495 & I-270 P3 Program			Firm responsibility (prime or sub?)	Sub	
Project number	BCS 2022-09A	Owner's name	Maryland Dept. of Transportation, State Highway Administration			
Project location	Baltimore, MD			Owner's Project Manager	Jeff T. Holden, PE	
Owner's address, phone, email	707 N. Calvert Street, Mail Stop P-601, Baltimore, MD 21202 410,637.3321 jfholden1@mdot.maryland.gov					
Services commenced by this firm (mm/yy)		12/18	Total consultant contract cost (\$1,000's)			\$90,000
Services completed by this firm (mm/yy)		Present	Cost of consultant services provided by this firm (\$1,000's)			\$13,000

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

The MDSHA announced the Traffic Relief Plan to reduce traffic congestion and increase economic development, but most importantly to enhance safety and return quality of life to Maryland commuters. The largest initiative in the Traffic Relief Plan is to evaluate improvements in the I-495 and I-270 corridors, which will consider transformative solutions to address congestion along these highways in Montgomery, Prince George's, and Frederick Counties.

This program is a historic effort to reduce congestion for millions of Maryland drivers by seeking input from the private sector to design, build, finance, operate, and maintain (DBFOM) improvements on both I-495 and I-270. Improvements will be focused on transforming these overloaded interstates to allow people to reach their destinations faster and remove overflow traffic from the local roads. WSP has played an integral role in the I-495 & I-270 P3 Program, assisting the MDSHA with technical services, risk analysis, facility life-cycle and operations and maintenance (O&M) strategies, procurement and contract support (including support for development of the Request for Qualifications [RFQ], performance specifications, and technical provisions), and P3 program development.

Services being performed include:

- Development of scope, requirements, descriptions, and layouts
- Development of performance specifications, technical provisions, and design criteria
- Drafting and preparation of procurement documents (RFQ/RFP)
- Preparation of technical and financial services for evaluating SOQs and proposals
- Preparation, checking, validating, and updating project cost estimates
- Facilitating project risk workshops and strategy sessions
- Assisting with public communication and outreach



STAFF TO BE USED IN THIS PROPOSAL: Matthew Woodhouse

17. Firm Experience:

Firm name	HDR Engineering, Inc.		Discipline(s)		Planning	
Project name	Retainer Contract for Strategic Advisory Services Related to LTA Participation in P3s			Firm responsibility (prime or sub?)		Prime
Project number	H.012806.1 & H.0047951.5	Owner's name	Louisiana Department of Transportation and Development			
Project location	Louisiana		Owner's Project Manager		Connie Porter	
Owner's address, phone, email		1201 Capitol Access Road, Baton Rouge, LA 70802 225.379.1297 connie.porter@la.gov				
Services commenced by this firm (mm/yy)		12/16	Total consultant contract cost (\$1,000's)			\$1,265
Services completed by this firm (mm/yy)		07/18	Cost of consultant services provided by this firm (\$1,000's)			\$966

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

Under a statewide IDIQ Contract (Contract No. 4400006552), HDR completed a Stage 0 Study on the feasibility of tolling and the feasibility of implementing local option motor fuel taxes as sources of potential funding for future transportation improvements. LADOTD's 2015 Louisiana Statewide Transportation Plan (STP) includes 113 large infrastructure projects (Megaprojects) that are prioritized to address mobility, capacity, and economic development opportunities throughout the state; 39 are ranked Priority A or B.

TASK 1 - Conceptual-Level Assessment of the Feasibility of Tolling: HDR evaluated and reported on the feasibility of tolling highways and bridges in Louisiana, including a summary of lessons learned and best practices nationwide. HDR also conducted a qualitative, conceptual-level screening of programmed transportation projects (Priority A and Priority B Megaprojects) for their potential to use tolling as a funding source and for how tolls could be implemented, i.e., via public-private partnership (P3) delivery. Key study components included:

- Review of prior Louisiana toll studies
- Review of prior toll operations in LA
- Review of Best practices in other states
- Developed screening criteria/screening of Priority A and B Megaprojects



TASK 2 - Toll Feasibility 6 Megaprojects: HDR conducted traffic and revenue forecasts to assess the potential net toll revenue and the resultant additional funding from toll revenue bonds that could be available to the LADOTD to potentially fund six select Megaprojects. For each Megaproject, sketch-level demand analysis, feasibility assessments, and financial assessments were conducted. The project assessed as most feasible in the HDR toll feasibility study was selected for implementation by the LADOTD and is now in procurement for P3 delivery. Projects included: **A-26:** I-10 Calcasieu River Bridge, Lake Charles; **A-44:** LA 23 Bridge and Tunnel Replacement, Belle Chasse; **B-50:** LA 511 Jimmie Davis Bridge, Shreveport-Bossier Metro Area; **B-60:** I-49 Inner City Connector, Shreveport; **B-99:** Loyola Drive/I-10 Interchange, New Orleans Metro Area; and **B-101:** Mississippi River Bridge LA 1 to LA 30, Baton Rouge Metro Area.

TASK 3 - Local Option Motor Fuel Tax Assessment: This study assessed the overall feasibility of implementing local option motor fuel taxes by combining initial research findings with motor fuel tax revenue forecasts on the state and parish level. The study provided considerations for implementing local option motor fuel taxes in Louisiana. Key study components of this assessment included: the current state of the practice; a comprehensive literature review; an overview of states that have authorized local option motor fuel taxes; agency interviews to identify best practices, lessons learned, success factors, and pitfalls to avoid; and revenue forecasts.

STAFF TO BE USED IN THIS PROPOSAL: Patrick Hickox, Andrew Cadmus, Brian Blanchard

17. Firm Experience:

Firm name	HDR Engineering, Inc.		Discipline(s)		Bridge	
Project name	I-10 Mobile River Bridge & Bayway Project				Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	Alabama Department of Transportation			
Project location	Mobile, AL			Owner's Project Manager	Edwin L. Perry III, PE	
Owner's address, phone, email	1701 West I-65 Service Road N., Mobile, AL 36618 251.470.8243 perrye@dot.state.al.us					
Services commenced by this firm (mm/yy)		05/17	Total consultant contract cost (\$1,000's)			\$12,000
Services completed by this firm (mm/yy)		Present	Cost of consultant services provided by this firm (\$1,000's)			\$6,850

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

When completed, the new I-10 Mobile River Bridge will be one of the largest bridge projects in the US, featuring a new 6-lane, 1,320 ft. cable-stayed main span crossing the river, with 215 ft. of vertical and 800 ft. of horizontal clearance for navigational traffic within the busy port. The project also includes replacing over 7 miles of dual bridges across Mobile Bay. HDR was a major partner in an engineering consortium charged with conducting environmental studies, project design, and procurement for the ALDOT.

In support of the NEPA process, a bridge alternatives analysis was used to reach a preferred alternative that would support regional capacity, maximize ALDOT's return on investment, and create a world-class bridge that fits. To achieve these goals, HDR assembled and led a team of experts that included bridge and roadway design, tolling, geotechnical design, bridge architecture, wind engineering, and cost estimating.

Due to limited state funding, the selected delivery method is a progressive design-build to attract private infrastructure investment and innovation. Under progressive Design-Build, toll revenue will be used to repay bonds, with the remaining funding from previously selected and future federal grants. This will allow the project to be completed with a lower taxpayer investment and a shorter construction time.



HDR is currently serving as the owner's design manager for ALDOT for this project. Overall project responsibilities include:

- Program/project management
- Preliminary design of the cable-stayed bridge and high-level approaches
- Development of RFP/RFQ documents
- Review of all project-related designs and grant applications
- Risk assessment
- Financial analysis
- Tolling concepts and advisory services
- 2019 INFRA Grant application

STAFF TO BE USED IN THIS PROPOSAL: Patrick Hickox, Andrew Cadmus, Brian Blanchard

17. Firm Experience:

Firm name	HDR Engineering, Inc.		Discipline(s)		Bridge, Road	
Project name	North Houston Highway Improvement Program (NHHIP) Segment 3B Design Oversight GEC			Firm responsibility (prime or sub?)		Prime
Project number	N/A	Owner's name	Texas Department of Transportation, Houston District			
Project location	Houston, TX			Owner's Project Manager	Milad Ajir	
Owner's address, phone, email	7600 Washington Ave, Houston, TX 77007			713.802.5005	milad.ajir@txdot.gov	
Services commenced by this firm (mm/yy)		05/22	Total consultant contract cost (\$1,000's)			\$10,000
Services completed by this firm (mm/yy)		05/26	Cost of consultant services provided by this firm (\$1,000's)			\$6,900

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

HDR supported and advised TxDOT staff on this \$820 million reconstruction of the IH 69 and SH 288 Interchange (NHHIP Segment 3B) in Downtown Houston as the owner's Design Oversight General Engineering Consultant (GEC). The project included two PS&E packages: one for the pump station and outfall construction, and one for reconstruction of the IH 69 depressed main lanes, SH 288 main and managed lanes, bridges, interchange direct connectors, and cross street bridges. Prominent features of this project are watertight drilled shaft walls along the depressed section, a large detention pond adjacent to Buffalo Bayou, extensive pedestrian/bicyclist accommodation, large diameter waterline relocations (underground and on a utility bridge), and prominent aesthetic features on three of the cross street bridges (arches, lighting, and canopies). Segment 3B is the first project of the overall NHHIP to begin construction. As the leading project for this over \$3 billion, highly publicized program, the success of the Segment 3B project will shape perceptions of future NHHIP segments.

As the Design Oversight GEC, HDR staff were co-located with TxDOT Houston Strategic Project Office (SPO) staff. HDR's primary activity was to review the design consultant's PS&E. HDR developed a review process, held review training for Subject Matter Experts (SMEs) and TxDOT staff, and documented the review comments, responses, and resolutions using a proprietary Bluebeam system developed specifically for this project. HDR's other major activity was to coordinate the project with adjacent teams, third-party partners, and various TxDOT Division, District, and section representatives. HDR further supported TxDOT staff by authoring technical white papers, exhibits, presentations, and a master ready-to-let (RTL) schedule.



HDR saved 24 months on the project's letting schedule by developing an option to realign the main outfall and relocate a critical pump station away from contentious properties with longer expected acquisition timelines to parcels or ROW already owned by TxDOT. HDR's RTL schedule analysis also recommended that TxDOT split the project into separate construction packages to meet the State's letting date objectives. HDR analyzed the construction schedules of the six projects expected to be under construction concurrently within the project area to identify construction, TCP, and detour conflicts, and recommended solutions to resolve them. As the project has garnered attention from City, County, and Federal entities, HDR also developed a tracking system to document TxDOT's coordination efforts with these third-party agencies and to track the various commitments TxDOT has made to these agencies.

Community Benefits: The project will improve mobility, enhance safety, and maintain safe and effective evacuation routes. It will expand transit and carpool capacity with 2-way, 24/7 MAXX (HOV) lanes. In addition, by providing options to 'cap' the depressed freeway and adding pedestrian and bike facilities throughout the corridor, it will connect communities and portions of Houston that have been separated since the 1960s.

STAFF TO BE USED IN THIS PROPOSAL: Sarah De Moya, Kyle Halligan

17. Firm Experience:

Firm name	Gresham Smith, Inc.		Discipline(s)	Road
Project name	Louis Armstrong New Orleans International Airport Entrance Road Capacity Upgrades		Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	Louis Armstrong New Orleans International Airport	
Project location	Kenner, LA		Owner's Project Manager	Kenny Boyd
Owner's address, phone, email	1 Terminal Dr, Kenner, LA 70062 303.641.9729 ksboyd@burnsmcd.com			
Services commenced by this firm (mm/yy)	03/21	Total consultant contract cost (\$1,000's)		\$180.5
Services completed by this firm (mm/yy)	04/24	Cost of consultant services provided by this firm (\$1,000's)		\$180.5

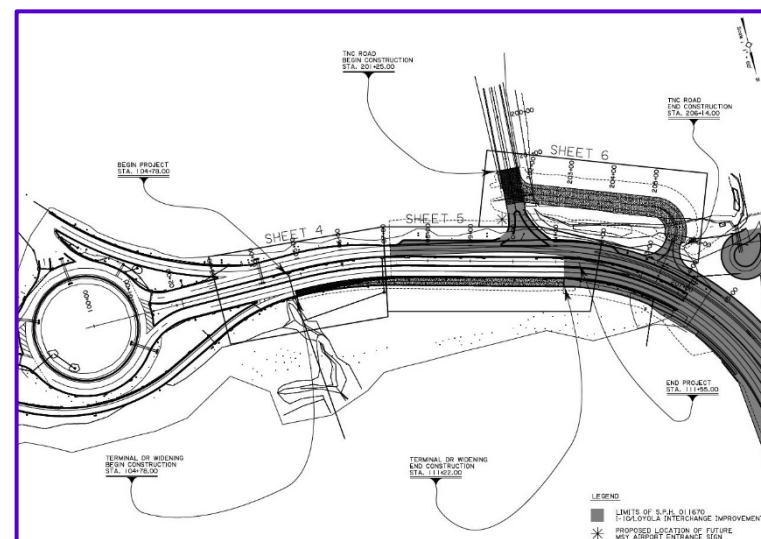
Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.)

Executed under a general engineering contract, Gresham Smith provided design and project management for the City of New Orleans to widen the main exit road at Louis Armstrong New Orleans International Airport (MSY) from 2 lanes to 3 lanes. The project included widening approximately 1/4-mile of roadway, extending the roundabout slip lane exit from the roundabout and tying into the design-build flyover project currently under construction (S.P. H.011670).

Additionally, Gresham Smith was tasked with the design of the new Transportation Network Companies (TNC) Uber lane roadway. This is a new alignment design which realigns the existing TNC Lane to a tie-in point west of the existing location, tying into a turnout being constructed under the I-10 at Loyola Interchange Design-Build project. The completed new alignment roadway will provide access to a dedicated parking lot for ride-share vehicles approaching the airport and awaiting arrivals.

From the start, this project involved constant communication with both MSY Airport representatives along with coordination with the consultant for the I-10 at Loyola Interchange Design-Build project. A key aspect of this project was coordinating with the I-10 at Loyola Interchange Design-Build project which is currently under construction in order to facilitate a smooth transition for the widening of the roadway. This project was signed and sealed in April of 2022. Gresham Smith also provided ongoing CE&I services throughout the construction of the project.

The project finished construction in April 2024 and is now fully operational.



STAFF TO BE USED IN THIS PROPOSAL: Bert Moore, Brennon Hughes, Ronnie Robinson, Richard Savoie

17. Firm Experience:

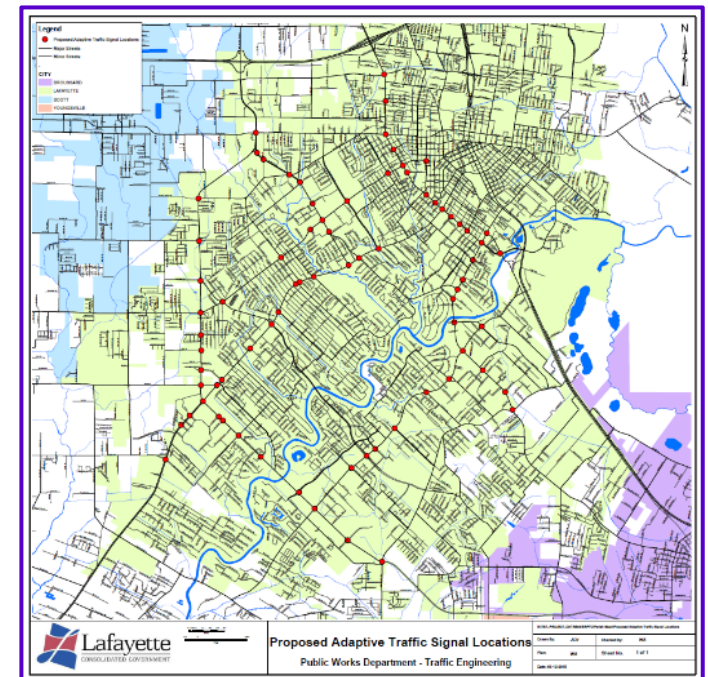
Firm name	Gresham Smith, Inc.		Discipline(s)		Traffic	
Project name	Traffic Engineering Retainer Contract TO #6: LCG Adaptive Traffic Signal			Firm responsibility (prime or sub?)		Prime
Project number	H.012018.5	Owner's name	Louisiana Department of Transportation and Development			
Project location	Lafayette, LA			Owner's Project Manager	Andre Fillastre, P.E.	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802 225.242.4646 andre.fillastre@la.gov					
Services commenced by this firm (mm/yy)		10/18	Total consultant contract cost (\$1,000's)			\$813
Services completed by this firm (mm/yy)		05/24	Cost of consultant services provided by this firm (\$1,000's)			\$813

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

Gresham Smith was selected to upgrade all of the traffic signals in Lafayette, Louisiana and install Adaptive Traffic Signal Control (ATSC) along eight major corridors. This project included the performance of traffic signal inventories for all 190 traffic signals that are maintained by LCG. Once the inventories were performed, design plans were developed for traffic signal controller upgrades for all of the traffic signals to be upgraded from Trafficware 980 TS2 traffic signal controllers to Trafficware 980 ATC traffic signal controllers, along with the installation of a new emergency vehicle preemption system from Applied Information.

Of the 190 traffic signal locations, 78 intersections will have Synchro Green Adaptive Traffic Signal Control implemented into the project. Gresham Smith designed plans to upgrade the existing vehicle detection systems at these adaptive intersections to meet the needs of the new adaptive system. They also performed a before study to measure the average travel times of the corridors without the Adaptive Traffic Signal Control. This data serves as a baseline to measure the effect of the new system on travel times in Lafayette. As part of this Before Study, Gresham Smith was also able to deploy their MPATH system to measure the stress of the test drivers based on location. This information is incorporated into a GIS database that allows for easy map based visualization of stressful locations that could indicate near misses or other previously undiscoverable issues on the corridor.

Gresham Smith assisted with the implementation and integration of the adaptive system and the emergency vehicle preemption system. They also successfully completed the installation of other adaptive traffic signal systems in numerous states. Upon completion of this project, this will be the largest adaptive traffic signal system in Louisiana.



STAFF TO BE USED IN THIS PROPOSAL: Bert Moore, Alben Cooper, Brennon Hughes, Julian Bordelon, Kofi Ampofo-Twumasi, Rebecca Murray, Richard Savoie and Zillah Zoleta

17. Firm Experience:

Firm name	Gresham Smith, Inc.		Discipline(s)		Traffic	
Project name	I-210 at LA 1138-2 (Nelson Rd.) Interchange Modification Re-Evaluation Study				Firm responsibility (prime or sub?)	Prime
Project number	H.011065.5	Owner's name	Louisiana Department of Transportation and Development			
Project location	Lake Charles, LA			Owner's Project Manager	Brandon DeJean, P.E.	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 225.379.1988 brandon.dejean@la.gov					
Services commenced by this firm (mm/yy)		03/17	Total consultant contract cost (\$1,000's)			\$290
Services completed by this firm (mm/yy)		03/19	Cost of consultant services provided by this firm (\$1,000's)			\$290

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

The approval of a new interstate interchange configuration for the I-210 at Nelson Road interchanges was granted under several conditions by the FHWA's Louisiana Division. One of these conditions was that the LADOTD conduct a re-evaluate the chosen alternative of the I-210 at Nelson Road interchange configuration sometime after the completion of the I-210 at Cove Lane interchange. The study completed by Gresham Smith was undertaken to identify any issues with the Nelson Road and Cove Lane intersections and determine specific design features of the proposed interchange.

To achieve the stated project objective, Gresham Smith was selected by LADOTD to perform a traffic study on the I-210 at Nelson Road interchange. The scope of this study required the development of a calibrated Vissim model for existing conditions and the development of a Vissim model for the proposed Diverging Diamond Interchange (DDI). Gresham Smith was responsible for the data collection, conducting field investigations, travel time runs, conducting a Road Safety Assessment (RSA), reviewing crash reports, developing Vissim models for existing conditions, determining a regional growth rate, developing and modeling a future Build and No Build conditions, and developing a project report. Traffic count data was collected and used to create Vissim models of the study area. These models were calibrated to accurately represent existing traffic patterns along the corridor.

In addition to the proposed reconfiguration of the interchange, Nelson Road was also planned to be extended across Bayou Contraband to the Port of Lake Charles, and terminate at West Sallier Street and West Prien Lane Road at its intersection with Nelson Road. Nelson Road was being converted to a right-in/right-out due to the new roadway being constructed for the Contraband Bayou development that will connect the driveway to the casinos and to the roundabout at the intersection of West Prien Lane Road at Holly Hill Road.

Gresham Smith was also responsible developing traffic volumes for the future roadway configuration of all the improvements within this area. To complete this task, volumes were rerouted through the roadway network in accordance with the new configuration. Gresham Smith was responsible for reviewing the existing year and future No Build year TransCAD models for all projects that had dedicated funding. When available, historic data was considered in the development of growth rates using ADT's collected periodically over a number of years.



STAFF TO BE USED IN THIS PROPOSAL: Bert Moore, Rebecca Murray

17. Firm Experience:

Firm name	NTB Associates, Inc.		Discipline(s)	Survey, Other (SUE), Right-of-Way	
Project name	Jimmie Davis Bridge (LA 511) Design-Build			Firm responsibility (prime or sub?)	Sub
Project number	H.001779	Owner's name	Louisiana Department of Transportation and Development		
Project location	Bossier & Caddo Parishes, LA		Owner's Project Manager	Thomas Gattle, III, PE (Huval)	
Owner's address, phone, email	922 West Pont Des Mouton Road, Lafayette, LA 70507 337.234.3798 tgattle@huvalassoc.com (Prime)				
Services commenced by this firm (mm/yy)	01/22	Total consultant contract cost (\$1,000's)			\$1,140
Services completed by this firm (mm/yy)	Present	Cost of consultant services provided by this firm (\$1,000's)			\$1,140

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

NTBA has been responsible for performing a variety of survey and utility services for this major design-build bridge project spanning the Red River, including Static GPS control, topographic surveys using HDS 3D Terrestrial Laser Scanning methods of data collection, property surveying services, traffic control, utility coordination, and QL A, B, C, & D utility designating/locating. Additional services include the preparation of title takeoffs, 60% Right-of-Way Maps, Final Right-of-Way Maps, and legal descriptions.

The overall scope of this project consists of constructing a new four lane structure carrying LA 511 across the Red River, converting LA 511 (Jimmie Davis Highway) into a four-lane, median-divided highway on the east side of the bridge, and providing full access interchanges between LA 511 and the Clyde Fant Memorial Parkway and Arthur Ray Teague Parkway. NTBA designed and implemented a Traffic Control Plan for a bridge closure to verify the horizontal and vertical control set by the LADOTD during the original survey and verified the vertical control for both sides by running digital levels across the bridge, which was not performed in the original survey. All of this was completed during night shifts to ensure the safety of employees and the public, as well as to avoid traffic disruptions.

The property surveys and title take-offs were completed for approximately 50 properties adjacent to the route, with the property survey submittal being prepared with apparent right-of-way shown. Final Mylar Right-of-Way Maps have been submitted for 21 parcels requiring right-of-way taking. The set included 21 plans and 1 title sheet.

