



HDR Engineering, Inc.

Statement of Qualifications for

IDIQ Contracts for Bridge Preservation Services Statewide

LADOTD

Contract Nos. 4400035420, 4400035421, and 4400035422

JUNE 2026

DOTD FORM: 24-102

(Revised August 11, 2025)

PROPOSAL TO PROVIDE CONSULTANT SERVICES

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

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

1. Contract Name as shown in the advertisement	IDIQ Contracts for Bridge Preservation Services Statewide
2. Contract Number(s) as shown in the advertisement	4400035420, 4400035421, and 4400035422
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; <u>include screenshot from SOS at the end of Section 20</u>)	HDR Engineering, Inc.
5. Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	EF.0001231
6. Prime consultant mailing address	8545 United Plaza Boulevard, Suite 379 Baton Rouge, LA 70809-0204
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	8545 United Plaza Boulevard, Suite 379 Baton Rouge, LA 70809-0204
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Wesley Jacobs, PE – Associate Vice President (225) 465-6361, wesley.jacobs@hdrinc.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Brett L. Geesey, Vice President (337) 347-5598, brett.geesey@hdrinc.com

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

Prime consultant name: HDR Engineering, Inc.

10. This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.

Pursuant to Act No. 581 of the 2024 Louisiana Legislature Regular Session, proposer further certifies that it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association based solely on the entity's or association's status as a firearm entity or firearm trade association. In addition, proposer certifies it will not discriminate against a firearm entity or firearm trade association during the term of the contract based solely on the entity's or association's status as a firearm entity or firearm trade association.



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

Date: 6/30/2026

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)' %:

12. Discipline Table:

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

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

Discipline(s)	% of Overall Contract	HDR Engineering, Inc. (Prime)	APS Engineering and Testing, LLC (Sub)	Bridge Diagnostics, Inc. (Sub)	C.H. Fenstermaker & Associates, L.L.C. (Sub)	Civil Design & Construction, Inc. (Sub)	Moffatt & Nichol Inc. (Sub)	Thompson Engineering, Inc., of Louisiana (Sub)	Each Discipline must total to 100%
Bridge	70%	85%		5%			10%		100%
Survey	3%				50%	50%			100%
Traffic	5%				100%				100%
Other (Architectural Design)	3%							100%	100%
Environmental	5%	100%							100%
Geotech	4%		100%						100%
Road	10%	20%			80%				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%	66.5%	4%	3.5%	14.5%	1.5%	7%	3%	100%

Prime consultant name: HDR Engineering, Inc.

13. Team Size:

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

Firm name	DOTD Job Classification	Number of personnel committed to this contract *	Total number of personnel available in this DOTD Job Classification (if needed)
HDR Engineering, Inc.	Archaeologist	2	25
	Designer	1	11
	Engineer	5	15
	Engineer – Other	10	52
	Environmental Pro	1	5
	Historian	2	7
	Inspector – Bridge	3	13
	Principal	2	10
	Supervisor – Eng	10	46
APS Engineering and Testing, LLC	Engineer	2	3
	Engineer Intern	1	1
	CADD Technician	1	2
	Senior Technician	2	3
	Inspector	1	1
	Clerical	1	2
Bridge Diagnostics, Inc.	Accountant	1	3
	Administrative	1	1
	Clerical	1	2
	Computer Analyst	0	3
	Engineer Aide	0	3
	Engineer Intern	1	8
	Engineer	3	3
	Engineer Other	1	7
	Principal	1	2
	Professional	1	4
	Senior Technician	2	4
	Supervisor - Eng	1	2
	Supervisor - Other	1	12
	Technician	1	5
C.H. Fenstermaker & Associates, L.L.C.	Engineer	4	7
	Engineer Intern	2	4
	Instrument Man	3	10
	Environmental Pro	0	4
	Party Chief	3	10