NTBA's SUE expertise and resources were leveraged to designate all utilities within the project limits. As part of that effort, a conflict matrix was created showing the utilities in conflict with construction. We are coordinating with the utility owners to relocate utilities that conflict with the construction and will monitor the relocation to ensure compliance with relocation plans. NTBA is utilizing the Louisiana Department of Transportation Survey and Design Manual Addendum A as well as CI/ASCE Standard 38-02.



STAFF TO BE USED IN THIS PROPOSAL: Bryan Bunch, Grant Gilleon, Patrick Staiano, Michael King, Captayn Chapman, Belton Davis, Amy Schulze, Iniko Jack, Jeremy Reppond, Will Wales

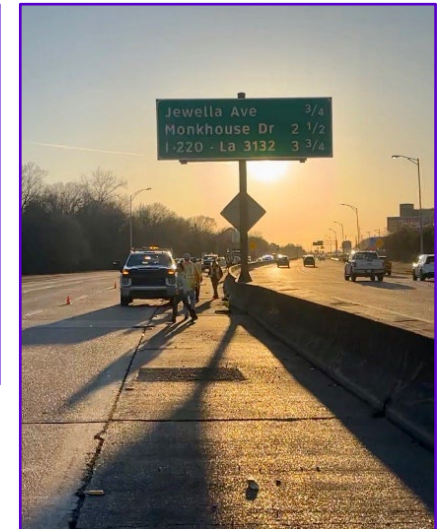
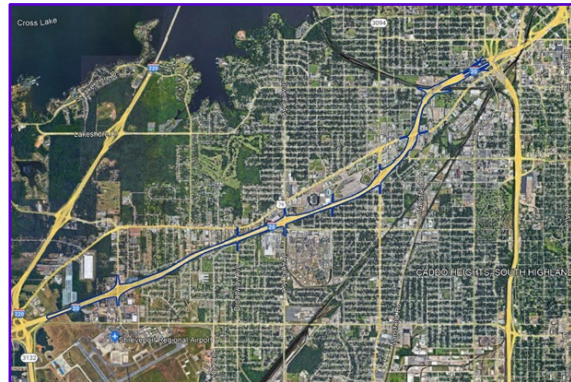
17. Firm Experience:

Firm name	NTB Associates, Inc.		Discipline(s)		Survey, Other (SUE)	
Project name	I-20: Monkhouse to I-49, Route I-20				Firm responsibility (prime or sub?)	Prime
Project number	4400017713/ H.010468.5	Owner's name	Louisiana Department of Transportation and Development			
Project location	Caddo Parish, LA			Owner's Project Manager	Barrett Smith, PLS	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802 225.379.1133 barrett.smith@la.gov					
Services commenced by this firm (mm/yy)	04/22	Total consultant contract cost (\$1,000's)				\$1,355
Services completed by this firm (mm/yy)	04/23	Cost of consultant services provided by this firm (\$1,000's)				\$1,355

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

NTBA performed Static GPS Control, topographic surveying services using RTK and conventional surveying along with HDS 3D Terrestrial Laser Scanning, traffic control, and QL C & D subsurface utility investigation for this interstate rehabilitation project. NTBA also prepared a drainage map.

Representing one of the largest topographic surveys that NTBA has ever completed, the project consisted of 4.89 miles of interstate, 2.35 miles of side streets, and a drainage area of approximately 990 acres. Surveys and utility investigations were performed along I-20 beginning approximately 4,200 ft. southwest of its intersection with Monkhouse Dr. and proceeding in a northeasterly direction along I-20 before ending at the westerly end of the I-20/I-49 interchange. Areas included Monkhouse Drive, Jewella Avenue, Hearne Avenue, Greenwood Road, Texas Avenue, Kings Hwy, and Lakeshore Drive.



NTBA managed a sub-consultant, E.S.P. Associates, P.A., to perform mobile laser scanning of hard surfaces along the route. NTBA performed data extraction of the mobile scan data for incorporation into InRoads and for Point Cloud delivery. While the LADOTD's project schedule had an allowable duration of 365 days, NTBA completed the work in 359 days with one minor comment. This effort took 3,999 field crew hours, 3,448 CADD hours, and 2,250 PLS hours. There were over 70,000 points for the topographic survey and over 1,500 drainage structures surveyed for the drainage map. The areas included major thoroughfares, surface streets, railroad rights-of-way, and drainage canals. MicroStation files were the deliverable for the project. All services were completed in accordance with the LADOTD's Location and Survey Manual and all currently accepted Location and Survey Automated procedures..

STAFF TO BE USED IN THIS PROPOSAL: Bryan Bunch, Grant Gilleon, Patrick Staiano, Michael King, Captayn Chapman, Belton Davis, Amy Schulze, Iniko Jack, Will Wale, Jeremy Reppond

17. Firm Experience:

Firm name	NTB Associates, Inc.		Discipline(s)	Survey, Other (SUE)
Project name	LA 47 IWGO Bridge Rehabilitation (HBI)		Firm responsibility (prime or sub?)	
Project number	4400017713	Owner's name	Louisiana Department of Transportation and Development	
Project location	Orleans Parish, LA		Owner's Project Manager	Barrett Smith, PLS
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802 225.379.1133 barrett.smith@la.gov			
Services commenced by this firm (mm/yy)	12/20	Total consultant contract cost (\$1,000's)		\$588
Services completed by this firm (mm/yy)	03/22	Cost of consultant services provided by this firm (\$1,000's)		\$588

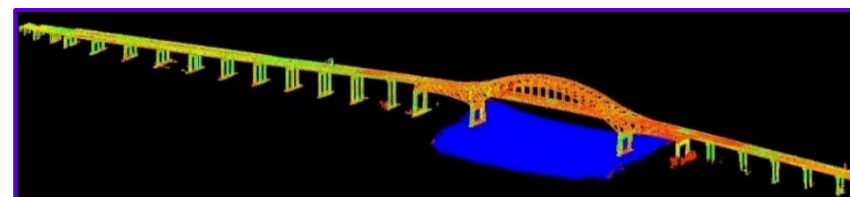
Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.)

The LA 47: IWGO Bridge Rehabilitation Project is 6,622 feet long Historic Bridge Improvement (HBI) project connecting New Orleans East and Chalmette across the Intercoastal Waterway Gulf Outlet (IWGO) in Orleans Parish. The "Preservation Priority" bridge consists of concrete slab spans, pre-stressed girder spans, welded steel plate girder spans, and tied-arch girder truss spans.

- NTBA's services on the project entailed:
 - installation of six deep rod monuments
 - topographic surveys
 - establishing a Static GPS Control Network
 - HDS 3D Terrestrial LiDAR Laser Scanning
 - development of surface models from LiDAR data
 - hydrographic surveying
 - QL C, and D Subsurface Utility Engineering Services

NTBA performed a multibeam hydrographic survey of the bridge structure piers to determine scour impact for the bridge repair/ rehabilitation. NTBA also performed a 3D LiDAR scan of the bridge during different seasons to see the effects the temperature had on the movement of the bridge. From the LiDAR data collected, NTBA developed surface models to provide drawings of specified piers, joint, and truss locations at 4 separate times as deliverables. NTBA worked with TRC during the design and planning process for the rehabilitation of various bridge components.

NTBA also provided traffic control coordination for a complete closure of the bridge from Friday at 8pm until Monday at 5am on 4 separate occasions to complete the project on time, within budget and with minimal disruption to the public and local businesses. This location of LA 47 provides a much-needed connection between Chalmette and New Orleans East. The aging bridge acts as both an artery for commerce, as well as a local road for the public, businesses, and industry as well as the US Coast Guard Base New Orleans and the NASA Michoud Assembly Facility. NTBA successfully resolved the challenge of accessing and capturing the features and locations of the project's physical infrastructure. Hydrographic surveying and 3D Laser Scanning were combined to obtain information on the LA 47 bridge structure located across the Intercoastal Waterway Guld Outlet. All services were completed in accordance with the Location and Survey Manual and all currently accepted Location and Survey Automated procedures.



STAFF TO BE USED IN THIS PROPOSAL: Bryan Bunch, Michael King, Amy Schulze, Will Wales, Belton Davis, Iniko Jack, Captayn Chapman, Jeremy Reppond

17. Firm Experience:

Firm name	GeoEngineers, Inc.		Discipline(s)	Geotech
Project name	US 90 @ LA 318 Interchange Design-Build		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	1201 Capitol Access Road, Baton Rouge, LA 70804 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 staff to be used in this proposal.)

The US 90/LA 318 Interchange project was in preparation for the conversion of US 90 to future I-49 in St. Mary Parish and included construction of access ramps between US 90 and LA 318, realignment of the frontage road for local access parallel to US 90, and elevating US 90 over LA 318. As part of the design-build team with Gilchrist Construction Company, GeoEngineers provided geotechnical engineering design services and construction recommendations. Our work included the completion of preliminary designs for compliance with AASHTO LRFD and LADOTD standards. GeoEngineers also provided geotechnical design recommendations for 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 the geotechnical design that GeoEngineers was responsible for included the following:

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



STAFF TO BE USED IN THIS PROPOSAL: Larry Sant, James Aronstein

17. Firm Experience:

Firm name	GeoEngineers, Inc.		Discipline(s)		Geotech	
Project name	I-210 at Cove Lane Interchange			Firm responsibility (prime or sub?)		Prime
Project number	H.010151	Owner's name	Louisiana Department of Transportation and Development			
Project location	Lake Charles, LA			Owner's Project Manager	Benjamin Fernandez	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70804 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 staff to be used in this proposal.)

GeoEngineers completed a geotechnical engineering evaluation, design and construction monitoring for the new Interstate 210 (I-210) overpass of Cove Lane in Lake Charles, Louisiana. This fast-tracked project required the mobilization of five (5) different drill rigs to perform the needed explorations and staff from offices across the country to meet the schedule requirements. GeoEngineers completed engineering analyses and provided design and construction recommendations for about 8,000 driven pile foundations (for which they provided PDA/CAPWAP evaluation 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 that included 128 explorations (43 drilled soil borings and 85 CPTs) to depths in the range of 20 to 120 feet, along with all associated soil laboratory testing. 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 the installation of one pile for every 50 of the 8,000 piles the contractor placed. In addition, the numerous detailed records that were generated for the project 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 which heightened adherence to the needed safety measures so as to ensure the safety of everyone working on the project, as well as motorists.



STAFF TO BE USED IN THIS PROPOSAL: Larry Sant, Jim Aronstein

17. Firm Experience:

Firm name	Franklin Associates, LLC		Discipline(s)	Other (Public Outreach and Relations support)	
Project name	I-10 Calcasieu River Bridge Replacement Project			Firm responsibility (prime or sub?)	
Project number	H.003931	Owner's name	Louisiana Department of Transportation and Development		
Project location	Calcasieu Parish, LA		Owner's Project Manager	Paul Vaught, P.E.	
Owner's address, phone, email	1201 Capitol Access Rd., Baton Rouge, LA 70802 225.379.1816 Paul.Vaught@LA.gov				
Services commenced by this firm (mm/yy)	06/23	Total consultant contract cost (\$1,000's)			\$2,300,000
Services completed by this firm (mm/yy)	Present	Cost of consultant services provided by this firm (\$1,000's)			\$2,100

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

Franklin serves as the Public Information Manager for the I-10 Calcasieu River Bridge Replacement P3 project, which will replace an aging bridge along I-10 in Calcasieu Parish, addressing congestion issues and bridge deficiencies in the process. Under the P3 contract, the existing bridge will be replaced and I-10 widened to six lanes, with three lanes in each direction. Franklin leads all communications efforts related to the project, including but not limited to

- Working with local stakeholders to assure deployment of workforce development plans.
- Developing and coordinating all public engagement during the project's design phase.
- Managing construction notifications throughout the seven-year build period.
- Managing emergency notification processes during construction using a combination of communications modes (website, social media, doorhangers, advertising, email notifications).
- Developing and deploying a tolling education campaign during the project launch phase.



Franklin develops and communicates talking points about the project benefits and keeps people informed about public involvement opportunities and construction notifications. Franklin also manages all information requests; coordinates with receiving and responding to public inquiries; provides updates to the LADOTD regarding project status, traffic impacts, and other information for communication to key stakeholder groups and the public; and presents information to the public, essential Calcasieu Parish staff, elected officials, community stakeholders, and other parties, as necessary. Franklin developed a 10-year outreach and communications plan that currently includes website updates and tracking, newsletter production for a growing subscriber list, and social media accounts on Facebook and Instagram. Franklin has facilitated three public meetings as of November 2025 and delivers numerous presentations to community stakeholders. Part of Franklin's event management for the project groundbreaking was execution of a targeted media strategy that generated more than \$570,000 in earned media coverage for this milestone.

Project Website: Franklin developed the website, I-10 Calcasieu Bridge (<https://www.i10calcasieubridge.com>) and is responsible for its maintenance throughout the bridge project's design and build phases. The website serves as a hub of information where residents can find project updates, schedules, FAQs, photos, videos, and downloadable information as well as a project information portal for the public, providing real-time design and construction updates. Once the bridge is operational, the intent is that the website will be linked to LADOTD's web portal and accessible through www.geauxpass.com, the website for all Louisiana toll roads.

Tolling Education: Franklin will design and implement an education campaign as part of the outreach process, which will include creating and scheduling informational presentations; facilitating small group meetings; creating print and digital materials to make the public aware of the process; and providing guidance on how to set up a GeauxPass tolling account, pay invoices, contact customer service, and other tolling-related issues.

Groundbreaking Facilitation: Franklin Associates spearheaded the comprehensive event management and multi-agency coordination for the project's groundbreaking. Their team directed all onsite logistics, audio-visual production, and complex ceremonial protocols while seamlessly aligning participation across the Governor's office, LA DOTD, federal agencies, local municipalities, stakeholders, and media.

STAFF TO BE USED IN THIS PROPOSAL: Angela Noote

18. Approach and Methodology:

PROJECT UNDERSTANDING & APPROACH

TRC Engineers has assembled an impressive Team to deliver this contract that is comprised of highly respected firms with local, national, and international experience and expertise in every aspect of the noted scope of services listed in Attachment A of this IDIQ Contract for Engineering and Technical Support Services for Critical Projects. Drawing upon such capabilities, we offer a trusted source that can provide a rapid response to any number of task order requests of either a comprehensive nature or for a specific service. We can also convene talented Subject Matter Experts that may be needed to support a service that is more unique.

Collectively, the TRC Team has the resources, flexibility, passion, and proven track record in Louisiana and elsewhere to provide expedited project requests under multiple or single task orders, and in accordance with compressed and urgent scheduling to meet the needs of the DOTD.

DOTD has enacted a statewide initiative under “T4LA” (Transforming Transportation with Transparency and Teamwork) with the goal of modernizing project selection, management, and the delivery process. The Critical Projects Division, created in 2021, is responsible for prioritizing and managing the highest risk, high profile and sensitive projects critical to meeting the DOTD’s goals and objectives, and is aligned with T4LA.

For evaluation purposes, as noted on page 2 of 19 of the RFQ, we are assuming that up to six (6) task orders may be active concurrently at any given time per contract. To meet and/or exceed this potential need, TRC has enlisted the assistance of subconsultant Team members primarily based upon our previous working relationships as a Team, their DOTD transportation project success, and their availability and depth of staffing resources to support tasks orders of this nature and number. Thus, we have included subconsultants WSP USA (WSP), HDR Engineering (HDR), Gresham Smith, NTB & Associates (NTBA), GeoEngineers, and Franklin Associates to partner with in service to the DOTD’s Critical Projects Division with the mission to exceed the goals and expectations of every task order assigned to our Team.

The DOTD defines a “Critical Project” as follows:

- A project where the cost exceeds \$50 million.
- Extensive federal environmental study and approval requirements.
- Specific federal or state legislative appropriations.
- High strategic importance to the DOTD’s mission.

Demonstrating our ability to excel in this regard, **TRC has delivered the following Critical Projects under extremely aggressive schedules** to assist DOTD in securing critical funding:

- **S.P. No. 700-24-0031, US 190, Mississippi River Bridge – Structural Rehabilitation and Painting** – TRC delivered phase one in six weeks to assist

the DOTD in securing \$29 million dollars in surplus federal funds. The project’s total construction cost for Phases 1&2 was \$97 million.

- **S.P. No. H.003861., I-49 North (I-220 to MLK Drive) Interchange Project** – For Phase 1, the TRC Team designed an interchange with dual superstructure options (Option 1 – Post-Tensioned Segmental Box Girder and Option 2 – Trapezoidal Steel Box Girder). Phases 1 & 2 had a total construction cost of \$172 million. While a project of this magnitude would typically take 3.5 years, the TRC Team designed it in approximately 1 year. In turn, delivering this project under an aggressive schedule helped the DOTD secure their TIFIA Bond.

Durk Krone, TRC certified Subject Matter Expert, was the Project Manager for each of the projects noted above.

PROJECT EXECUTION AND MANAGEMENT

Following the award of the Project, Durk Krone as Project Manager and primary point of contact for this IDIQ Contract will work with the DOTD’s PM and Consultant Contract Services to execute the IDIQ Contract.

PROJECT SCOPING & KICKOFF

A clearly defined scope is critical for successful task order delivery. Upon assignment, by DOTD’s PM, Durk Krone with assistance from Michal Paul, TRC Deputy Project Manager, will contact the TRC and/or Subconsultant Team leads needed for each Task Order and conduct preliminary investigations that include reviewing as-built plans for existing projects and other relevant documents and supplement by site visits and consultation with DOTD and subject-matter experts. Using this information, TRC will prepare a draft scope and manhour estimate for DOTD review, leading to scope approval, contract execution, and issuance of NTP.

Following NTP, TRC will hold a kickoff meeting with the DOTD Project Manager and key staff to confirm project objectives, design criteria, coordination needs, and deliverable schedules. This meeting will establish communication protocols, determine the frequency of coordination meetings, and address questions arising from document reviews. TRC will then develop a Critical Path baseline schedule and Project Work Plan, incorporating design criteria, the pre-approved QA/QC plan, and input from stakeholders such as USCG, DOTD Districts, and local agencies. These steps ensure the project scope, schedule, and deliverables are aligned, efficient, and sensitive to cost, construction time, and public impact.

Following is our general approach and methodology on how the TRC Team will provide the listed services:

PROJECT MANAGEMENT AND SUPPORT

Project Management Plan

Probably the most critical element of executing and delivering a successful project comes down to how it is managed. TRC has been executing and delivering successful projects (small and large) to the DOTD since 2005 and elsewhere throughout the country. Similarly, HDR, WSP and our other supporting subconsultants have also delivered successful projects in Louisiana as well as in other states.

We all agree that a detailed Project Management Plan (PMP) is crucial to delivering a successful Project. The PMP is a comprehensive document that begins with defining the Project objectives and scope, initial schedule, document control, Project Team and all resources, quality control/quality assurance plan, Project Design Criteria, communication plan, risk register, decision matrix, budget, cost management, and public outreach and communication. At its foundation, the PMP is a living document that will continue to develop and be modified throughout the life of the Project.

Where necessary, the TRC Team can assist with developing a project specific PMP for any type of alternative delivery method or singular task for any task order.

Management/Oversight of Projects

From our extensive experience with managing large high profile projects, many with accelerated schedules, we are available to assist the DOTD with the various stages of an active Critical Project where we can provide Project Management oversight such as conducting project meetings, reviewing of delivery schedules and budgets, etc. During every meeting, our Team will provide meeting minutes that will include steps forward. As part of the document control process, we will record all meetings in a register that will document all meetings conducted on a project. We can also provide reviews of progress schedules in concert with the contract documents submitted for a certain percentage of completion along with the remaining budget, and provide an independent cost risk schedule assessment on whether the Project is on schedule and budget or is at risk of not meeting one or either element.

The TRC Team also brings extensive experience with conducting value engineering reviews as part of our own internal quality process and for clients. Such services involve the completion of a methodical multidisciplinary independent review of the conceptual design documents as well as during other design phases. We investigate the potential for alternative design solutions that may prove to be a cost or service life benefit to the internal design Team or Client/Owner. A report is developed and issued to the design team for review and consideration, and where value has been determined to be of benefit, the recommendation(s) are incorporated into the project.

Initial Financial Plans (IFP), Grant Application, Miscellaneous Project Agreement

To assist the DOTD with assessing the feasibility of each project, we will leverage the resources of **WSP who has been responsible for securing \$19.8B with 105 winning**

applications for transportation agencies, along with those of HDR. For this element of work, our Team will identify the potential public subsidy requirement or concession fee generated (if applicable) by a user fee project or network, the quantum of debt potentially required and supportable under the user fee revenue stream (including the relative merits and portions of each source of debt), and the equity investment requirements based on the specific economics of each project. More specifically we will:

- Test a range of alternatives based on project configuration, scope, tolling revenue maximization options (if appropriate), term of contract, and other features.
- Assess whether there exists sufficient market demand from contractors and developers based on the project's size, risk profile, scope of responsibility, funding sources, and financing structure.
- Consider the range of financial instruments available, including PABs, TIFIA, shorter term construction bank loans (a/k/a "mini-perms"), private placements, long-dated bank loans, accreting swaps, CABs, CIBs, GARVEEs, and leveraged lease structures.
- Assist the DOTD, where necessary, in the development of any desired grant applications and agreements. It is important to note that **WSP, as part of their procurement services on the I-10 Calcasieu River Bridge Replacement P3 Project, worked with the DOTD to prepare and secure a \$150M Mega Grant to help support the design and construction of this Project. Similarly, HDR, under its Retainer Contract for Strategic Advisory Services with DOTD, completed a Stage 0 Study on the feasibility of tolling and the feasibility of implementing local option motor fuel taxes as sources of potential funding for future transportation improvement.**
- Consider the impact that equity investment has on project feasibility. This is particularly important in the context of demand/revenue risk projects and is notably different than other types of P3s, including availability payments. Indeed, there are specific third-party infrastructure investors that can absorb more risk given the profile of underlying investors. Our team brings this understanding to the DOTD and is a key success factor considering that insurance and pension backed funds can be more conservative than those that make investments off their corporate balance sheet.
- Synthesize the results of the financial models into a summary report for the DOTD. This report outlines key financial model inputs, assumptions and outputs, then compares the relative benefit or cost for each respective project. This report will also detail potential commercial and financial structures and outline potential next steps for the project based on the analysis performed

From the financial analysis, our Team will examine the direct cost of the innovative delivery approach and certain implied costs (including risk transfer). This analysis will be updated and checked for its validity as each project advances, new information or assumptions are made available, or project configuration or scope evolves.

The TRC Team offers a proven track-record using this form of financial analysis approach for the successful closings of operational innovative delivery and P3s across the U.S. with the following innovative financing tools as noted below:

Federal/State Financing Programs	Private Financing Programs
■ TIFIA credit assistance ■ RRIF loans ■ Private Activity Bonds ■ USDOT grant programs (e.g., INFRA. IJJA) ■ State infrastructure banks (incl. funding by TIFIA)	■ Taxable/tax-exempt bank loans ■ Taxable/tax exempt bond ■ Receivables gap financing ■ Vendor gap financing ■ Institutional investor debt & equity capital ■ Private equity ■ Pension funds

Further, our Team’s contract and financial experts are well-versed in the development of agreements, including those of a miscellaneous project agreement nature.

Quality Control Reviews and Peer Reviews

Where a Quality Control Review or Peer Review is required, our Team will develop the goals and objectives for those reviews. Where the DOTD would like us to review a set of contract documents, we will leverage the vast resources of our Team to bring the needed level of expertise to bear for completing the review and provide comments on plans, special provisions, and estimates. This type of quality review will lend itself to be conducted in Bluebeam where markups and comments can be done and then issued to the consultant. Where staff are out of town, virtual meetings can be set up between needed staff and the DOTD. Following the review meeting, minutes will be prepared and issued with a scheduled turnaround time, with one more review being completed to confirm that corrections have been made.

For independent peer reviews, staff will be assigned that offer the requisite expertise to conduct an independent design approach and calculations, then compare their results to the original design documents and prepare a report on their findings. Where errors or a more economical design is determined through the peer review process, the original designer can make the needed updates to bring the project to compliance.

Environmental and Permitting Services

Our environmental and permitting services will be led by WSP’s Hilda Ortiz who has 25 years of progressive experience in NEPA compliance, environmental analysis and permitting services. For any environmental and or/permitting service assigned, the

TRC Team will conduct an initial review of all previous reports and documentation that has been conducted and determine the necessary studies, permitting and environmental assessment needs in accordance with NEPA. A comprehensive approach to this process is extremely important to avoid project delays and costs associated with environmental clearances and unavoidable impacts to Section 4(f)/6(f). To avoid these and other risks, the TRC Team will develop a detailed schedule showing long-lead tasks and conduct targeted public outreach at appropriate project milestones. Other critical tasks will be to properly schedule the development and submission of traffic reports, planning documents, and other environmental studies such as air, noise, wetlands, testing, sampling, etc.

Traffic Design Services

To drive this aspect of the contract, we have enlisted the expert services of Gresham Smith to conduct all of the traffic services that may be needed. Such work will be delivered under the guidance of Task Lead Bert Moore who brings 25 years of traffic engineering to this role. For each assignment, Gresham Smith will conduct an assessment of the services needed to meet the goals of the project, then develop a representative scope and manhour estimate. Where needed, data collection will be conducted such as count requests, scheduling of data processing/analyzing that includes 24-hour Volume and Classification counts as well as turning movement counts. From the data obtained, they will conduct an engineering analysis involving traffic modeling to analyze complex alternatives. Gresham Smith has expertise in all of the associated software packages and will develop reports in those formats to meet DOTD Standards. For intersections, design studies will be conducted and construction plans for signals will be completed, as well as associated MUTCD compliant signing and striping for traffic signals.

Where a TMP is needed, TRC/Gresham Smith will coordinate with the DOTD to obtain traffic volume and safety data for a traffic study to perform safety analysis and an alternative route analysis. Where necessary, Gresham Smith will navigate the TEPR process to arrive upon an optimum detour route and specify the correct TTC Details and coordinate with the bridge and road designers on a Work Zone Impact Management Strategy and document to minimize risk and delays to the traveling public and summarize all of this in a TMP report.

Where a new interchange is warranted or modification to an existing interchange is necessary, an Access Justification Report (AJR) that will include either an Interchange Justification Report (IJR) or an Interchange Modification Report (IMR) will be prepared in accordance the NEPA process to receive FHWA approval of the AJR.

Surveying Services, Subsurface Utility Engineering and Utility Relocation

To deliver these services, TRC has partnered with NTB Associates (NTBA), who offers a strong commitment to quality service and client satisfaction as demonstrated in all of their current and previous projects, many of which have been completed for the DOTD. Once a request for such services is received, TRC will coordinate with

NTBA's personnel to schedule a Project Kick-off meeting for a discussion of the timelines associated with the project, any route considerations already explored, and/or any necessary revisions. NTBA will evaluate each project to determine if they have performed work within or near each project, which will allow them to start the project with previous knowledge. If no past work history exists, they will begin to gather information about the project area. NTBA has the resources to begin field work on a project immediately upon Notice to Proceed.

In concert with the development of the GPS Static Survey Control Network for primary control points throughout the project, and secondary RTK Survey to establish horizontal positions of the control points, NTBA will clearly define the Subsurface Utility Engineering and topographic surveying by the end user and its unique challenges. In this manner, the techniques to be used will be geared to result in a deliverable that meets or exceeds the end user's requirements to properly assess the conditions and design the new project by limiting conflicts or surprises during construction. While the locations and complexity will vary, the nature of the work will be the same: to provide utility inventories and plans for the DOTD to use in designing the project. NTBA will perform title takeoffs for the project so that work on the property survey can begin as soon as the control network is established. Property surveying and topographic surveying will be completed simultaneously. Conventional surveys, Static and RTK GPS, and 3D LiDAR Terrestrial Scanning will be used on individual projects as appropriate.

Before designating/locating crews locate the first underground utility, they will meet with the Utility Engineer to review project limits and utilities known to be in the area. One-call notifications will be made prior to fieldwork to obtain a list of potential utility owners in the project area. Codes will be reviewed as well as any unique or challenging conditions that may be encountered. NTBA crews are provided with shot count sheets and blank aerial plans of the area to record found utilities daily. They will record all found utilities in survey field books, along with all attribute information and number of shots taken and their respective depths. Flags will be placed for visual purposes.

If drainage maps are required, NTBA will generate the drainage map limits by overlaying the preliminary project design limits onto an aerial/topographic map. All drainage structures within the design limits will be surveyed for location, type/size, and inverts obtained as part of the normal topographic survey. Structure sheets will be completed for each structure with a unique identifier to record the type of structure, size of pipes and the structure itself, inverts as a depth, and a diagram of the pipe layout within the structure. These sheets will be used by NTBA office personnel to verify the data provided from the survey and to resolve any discrepancies. Once the field work is complete and the data reviewed, it is incorporated into the drainage map to assist in developing ridge lines and drainage areas.

With all the data merged into the main topo drawings, interim submittals will be made to the engineer until a complete topographic survey submittal can be made.

Once final alignments are established, NTBA will begin to obtain title reports, if not provided by the DOTD, for the affected properties for inclusion in the ROW maps. NTBA will begin the Base ROW maps according to DOTD standards. Final ROW maps will be produced within 45 days of authorization to proceed, typically after the JPR meeting. All ROW mapping, title takeoffs, title reports, and property surveying will be in accordance with DOTD standards.

Geotechnical Engineering Services

Based on GeoEngineers' extensive experience providing geotechnical engineering services for the DOTD in every parish throughout the state, they are prepared and committed to providing the geotechnical services necessary to perform investigations, analysis and design in support of critical projects. This includes various forms of field investigations, laboratory testing, analysis, and design. They also have the expertise and resources to provide oversight for all construction-related geotechnical services, including the completion of or review for PDA and CAPWAP analysis, settlement monitoring or analysis, and other required support.

GeoEngineers' approach for performing the geotechnical engineering services on behalf of the TRC Team includes increased communication during planning and execution to better evaluate risk and allow for a risk-informed approach to decisions including scope development, scheduling, during field investigation and testing, during design analysis and reviews, and while planning and overseeing construction related services.

The most accurate, optimized geotechnical design is dependent upon starting with good information, which comes from the exploration and testing program and results in the boring logs. GeoEngineers will begin by preparing a detailed scope and continue through the following efforts to obtain useful results for inputting into the design:

- A. **Field Brief** – Before mobilization of the drilling crew, the engineer will have some brief meetings with the field supervisor who has visited the site and assessed safety and access, and to review the prepared drilling plan.
- B. **Exploration** – The engineer will be available daily during field exploration to address questions or concerns that arise and provide guidance and feedback to the crew after review of each daily field report.
- C. **Laboratory** – After samples are returned to the laboratory where extrusion and testing is performed, the engineer will provide guidance about preliminary classification and which testing assignments are needed.
- D. **Boring Logs** – Laboratory test results will be input into DOTD gINT boring logs. The engineer will review the test results, entries, and overall stratigraphy of the subsurface conditions based on experience and judgement. The logs will then be completed based on the engineer's edits.
- E. **Seal** – The final logs are then completed based on the owners' edits, after discussion and agreement.

GeoEngineers plans on conducting a desk study prior to commencing any fieldwork in order to prepare the scope and evaluate the adequacy of the proposed scope for each site. They plan to perform geotechnical investigations that consist of soil borings or CPTs with laboratory testing, soil classification, site characterization, and exploration logs. In addition to the referenced ASTM designations, they plan to follow the *FHWA Geotechnical Engineering Circular No. 5* (GEC 5) for best practices pertaining to geotechnical site characterization. Water level readings will be made in all soil borings. Final coordinates and elevations will be surveyed. Further, a lab extrusion log will be made, as applicable, with pocket penetrometer readings.

Bridge soil borings will be made using wet/mud rotary methods below the water table, with solid stem augering (ASTM D1452) above the water table. They plan to follow Standard DOTD sampling with Shelby tubes in cohesive soils (ASTM D1587 on 5-ft intervals) and Standard Penetration Testing (SPT) in cohesionless soils (ASTM D1586 on 3-ft intervals). Continuous sampling will be performed within at least the upper 10 feet. DOTD procedures will be followed during transport and storage of the samples (generally ASTM D1586) and log in the field using the visual-manual method for classification (ASTM D2488).

Roadway Design and Hydraulics

For any roadway design or hydraulics related Task Order (TO) assigned, we will first conduct a scoping meeting with appropriate DOTD personnel to accurately identify the project's needs and goals, discuss design criteria, determine specific deliverables to be prepared, and develop a schedule for deliverable items. Using this information, a fee proposal will be prepared and, along with the detailed scope of work, be submitted to the DOTD for review and approval. Once the scope of work has been approved by the DOTD, the TRC Team will begin developing preliminary plans for reviews at the 30%, 60%, 95% and 100% stages.

The 30% review will typically include development of plan sheets and preliminary typical sections. Typical sections will reflect the appropriate design criteria based on classification of the roadway, and preferable values will be selected unless conditions indicate otherwise. During this time, existing drainage areas will be reviewed for size of flow to determine if existing drainage systems are adequate or require improvement. Existing Drainage Area maps and Design Drainage Maps will be prepared. If the project requires subsurface drainage, then roadway drainage will be evaluated to determine catch basin locations and pipe sizing. Preliminary cross sections will begin to determine the limits of construction, open channel flow requirements, and if any additional right-of-way is needed. Roadway plans will be completed to match any drainage needs and geometric requirements, including geometric details.

At the 60% review stage, preliminary drainage design will be completed and submitted for review along with a preliminary hydraulics design report. If the TO requires a Traffic Management Plan (TMP), preparation of this document will begin. Part of the TMP is the development of detailed maintenance of traffic (MOT) plans and sequence

of construction plans. TRC will review with the DOTD any specific needs for MOT that must be met, such as maintaining the same number of lanes or if lane closures are permissible, and the use of temporary diversions as required. Following receipt of the 60% review comments, plans will be revised to reflect required changes.

For the 95% review, all other deliverables will be completed, along with a construction cost estimate, and submitted to the DOTD for a Plan-In-Hand review (PIH). After comment resolution from the PIH's review, 100% preliminary plans will be submitted.

The Final Plan stage will include submittals at 60%, 95%, 98% and 100%. For the 60% submittal, typical sections as well as the hydraulic design and roadway/drainage plans are completed, and these are all submitted for review. During this time, work will proceed on detailed summary sheets, finalization of horizontal and geometric details, addition of construction notes, and review of right-of-way maps. At the 95% stage, all design work is basically complete, a final QA/QC check has been done, final quantities and a construction cost estimate have been prepared, special provisions are being prepared, and plans are submitted to the DOTD for an Advance Check Print (ACP) review. At the 98% stage, comments from the ACP review have been addressed, a final cost estimate has been prepared, special provisions have been finalized, and plans transmitted for final review. For the 100% submittal, signed and sealed plans and a final cost estimate are transmitted to the DOTD. Below is a sample schedule that can be adjusted for any size roadway project.

Sample Roadway Design Schedule

CONCEPTUAL SCHEDULE FOR AN ALL-INCLUSIVE TASK ORDER OF MODERATE COMPLEXITY	Year 1				Year 2				Year 3				Year 4				Year 5			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
PROJECT INITIATION																				
Scoping & Contract																				
NTP																				
Kick off Meeting																				
DATA COLLECTION, ANALYSIS & FIELD VERIFICATION																				
SURVEYING & SUE																				
PRELIMINARY DESIGN & PLAN DEVELOPMENT																				
60% Preliminary Design & Plan Development																				
95% Preliminary Design & Plan Development																				
Plan in Hand Meeting																				
100% Preliminary Design & Plan Development																				
PERMITTING & ENVIRONMENTAL SUPPORT																				
RIGHT OF WAY MAPPING																				
FINAL DESIGN, PS&E, AND CONTRACT DOCUMENTS																				
60% Final Design, PS&E, and Contract Documents																				
Joint Plan Review Meeting (if Necessary)																				
95% Final Design, PS&E, and Contract Documents																				
Advanced Check Print (ACP) Meeting																				
98% Final Design, PS&E, and Contract Documents																				
100% Final Design, PS&E, and Contract Documents																				
LETTING & CONSTRUCTION																				
Letting																				
CRES																				

Bridge Design Services

Inspection and Evaluation of Existing Structures

TRC, WSP, and HDR have significant experience conducting bridge inspection and evaluation, and have inspected virtually every type of bridge that is located in Louisiana. Our previous inspections have included NBIS routine inspections and in-depth inspections for the purpose of developing rehabilitation and repair plans. As part of any TO that will include an approved scope and fee for the services to be conducted, TRC will conduct plan and document retrieval, and review such to obtain the information necessary for bridge inspection and evaluation. The TRC Team has extensive bridge inspection experience and qualified bridge inspectors that will be used for the bridge inspections, including several with SPRAT rope access certification. TRC will coordinate with the appropriate subconsultants for traffic control, NDT, diagnostics, and any other specialty service required. Upon completion of the inspection, TRC will develop a comprehensive inspection report. If required, TRC will conduct an evaluation in accordance with BDEM Part 1 Chapter 6 to determine the suitable bridge rehabilitation or replacement scheme.

Bridge and Structural Analysis and Design

TRC, WSP, and HDR collectively have extensive bridge and structural design experience. TRC has designed nearly every type of bridge in Louisiana, while HDR and WSP have substantial experience with the design of movable bridges and major complex river crossings, including cable stay, segmental, and extrados structures. As presented in the 24-102, TRC has designed multiple new bridges, including the **I-49 Segment K interchange** and the **Walter O. Bigby Carriageway bridge**. TRC has also successfully conducted multiple bridge rehabilitation and repair plans for significant Louisiana structures, including the **I-10 Mississippi River Bridge (MRB)**, **LA 47 over IWGO**, **US 190 MRB**, and several movable bridges.

As part of any TO for bridge and structural analysis, TRC will coordinate with the DOTD and key stakeholders to select the most economical structure types for the project. Maintaining traffic during construction will be crucial to project success, and will rely on the use of a TMP that evaluates phased bridge construction vs. single bridge closures with temporary roadway crossovers; maintaining access control for adjacent detours; and maximizing the safety of vehicle, railroad, and marine traffic. General bridge plans will be developed to show the horizontal configuration of the bridge, along with vertical profiles featuring the top of rail/water and required height clearances and freeboard to the superstructure of the proposed bridge. We will coordinate horizontal and vertical alignments through the DOTD, USCG and railroads as needed for their approval to ensure that project design criteria are met. A preliminary hydraulics design report will be included with the 60% Preliminary Plans delivery. As part of the 100% Preliminary Plans submittal, TRC will prepare any required railroad or environmental clearance permits and begin developing any SWPPP plans. The Final Plans stages, for preliminary as well as rehabilitation plans, will include 30%, 60%, 90%, 95%, 98%, and 100% submittals.

Bridge Load Rating (as-designed, as-built and condition)

Complementing our inspection and design expertise, the TRC Team has extensive load rating experience and has conducted a significant amount of typical load ratings using AASHTOWare BrR for the DOTD and such other states as Mississippi, Ohio and South Carolina. **TRC has also conducted non-typical load ratings for complex bridges that cannot be modeled in AASHTOWare BrR**, which have included kinked girders, complex truss bridges and swing-span bridges. Non-typical load ratings will typically include FEM analysis, development of capacity calculations and development of influence lines in accordance with DOTD requirements and influence line form V2022-7. TRC has conducted as-designed, as-built and condition load ratings, and has also conducted load ratings that were a part of bridge evaluations in accordance with BDEM Part 1 Chapter 6. As part of any related TO, TRC will coordinate with the DOTD to determine the goal of the load rating task. We will complete a plan and document retrieval process to include as-designed plans, as-built plans, shop drawings and inspection reports so as to develop an accurate bridge load rating. In-depth inspections will be completed as needed to gather required bridge information. TRC will work with the DOTD to determine the appropriate load rating methodology to achieve the desired goals and provide a comprehensive load rating report. All work will be subject to review and final approval using our QA/QC Plan.

On the following page are two schedules: one for a bridge rehabilitation project and the other for a bridge replacement project that identify the major milestones, deliverables and tasks without durations as requested in the RFQ. For other projects such as bridge repairs and load ratings, or larger ones such as interchanges, schedules can be easily modified to accommodate the needs of a project.

Plan Development and Letting Support Services

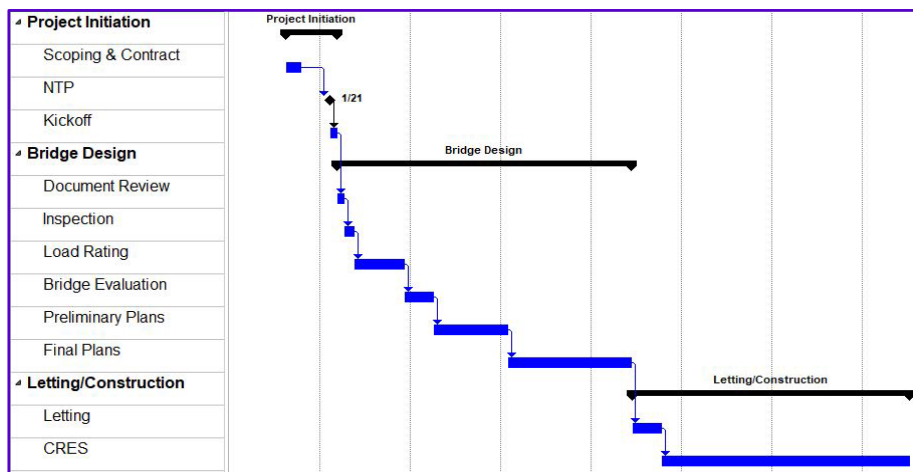
TRC develops plans that “look like DOTD” plans. Where the DOTD needs assistance with plan development and letting services, we will meet with the appropriate technical leads to determine the scope and develop a manhour estimate around specific rates of compensation. All plans will be developed in accordance with DOTD Criteria and be CADD conformed. Part of the services will include our staff studying the contract documents prior to advertisement so that when a question comes in, we can respond in a timely manner. If errors are found during the review process, drawings can be updated and issued as addendums.

Construction Support

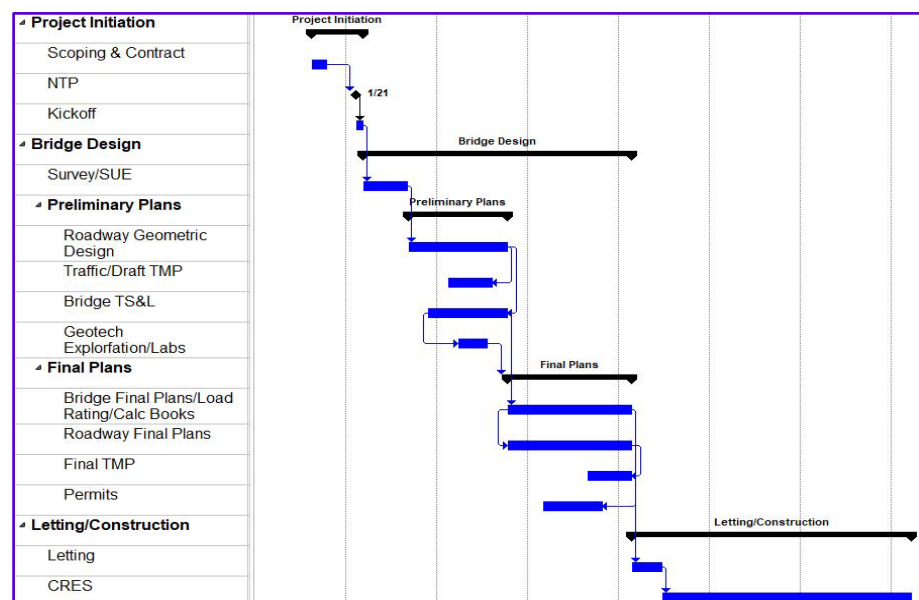
The TRC Team has a wealth of knowledge and experience, both locally and nationally, in conducting Construction Support Services. If this is a Project where the TRC Team has designed as part of a supplemental request, we will provide a scope and fee proposal (initial manhours) to conduct the requisite services which may include, but not be limited to, a pre-construction meeting, periodic site visits, shop drawing reviews, responses to RFIs, NCRs, and Value Engineering proposals. We will attend

weekly progress meetings, normally conducted virtually, and provide change order drawings where necessary.

Bridge Rehabilitation Schedule



Bridge Replacement Schedule



Other Services

Tolling implementation, Design, and Support Services

Once TRC is assigned a TO for this service, we will bring in WSP and/or HDR to establish the needed objectives such as tolling points, integration with existing systems, type of architecture, type of technology, and user interface options. Services can include prototype development, full-scale deployment, and training. Support services can include developing a maintenance and monitoring schedule, user support for technology operators, software updates and system upgrades and assist with reporting and analytics.

ITS Design and Support Services

Gresham Smith and HDR will take the lead for these services, with support from WSP. Once assigned a project, they will assess the needs of the project such as communication systems architecture, design of a new system or upgrades/expansion of an existing system, networking layout to include camera surveillance systems, roadside message signs, and isolated or adaptive traffic signals. Once fully informed of the need, they will develop the needed scope and fee proposal and execute the work upon NTP. They will also help develop technical provisions and performance specifications for the implementation of ITS on an alternative project delivery project.

Roadway and Aesthetic Lighting Design

TRC will work with the DOTD and HDR to conduct a study that identifies elements of the project assigned to us which present visual enhancement opportunities. The focus will be on lighting and architectural concepts that will provide harmonious shapes for piers, abutments, and the superstructure for bridges. Those dominant elements will be supplemented through thoughtful detailing of reveals, barriers, lighting, and abutments. As part of the initial services, communications should be conducted with the local arts community and public at large to get their input. Options for aesthetic lighting along the roadway and the bridges will be conducted. Once a general consensus is reached, a final design contract can be issued to implement the vision of the community.

Graphic Design and Professional Presentation Material Development / Public Relations and Communication Advisory Services

TRC has enlisted Franklin Associates to perform Public Outreach services for this contract. Franklin is expert at providing comprehensive public engagement and communications support for large projects, including foundational planning, stakeholder outreach to include graphic design, professional presentation material, website development, meeting facilitation, and feedback documentation.