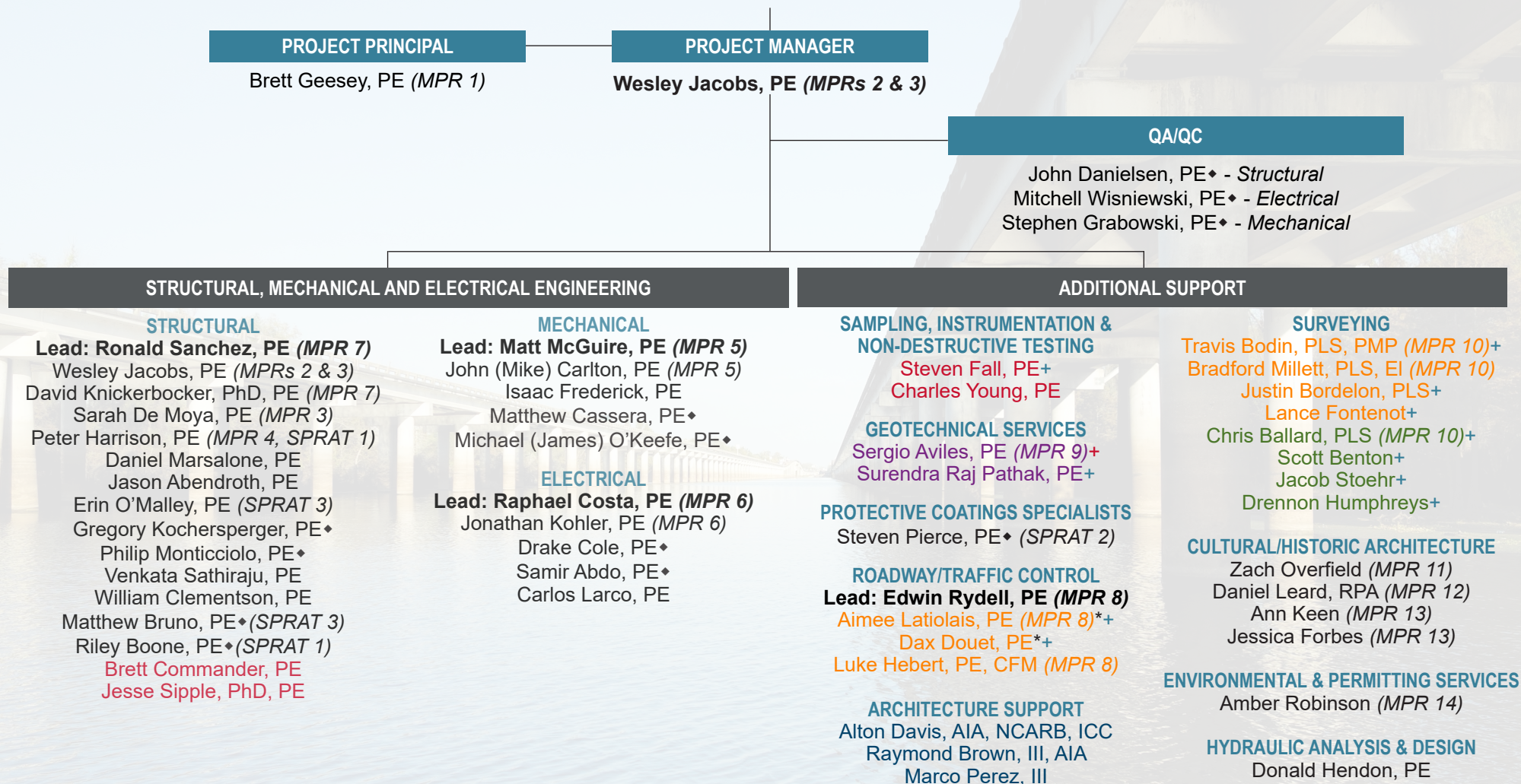
Prime consultant name: HDR Engineering, Inc.

	Senior Technician	2	5
	Supervisor - Eng	2	4
	Surveyor	2	7
Civil Design & Construction, Inc.	Surveyor	1	2
	Party Chief	3	5
	Instrument Man	2	3
	Rodman	2	2
	CADD Operator	1	1
	Senior Technician	3	6
	Supervisor – Other	1	1
Moffatt & Nichol Inc.	Principal	1	7
	Administrative	1	4
	CADD Technician	1	15
	Engineer	2	39
	Engineer Intern	3	10
	Inspector - Bridge	6	35
	Senior Technician	1	13
	Supervisor - Eng	2	11
Thompson Engineering, Inc., of Louisiana	Accountant	1	3
	Administrative	1	1
	Supervisor – Architect	1	1
	Architect	1	6
	Designer	1	2
	Clerical	1	3
	Engineer	1	12
	Inspector – Certified	1	4
	Inspector – Lead	1	1
	Principal	1	1

(Add rows as needed)

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

14. Organizational Chart



LEGEND

- ♦ Licensed Professional Engineer in a US state, not Louisiana
- * Personnel Performing Traffic Engineering Analysis
- + Traffic Control Supervisor
- + Traffic Control Technician
- (MPR #) = Minimum Personnel Requirement

Subconsultants:

APS Engineering and Testing, LLC
 Bridge Diagnostics, Inc.
 C.H. Fenstermaker & Associates, L.L.C.
 Civil Design & Construction, Inc.
 Moffatt & Nichol Inc.
 Thompson Engineering, Inc., of Louisiana

15. Minimum Personnel Requirements:

Use the table below to identify both prime consultant and sub-consultant staff designated to work on this contract meeting the Minimum Personnel Requirements (MPRs) specified in the advertisement. Ensure the résumé reflects the required experience stated in the MPR. Make sure the P.E. discipline is also listed (highlighted in table) that is meeting the MPR; e.g. professional civil engineer should show the discipline of the license as civil if meeting that MPR.

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	Brett Geesey	HDR Engineering, Inc.	PE # 0035172 - Civil	LA	3/31/2028
2	Wesley Jacobs	HDR Engineering, Inc.	PE # 0030774 - Civil	LA	9/30/2026
3	Wesley Jacobs	HDR Engineering, Inc.	PE # 0030774 - Civil	LA	9/30/2026
	Sarah De Moya	HDR Engineering, Inc.	PE # 0038011 – Civil	LA	3/31/2027
4	Peter Harrison	HDR Engineering, Inc.	PE # 0039771 - Civil	LA	9/30/2027
5	Matt McGuire	HDR Engineering, Inc.	PE # 0043785 - Mechanical	LA	3/31/2028
	John Carlton	HDR Engineering, Inc.	PE # 0043927 - Mechanical	LA	3/31/2028
6	Raphael Costa	HDR Engineering, Inc.	PE # 0043993 - Electrical	LA	3/31/2028
	Jonathan Kohler	HDR Engineering, Inc.	PE # 0039625 - Electrical	LA	9/30/2026
7	Ronald Sanchez	HDR Engineering, Inc.	PE # 0036556 - Civil	LA	3/31/2028
	David Knickerbocker	HDR Engineering, Inc.	PE # 0040004 - Civil	LA	3/31/2028
8	Edwin Rydell	HDR Engineering, Inc.	PE # 0047343 - Civil	LA	3/31/2027
	Aimee Latiolais	C.H. Fenstermaker & Associates, L.L.C.	PE # 0042932 - Civil	LA	3/31/2027
	Luke Hebert	C.H. Fenstermaker & Associates, L.L.C.	PE # 0034715 - Civil	LA	9/30/2027
9	Sergio Aviles	APS Engineering and Testing, LLC	PE # 0033571 - Civil	LA	3/31/2028
10	Travis Bodin	C.H. Fenstermaker & Associates, L.L.C.	PLS # 0005067	LA	3/31/2028
	Bradford Millett	C.H. Fenstermaker & Associates, L.L.C.	PLS # 0005245	LA	3/31/2027
	Chris Ballard	Civil Design & Construction, Inc.	PLS # 0005033	LA	9/30/2026
11	Zack Overfield	HDR Engineering, Inc.	N/A	N/A	N/A
12	Daniel Leard	HDR Engineering, Inc.	N/A	N/A	N/A
13	Ann Keen	HDR Engineering, Inc.	N/A	N/A	N/A
	Jessica Forbes	HDR Engineering, Inc.	N/A	N/A	N/A
14	Amber Robinson	HDR Engineering, Inc.	N/A	N/A	N/A