Alternative Delivery Technical Services and Other Services as Directed by DOTD

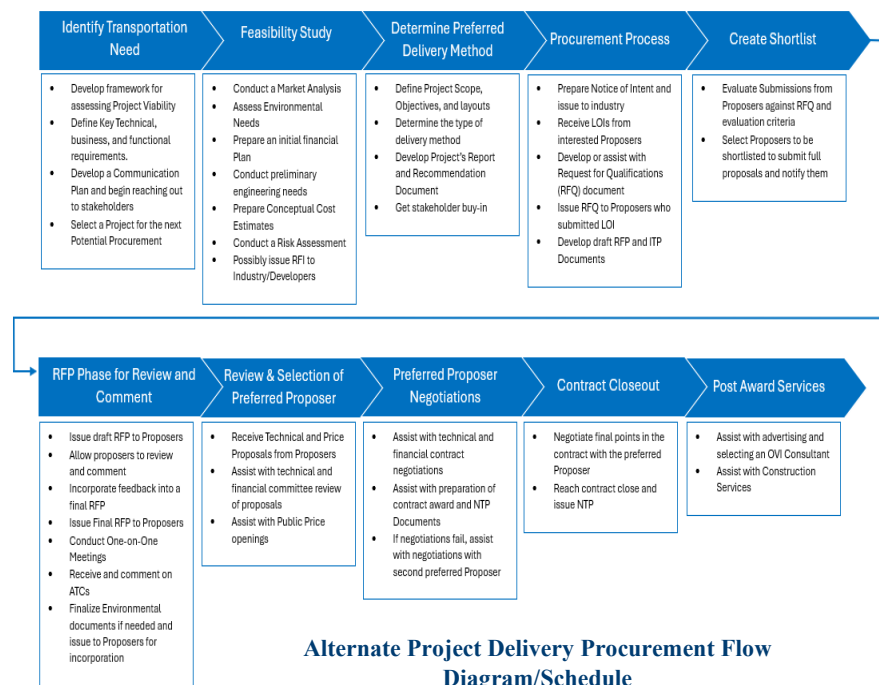
TRC Team members have an established history of providing technical services to public agencies in the pre-procurement, procurement and/or administration of alternative project delivery methods. Such methods include Design-Build, Progressive

Design-Build, Construction Management at Risk, and/or Public-Private Partnership (P3) Projects in Louisiana and throughout the country. Attesting to our ability to meet the challenges of this contract, TRC has been involved with many Design-Build and Public-Private Partnership (P3) projects throughout the country for the past 20 years. Such projects have exhibited many of the same demands and challenges that the DOTD faces and will encounter as it assesses the various engineering, financial, business, management and related matters pertaining to the evaluation, economic feasibility, contract negotiation and award, and management of innovative procurement and alternative delivery contracts.

Understanding the true value of such projects is the first step in capitalizing on the strengths that these project delivery models have to offer. Perhaps the greatest value of such methods is their ability to transfer risk to the party who has the best ability to manage that risk and allow for the introduction of innovative financing schemes that may not be available to the public owner. Taking advantage of the best abilities that the public and private sectors each have to offer produces the most successful alternative delivery projects. Conversely, such projects tend to be less successful when they are not allowed to fully capitalize on the respective strengths of the public and private partners, or worse when such projects are forced to follow a traditional bid-build approach. Not every project is a viable candidate for an alternative delivery procurement arrangement. Thus, choosing the best project and the best model can be a challenging decision for public agencies.

Establishing the process to evaluate and engage with the private sector to facilitate a successful project is another challenge facing every public owner. Business as usual cannot be the expectation when entertaining an Alternative Delivery project. Innovation with respect to contract language, design concepts, construction methods and techniques, and project administration needs to be the guide to truly leverage the strengths of such undertakings.

TRC has been involved with a broad range of design-build, P3 projects and similar opportunities in six states and Canada. Such projects have ranged in size from \$45 million to \$12.5 billion and have encompassed green field road and bridge development projects, long-term concession arrangements, managed high occupancy toll lanes and design-build-finance-operate-maintain structures. Our Team experience has included working with public agencies, developers, concessionaires, construction companies, lenders, and engineering firms. Our advisory and consultation services include owner's representation, lender's technical advisory services, development of long-term operations and maintenance programs, facility asset evaluations, design-build services, geotechnical engineering and subsurface explorations, quality assurance and acceptance, construction management and oversight, and security consultation. Shown at right is a flow diagram showing the general steps to procuring an Alternative Project Delivery Service such as a Public-Private Partnership (P3), Design-Build (DB), or Progressive Design-Build (PDB).



Understanding the specific differences between delivery methods is key. For example, conventional DB projects are more linear with essentially a fixed scope (aside from approved modifications through ATCs), whereas a PDB or P3 facilitates flexibility and evolution of the project scope. P3s also tend to involve a long-term partnership between public and private sectors. Contracting for a DB involves a single contract awarded from a competitive bidding, like a P3, whereas a PDB is developed from the owner awarding a contract based on qualifications and negotiation terms.

While a number of steps in the flow diagram are pertinent to the early procurement process for a CMAR, the CMAR process is very different in that there are three entities, Contractor, Designer and ICE, that individually have separate contracts with the owner. Collaboration between all entities is conducted throughout the life of the procurement process and on into construction to help minimize risk.

Given such expertise, the TRC Team will develop a comprehensive scope and fee proposal to assist the DOTD at any stage of the procurement process, whether for a single item or for a comprehensive scope and fee proposal for an entire procurement process.

Other services, such as **CEI, OVI, Expert Witness**, etc., can be provided as directed in coordination with the DOTD on a project-by-project basis.

19. Workload:

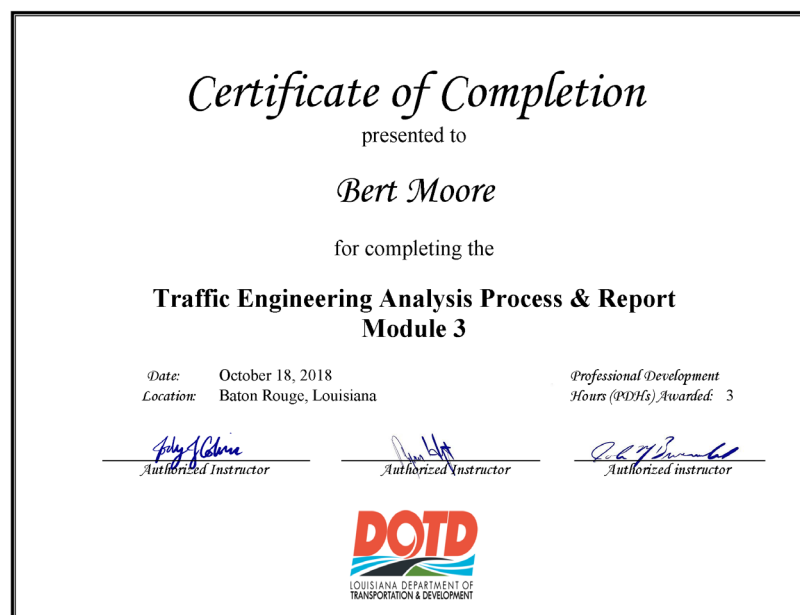
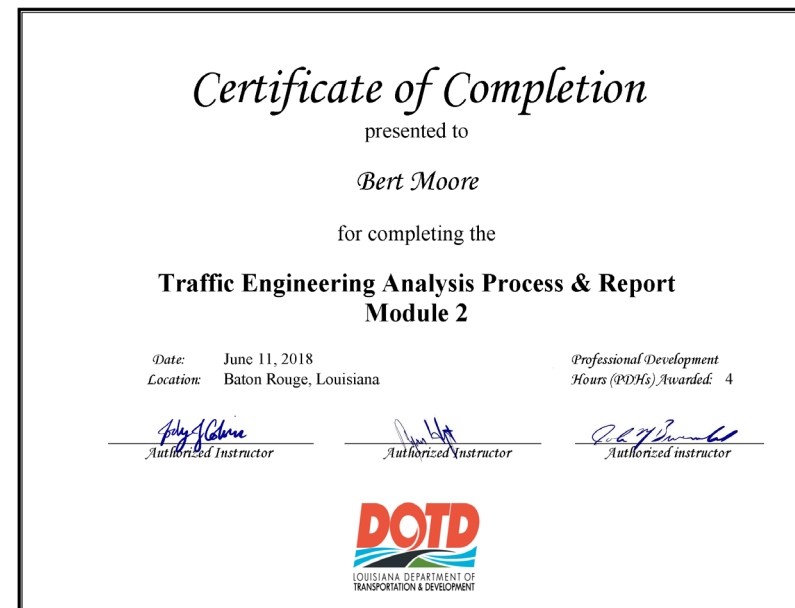
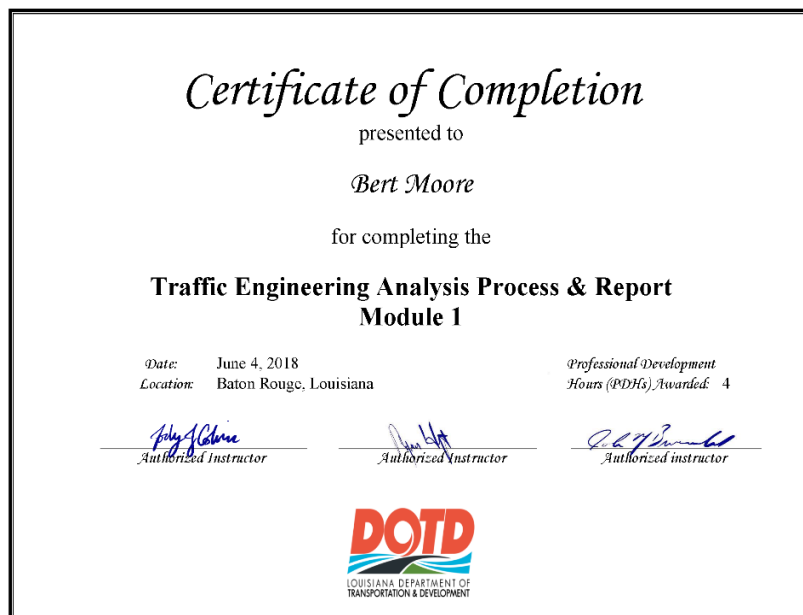
Firm(s) ALL FIRMS MUST BE REPRESENTED IN THIS TABLE	Discipline(s)	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance
TRC Engineers, Inc. 	Bridge	44-24185 / H.016046.5	US 190: Atchafalaya River @ K'Springs Repairs	\$320
	Bridge	44-24185 / H.011996.5	LA 182: Charenton Bridge Rehab (HBI)	\$541,604
	Bridge	44-24185 / H.016046.6	US 190: Atchafalaya River @ K'Springs Repairs	\$102,317
	Bridge	44-21128 / H.014258.6	LA 1 Construction Engineering Services	\$393,686
	Bridge	44-17033 / H.005121	LA 1 / LA 415 Connector	\$3,111,987
	Road	44-17033 / H.005121	LA 1 / LA 415 Connector	\$626,060
	Other (Project Management)	44-17033 / H.005121	LA 1 / LA 415 Connector	\$329,345
	Bridge	44-27652 / H.009859.5 (H.009859.5)	Bridge Load Rating Services	\$1,436,469
	Bridge	44-21515 / H.010004.5	Contract 3 for Movable Bridges – Olivier	\$133,952
	Bridge	44-21515 / H.011974.5	Contract 3 for Movable Bridges – Dulac	\$72,098
	Bridge	44-21515 / H.011991.5	Contract 3 for Movable Bridges – Daspit	\$149,721
	Bridge	44-21515 / H.012738.5	Contract 3 for Movable Bridges – Morbihan	\$204,190
	Bridge	44-21515 / H.014191.5	Contract 3 for Movable Bridges – Nelson	\$208,076
WSP USA Inc. 	Bridge	44-17069; H.012003, H.011995, H.010007, H.012568, H.012000	Contract for Movable Bridge Contract 2	N/A
	Environmental	44-27470; H.003931	LWI Region 3 Design Storm Modeling and Consequence Assessment, Calcasieu River Bridge	\$1,204,338
	Bridge	46-097.2794; H.008069.5	Peters Road Bridge & Extension Toll Study - Phase 3	\$ 13,700
HDR Engineering, Inc. 	Bridge	4400024186/H.015472	LADOTD Bridge Preservation TO4	\$106,185
	Planning	4400026365/ H.015223.2	Baton Rouge to New Orleans Rail Corridor Environmental Study – Project # 10368719	\$593,433
	Bridge	4400021517	Contract 5 for Movable Bridges (6)	\$557,996
	Bridge	4400024186	LADOTD LA301 Priest Canal TO#5	\$40,072
	Planning	4400032783/ H.015223.2	Baton Rouge – New Orleans Passenger Rail #10437089	\$5,955,620
	Bridge	4400024186	LADOTD Bridge Preservation TO6	\$118,061.25
	Other (Hydraulic Modeling)	440017091	LADOTD LWI Region 5 TO 5	\$222,183

Firm(s) ALL FIRMS MUST BE REPRESENTED IN THIS TABLE	Discipline(s)	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance
	Planning	4400030630/ H.015724.5	Kings Hwy: Healthcare and Development Corridor	\$640,494
	Planning	44000323498/ H.972419.1	SHSP – VRU Safety Assessment	\$694,891
	Planning	4400027876	HNTB TO3 Advisory Services	\$88,894
Gresham Smith  Gresham Smith	Bridge	44-21514; H.012003	Movable Bridge Contract 2	\$9,530
	CE&I/OV	44-31927; H.014737.6	Signal Upgrade: Sgt Alfred (CEI)	\$10,823
	CE&I/OV	44-27349; H.003931.6	Calcasieu River Bridge (HBI)(CEI)	\$1,131,076
	Other (Program Mgt)	44-27186; H.015959.1	Discretionary Grant Administration	\$1,169,296
	Road	44-21326; H.014693.1	Stage 0 LA 67 (Plank Rd) at LA 3006	\$3,826
	Road	44-26911; H.015202.5	LRSP/STRPPP TO #10 Donaldsville	\$27,314
	Road	44-26911; H.015207.5	SRTPPP TO #11 (BRCC Design)	\$132,378
	Road	44-26911; H.016080.5	SRTPPP TO #12 (US 90 @ Sharp Design)	\$129,499
	Road	44-27210; H.012859.5	Roundabout at Valhi Blvd	\$90,909
	Road	44-27181; H.015861.5	LA 4 (Jonesboro)	\$74,602
	Road	44-27181; H.015918.5	Downtown Winnfield	\$133,983
	Road	44-26912; H.013720.5	LRSP/STRPPP TO #12 LA 31 Sidewalk	\$129,498
	Road	44-26912; H.016205.5	LRSP/STRPPP TO #13 LA383 Sidewalks	\$118,400
	Road	44-31004; H.015580.5	Natchitoches Safe Streets	\$352,183
	Traffic	44-25298; H.016039.5	LA 47: LA46 - Virtue St	\$87,491
	Traffic	44-25298; N/A	LA 24: Downtown Houma Study	\$35,058
	Traffic	44-25298; H.016007.5	I-10: Siegen Ln Interchange	\$125,493
	Traffic	44-25298; N/A	Permit Review (Dist 05)	\$300,000
	Traffic	44-26911; H.013718.5	LRSP/STRPPP TO #3 LA 23 Gretna	\$54,185
	Traffic	44-26911; H.013713.5	LRSP/STRPPP TO #4 LA 60 Bogalusa	\$12,767
	Traffic	44-26911; H.015198.5	LRSP/STRPPP TO #5 S. Carrollton)	\$601

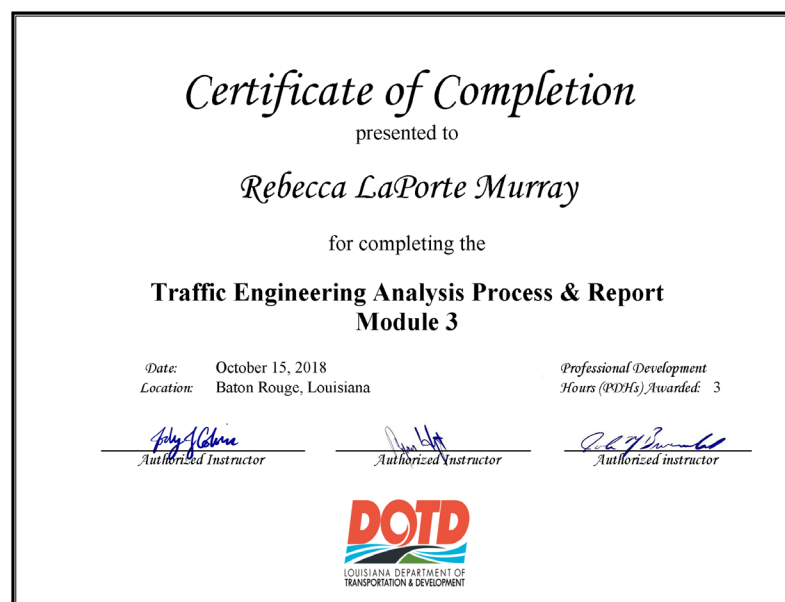
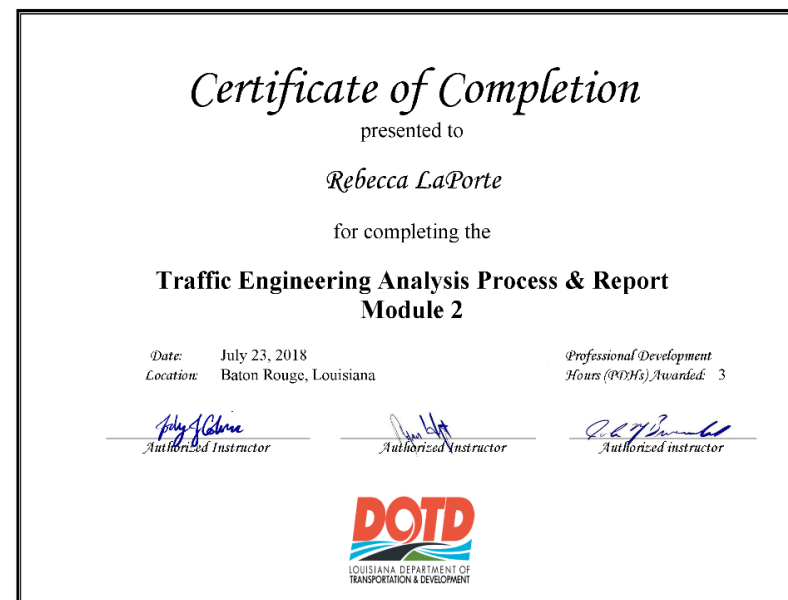
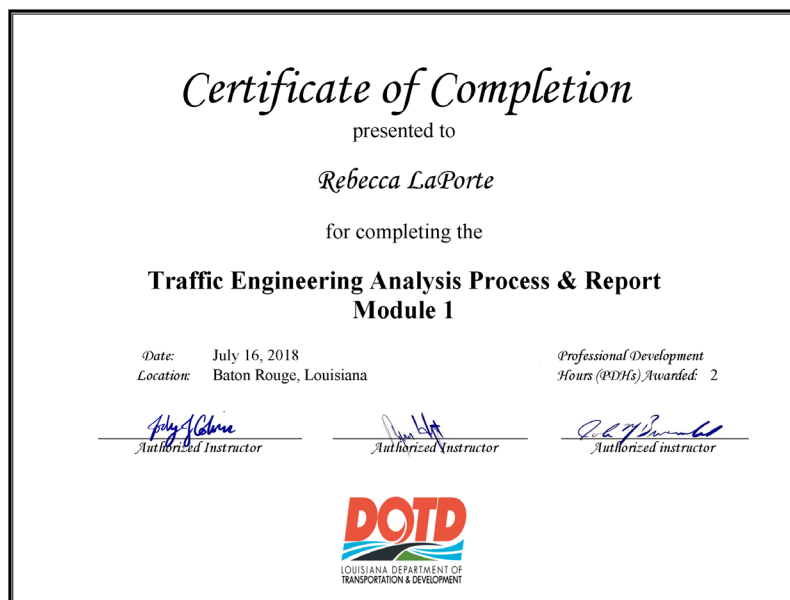
Firm(s) ALL FIRMS MUST BE REPRESENTED IN THIS TABLE	Discipline(s)	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance
NTB Associates, Inc.  SURVEY. DESIGN. BUILD. SUCCEED.	Survey	4400019338 Multiple SP Nos. per bridge	Contract for Rural Bridge Replacement Initiative Phase II, Districts 05, 08, & 58 (Sub to Waggoner)	\$48,739
	Survey	4400019337 Multiple SP Nos. per bridge	Contract for Rural Bridge Replacement Initiative Phase II, Districts 02, 03, 07, 61, & 62 (Sub to BKI)	\$28,531
	Survey	4400025041 H.015403	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program - W. Yellow Water Road Bridge, Tangipahoa Parish (Sub to Waggoner)	\$1,055
	Other (SUE)	4400026587 H.001779	Jimmie Davis Bridge (LA 511) (HBI) Design Build Project, Bossier Parish (Sub to James Construction/ Huval & Associates, Inc.)	N/A
	Survey	4400027918 H.012869.5	IDIQ Contract for Professional Boundary Surveying Services – Task Order 3 – LA 182 (Univ) @ LA 723 (Renaud) Roundabout, Lafayette Parish	\$27,332
	Survey	4400027918 H.011310	IDIQ Contract for Professional Boundary Surveying Services – Task Order 4 – Ford Street Extension, District 61	\$8,603
	Survey	4400027918 H.015721	IDIQ Contract for Professional Boundary Surveying Services – Task Order 5 – LA 30 Roundabout, Ascension Parish	\$23,592
	Survey	4400027918 H.015568	IDIQ Contract for Professional Boundary Surveying Services – Task Order 6 – LA 44 Pelican Point Roundabout & Widening, Ascension Parish	\$44,108
	Survey	4400027918 H.014059	IDIQ Contract for Professional Boundary Surveying Services – Task Order 7 – US 80: Bridges Near Minden, Webster Parish	\$10,024
	Survey	4400027918 H.014059	IDIQ Contract for Professional Boundary Surveying Services – Task Order 8 – US 80: Bridges Near Minden, Add'l Site, Webster Parish	\$842
	Survey	4400027918 H.011970.5	IDIQ Contract for Professional Boundary Surveying Services – Task Order 9 – LA 182: Bayou Terrebonne Bridges, Terrebonne Parish,	\$30,452
	Survey	4400027918 H.016325.5	IDIQ Contract for Professional Boundary Surveying Services – Task Order 10 – LA 358: Creek Bridge, St. Landry & Acadia Parishes	\$13,467

Firm(s) ALL FIRMS MUST BE REPRESENTED IN THIS TABLE	Discipline(s)	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance
	Survey	4400027918 H.010795.5	IDIQ Contract for Professional Boundary Surveying Services – Task Order 11 – LA 42: Roundabout @ Joe Sevario Road, Ascension Parish	\$27,774
	Other (SUE)/ Survey	4400030630 H.015724.5	Kings Hwy: Healthcare & Dev. Corridor, Caddo Parish (Sub to AFJ&M, City of Shreveport, & Forte & Tablada)	\$193,085
	Other (SUE)	Parish Proj. No. 2025-118 H.003855	Cong Relief Winfield Road, Bossier Parish (Sub to Volkert)	\$3,566
	Survey	4400031331 H.015477.5	Shreveport Pavement Program- Task Order No. 2 – LA 1 Caddo Lake Bridge, Caddo Parish	\$27,752
GeoEngineers, Inc. 	Geotech	H.003931	P3 I-10 Calcasieu River Bridge Geotechnical	\$ 2,264,579
	Geotech	440022852; H.012011, H.012029, H.012036, H.012037	8 Bridge Replacements/Geotechnical Engineering Services	\$ 719,120
	Geotech	H.016255.5	LA-1 Railroad Overpass	\$ 847,248
	Geotech	H.01649.6	LADOTD - OV for 20 Bridge Reviews	\$ 116,256
Franklin Associates, LLC 	Planning; Other (Public Outreach and Relations)	H.003915	I-49 Inner City Connector, Stage 1 Environmental Assessment Project (Prime: Providence Engineering)	\$4,298
	Other (Public Outreach and Relations support)	H.004100.5	I-10 CMAR RCP Plans – Segment 1 (Prime: Providence Engineering/HUVAL)	\$44,114
	Planning; Other (Public Outreach and Relations)	H.013284	MRB South GBR: LA 1 to LA 30: NEPA EA (Prime: Atlas)	\$41,633
	Other (Public Outreach and Relations support)	H.004791	Belle Chasse Bridge Replacement Project (Prime: Plenary)	\$17,378
	Other (Public Outreach and Relations support)	H.003931	I-10 Calcasieu River Bridge Replacement Project (Prime: Calcasieu Bridge Partners)	N/A
	Other (Public Outreach and Relations support)	H.005121	Sugarhouse Road Environmental Assessment (Prime: Providence)	\$4,665

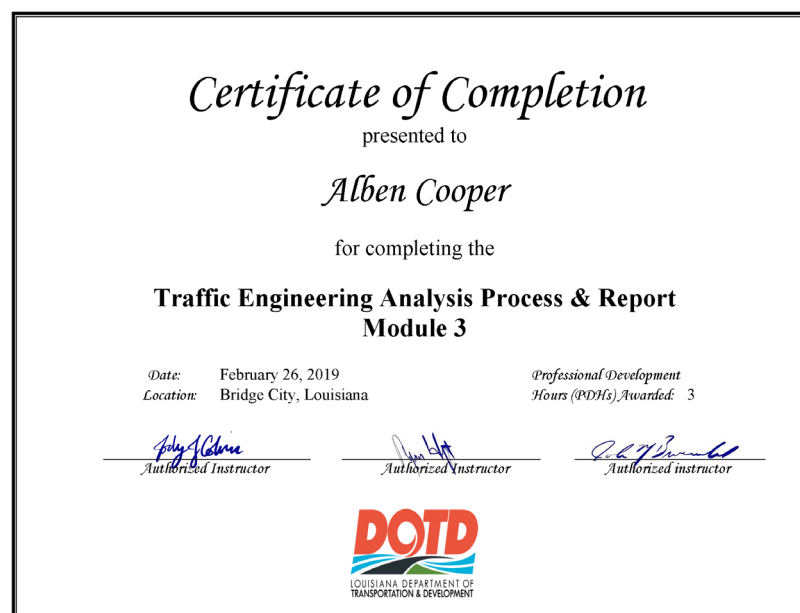
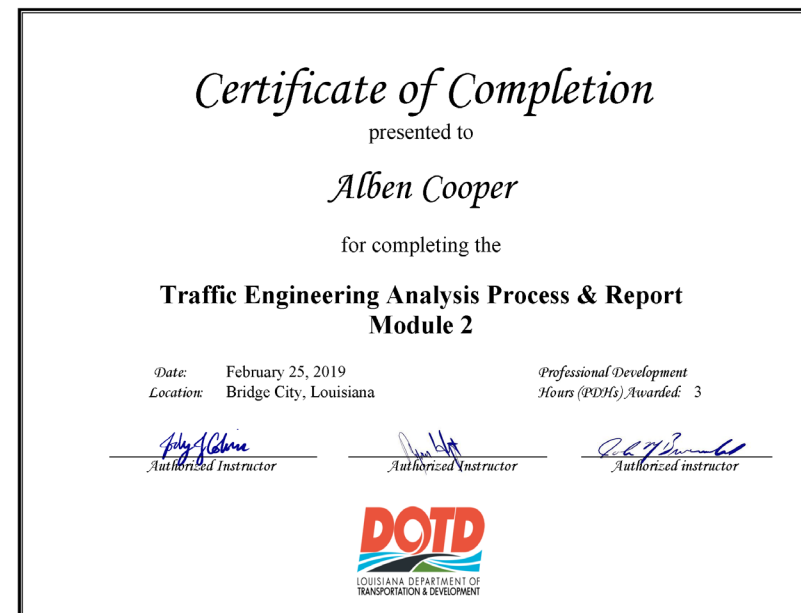
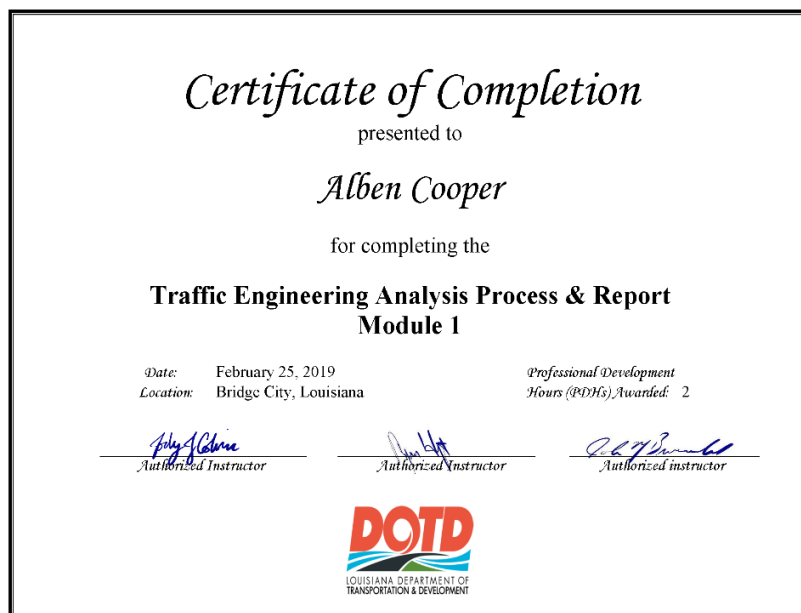
20. Certifications/Licenses:



20. Certifications/Licenses:



20. Certifications/Licenses:



Congratulations!

Kofi Ampofo-Twumasi

You have completed

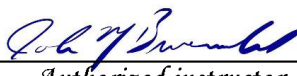
Traffic Engineering Analysis Process & Report Class Modules 1, 2 &3

Date: February 1-2, 2023
Location: Baton Rouge, Louisiana

Professional Development
Hours (PDHs) Awarded: 8.50



Authorized Instructor



Authorized instructor



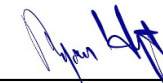
Congratulations! *Michael Trueblood*

You have completed

Traffic Engineering Analysis Process & Report Class Modules 1, 2 & 3

Date: April 22-23, 2026
Location: Baton Rouge, Louisiana

Professional Development
Hours (PDHs) Awarded: 8.50



Authorized instructor



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TRC ENGINEERS, INC.	Business Corporation (Non-Louisiana)	LYNDHURST	Active

Previous Names

Business:

TRC ENGINEERS, INC.

Charter Number:

35865842F

Registration Date:

1/27/2005

Domicile Address

1099 WALL STREET WEST
SUITE 250B
LYNDHURST, NJ 07071

Mailing Address

21 GRIFFIN ROAD NORTH
WINDSOR, CT 06095

Principal Business Office

1407 BROADWAY
STE. 3301
NEW YORK, NY 10018

Registered Office in Louisiana

3867 PLAZA TOWER DR.
BATON ROUGE, LA 70816

Principal Business Establishment in Louisiana

4545 SHERWOOD COMMON BLVD.
BUILDING 3, SUITE A
BATON ROUGE, LA 70816


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Name	Type	City	Status
WSP USA INC.	Business Corporation (Non-Louisiana)	NEW YORK	Active

Previous Names

PARSONS BRINCKERHOFF, INC. (Changed: 5/2/2017)

PB AMERICAS, INC. (Changed: 11/3/2011)

PARSONS, BRINCKERHOFF, QUADE & DOUGLAS, INC. (Changed: 12/14/2006)

Business: WSP USA INC.

Charter Number: 29600510F

Registration Date: 10/1/1971

Domicile Address

ONE PENN PLAZA 4TH FLOOR
NEW YORK, NY 10119

Mailing Address

4139 OREGON PIKE
EPHRATA, PA 17522

Principal Business Office

ONE PENN PLAZA 4TH FLOOR
NEW YORK, NY 10119

Registered Office in Louisiana

3867 PLAZA TOWER DR.
BATON ROUGE, LA 70816


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Name	Type	City	Status
HDR ENGINEERING, INC.	Business Corporation (Non-Louisiana)	OMAHA	Active

Previous Names

HDR INFRASTRUCTURE, INC. (Changed: 12/3/1987)

Business: HDR ENGINEERING, INC.

Charter Number: 34178558F

Registration Date: 6/17/1985

Domicile Address

1917 S. 67TH STREET
OMAHA, NE 68106

Mailing Address

1917 S. 67TH STREET
OMAHA, NE 68106

Principal Business Office

1917 S. 67TH STREET
OMAHA, NE 68106

Registered Office in Louisiana

201 RUE BEAUREGARD, STE. 202
LAFAYETTE, LA 70508

Principal Business Establishment in Louisiana

5750 JOHNSTON STREET
SUITE 105
LAFAYETTE, LA 70508

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GRESHAM SMITH	Partnership (Non-Louisiana)	OFFICE: NASHVILLE, TENNESSEE	Active

Previous Names

GRESHAM, SMITH AND PARTNERS (Changed: 9/27/2018)

Business: GRESHAM SMITH

Charter Number: 36123793L

Registration Date: 2/17/2006

Domicile Address

DOMICILE: TENNESSEE
OFFICE: NASHVILLE, TENNESSEE

Mailing Address

222 SECOND AVENUE SOUTH
SUITE 1400
NASHVILLE, TN 37201

Principal Business Office

222 SECOND AVENUE SOUTH
SUITE 1400
NASHVILLE, TN 37201

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NTB ASSOCIATES, INC.	Business Corporation	SHREVEPORT	Active

Previous Names

NTB, INC. (Changed: 1/4/2000)

Business: NTB ASSOCIATES, INC.

Charter Number: 34216133D

Registration Date: 8/14/1986

Domicile Address

525 LOUISIANA AVE.
SHREVEPORT, LA 71101

Mailing Address

525 LOUISIANA AVE.
SHREVEPORT, LA 71101

Principal Office Address

525 LOUISIANA AVE.
SHREVEPORT, LA 71101

Status

Status: Active

Annual Report Status: In Good Standing

File Date: 8/14/1986

Last Report Filed: 7/25/2025

Type: Business Corporation

20. Certifications/Licenses:



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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

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Name	Type	City	Status
FRANKLIN ASSOCIATES, LLC	Limited Liability Company	BATON ROUGE	Active

Previous Names

FRANKLIN INDUSTRIES, LLC (Changed: 10/5/2011)

Business: FRANKLIN ASSOCIATES, LLC

Charter Number: 36013721K

Registration Date: 9/13/2005

Domicile Address

250 S. FOSTER DRIVE
BATON ROUGE, LA 708064103

Mailing Address

C/O PERRY J. FRANKLIN, SR.
250 S. FOSTER DRIVE
BATON ROUGE, LA 708064103

Status

Status: Active

Annual Report Status: In Good Standing

File Date: 9/13/2005

Last Report Filed: 8/14/2025

Type: Limited Liability Company

Registered Agent(s)

21. QA/QC Plan:

See Attached.

BRIDGE DESIGN QUALITY ASSURANCE / QUALITY CONTROL PLAN

Contract Nos. 4400035363 through 4400035367

**IDIQ CONTRACTS FOR ENGINEERING AND
TECHNICAL SUPPORT SERVICES
FOR CRITICAL PROJECTS, STATEWIDE**

Prepared For



Louisiana Department of
Transportation and Development
Baton Rouge, Louisiana

**Revision No. 00
June 16, 2026**



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1.0 INTRODUCTION AND QA/QC PLAN OVERVIEW

This Project Quality Assurance/Quality Control Plan establishes the minimum requirements for the Quality Assurance (QA) and Quality Control (QC) for the assigned task orders under these IDIQ Contracts for Critical Projects and provides guidance to the project team regarding responsibilities and procedures for the QA/QC process. Any individual who performs work on this project shall comply with these minimum requirements. The QA/QC requirements shall be implemented for all design activities in both the design phase and construction support phase of the project. The QA/QC requirements shall be implemented for all load rating activities of any task order.

This Project QA/QC Plan is consistent with and also meets or exceeds the requirements of the State of Louisiana Department of Transportation and Development (LA DOTD) *Bridge Design and Evaluation Manual* (Revision No. 9) and the FHWA/AASHTO *Guidance on QC/QA in Bridge Design In Response to NTSB Recommendation (H-08-17)* (August 2011) documents.

The main objective of a Project QA/QC Plan is to provide a mechanism by which the design, rating and plan development can be subject to a systematic and consistent review process. The QA/QC process does not solely consist of a review after a product is completed, but is a process that occurs throughout the design development.

Any questions about this Project QA/QC Plan should be directed to the Project Manager (PM). The PM is to be contacted if there are quality-related issues or concerns that aspects of the project appear to be inconsistent with the quality principles and procedures described in this Project QA/QC Plan.

1.1 Defining Project Quality

The following six characteristics, as defined below, will be used as a guide to focus the quality of engineering services provided to the LA DOTD by the TRC Team on this Contract.

Complete: Design documents, load rating documents and plans will be an accurate and thorough representation of the existing project features. Construction plans will be an accurate and thorough representation of the proposed project features and details to be constructed. The design and load rating documents will be developed with the active involvement of all affected parties throughout all stages of development.

Consistent: Design documents, load rating documents and plans will be consistent in format and in content and will comply with all standards and guidelines set by the LA DOTD design manuals, AASHTO guidelines and electronic standards.

Clear: Information provided in the design documents, load rating documents and plans will leave little room for subjectivity.

Correct: Design documents, load rating documents and plans will not contain errors or omissions.

Constructible: The TRC Team will implement this Project Quality Control Plan to minimize and/or mitigate the occurrence and magnitude of design errors or omissions which would require a significant number of change orders during the construction phase or would result in a significant increase in the contract bid award amount, or would significantly affect the time of the construction contract period.

Timely: All submittals will be completed and delivered in the allotted timeframe.

1.2 Definitions of QA and QC

The definitions of QA and QC in bridge design, as defined in the LA DOTD Bridge Design Section *Policy on Quality Control and Quality Assurance*, are shown below.

- Quality Assurance (QA) – Procedures of reviewing the work to ensure the quality control procedures are in place and effective in preventing mistakes, and consistency in the development of bridge design, plans, load ratings and specifications that meets LADOTD policies and FHWA requirements.
- Quality Control (QC) – Procedures of checking the accuracy and consistency of the calculations and drawings, detecting and correcting design and load rating omissions and errors before the design plans and rating reports are finalized, and verifying the specifications for the load-carrying members are adequate for the service and operation loads. Furthermore, quality control consists of procedures for ensuring that the management of the bridge inventory ratings meets LADOTD policies and FHWA requirements.

1.3 Consultant Responsibilities

TRC is fully responsible for the QA/QC of its work and the work of its sub-consultants and is also responsible for all expenses incurred from omissions, ignorance or errors. The LA DOTD is not responsible for the QA/QC of their consultant's work. The individual roles, responsibilities and requirements of the TRC design team and the LA DOTD Bridge Task Manager are described in Section 3.0. All personnel working on any task order shall follow the design policies and procedures described herein.

1.4 Summary of Project Scope of Work

The selected Consultant shall provide the following scope of engineering services. The selected Consultant should expect to perform task orders for individual services for specialized work.

1. Project Management and Support
Provide project support necessary to assist DOTD in fulfilling project requirements and commitments.
 - Schedule, attend, and/or conduct project meetings
 - Participate in value engineering and cost risk schedule assessments
 - Develop Project Management Plans (PMP)
 - Develop Initial Financial Plans (IFP)
 - Support DOTD in development of grant applications and agreements
 - Support DOTD in drafting of miscellaneous project agreements
2. Quality Control Reviews and Peer Reviews
Provide reviews necessary to verify the accuracy of project submittals and/or reports.
 - Perform independent peer reviews of designs and calculations
 - Perform engineering reviews for plans and special provisions

3. Environmental and Permitting Services

Provide environmental services necessary to obtain project environmental approvals, re-evaluations, and permits, and to support mitigation compliance.

- Provide services in support of NEPA and related laws and regulations
- Develop permit applications and/or associated supporting documentation
- Provide services in support of mitigation compliance
- Perform material sampling and testing (e.g., air monitoring, groundwater, soil, bridge coatings)

4. Traffic Engineering and Design Services

Provide traffic engineering and design services necessary to analyze traffic impacts and design traffic and geometric solutions.

- Collect traffic data
- Develop and utilize traffic models to inform and justify project solutions
- Perform traffic control analysis and design
- Develop traffic intersection control, signing, and pavement marking designs
- Perform geometric designs and provide geometric reviews
- Develop Transportation Management Plans (TMP)
- Develop Access Justification Reports (AJR), either through an Interchange Justification Report (IJR) or an Interchange Modification Report (IMR)

5. Surveying Services

Provide surveying services necessary to provide project design information and support right-of-way acquisition.

- Perform topographic and bathymetric surveying
- Develop drainage maps
- Perform boundary surveying
- Perform title take-offs and other associated title work
- Develop right-of-way maps

6. Subsurface Utility Engineering and Utility Relocation

Provide subsurface utility engineering and utility relocation support services necessary to identify, avoid, and/or relocation utilities.

- Perform all SUE Quality Levels (A-D)
- Perform utility oversight and coordination
- Develop utility conflict matrices

7. Geotechnical Engineering Services

Provide geotechnical services necessary to perform geotechnical investigations, analysis, and design.

- Perform geotechnical field investigations (e.g., deep and shallow borings, CPTs)
- Perform geotechnical laboratory testing and analysis
- Provide geotechnical analysis and design
- Provide construction related services (e.g., field construction monitoring and analysis)

8. Roadway Design and Hydraulic Engineering Services

Provide roadway design and hydraulic services necessary to develop roadway and drainage solutions.

- Provide hydraulic analysis and design
- Develop type, size, and location parameters for drainage structures
- Develop project design criteria
- Provide roadway design

9. Bridge Design Services

Provide bridge design services necessary to develop bridge and structural solutions.

- Perform bridge and structural inspection and evaluation of existing bridges and structures
- Provide bridge and structural analysis and design
- Develop as-designed, as-built, and condition bridge ratings

10. Plan Development and Letting Support Services

Provide plan development and letting support services necessary to receive bids on projects.

- Develop project plans in accordance with project needs and requirements
- Schedule, conduct, and/or participate in plan review meetings
- Provide responses to bidder inquiries and update contract documents as needed

11. Construction Support

Provide construction related engineering support services necessary to support project construction activities.

- Provide construction drawing reviews
- Review and provide responses to Requests for Information (RFIs)
- Review and provide responses to Value Engineering Proposals and Contractor Proposals
- Review and provide responses to Non-Conformance Reports (NCRs)
- Provide updated contract documents as needed

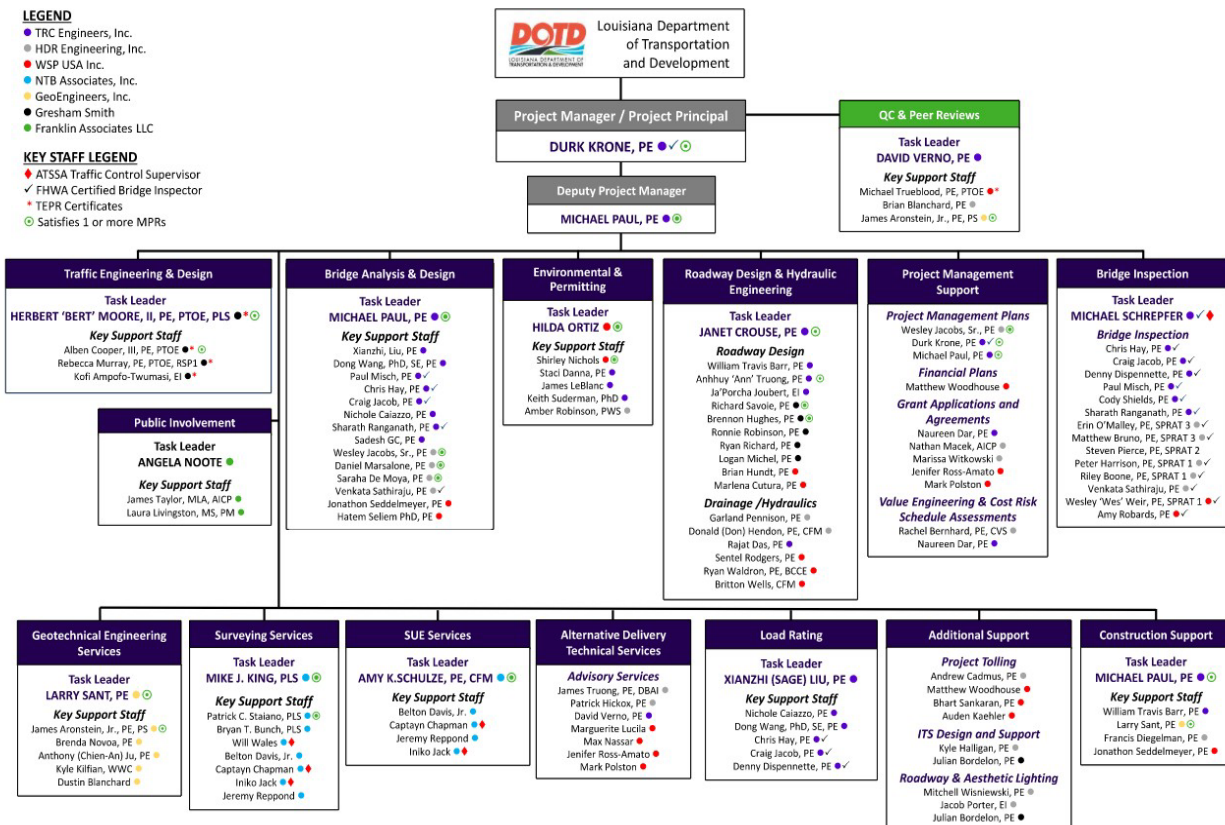
12. Other Services

Provide other related engineering, technical, and professional services necessary to support project delivery and administration.