16. Staff Experience:

Firm employed by HDR Engineering, Inc.				
Name	Samir Abdo, PE		Years of relevant experience with this employer	8
Title	Electrical Engineer		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			MS / 2017/ Electrical Engineering; BS / 2015 / Electrical Engineering	
Active registration number / state / expiration date			24GE05575600 / NJ / 04-30-2028	
Year registered	2020	Discipline	Electrical Engineering	
Contract role(s) / brief description of responsibilities			Electrical Support / Assist in the design of the electrical and control system. Coordinate with each discipline to provide a complete electrical system.	
Samir's experience includes the design and inspection of movable bridges' power and control systems, commissioning of electrical systems, designing distribution and lightning protection systems, and authoring short-circuit, coordination, and arc-flash studies.				
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).			
06/18-Ongoing	Virginia DOT (VDOT), Movable Bridges On-call Contract Statewide, VA. Electrical Engineering Lead. On multiple bridge projects, including the rehabilitation of the Berkley and Gwynn's Island bridges, Samir oversaw the design of control systems and electrical distribution, providing detailed engineering designs for PLC-based systems, backup generators, and various electrical components. Samir conducted inspections, troubleshooting, and engineering support during construction, verifying each design met AASHTO and VDOT standards.			
06/18-Ongoing	NJDOT, Movable Bridge Engineering Design Support Services for Operations, Term Agreements Statewide, NJ. Lead Electrical Engineer. On the Arc Flash Studies Update, Samir updated power distribution system coordination studies and generated arc-flash labels by conducting field inspections and working with utilities to evaluate fault currents. For the Route 88 Aerial Cable Replacement project, he designed the new aerial cable system, developed conduit and cable routes, prepared specifications and cost estimates, confirmed compliance with NJDOT standards, and incorporated a lightning protection system. On the Route 1 and 9 Lighting Protection and Elevator Replacement project, Samir designed the lightning protection system for two vertical lift bridges: Route 1 and 9 over the Hackensack River, and Route 1 and 9 over the Passaic River. This includes a National Fire Protection Association (NFPA) compliant design and cable and conduit routing diagrams. On the Route 130 Navigation Lights Replacement project, he developed concepts and a preliminary design of the navigation lights replacement for the Route 130 over the Oldmans Creek bridge. He coordinated with the USCG for the navigation light requirements and with solar-powered navigation light vendors. On the Route 1 and 9 over Hackensack River Interlock Testing project, Samir provided control system troubleshooting, design markups, and construction support to provide AASHTO-compliant gate operation, including field troubleshooting, on-site testing, and commissioning services.			
01/22-Ongoing	Norfolk Southern, Network-Wide Bridges Electrical Rehabilitation Nationwide. Lead Electrical Engineer. Samir leads the electrical team to provide rehabilitation designs for PLCs and drives, enabling fully automatic, remote-controlled operation of movable bridges across the entire Norfolk Southern railroad network. He has developed designs for replacing PLCs, HMIs, and limit switches, and upgrading obsolete drives to VFDs. Samir develops system block diagrams, schedules, control schematics, and specifications for the new PLC program and HMI screens. He also reviews shop drawings, responds to RFIs, conducts construction inspections, and performs shop testing and field acceptance testing.			
06/18-08/24	CSX Transportation, Network-Wide Bridges Electrical Rehabilitation Nationwide. Electrical Engineer. Samir designed fully automatic, remotely controlled movable bridges across the entire CSX railroad network. His design included developing a relay control system and redundant PLCs that served as hot backups for additional control redundancy. He coordinated with local utilities to upgrade electric service from single-phase to standard three-phase, designed the power distribution system, integrated backup generators, and upgraded obsolete motor drives to VFDs. Samir also provided system block diagrams, schedules, control schematics, and implemented lightning and surge protection schemes for the existing and new distribution systems to enhance resiliency. Additionally, he participated in construction support efforts, including reviewing shop drawings, conducting shop testing, performing final acceptance testing, and preparing operation and maintenance manuals.			

Prime consultant name: HDR Engineering, Inc.