- Tolling implementation, design, and support services
- ITS design and support services
- Roadway and aesthetic lighting design
- Graphic design and professional presentation material development
- Public relations and communication advisory services
- Alternative delivery technical services
- Other services as directed and developed in coordination with the DOTD Project Manager

Project Team

TRC recognizes that the selection of a qualified project team is an essential element of a successful project. The table below provides a summary breakdown of the project team in terms of primary roles and points of contact for key project personnel. A preliminary outline is presented in this Section for the purposes of showing the team hierarchy and anticipated work distribution.



2.0 QUALITY ROLES, RESPONSIBILITIES AND REQUIREMENTS

All individuals working on this contract will contribute directly to the overall quality of the final deliverables. As such, each individual is responsible and accountable for the quality of his or her work products, whether for internal or external use. Individuals must not rely on others to catch mistakes or omissions. Before a work product is submitted to someone else for review or to be used as part of the program, the individual preparing the work is responsible for making sure it is complete, and its quality is acceptable by personally back-checking the work for correctness and completeness.

Overall project quality requirements will be met if each team member takes responsibility for the quality of their portion of the work.

While all project team members are responsible for quality, certain key team members also have specific responsibilities for implementing the QC process on this project. The following sections summarize those responsibilities.

2.1 LADOTD Bridge Task Manager

The responsibilities of the LADOTD Bridge Task Manager are as follows:

- Develop the scope of work, man-hour estimate, minimum personnel requirements, and evaluation criteria, and obtain agreement from the direct supervisor on these items. Provide the information required for the project manager to prepare the advertisement and review the draft advertisement to ensure that all bridge design requirements are included.
- Serve as a member of the proposal evaluation committee and select the most qualified consultant team. Evaluate DOTD Form 24-102 and QA/QC plan document in accordance with the policies and procedures established by CCS and the instructions included in Appendix A. The final rating for DOTD Form 24-102 and the QA/QC plan document shall be reviewed by the direct supervisor and the Bridge Design Engineer Administrator. DOTD Form 24-102 for the selected consultant shall be retained for the duration of the Project.
- Initiate a kick-off meeting with the consultant as soon as the project is awarded to meet key bridge design team members (supervisor or team leader, designers, design checkers, and reviewers); discuss staffing plan and implementation of QA/QC plan document; determine submittal schedules; share expectations and consultant rating criteria; discuss bridge design criteria; and discuss bridge design budget, supplemental requests, invoices, and the importance of avoiding claims. Reach an early agreement regarding bridge type, size and location (TS&L). A bridge design kick-off meeting agenda checklist is included in Appendix B.
- Review and approve design criteria and TS&L and ensure the design criteria is updated as the project progresses.
- Monitor consultant's implementation of the QA/QC plan document. Ensure each consultant submittal includes a Consultant Project Interim Submittal QA/QC certification included in Appendix K.
- Keep a project log sheet to record all major project activities such as project meetings, consultant submittals, DOTD review comments, major decisions made, etc. A project log sheet template is included in Appendix C.
- Review consultant's submittals. Selectively check dimensions and details as a cursory review of the plans for constructability, consistency, and clarity but not as QA/QC of consultants' work. Communicate with consultants any concerns and schedule a face-to-face meeting if required to

resolve differences in a timely manner. A consultant submittal review checklist is included in Appendix D.

- Monitor project schedule and ensure on time delivery of project submittals.
- Monitor budget, process supplemental agreements in a timely manner, and avoid claims. Ensure the consultant performs work with a signed contract in place.
- Review and approve invoices. Ensure the original staff proposed in DOTD Form 24-102 is reflected in the invoices. If personnel changes are required, the credentials of replacement staff must be equal to or exceed the qualifications of the original staff. The resumes of replacement staff must be approved by LA DOTD.
- Perform a consultant rating for each major submittal for the quality of work. The major project submittals include, but not limited to, the following items:
 - Design Criteria
 - Bridge Type, Size and Location (TS&L)
 - 30%, 60%, 90%, 100% Preliminary Plans
 - 30%, 60%, 90%, 100% Final Plans
 - Design Calculation Book(s)
 - Consultant ratings performed by the bridge task managers must be reviewed and approved by their direct supervisor; a copy of the rating must be sent to the Consultant.
- Archive final bridge design files in accordance with Bridge Design Section record retention policy (Appendix E).

2.2 TRC Project Manager

The Project Manager (PM) is the individual responsible for the planning, coordination and controlling of the project from inception to completion, meeting the project's requirements and ensuring that each project is completed on time, within budget and to the required quality standards. The PM is responsible for the distribution of review prints at the interim QA plan reviews prior to the milestone submittals. The PM has the responsibility to review plans for general quality, appearance, accuracy and completeness. The PM confirms that interim QA plan reviews for milestone submittals are included in the project schedule and confirms that all have occurred and have been completed, that all comments have been satisfactorily addressed and that all forms and checklists have been completed by the appropriate personnel. The PM is responsible for selecting the Team Leaders and Reviewers. The PM is ultimately responsible for adherence of the Project to this Project QA/QC Plan. The PM will lead the effort of preparing written bridge design criteria described in Section 4.3.

The Project Manager is responsible for delivering all bridge design files to the LA DOTD Bridge Project Manager no later than 30 calendar days after the stamped final plans are delivered.

2.3 Team Leaders

Team Leaders are the individuals that are responsible for a specific portion of the project. They have the primary responsibility for producing high quality deliverables on schedule and within the budget. Specific quality-related responsibilities include the following:

- Assigning design, rating, detailing and QC activities to individual team members. The assigned activities need to be specific and definable portions of the project.
- Assembling the design calculations and development of the calculation books and any other required design documentation.

- Assembling the load rating calculations and development of the load rating report.
- Confirmation that all calculations, and plan sheets are prepared, checked and reviewed in accordance with the guidelines in Section 4.0.
- Meeting or talking with the Reviewer at the QA review stage for each milestone submittal. Especially in the early phases of the project, Team Leaders are expected to be proactive in soliciting Reviewer input on advance copies or summaries of the design approach (as appropriate) and when making critical design decisions.
- Meeting or talking with the Reviewer after each milestone QA review to discuss major comments and come to a consensus as to how they will be addressed.
- Coordination with the other Team Leaders and the PM. Team Leaders are expected to communicate as frequently as needed to ensure that each team has the information needed to perform their designated work.
- Preparing and providing the QA Information Package (Appendix F) to the Reviewer.

2.4 Designers

A Designer is an individual directly responsible for the development of design calculations, drawings, special provisions including Non-Standard items, and cost estimate for the particular elements he/she has been assigned. The Designer is responsible for supervising the Detailer in development of the plans. Designers must be licensed by the State of Louisiana as a professional engineer or certified as an engineer intern.

2.5 Raters

A Rater is an individual directly responsible for the development of the load rating calculations. Raters must be licensed by the State of Louisiana as a professional engineer or certified as an engineer intern.

2.6 Checkers

A Checker is an individual responsible for performing a full technical review of the design calculations, load rating calculations, load rating report, special provisions including Non-Standard items, and cost estimating for the particular elements he/she has been assigned. The Checker shall ensure that the load rating calculations accurately represent the actual bridge condition. The Checker is responsible for conducting the QC check of the calculations as described in Section 4.0. Checkers must be licensed by the State of Louisiana as a professional engineer or certified as an engineer intern; if the Designer or Rater is an engineer intern, the Checker must be a professional engineer. The Checker shall not be the same individual who performed the original design or load rating.

2.7 Detailers

The Detailer is the individual directly responsible for the creation of plan CAD drawings. It is the responsibility of Detailers to work with the Designer and Detail Checker to prepare CAD drawings that accurately reflect the design and are consistent with all applicable LA DOTD CAD standards and any designated TRC project-specific CAD templates and/or base files except when LA DOTD has permitted an alternate standard.

2.8 Detail Checkers

A Detail Checker is the individual responsible for performing a full review of the plan sheets he/she has been assigned to check as described in Section 4.0. The Detail Checker shall ensure that the drawings

adequately and accurately present the design information. The Detail Checker should either be the Designer or Design Checker. The Detail Checker shall not be the same individual who performed the original detailing.

2.9 Detail Back-Checkers

A Detail Back-Checker is the individual responsible for verifying the Detail Checkers plan sheet mark-ups are correct.

2.10 Reviewers

The Reviewer is the engineer responsible for performing the QA Review. Reviewers must be licensed by the State of Louisiana as a professional engineer and must have substantial experience in the design of similar structures. For load rating projects, the Reviewer must have at least 2 years of experience in bridge rating.

Reviewers have the following responsibilities:

- Being familiar with the project scope and project personnel.
- Confirm that the QC process is being implemented and the design calculations, load rating calculations, drawings, special provisions, and cost estimate are in accordance with LA DOTD Bridge Design Practices, policies and procedures and this Project Quality Control / Quality Assurance Plan.
- Providing periodic input to the design process by providing the Team Leaders and PM with review comments on proposed design concepts and the evaluation of design alternatives, especially in the early phases of the project.
- Performing thorough and timely reviews in accordance with the project schedule. Reviewers are expected to present clearly written review comments which are succinct and within the project schedule.
- Verify with the Team Leader that all required calculations and plans have been prepared and checked in accordance with the guidelines in Section 4.0.
- Verify with the Team Leader that all applicable codes and standards have been followed in performing the tasks.
- Meeting with the Team Leader to discuss major review comments, confirming that the Team Leader understands the comments and that a consensus as to how to address them is reached. Verifying that all major review comments are adjudicated, and their resolution is documented and implemented.

2.11 Peer Reviewer

The Peer Reviewer is an independent engineering entity, with no prior involvement in the project, who performs a check of the designs by producing an independent set of calculations based on the drawings or performs a review as specified in the scope of work.

The Peer Reviewer shall not be employed by the same consultant with whom the Designer or Checker is employed. The Peer Reviewer must be licensed by the State of Louisiana as a Professional Engineer and must have substantial experience in the design of similar structures.

2.12 Engineer of Record

An Engineer of Record (EOR) is the individual designated to be responsible for accuracy and completeness of the plans and related designs prepared by their designated team. For load rating task orders, the EOR is responsible for the accuracy of the load rating and completeness of the load rating report. The EOR shall have responsible charge of the portion of work he/she is designated to be responsible for. The EOR must be licensed by the State of Louisiana as a Professional Engineer and must have commensurate experience in the design of similar structures. The EOR is typically the Team Leader, but can be the Designer, Rater, Checker or Reviewer who is most directly involved in the project design/rating activities.

Responsibilities of the EOR include the following:

- Confirming that the QA/QC certification is signed by all responsible parties.
- Confirming that the geotechnical design information shown on bridge plans is co-stamped by a Geotechnical Engineer and the hydraulic information shown on bridge plans is co-stamped by a Hydraulic Engineer. If practical, the hydraulic information and geotechnical information should be presented on separate sheets to reduce the engineering stamps on a sheet.
- Confirming that when more than one engineering stamp is required on a sheet, the responsibilities for each engineering stamp shall be clearly defined.
- Working with the Team Leader to ensure the calculation book and rating report are correct and complete and include the final geotechnical analysis report and the hydraulic report from the geotechnical engineer and the hydraulic engineer, respectively.
- Reviewing the load rating report for conformance with the Load Rating Report Checklist (Appendix P).
- Verifying that the names of the Designer, Design Checker, Detailer, Detail Checker, and Reviewer are correctly shown on the title block of each plan sheet.
- Confirming all special provisions are accurately shown in the construction proposal. The special provisions are typically stamped by the Specification Engineer as part of the construction proposal; however, if the Specification Engineer is not qualified to stamp the special provisions, the EOR must stamp these provisions.
- Sealing all plan sheets or designate a Designer, Checker or Reviewer to seal the sheets developed under their supervision. Sealing the general notes sheets, calculation book, load rating report and special provisions (if required).

3.0 PROCEDURAL REQUIREMENTS

3.1 Selection of a Qualified Design Team

The PM will select a Team Leader for each discipline of each Task Order. The PM will select a Reviewer for each of discipline of each Task Order. With concurrence from the PM, each Team Leader will select a team (Designers, Raters, Checkers, Detailers, Detail Checkers and EOR) with qualifications and experience that are adequate for the complexity of the bridge to be designed and/or load rated. The PM will work with the LA DOTD in selecting a Peer Reviewer if a peer review is required.

3.2 Project Kick-Off Meeting

A kick-off meeting will be initiated soon after the notice to proceed date for the LA DOTD to meet key bridge design team members (Team Leader, Designers, Raters, and Reviewers); discuss a staffing plan and implementation of a QA/QC plan document; determine submittal schedules; share expectations and

consultant rating criteria; discuss bridge design criteria; and discuss bridge design budget, supplemental requests, invoices, and the importance of avoiding claims. Reach an early agreement regarding bridge type, size and location (TS&L). A bridge design kick-off meeting agenda checklist is included in Appendix B.

3.3 Development of Bridge Design and Load Rating Criteria

The Project Manager will take the lead in development of the Bridge Design Criteria will work with the project design team and the LA DOTD Bridge Task Manager in the preparation of this document. The Bridge Design Criteria will include the required criteria for Load Rating. A copy will be submitted to the Task Leaders, Reviewers and EOR's for review and comment at the onset of work for the project. Once the Bridge Design Criteria has been finalized, it will be submitted to the LA DOTD for review, comment and acceptance. Bridge Design Criteria accepted by the LA DOTD will be distributed to all team members and will serve as the basis for design, load rating, and plan sheet development.

Though the Bridge Design Criteria may change throughout the project, an up-to-date version shall be maintained at all times and available to the design teams. The Bridge Design Criteria checklist used to guide the development process is included in Appendix G.

3.4 Plan Development and Conformance to CAD Standards

The Designer will work with the Detailer to develop the plans. All plan drawings will be developed in MicroStation and will comply with LA DOTD CAD standards and will be certified through a CAD standardization package as described in the LA DOTD document titled "Electronic Standards for Plans" found on the LA DOTD web site.

TRC is responsible for ensuring that sub-consultants submit their electronic deliverables in conformance with the same standards. The DOTD Software and Deliverable Standards for Electronic Plans document and DOTD CAD Standards Downloads are available via links on the LA DOTD web site.

Patches shall be applied to CAD Standard Resources and incremental updates installed to the CAD software as needed or required. Major updates shall be installed to software versions and CAD Standard Resources in a timely manner and shall be applied per directive or approval of the LA DOTD Design Automation Manager. Prior to proceeding with plan development, the PM shall contact the Bridge Design Manager for any special instructions regarding project-specific requirements.

In the event that any electronic standard conflicts with written documentation, including DOTD plan-development Manuals, the electronic standard typically governs. The Consultant is responsible for contacting the PM should questions arise.

Electronic deliverables shall be uploaded (or checked-in) directly into the DOTD ProjectWise repository at each plan delivery milestone. The following operations are to be performed at each milestone including, but not limited to, the following:

- Upload (or check in) CAD plan deliverables to the discipline "Plans" folder
- Apply and maintain indexing attributes to CAD plans (and other deliverables as needed)
- Publish PDF format plan submittals in ProjectWise using automated publishing tools

- Digitally sign PDF format plan submittals in ProjectWise according to DOTD standards and procedures (Final Plans, Revisions and Change Orders). Signatures shall be applied in signature blocks provided with electronic seals and Title Sheets.

Additionally, after reviewing deliverables for each submittal milestone, the LA DOTD Project Manager shall notify TRC regarding the availability of two automatically generated informational reports in ProjectWise. These reports document the completion status and other information regarding indexing attributes and CAD standards. Consultants shall take these reports into account and make any necessary adjustments to plans before the next submittal milestone; or sooner, if directed by the LA DOTD Project Manager.

3.5 Calculation Development

Calculations are essential to the design and load rating process and have two purposes:

- To act as a tool to obtain an answer to a design or load rating task.
- To serve as a permanent record of the objective and/or a statement of purpose (i.e., overview of what the calculation is trying to determine), assumptions, the steps performed to obtain the answer, and the conclusion.

In general, the design and load rating documentation packages need to articulate the process and computations using notes and/or references regarding:

- Objective of the Analysis
- Assumptions
- Design/Load Rating Criteria
- Code Requirements
- Specifications
- LA DOTD Policies and FHWA requirements
- Other Aspects/Elements Important to the Design

Bridge type, size and location (T, S &L) must be developed first and approved by the Team Leader and PM prior to proceeding with the design of structural components.

The Designer is the individual responsible for development of the design, geometric and quantity calculations. The Rater is the individual responsible for development of the load rating calculations. The Designers and Raters shall check his/her own work to minimize errors and must follow the Design Criteria established for the project. Design and calculations shall be conducted for all load carrying members and shall show good engineering judgment and be in conformance with the specified code requirements. Rating calculations shall be conducted for the load carrying members as specified by LA DOTD. Geometric calculations or CAD sketches shall be developed to verify the geometry shown on the plans. Quantity calculations shall be developed for all bridge quantities shown on the plans. Calculations shall be organized and maintained in a standard calculation book format. Hand calculations will be documented on a standardized engineering calculation pad. The calculation book checklist is included in Appendix H.

3.6 Quality Control

The quality control (QC) process includes a full technical review of the calculations, plan sheets, special provisions including non-standard items, and cost estimates. The main objective of the QC process is to

provide a mechanism for design work to receive a systematic and consistent review. A secondary objective of the QC process is to provide a well-documented trail of the design process.

The Checker is responsible for verifying the accuracy by conducting a QC check of the design calculations, load rating calculations, load rating report, quantity calculations, geometric calculations, pay items, special provisions including NS items and cost estimate. The Checker is required to perform a redline check of the calculations (as described in Section 4.6.2) or produce an independent set of calculations and compare the results (as described in Section 4.6.1). The Team Leader and EOR will determine the QC checking method that will be used depending on the complexity of the design/rating task. Regardless of the checking method employed, the Designer's/Rater's calculations are the calculations of record and must be updated to correct any errors or omissions discovered by the Checker. Calculations of the Checker should also become a part of the calculation of record when independent checking calculations are produced. The Checker should also ensure that the drawings adequately and accurately represent the design information.

During the QC plan sheet check process, the Detail Checker must ensure the drawings are in accordance with the design information and CAD standards as described in Section 4.6.3. All information on the plan sheets shall be checked and all necessary information shall be shown.

The Checkers may begin the QC checking process at the completion of the entire design/detail/rating process or may check components of the work as it is completed. Any discrepancies that arise shall be resolved between the Designer, Rater, Checker and Detailer, and the calculations and plan details shall be corrected accordingly. If a resolution cannot be reached, the issue shall be brought to the attention of the Team Leader.

After the Designer, Checker, Detailer, and Detail Checker are satisfied with the state of the design calculations, drawings, special provisions, and cost estimate as appropriate, and all QC checks have been completed, the design and detail QC check shall be considered complete and the final submittal QA Review will be conducted for the design documents.

For milestone plan submittals, the QC check of the plan sheets should be completed for those sheets that are indicated to be completed in the Plan Payment Milestone Tables in the LA DOTD Bridge Design Manual. Other sheets that are under development are to undergo a cursory check prior to milestone plan submittals. All plan sheets are to be QC checked prior to the 95% Final Bridge Plan Submittal.

If design revisions are required after the QA information package has been submitted, the Reviewer shall be notified of such revisions and supplied with the revised information.

After the Rater, Checker and Team Leader are satisfied with the state of the load rating calculations and the Load Rating Report and all QC checks have been completed, the load rating QC check shall be considered complete and the final submittal QA Review will be conducted for the load rating.

The Team Leader is required to maintain the status of the Internal Submittal Tracking Checklist (Appendix J). The Team Leader shall modify the list as needed to include all required design and rating tasks.

3.6.1 Independent Calculation Method of Checking Design Calculations

Calculations that are to be checked using the independent calculation method shall be done in accordance with this Section. Using Plans that contain the required amount of design information, the Checker will prepare independent design calculations for the selected bridge element. Next, the Checker marks-up the plans and compares the independent design calculation results with the information shown in the plans. If the difference in results is in excess of 5%, the original calculations will be resolved with the Designer as to method and accuracy. Once resolved, if necessary, the design calculations and plans will be revised to reduce or eliminate the difference in design results and the Design Checker will sign the original design calculations. The independent design calculations and plan marks shall be archived.

It is at the discretion of the Team Leader to determine the necessity of utilizing different means and design tools for developing independent calculations.

3.6.2 Redline Method of Checking Design Calculations

Calculations that are to be checked using the redline method shall be done in accordance with the following procedure.

1. The Designer/Rater develops calculations on engineer paper using pencil. The Designer/Rater initials and dates each sheet of the calculations. If spreadsheets, MathCAD or other software is used to develop calculations, these documents shall be formatted similar to handwritten calculations. If a software design program is used, the input/output shall be printed and the Designer/Rater shall initial and date the input/output cover sheet.
2. Once the calculations are complete, the Designer/Rater provides photocopies of the original calculations to the Checker. The photocopies are considered to be the checkprints. The Checker uses a red pencil or pen and yellow pencil or highlighter during their initial check of the calculations. Items and values found to be correct are to be highlighted in yellow to indicate that they have been checked and are correct. If an item or value is incorrect, a red line is drawn through it such that the original data is legible and the correct data is written in red nearby. The Checker initials and dates each sheet of the checkprints using red pen or pencil.
3. Upon completion of the checking procedure, the Designer/Rater reviews the red marks made by the Checker and works with the Checker to reconcile disagreements. Upon agreement, the Designer/Rater revises the original calculations. For significant changes, entire sheets of the original calculations may need to be redrafted in order to keep the set of calculations neat and legible.
4. Once the calculations are revised, the Designer/Rater provides the original calculations and checkprints to the Checker. The Checker verifies the changes have been made and that the calculations are complete.
5. If additional revisions are required, photocopies of the revised calculations shall be made and the redline check shall be repeated until complete.
6. Once the calculations are correct and complete, the Checker will initial and date each sheet of the original calculations. The signature and date of the Checker are to be handwritten; electronic signatures for the Checker are not acceptable. For design software input/output documents, the Checker need only initial and date the input/output cover sheet.

The Designer/Rater shall provide the calculations and checkprints to the Team Leader and EOR upon completion. The Team Leader will assemble and organize all calculations and checkprints and provide

them to the EOR who will be responsible for archiving these documents (electronic and hard copies) as evidence the QC check was conducted.

3.6.3 Redline Method of Checking Plan Sheets

Plan sheets shall be checked using the red-line procedure described below. Plan sheets shall be red-line checked for compliance with internal and project CAD standards and detailing practices, compliance with design requirements and dimensional checks. The redline check is considered the QC check of the plan sheets.

Plan Checking QC Procedure:

1. The Designer works with the Detailer to develop the plan sheets as described in Section 4.4. Once the plan development is at a satisfactory completion level, the detailer plots the sheet and adds the Check Print seal (electronically or rubber stamp) shown below to each sheet. The Detailer initials and dates the “DRAWN” row in the Check Print seal. These sheets are considered to be the checkprints.

CHECK PRINT		
DRAWN	by: _____	date: _____
CHECKED	by: _____	date: _____
BACKCHECKED	by: _____	date: _____
CHANGED	by: _____	date: _____
COMPLETE	by: _____	date: _____

2. The Detail Checker checks the sheet. All information shown on the sheet shall be checked. The Detail Checker should be the Designer or Checker. A yellow pencil or highlighter is used to indicate information that is correct. If an item or value is correct, a yellow line is struck-through that item or value. A red pencil is used to indicate a correction or addition is required. If an item or value is incorrect, a red line is drawn through it, such that the original data is legible and the correct data is written in red nearby. Notes and comments to the Detailer are clouded. The Detail Checker initials and dates the “CHECKED” row in the Check Print seal.
 - a. The Detail Checker shall reference Chapter 1 of the LA DOTD Bridge Design Manual and the LA DOTD Plan Constructability/Bidability Review form and also use their judgment to ensure the minimum amount of information is shown for Bidability/constructible plans. The detail checker shall verify the details shown are consistent with the information shown in the design calculations and quantity calculations.
3. Upon completion of detail checking, the checkprint(s) are provided to the Back-Checker. The Back-Checker checks all red-lines made by the Checker. The Back checker places a green checkmark next to the red-lines made by the Detail Checker to indicate agreement. If there is a disagreement, the Back-Checker shall work with the Detail Checker to reconcile the disagreement. The Back-Checker initials and dates the “BACKCHECKED” row in the check print seal.
4. Upon completion of back-checking, the checkprints(s) are provided to the Detailer. The Detailer makes changes to the CAD file for the items marked in red and with a green checkmark. The Detailer places a blue checkmark next to the red-lines to indicate the change was made. The Detailer shall only make changes indicated with red marks; no other items are to be modified. If the Detailer has questions or believes there are unmarked errors, it shall be brought to the

attention of the Checker. The Detailer initials and dates the “CHANGED” row in the Check Print seal.

5. The Detailer provides both the original checkprint and revised sheet to the Detail Checker. The Detail Checker verifies all changes have been made using red and yellow as described in Step 2.
6. If additional revisions are required, the process (Steps 2-5) continues until complete. Once complete, the Detail Checker initials and dates the “COMPLETE” row in the Check Print seal.

The Detail Checker shall provide the checkprints to the Team Leader and EOR upon completion. The Team Leader will assemble and organize all checkprints and provide them to the EOR who will be responsible for archiving these documents (electronic and hard copies) as evidence the QC check was conducted.

Once the plan sheet QC check is complete, the sheet title block will be populated for the Designer, Design Checker, Detailer and Detail Checker.

All bridge plan sheets must include the names of the Designer, Design Checker, Detailer, Detail Checker and Reviewer. The names shown on the bridge plans must be consistent with those shown on the QA/QC Certification, design calculations and plan check prints.

3.6.4 Document Reviews

Project documents (e.g., reports, specifications, design criteria, etc.) will, at a minimum, be reviewed by a second individual appropriately qualified to understand the subject matter of the document and familiar with the scope and requirements of the project. The document originator is responsible for incorporating review comments into the final document. Any differences between the originator and reviewer will be discussed and a consensus achieved prior to submittal of the document to the LA DOTD.

3.6.5 Construction Related Engineering Services Reviews

The construction submittals are typically reviewed by the Designer to ensure conformance with the contract documents. The Contractor is responsible for the correctness of their submittals.

The DOTD PM or appropriate Task Manager shall direct the TRC PM to review each construction submittal. The TRC PM will review the assigned construction submittals to ensure that TRC and/or their subconsultants are responsible for review of the submittal. The TRC PM will assign the construction submittal review to the responsible party. The Engineer or EIT who prepared the engineering drawings shall generally be responsible for reviewing and responding to the corresponding construction submittal. Responses to reviewed construction submittals shall be provided to the TRC PM for review. The TRC PM will submit the construction submittal response or designate an engineer to do so.

Reviews for specific construction submittals shall be as follows:

- Shop drawings – Review of drawings shall be done in a similar manner as Section 4.6.3 Step 2. The submittal review need only verify correctness of pertinent design information such as plate sizes, material strengths, number of bolts, bolt diameter, splice locations, weld sizes, number and size of P/S strands, etc.
- RFI’s – The RFI response shall be provided by the designer most directly responsible for the design of the corresponding RFI. The RFI response shall be reviewed by the Team Leader or an

Engineer or EIT designated by the Team Leader. The engineer providing the response shall sign the RFI response.

- Design documents (Contractor design calculations, erection calculations, erection plans, temporary works, etc.) – Review of drawings shall be done in a similar manner as Section 4.6.3 Step 2. Review of calculations shall be done in a similar manner as Section 4.6.2 Step 2. The checking of contractor design documents is to be cursory in nature and focusing on areas of critical importance.
- Document submittals (O&M manuals, material submittals) – Reviews for document submittals shall be done in a similar manner to Section 4.6.4.

Engineers and Engineer Interns reviewing construction submittals shall review and comply with 2016 LSSRB Subsections 101.03, 105.02 and 801.05. Procedural requirements for Working Drawing review shall be in accordance with BDTM 75 unless the DOTD PM indicates otherwise.

Responses to contractor submittals shall be stamped with one of the following designations:

- Returned for correction
- Accepted in accordance with LSSRB 105.02

3.7 Quality Assurance

Every phase or milestone of the project will undergo a QA review prior to submittal to the LA DOTD. The Reviewer is responsible for conducting the QA Review.

QA reviews consist of the following:

- QC Audit - Ensuring that the QC process was performed (e.g., calculation sheets have been checked and initialed) and the calculations, load rating report, drawings, special provisions and cost estimate are in accordance with DOTD Bridge Design practices, policies and procedures.
- QA Review - Conducting a cursory review of all documents in the package submitted by the design team. This review should focus on the constructability of the plan details; areas of critical structural importance; areas where, based on the Reviewer's experience, mistakes may be typically found; and areas that may be new to the design practice. The Reviewer may, but need not, produce independent calculations to verify submitted information.
- Providing feedback and working with the design/rating teams to resolve all issues.

The Reviewer has the option to provide their comments on the standard review form included in Appendix I. Alternately, Reviewers can mark (hardcopy) or electronically insert (if a track changes feature is available and activated) their review comments on deliverables including reports, drawings, and specifications. If this option is used to communicate review comments, the standard review form should be used to direct the Team Leader to where the review comments can be viewed.

Inter-discipline reviews will be performed at every milestone to confirm that any design conflicts are resolved prior to the Final Submittal.

3.7.1 Interim Submittal QA Review

Interim submittal QA Reviews will be conducted for all milestone submittals prior to the 100% final submittal. Prior to each milestone submittal, the Team Leader will provide the Internal Tracking Submittal Checklist (Appendix J) to the Reviewer and PM.

The Reviewer will conduct a cursory review of the deliverables (plans, load rating reports, etc.) and check the Internal Tracking Submittal Checklist (Appendix J) to ensure the QC process is being implemented. The Reviewer will also check the Consultant Submittal Review Checklist (Appendix D) to ensure the level of completion and amount of information shown on the plans is consistent with that required for each milestone submittal.

The Team Leader will confirm that calculations, checkprints and other applicable documentation (such as code reviews and design checklists) are archived and will be available to the Reviewer if requested. The Reviewer will provide comments to Team Leader and once a resolution is reached, the appropriate plan changes will be made and the Reviewer will sign the Interim Tracking Submittal Checklist and provide to the PM.

The Project Manager will utilize the Internal Tracking Submittal Checklist (Appendix J) to verify the project will meet the submittal schedule requirements, the QA/QC has been conducted and the information in the submittal was prepared in accordance with this Project QA/QC Plan and the applicable LA DOTD standards prior to each submittal. Each interim plan submittal is required to include a Consultant Project Submittal QA/QC Certification (see Appendix K) signed by the PM.

3.7.2 Final Submittal QA Review

Upon completion of all design and detail QC checks, which shall be no later than the 95% Final Plans stage, the Team Leader is responsible for preparing the QA information package, which includes the documents listed in below, and providing the package to the PM and the Reviewer.

QA information package checklist for design projects (see Appendix F):

- Calculation book
- Plans
- Special provisions including Non-Standard items
- Cost estimate
- Any relevant documents, such as checklists, review comments, etc. utilized by the Designer, Design Checker, Detailer, and Detail Checker.

The Team Leader will also provide the QA/QC Certification (Appendix L) signed by the Designer, Checker, Detailer and Detail Checker to the Reviewer. The Reviewer will conduct a review of all documents in the QA Information Package. The Reviewer will provide feedback to the Team Leader and resolve all issues. Once all issues have been resolved, the QA/QC Certification will be signed by the Reviewer and EOR.

The final plan and calculation submittal is required to include a Consultant Project Submittal QA/QC Certification (see Appendix K) signed by the PM and the Final Plan and Calculation QA/QC Certification (Appendix L) signed by the appropriate team members.

Upon completion of the load rating check, the Team Leader is responsible for delivering the Load Rating QA Package to the Reviewer and the PM.

QA information package checklist for load rating projects (see Appendix F):

- Scope of work required per contract
- Load rating report
- Electronic design files and influence line files
- Load Rating Checklist signed by the EOR (Appendix P)

The final Load Rating Report submittal is required to include a Consultant Project Submittal QA/QC Certification (see Appendix K) signed by the PM.

3.8 Peer Review

A peer review will be performed at the request of the LA DOTD Bridge Design Engineering Administrator for complex projects. A peer review will be performed by an independent engineering firm. The peer review will include a check of the design by producing an independent set of calculations based on the 95% drawings. Independent peer review calculations will not be formally checked, unless a discrepancy is discovered. Peer review comments will be documented and provided to the LA DOTD and TRC design team for evaluation. Resolutions agreed upon by all parties shall be incorporated into the final design. A Peer Review Resolution Agreement (Appendix M) must be signed by the Peer Reviewer, Team Leader or Project Manager of the design team and the LA DOTD Bridge Task Manager. The Peer Reviewer will also sign the Final Plan and Calculation Book QA/QC Certification.

3.9 QA/QC for Design Activities after Final Plans are signed by the Chief Engineer

The same QA/QC process shall apply to all design activities after the final plans are signed by the Chief Engineer.

Plan Revisions and Change Orders shall conform to LA DOTD EDSM No. I.1.1.28.

3.10 Documentation Requirements

3.10.1 Design Calculation Books

The Team Leader is responsible for assembling design calculations from all Designers (including the final geotechnical analysis report and the hydraulic report from the geotechnical engineer and the hydraulic engineer) and finalizing the calculation book in accordance with Appendix H. The EOR is responsible for archiving all design calculation, CAD files and checkprints. The EOR is responsible for sealing the cover sheet of the calculation book.

3.10.2 Load Rating Reports

The Team Leader is responsible for assembling load rating calculations from all Raters and finalizing the Load Rating Report. The EOR is responsible for archiving all rating calculation and checkprints. The EOR is responsible for sealing the Load Rating Report.

3.10.3 Review Comments and Responses

All comments made by DOTD phase reviewers will be recorded either by copy of memos, e-mail, letters and/or marked plans received from the reviewers. In the event that comments are received through meetings with reviewers the meeting minutes prepared will include a summary of the comments received.

The TRC PM will be responsible for addressing all comments and providing responses. The response will be in writing and will be formatted in a manner that identifies the document review date, reviewer's comments and responses to the comments. All comments received will be copied to the Team and forwarded to the applicable team members. The TRC PM will be responsible for submittal of comment responses to the reviewing entity.

Where it is necessary and prudent to discuss the comments with the Team Leader or other team members prior to making a response, the PM will arrange for the meeting.

Copies of all comments and responses will be kept in the project files.

3.10.4 Requests for Changes in the Scope of Work

The LA DOTD Bridge Task Manager and the TRC PM will evaluate comments or requests that are not covered in the project scope. Additions to the scope usually increase the project costs (a.k.a., Scope Creep). These requests should be evaluated on a case by case basis. The LA DOTD Bridge task Manager may recommend changes to the scope of a project, but only the LA DOTD Chief Engineer (or his designee) has the authority for the approval/denial of a scope change

3.11 QA/QC Certification

All project submittals must include a QA/QC Certification that indicates the submittals meet the requirements of this Project Quality Control / Quality Assurance Plan.

- QA/QC Certification for Interim Plan Submittals - The Project Manager will utilize the Internal Tracking Submittal Checklist to verify that the QA/QC has been conducted and the information in the submittal was prepared in accordance with this Project QA/QC Plan and the applicable LA DOTD and FHWA standards prior to each submittal. Each milestone plan submittal will include a Consultant Project Submittal QA/QC Certification (Appendix K) signed by the TRC PM.
- QA/QC Certification for Final Submittals - Upon completion of the design work (design and detail development, QC checks, QA review and Peer Review if required), the Final Plan and Calculation Book QA/QC Certification (Appendix L) will be signed by the Designer, Design Checker, Detailer, Detail Checker, Reviewer, EOR and Peer Reviewer. The final plan and calculation book submittal shall also include a Consultant Project Submittal QA/QC Certification (Appendix K) signed by the TRC PM. The load rating report submittal shall include a Consultant Project Submittal QA/QC Certification (Appendix K) signed by the TRC PM.

3.12 Sealing of Calculation Books, Plans and Rating Report by the EOR

The EOR shall seal all plan sheets or designate a Designer, Checker or Reviewer to seal the sheets developed under their supervision. The EOR must seal the general notes sheets, calculation book, load rating report and special provisions (if required).

3.13 Archiving Bridge Design and Rating Documents

The EOR is responsible for archiving all bridge design and rating files including calculation books, load rating reports, plans, CAD files, special provisions, cost estimate, electronic analysis and design files and other pertinent documents in accordance with the Bridge Design Section records retention policy (Appendix E). The PM is responsible for delivering all bridge design files to the LA DOTD Bridge Task Manager no later than 30 calendar days after the stamped and final plans are delivered. Any revisions

made to these documents due to plan revisions or change orders must be delivered in accordance with LA DOTD EDSM No I.1.1.28

3.14 Software

A pre-approved list of software is posted on the Bridge Design Section website under downloads (Appendix N). If any other software is required for unique applications for which pre-approved software cannot be used, a synopsis of the software shall be submitted to the Bridge Design Engineer Administrator for approval prior to use. The synopsis shall include the name of the software and the developer, a general description of the functions, a certification from the software developer stating that it is maintained in accordance with the latest AASHTO LRFD Bridge Design Specifications, and an account of the requester's experience and the experience of other organizations or agencies that use the software. Data/results from in-house software will not be accepted as part of the deliverable.

APPENDIX A
EVALUATION INSTRUCTIONS FOR CONSULTANT'S
QA/QC PLAN DOCUMENT

Instructions for Grading the QA/QC Plan Document

The Bridge Task Manager for the project is responsible for evaluating the QA/QC plan document in accordance with the QA/QC plan document rating matrix. A score shall be given for each of the six evaluation criteria. An average score of the six evaluation criteria will be calculated. If the average score is above or equal to 3.5, an overall rating of “Excellent” shall be given. If the average score is above or equal to 3 and below 3.5, an overall rating of “Good” shall be given. If the average score is above or equal to 2.0 and below 3, the overall rating of “Acceptable” shall be given. If the average score is below 2.0, the overall rating of “Not Acceptable” shall be given. If an overall rating of “Not Acceptable” is given, justifications must be provided. The grading sheet shall be filled out by the Bridge Task Manager and signed by both the bridge task manager and his or her direct supervisor. The grading sheet for the QA/QC plan document, along with justifications when required, must be transmitted to the Project Manager in writing through a transmittal letter. The overall rating for the QA/QC plan document for each consultant team will be presented to the Secretary in addition to the shortlist.

Prior to performing the evaluation, the Bridge Task Manager must review the FHWA/AASHTO “Guidance on QA/QC in Bridge Design In Response to NTSB Recommendations (H-08-17)” and LADOTD Bridge Design Section QA/QC policies, which are the references for the Consultant to develop their QA/QC plan document. These documents can be downloaded from DOTD Bridge Design website.

Evaluation Criteria	QC/QA Plan Document Rating Matrix			
	4 - Excellent	3 - Good	2 - Acceptable	1 - Not Acceptable
A. Understanding of Consultant's and DOTD's role in QC/QA of Consultant's work	Demonstrate clear understanding that the Consultant is fully responsible for QC/QA of their work and DOTD is not responsible for performing QC/QA of consultant's work.	Demonstrate good understanding that the Consultant is fully responsible for QC/QA of their work and DOTD is not responsible for performing QC/QA of consultant's work.	Demonstrate basic understanding that the Consultant is fully responsible for QC/QA of their work and DOTD is not responsible for performing QC/QA of consultant's work.	Demonstrate poor understanding that the Consultant is fully responsible for QC/QA of their work and DOTD is not responsible for performing QC/QA of consultant's work.
B. Understanding of the QC/QA concepts in Bridge Design	Demonstrate clear understanding of QC/QA concepts in bridge design. Definitions of QC/QA are clearly defined.	Demonstrate good understanding of QC/QA concepts in bridge design. Definitions of QC/QA are clearly defined.	Demonstrate basic understanding of QC/QA concepts in bridge design. The definitions of QC/QA are defined.	Demonstrate poor understanding of QC/QA concepts in bridge design. The definitions of QC/QA are not clearly defined.
C. Responsibilities of Designer, Checker, Reviewer, and Engineer of Record	Responsibilities of Designer, Checkers, Reviewer, and Engineer of Record are clearly defined.	Responsibilities of Designer, Checker, Reviewer, and Engineer of Record are well defined.	Responsibilities of Designer, Checker, Reviewer, and Engineer of Record are defined.	Responsibilities of Designer, Checker, Reviewer, and Engineer of Record are not clearly defined.
D. Description of the QC and QA processes and its effectiveness to ensure the accuracy of the design and the plan details	QC/QA processes are clearly described and should be very effective to ensure the accuracy of the design and the plan details.	QC/QA processes are clearly described and should be effective to ensure the accuracy of the design and plan details.	QC/QA processes are described and should be effective to ensure the accuracy of the design and the construction plan details.	QC/QA processes are not clearly described and do not seem to be effective to ensure the accuracy of the design and the construction plan details.
E. Identification of personnel qualified to perform the bridge design and QC/QA of the design and plan details	The designers and QC/QA personnel are clearly identified and are exceedingly qualified to perform the work.	The designers and QC/QA personnel are clearly identified and are qualified to perform the work.	The designers and QC/QA personnel are identified and are qualified to perform the work.	The designers and QC/QA personnel are not clearly identified or not identified and the qualifications of the personnel identified are questionable.
F. Use of QC/QA tools, such as Checklists, Standard Forms, Training materials, etc.	QC/QA tools, such as checklists, standard forms, training materials, etc., have been developed and well documented. These tools are well suited for the scope and the complexity of the project.	QC/QA tools, such as checklists, standard forms, training materials, etc., have been developed and documented. These tools are suitable for the scope and the complexity of the project.	QC/QA tools, such as checklists, standard forms, training materials, etc., have been developed and are acceptable to be used for this project.	QC/QA tools, such as checklists, standard forms, training materials, etc., have not been developed or the developed ones are not suitable for this project.

Grading Sheet for the QA/QC Plan Document

Project No.:

Project Description:

Prime Consultant	Evaluation Criteria	Score	Overall Rating	Justifications/Comments
Consultant 1	A			
	B			
	C			
	D			
	E			
	F			
	Average			
Consultant 2	A			
	B			
	C			
	D			
	E			
	F			
	Average			
Consultant 3	A			
	B			
	C			
	D			
	E			
	F			
	Average			
Consultant 4	A			
	B			
	C			
	D			
	E			
	F			
	Average			

Prepared by: _____
Name Signature Date

Approved by: _____
Name Signature Date

APPENDIX B
CONSULTANT KICK-OFF MEETING AGENDA CHECKLIST

Consultant Project Kick-Off Meeting Agenda Checklist

A kick-off meeting with the Consultant's bridge design team shall be initiated by the LADOTD Bridge Design Task Manager once the project is awarded. The meeting agenda shall include, but not limited to, the following items:

- Introduce LADOTD Bridge Task Manager and the Consultant's Key Team Members (The Supervisor or Team Leader and Key Designers/Design Checkers/Reviewers)
- Discuss Consultant's Staffing Plan and Implementation of QA/QC Plan Document (The staffing plan should include names and responsibilities of the designers, detailers, checkers, reviewers, and the EOR.)
- Determine Schedules for Project Submittals (Design Criteria, TS & L, 30%, 60%, 90%, 100% of Preliminary Plans and Final Plans, Final Calculations, etc.)
- Share Expectations and Consultant Rating Criteria (Consultant rating will be performed for all project submittals shown on the project submittal schedule.)
- Discuss Design Criteria
- Discuss Budget, Supplemental Requests, Invoices, and Importance of Avoiding Claims (Staff shown on invoices will be reviewed in accordance with the staffing plan.)

APPENDIX C
PROJECT ACTIVITY LOG SHEET

Project Activity Log Sheet

Project No.:

Project Name:

Bridge Task Manager:

[illegible]

APPENDIX D
CONSULTANT SUBMITTAL REVIEW CHECKLIST

Consultant Submittal Review Checklist

Items	Submittals												
	Design Criteria	TS&L	30% PP	60% PP	90% PP	100% PP	30% FP	60% FP	90% FP	100% FP	Final Calculation Book	Plan Revisions	Change Orders
Consultant Submittal QC/QA Certification			R	R	R	R	R	R	R	R	R	R	R
Design Criteria	C												
TS&L		C											
Bridge Index			D	D	D	D	D	D	C	S			
General Notes			D	D	D	D	D	D	C	S			
Summary of Estimated Quantities			D	D	C	C	D	D	C	S			
General Plans			D	D	C	C	C	C	C	S			
Typical Sections			D	D	C	C							
Superelevation Diagram				D	D	C	C	C	C	S			
Construction Phasing Details				D	D	C	C	C	C	S			
Traffic Controls Details				D	D	C	C	C	C	S			
Foundation/Pile Layout				D	D	C	C	C	C	S			
Pile Loads/Details					D	D	D	C	C	S			
Pile Data Tables							D	D	C	S			
Bent Details							D	D	C	S			
Fender Details							D	D	C	S			
Girder Details							D	D	C	S			
Span Details							D	D	C	S			
Joint Details								D	C	S			
Bearing Details								D	C	S			
Approach Slab								D	C	S			
Guardrail Details								D	C	S			
Bridge Barrier/Railing Details								D	C	S			
Bridge Drainage Details								D	C	S			
Detour Bridge Details								D	C	S			
Revetment Details								D	C	S			
Signing/Lighting Details								D	C	S			
Year Plate								D	C	S			
Rebar Support								D	C	S			
Misc. Details								D	C	S			
Project Specific Standard Plans and Special Details								D	C	S			
Electrical/Lighting Details								D	C	S			
Mechanical Details								D	C	S			
As-Built Plans								D	C	C			
Special Provisions/NS-Items							D	D	C	C			
Cost Estimate					D	D	D	D	C	C			
Final Calculations											S		
Revised Plans/Calculations												S	S

Legends:

- "R" = The item is required and shall be included in the submittal.
- "C" = The item shall be complete and shall be included in the submittal.
- "D" = The item shall be in development and shall be included in the submittal.
- "S" = The item is stamped by the EOR and shall be included in the submittal.