Firm employed by HDR Engineering, Inc.				
Name	Jason Abendroth, PE		Years of relevant experience with this employer	8
Title	Hydraulic Structures Group Lead		Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization		BS / 2008 / Civil Engineering		
Active registration number / state / expiration date		PE 0038198 / LA / 03-31-2028		
Year registered	2013	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities		Structural support / Assess bridge conditions, plan repairs, verify safety compliance, collaborate with engineers, and monitor preservation effectiveness		
Jason has 18 years of experience in the inspection, engineering, and design of structures ranging from bridges (concrete, steel, movable), flood control (sector, lift, sluice, and vehicular gates; pump stations, T-Walls, L-Walls, I-walls), and municipal sewage lift stations. Experience in other engineering disciplines includes geotechnical analysis and design for earthen levees and retaining walls. He has also completed the FHWA-NHI Bridge Inspector Certification.				
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).			
05/20-Ongoing	LADOTD, Statewide In-Depth Complex Bridge Inspections Statewide, LA. Lead Inspector. Jason led the inspections of over 25 bridges. These included fracture-critical inspections of 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. Jason reviewed the main span inspection reports of the Jackson Street Lift Bridge spanning the Red River and the lift bridge spanning Teche Bayou. The team performed structural, mechanical, and electrical inspections of the towers, main span truss, substructure, and machinery using rope access and manlift methods for in-depth inspection techniques.			
10/23-03/24	Port of New Orleans, Movable Bridge Inspection On-Call Contract New Orleans, LA. Team Leader (Non-Rope Access). Jason led the inspection team for the annual in-depth movable-bridge inspections of the Seabrook and Almonaster single-leaf truss bascule bridges (117 ft main span, 240 ft total). The bridges were built in 1923 and 1919, respectively, and span the Inner Harbor Navigation Canal. Jason led a multidisciplinary team of structural, mechanical, and electrical inspectors to conduct annual in-depth inspections, prepare reports, and issue remediation recommendations.			
08/25-06/26	Norfolk Southern Rail Corporation, NRCS BR#159.4 Rail Bridge over Pearl River Pearl River, LA. Project Manager. This project consisted of two task orders for the in-depth inspection of the emergency repair design for the NRCS BR#159.4 rail bridge over the Pearl River. Jason managed task order execution, coordinated inspection activities, oversaw the schedule and budget, facilitated communication between the client and the project team, and verified that deliverables were completed in accordance with project requirements.			
11/22-07/23	LADOTD, Bridge Preservation IDIQ - LA 577 at I-20 Repair PS&E Waverly, LA. Inspector and QC Reviewer. Task orders included the inspection, rehabilitation design, and load rating for the LA 577 precast concrete girder overpass, which was damaged by a dump truck collision. The scope included emergency services, inspection, load rating, and PS&E for the demolition of the existing span and the redesign of a new span. Jason performed an initial emergency inspection and QC for a portion of the design.			
02/16-08/17	LADOTD, Statewide Inventory and Inspection of Sign Trusses Statewide, LA. Assistant Project Manager. Jason coordinated teams, collected data, and conducted inspections for this five-year contract, totaling over 1,500 sign truss inspections. He prepared and reviewed the inspection reports after the inspections were completed. Inspections included steel and aluminum welds, high-stress moment connections, and fracture-critical elements, in accordance with FHWA guidelines.			
01/10-08/11	LADOTD, Chef Menteur Bridge Replacement EA, S.P. No. 700-36-0125 Orleans Parish, LA. Jr. Engineer. Jason assisted in developing high-level (75-foot vertical clearance) fixed-bridge alternatives to replace a historic swing-span bridge in Orleans Parish. The span arrangements comprised PPC AASHTO Type 3 (80 feet) and BT 78 (130 feet) approach spans, with steel-composite girders for the main spans (200 feet and 270 feet). He developed conceptual designs for deep river concrete piers with water-level footings supported by large-diameter PPC cylinder piles.			