APPENDIX E
BRIDGE DESIGN SECTION RECORDS
RETENTION POLICY

Bridge Design Section Records Retention Policy
(Updated 1/27/2012)

Item No.	Record Title	In Office Retention Period (by Bridge Design Section)	DOTD Total Retention (By General Files)	Archiving Instruction	Responsible Party
001	Design Manuals/Guidance and Bridge Design Technical Memoranda	Life of the Agency	Life of the Agency	Archive electronically in Project-wise under <u>Documents\ Reference Materials\ Bridge Design Section Archive\ Design Manuals- Guidance</u>	Assistant Bridge Design Administrator responsible for design manuals
002	Bridge Design Standard Plans and Special Details	Life of the Agency	Life of the Agency	Archive electronically in Project-wise under <u>Documents\ Standard Drawings (instructions for archiving standards are posted on bridge design website under Standards/Revising or Creating Standards)</u>	Bridge Design Standards Manager
003	Final Plans, Revisions, and Change Orders (CAD files)	Life of the Agency	Life of the Agency	Archive electronically in Project-wise under <u>Project folder\ Bridge-Facilities\ Discipline\ Plans (Subfolders for each revision and change order should be created under Plans)</u>	Bridge Task Managers
004	Final Plans, Revisions, and Change Orders (Original signed hard copies)	Life of the Agency	Life of the Agency	Transmit to General Files and archive electronically in DOTD Network Plan Room by General Files	Bridge Task Managers
005	Final Plans, Revisions, and Change Orders (Digital signed copies in pdf format, to be implemented)	Life of the Agency	Life of the Agency	Archive electronically in Project-wise under <u>Project folder\ Published Submittals\ Project Drawings\ Final Plans</u>	Bridge Task Managers
006	Shop Drawings and Erection Drawings (Final Distribution Copy in pdf format)	Life of the Agency	Life of the Agency	Archive electronically in Project-wise under <u>Project folder\ Published Submittals\ Project Drawings\ Construction Drawings\ Shop Drawings (See BDTM 2.6 for instructions)</u>	Bridge Task Managers
007	Shop Drawings and Erection Drawings (Final Control Set hard copies)	Life of the Agency	Life of the Agency	Transmit to General Files and archive electronically in DOTD Network Plan Room by General Files (See BDTM 2.6 for instructions)	Bridge Task Managers

Item No.	Record Title	In Office Retention Period (by Bridge Design Section)	DOTD Total Retention (By General Files)	Archiving Instruction	Responsible Party
008	Final Design Calculation Files for In-House and Consultant Projects (Stamped calculation book in pdf format, stamped final reports, and final electronic design models)	Life of the Agency	Life of the Agency	Archive electronically in Project-wise under <u>Project Folder\Published Submittals\Project Documents\Final Design Calculations & Reports</u>	Bridge Task Managers
009	Bridge Rating Reports	Life of the Agency	Life of the Agency	Archive electronically in Project-wise under <u>Documents\Reference Materials\Bridge Design Section Archive\Bridge Rating Reports</u>	Bridge Rating Engineer
010	Truck Permits	Life of the Agency	Life of the Agency	Archive electronically in Project-wise under <u>Documents\Reference Materials\Bridge Design Section Archive\Truck Permits</u>	Bridge Rating Engineer
011	Chief Engineer Orders (Bridge Posting)	Life of the Agency	Life of the Agency	Archive electronically in Project-wise under <u>Documents\Reference Materials\Bridge Design Section Archive\Chief Engineer Orders (Bridge Posting)</u>	Bridge Rating Engineer
012	Project Related Correspondences (Hard Copies)	Final project acceptance date + 3 years	Life of the Agency	Archive electronically in Content Manager under <u>Design Projects</u> . At the end of in office retention period, the hard copies shall be boxed, marked with project number and record item No. with description, and then transmitted to General Files for their handling.	Project Managers/Bridge Task Managers
013	Project Related Correspondences (Emails) (Note: If the email is considered as important project correspondence and needs to be kept for the life of agency, then the email should be printed and treated as item 012.	Final project acceptance date + 3 years	Final project acceptance date + 3 years	Archive electronically in Project-wise under <u>Project Folder\Published Submittals\Project Documents\Project Correspondence Emails</u>	Project Managers/Bridge Task Managers
014	Administrative or Other Types of Correspondences	Life of the Agency	Life of the Agency	Archive electronically in Content Manager under <u>Bridge Design Subject Files</u>	Everyone

APPENDIX F
QA INFORMATION PACKAGE CHECKLIST

QA Information Package Checklist

Project No.:

Project Name / Description:

QA information package checklist for design projects

_____ Calculation Book

_____ Plans

_____ Special Provisions

_____ Cost Estimate

_____ Other Documents _____

QA information package checklist for load rating projects

_____ Scope of work required per contract

_____ Load rating report

_____ Electronic design files and influence line files

_____ Load Rating Checklist signed by the EOR

APPENDIX G
BRIDGE DESIGN CRITERIA CHECKLIST

Bridge Design Criteria Checklist

The project design criteria include, but are not limited to, the following sections:

— **Cover sheet**

The following information must be included on the cover sheet:

- LADOTD project number
- Project name
- Revision date
- The Project Manager's signature and date

— **Governing Design and Construction Specifications and Other References**

A list of governing design and construction specifications and other references used for the project shall be included in this section. The edition number, interim revisions, and/or publication date must be specified for each reference.

— **Design Assumptions and Design Exceptions**

All design assumptions and design exceptions received must be included in this section along with supporting documents.

— **General Information**

The general information as listed below should be included in this section:

- Bridge information (no. of bridges, bridge clear width, length, no. of lanes, lane width, shoulder width, etc.)
- Road information (roadway classifications, design speed, traffic data, etc.)
- Vertical datum
- Vertical and horizontal clearances
- Other relevant information

— **Hydraulic Design Criteria**

All hydraulic design criteria (design year, design water elevations, scour depth and scour elevation, etc.) shall be included in this section and the information shall be provided by the Hydraulic Engineer.

— **Design Factors**

The ductility factor η_D , redundancy factor η_R , and operational importance factor η_I shall be listed in this section.

— **Design Loads**

All design loads (dead load, live load, wind load, thermal loads, vessel collision loads, seismic load, wave loads, etc.) used for the project shall be included in this section.

— **Limit States**

All applicable limit states for this project shall be listed in this section.

— **Bridge Barrier**

The design criteria, types, and test levels for bridge barriers shall be listed in this section. Standard plans and special details should be listed if they are utilized.

Guardrail

The design criteria, types, and test levels for guardrails shall be listed in this section. Standard plans and special details should be listed if they are utilized.

Approach Slab

Design criteria for approach slab shall be included in this section. Standard plans and special details should be listed if they are utilized.

Deck and Deck Drainage

All design criteria for deck and deck drainage design shall be included in this section. Standard plans and special details should be listed if they are utilized.

Bearing

All bearing types and design criteria for each bearing type shall be included in this section. Standard plans and special details should be listed if they are utilized.

Joint

All joint types and design criteria for each type shall be included in this section. Standard plans and special details should be listed if they are utilized.

Superstructure

All superstructure types and design criteria for each type shall be included in this section. Standard plans and special details should be listed if they are utilized.

Substructure

All substructure types and design criteria for each type shall be included in this section. Standard plans and special details should be listed if they are utilized.

Piles and Drilled Shafts

All pile types, sizes, and structural design criteria shall be included in this section. Standard plans and special details should be listed if they are utilized.

Geotechnical Design

All geotechnical design criteria shall be included in this section and the information shall be provided by the Geotechnical Engineer. Standard plans and special details should be listed if they are utilized.

Mechanical Design

All mechanical design criteria shall be included in this section if applicable. Standard plans and special details should be listed if they are utilized.

Electrical/Lighting Design

All electrical design criteria shall be included in this section if applicable. Standard plans and special details should be listed if they are utilized.

Bridge Load Rating Criteria

All as-designed bridge rating criteria shall be included in this section.

Software

All software used for design and check shall be included in this section.

APPENDIX H FINAL CALCULATION BOOK CHECKLIST

Final Calculation Book Checklist

The final calculation book for each project shall include, but not limited to, the following sections:

- **Cover Sheet**
 - The following information must be included on the cover sheet:
 - LADOTD project number
 - Project name
 - The title of “Final Calculation Book”
 - The EOR’s seal with signature and date
- **Final Calculation Book Check List**
- **QA/QC Certifications**
- **Peer Review Resolution Agreement (if peer review is performed)**
- **Design Criteria**
- **Final Hydraulic Analysis Report from Hydraulic Engineer**
- **Final Geotechnical Analysis Report from Geotechnical Engineer**
- **Superstructure Design Calculations**
- **Substructure Design Calculations**
- **Quantity Calculations**
- **Special Provisions/NS-Items**
- **Construction Cost Estimate**
- **As-Designed Rating Report**
- **List of All Final Electronic Design Files and File Locations (ProjectWise directory name)**

Consultants shall submit the final calculation book to LADOTD bridge task managers; the submittal shall be on a CD or Flash Drive or placed to a designated ProjectWise folder including the following information:

- **A PDF File of the Calculation Book**
- **All Electronic Design Files**
- **A PDF File of the As-Designed Rating Report Only**

APPENDIX I
QA REVIEW COMMENT FORM

Date: _____

Sheet: _____ of _____

Task or

Team: _____

Phase: 30% 60% 90% 95% 100%
(Pick One)

Project: _____

Reviewer: _____

Yes	No	I have Review Comments to provide to the author and/or design engineer.
Yes	No	Review Comments are handwritten on the document/sheet (see attached).
Yes	No	Review Comments are recorded in the electronic file of the document/sheet (see attached).

In ALL cases, Type 1 comments and responses must be summarized or listed below.

[illegible]

2 = Minor comment that can be readily addressed or a potential improvement to deliverables.

APPENDIX J
INTERNAL TRACKING SUBMITTAL CHECKLIST

Internal Submittal Status Tracking

Project:						
Team / Group:						
Items	Designer / Rater	Checker	Detailer	Detail Checker	Reviewer	Status
Consultant Submittal QC/QA Certification						
Design Criteria						
TS&L						
Bridge Index						
General Notes						
Quantity Calculations						
Construction Cost Estimate						
General Plans						
Typical Sections						
Superelevation Diagram						
Construction Phasing Details						
Traffic Controls Details						
Foundation / Pile Layout						
Pile Loads / Details						
Pile Data Tables						
Bent Design/Details						
Fender Design/Details						
Girder Design/Details						
Span Design/Details						
Joint Design/Details						
Bearing Design/Details						
Approach Slab						
Guardrail Design/Details						
Bridge Barrier / Railing Design/Details						
Bridge Drainage Design/Details						
Detour Bridge Details						
Revetment Details						
Signing / Lighting						
Misc. Details						
Project Specific Standard Plans and Special Details						
Electrical/Lighting Details						
Mechanical Details						
As-Built Plans						
Special Provisions / NS-Items						
Cost Estimate						
Final Calculations						
Load Rating Report						
Load Rating Calculations						
Revised Plans / Calculations						

Notes:

- 1) This sheet is intended to be used for internal status and QC/QA tracking.
- 2) Initials indicate the individual responsible for the task.

APPENDIX K
CONSULTANT PROJECT SUBMITTAL QA/QC CERTIFICATION

Consultant Project Submittal QA/QC Certification

Project No.:

Project Name:

Submittal Description:

I, the undersigned Project Manager for this project, certify that the information included in this submittal has been prepared in accordance with the approved TRC Project Quality Control / Quality Assurance Plan and LADOTD Bridge Design Section policy on QA/QC and the information presented is accurate and meets the requirements of this submittal. All CAD drawings meet LADOTD CAD standards.

Submittal Description

Project Manager Name

Signature

Date

APPENDIX L
FINAL PLAN AND CALCULATION BOOK QA/QC CERTIFICATION

Final Plan and Calculation Book QA/QC Certification

Project No.:

Project Name / Description:

We, the undersigned designers, detailers, checkers and reviewers for this project, have reviewed and accepted the calculations, plans, quantities, special provisions, and cost estimate prepared for the project. We certify that the work for which we are responsible has been completed in accordance with the approved TRC Project Quality Control / Quality Assurance Plan and the LADOTD Bridge Design Section policy on QA/QC.

Bridge:						
Segment:						
Team Members	Name	Louisiana PE Registration No.	Responsible Plan Sheets	Responsible Special Provisions	Construction Cost Estimate	Signature
Designers						
Design Checkers						
Detailers						
Detail Checkers						
Reviewers						
Peer Reviewer						
EOR						

APPENDIX M
PEER REVIEW RESOLUTION AGREEMENT

Peer Review Resolution Agreement

Project No.:

Project Name:

We, the undersigned Peer Reviewer, Supervisor or Team Leader of the design team, and LADOTD Representative for this project, have reviewed and accepted the attached peer review resolutions. We certify that the peer review has been performed in accordance with the LADOTD Bridge Design Section policy on QA/QC.

Team Members	Name	Signature
Peer Reviewer		
Team Leader		
LADOTD Representative		

APPENDIX N
LA DOTD PRE-APPROVED SOFTWARE LIST

Louisiana Department of Transportation and Development
Bridge Design Approved Software List
Updated: June 4, 2025

Developer	Website	Software Name	Production Version
AASHTO, Inc.	https://www.aashtoware.org/	AASHTOWare Bridge Design	7.6.1
AASHTO, Inc.	https://www.aashtoware.org/	AASHTOWare Bridge Rating	7.6.1
AASHTO, Inc.	https://www.aashtoware.org/	AASHTOWare PS Design Tool	7.6.1
AASHTO, Inc.	https://www.aashtoware.org/	AASHTOWare Steel Design Tool	7.6.1
Acuity Brands Lighting, Inc.	https://www.visual-3d.com/	Visual	2020 R2
AutoDesk	https://www.autodesk.com/	AutoCAD LT	AutoCAD LT 2024
Bentley Systems, Inc.	https://softwaredownloads.bentley.com/en/	LEAP Bridge Concrete	22.0.4.24
Bentley Systems, Inc.	https://softwaredownloads.bentley.com/en/	LEAP Bridge Steel	22.0.4.24
Bentley Systems, Inc.	https://softwaredownloads.bentley.com/en/	Microstation Connect Edition	10.16.00.080
Bentley Systems, Inc.	https://softwaredownloads.bentley.com/en/	Microstation v8i	08.11.09.883
Bentley Systems, Inc.	https://softwaredownloads.bentley.com/en/	Open Roads Designer	10.10.13
Bentley Systems, Inc.	https://softwaredownloads.bentley.com/en/	OpenBridge Designer	10.10.1.73
Bentley Systems, Inc.	https://softwaredownloads.bentley.com/en/	OpenBridge Modeler	10.12.183
Bentley Systems, Inc.	https://softwaredownloads.bentley.com/en/	RM Bridge	11.16.031
Bentley Systems, Inc.	https://softwaredownloads.bentley.com/en/	STAAD	22.12.00.142
Bentley Systems, Inc.	https://softwaredownloads.bentley.com/en/	STAAD Beava	22.12.00.142
Bentley Systems, Inc.	https://softwaredownloads.bentley.com/en/	STAAD Section Wizard	22.12.00.142
Bridge Software Institute	http://bsi-web.ce.ufl.edu	FB-Pier	v5.8.31
Computers and Structures, Inc.	https://www.csiamerica.com/	CSiBridge	CSiBridge 2016 v1820
Computers and Structures, Inc.	https://www.csiamerica.com/	CSICOL	CSiCol 9 v901
Computers and Structures, Inc.	https://www.csiamerica.com/	SAP 2000	SAP 2000 v1820
CSI, Ltd.	https://www.csi-europe.com/	DDM	DDM 2023
Elite Software	https://www.elitesoft.com/	CHVAC 8	CHVAC 8
Ensoft, Inc.	https://www.ensoftinc.com/	L-Pile	2022-09
Finite Element Analysis, Ltd.	https://www.lusas.com/	LUSAS	LUSAS 19.1-3
Informer Technologies, Inc.	https://powergear.software.informer.com/	Power Gear	4.0.64
LARSA, Inc.	https://www.larsa4d.com/	LARSA 4D Bridge Plus	LARSA 4D_8.00.9016
Lighting Analysts, Inc.	https://www.lightinganalysts.com/catalog/login.php	AGI32	AGI32-20.11.0.12
MIDASoft	https://www.midasoft.com/	Midas Civil	Civil 2023(v1.1)
Operating Technology, Inc.	https://www.etap.com/	ETAP	ETAP 2023 (22.5.0)
PTC, Inc.	https://www.ptc.com/en/support	MathCAD Prime	Prime 9.0
Smart Bridge Technology	http://www.smartbridgetech.com/	Smart Bridge Suites	4.0
SolidWorks Corporation	https://www.solidworks.com/	SOLIDWORKS	2023 SP02.1
Structure Point, LLC	https://structurepoint.org/	spColumn	spColumn 10.00
University of Maryland	https://best.umd.edu/sabre/	Sabre	6.2

Note:

1. If any other software is required for unique applications for which pre-approved software cannot be used, a synopsis of the software shall be submitted to the Bridge Design Engineer Administrator for approval prior to use. The synopsis shall include the name of the software and the developer, a general description of the functions, a certification from the software developer stating that it is maintained in accordance with the latest AASHTO LRFD Bridge Design Specifications, and an account of the requester's experience and the experience of other organizations or agencies that use the software, Data/results from in-house software will not be accepted as part of the deliverable.
2. The cost of software shall be included in the overhead cost of the firm and not a direct expense for the projects.

APPENDIX O
BRIDGE LOAD RATING SUMMARY SHEET

Bridge Load Rating Summary Sheet

Bridge Data

District	Recall Number	Inspection Date
Parish	Bridge Name	Deck
Route	Year Built	Super
Bridge Posting	Design Load	Sub
Bridge Type	Roadway Width	Culvert
Bridge Length	Plan Location	Channel
Standard Plan	Std Plan Yr Rev	- -

Bridge/Culvert Load Rating Summary

Dead Load		LRFR Evaluation Factors				Traffic			
Wearing Surface Thickness (in)	-	Condition Factor, super (ϕ_c)				ADT			
Wearing Surface Type		Condition Factor, sub (ϕ_c)				Functional Class			
Non-Structural Attachments	-	System Factor, super (ϕ_s)				Truck%		Dir.%	
Fill Thickness (in)		System Factor, sub (ϕ_s)				ADTT (one way)			

Vehicle Type	GVW (kips)	Superstructure/Deck/Culvert				Substructure			
		Rating Factor	Posting Weight (tons)	Controlling Member	Controlling Load Effect	Rating Factor	Posting Weight (tons)	Controlling Member	Controlling Load Effect
HL-93 (INV)	N/A								
HL-93 (OPR)	N/A								
LADV-11(INV)	N/A								
Type 3	50.0								
LA Type 3S2	73.0								
Type 3-3	80.0								
LA Type 6	80.0								
LA Type 8	88.0								
SU4	54.0								
SU5	62.0								
SU6	69.5								
SU7	77.5								
Lane-Type I	N/A								
Lane Type II	N/A								
EV2	57.5								
EV3	86.0								

* Informational purposes only

Posting Analysis Summary

	PV-Single	PV-Comb	
Superstructure			As-Design Rating: ☐
Substructure			
Recommended Legal Posting Load:	No Limit		
Recommended EV Posting Load:	No Limit		
Controlling Legal Load Rating Factor:	-		

QC/QA

Rated By:	Date Rated:
Checked By:	Design Project Number:
QA By:	Rating Software:

NOTES

APPENDIX P
BRIDGE LOAD RATING CHECKLIST

LOAD RATING REPORT CHECKLIST (LADOTD)

Page 1 of 2

Project No. _____ Bridge _____

Submittals:

An Electronic Version of the Load rating Report including any computer models used in analysis

N/A*

Hard Copy (one) [for each bridge]	☐	☐	_____
PDF Copy (one) [for each bridge] On removable storage: CD, Flashdrive, Projectwise, large file transfer	☐	☐	_____
All bridge plans on separate CD (or flashdrive if too large) to be included with rating documents	☐	☐	_____
Rating Report prepared for each bridge (this maybe each structure number)	☐	☐	_____
One AASHTOWare BrR/BrD model for each bridge Bridge span numbers shall follow the inspection report (NBI Inventory)	☐	☐	_____

Rating Report:

Cover sheet	☐	☐	_____
Recall Number on Cover Sheet	☐	☐	_____
Stamped and Signed Bridge Load Rating Summary Sheet with Engineering Seal and signature	☐	☐	_____
Rater Initials	☐	☐	_____
Checker Initials	☐	☐	_____
Reviewer Initials	☐	☐	_____
List all assumptions	☐	☐	_____
List all material values	☐	☐	_____
Discussion of current condition of bridge and any assumptions based on that	☐	☐	_____
Critical rating values	☐	☐	_____
Rating Output of every rated member	☐	☐	_____
Influence line (if applicable, see refined methods below)	☐	☐	_____
Hand calculations, sample calculations	☐	☐	_____

see next page for additional items

LOAD RATING REPORT CHECKLIST (LADOTD) (continued)

Page 2 of 2

Project No. _____ Bridge _____

Rating Report (cont):

To be incorporated into Rating Report:

		N/A*
Structure Description	☐	☐
Vicinity Map	☐	☐
Bridge Layout Plans	☐	☐
Load Rating Inspection Reports	☐	☐
Material and Load Test Data	☐	☐
Supporting Calculations	☐	☐
Clear Statement of all assumptions made for calculations	☐	☐
Sketches to document section loss used in Analysis	☐	☐
Previous Inspection Reports	☐	☐
Testing Reports	☐	☐
Reference Articles	☐	☐
BrR/BrD Input Data File	☐	☐

For Refined Methods:

Live Load Distribution Factors for all rated members	☐	☐
Computer model files and associated documentation	☐	☐
Influence line/surface submittal for any member not rated by BrR/BrD	☐	☐

* For items marked N/A, include the reason for not including.

Engineer of Record: _____
Print

Signature

Company: _____

22. Sub-consultant information:

Firm Name (Name must match <u>exactly</u> 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
WSP USA INC.	1100 Poydras Street, Suite 1175 New Orleans, LA 70163	Max Nassar max.nassar@wsp.com	(225) 218-3584
HDR ENGINEERING, INC.	8545 United Plaza Blvd. Suite 379 Baton Rouge, LA 70809-0204	Wesley Jacobs wesley.jacobs@hdrinc.com	(225) 465-6361
GRESHAM SMITH	10000 Perkins Rowe South Tower, Suite G520 Baton Rouge, LA 70810	Herbert "Bert" Moore, II bert.moore@greshamsmith.com	(225) 282-2101
NTB ASSOCIATES, INC.	525 Louisiana Ave. Shreveport, LA 71101	Michael J. King mking@ntbainc.com	(225) 751-4002
GEOENGINEERS, INC.	11923 Sun Belt Court, Baton Rouge, LA 70809	Larry Sant LSant@geoengineers.com	(225) 663-1522
FRANKLIN ASSOCIATES, LLC	250 S Foster Drive Baton Rouge, LA 70806	Perry Franklin perry@franklinassociates.com	(225) 768-9060

23. Location:

N/A