01/11-05/15	TxDOT/LADOTD, US 84 – Logansport – Sabine River Bridge Replacement S.P. No. 021-01-0004 Logansport, LA. Jr. Structural Engineer. Jason assisted in developing the final design, plans, and specifications for two bridge structures (eastbound and westbound) spanning the Sabine River, using AASHTO-LRFD specifications. He designed the new TX PPC girder shapes (Tx62's and Tx70's). The span lengths ranged from 120 feet to 160 feet. The substructure comprised multi-column reinforced concrete bents with struted columns at the main channel locations. Drilled shaft foundations supported the bents.
11/10-07/12	ASARCO Smelter, Bridge Inspection and Load Rating El Paso, TX. Structural Engineer. Jason inspected and analyzed two bridges located on the site of the old ASARCO smelter. The first bridge consisted of 7 simple riveted steel girder spans totaling 375 feet supporting a concrete deck. The substructure consisted of steel truss systems ranging in height from 20 to 80 feet. The IH 10 overpass bridge was a continuous steel plate girder spanning 277 feet supported by three concrete column bents on pile foundations. Jason inspected the bridges and took field measurements to verify as-built dimensions. Jason used analysis software to perform a load rating analysis to determine if large, loaded dump trucks could safely traverse the bridges with operational recommendations for truck speed and lane placement.
01/10–02/11	TxDOT Austin, FM 112 East and West Brushy Creek Relief Bridges Austin, TX. Jr. Engineer. Jason assisted in developing the final designs and plans for this bridge replacement project. The east and west creek bridges are 213 feet and 163 feet long, respectively. Each bridge comprises three PPC Type C girder spans, varying in length from 40 feet to 65 feet. The superstructure is supported by reinforced concrete column bents founded on drilled shafts. Due to the existing structure's location, the bridge was designed using split-phased construction. The bridge was designed in accordance with TxDOT standards and LRFD specifications. Jason designed the westbound bridge PPC girders, column bents, and drilled shaft foundations.
06/08-12/09	TxDOT Waco, US 84 at Mexia – Union Pacific RR Overpass Waco, TX. Jr. Engineer. Jason assisted with the design of the replacement of this railroad overpass. The bridge was comprised of prestressed concrete girders and concrete column bents supported by drilled shafts. The bridge geometry was set to accommodate the required horizontal and vertical clearances for the Union Pacific Railroad. The overall bridge length was 715 feet and 81 feet wide, accommodating four lanes of traffic through split-phased construction. He designed sections of the PPC girders, concrete column bents, and drilled shaft foundations.
03/09–02/10	TxDOT Austin, SH 195 – CR 228 Overpass Austin, TX. Jr Engineer. Jason assisted in the final design of this roadway overpass. He designed the twin bridge structures with skewed spans set in a horizontal curve. He checked the design of the three-span continuous units comprised of Type C prestressed concrete girders and designed the reinforced concrete column bents and drilled shaft foundations.
01/11-02/12	LADOTD, US 11 Bridge Environmental Assessment Orleans Parish, LA. Jr. Engineer. Jason assisted in developing alternatives, including a high-level fixed-span bridge across multiple alignments. He assisted with the preliminary designs, including sizing steel plate girders, sizing prestressed concrete girders, bent and column layouts, and pier and pile layouts.
03/11-05/14	USACE New Orleans District, LPV 145 – Bayou Bienvenue Movable Swing Span Bridge - Steel Swing Span New Orleans, LA. Structural Engineer. Jason designed the steel girder superstructure, as well as the concrete substructure and foundations. The approach spans were comprised of concrete slab spans that tied into an existing limestone access road. The bridge was designed to provide vehicular access to LPV 145, a six-mile isolated levee reach in Chalmette, LA. The timber 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.

Firm employed by HDR Engineering, Inc.				
Name	Riley Boone, PE (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			BS / 2013 / Civil Engineering	
Active registration number / state / expiration date			PE 131800 / TX / 06-30-2026	
Year registered	2018	Discipline	Structural Engineering	
Contract role(s) / brief description of responsibilities			Structural support / assess the condition and safety of a bridge's structural components, confirming it meets design specs and safety standards	
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 routine bridge 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). Certificates: FHWA-NHI-130056: 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				
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–Ongoing	TxDOT Bridge Division, NSTM In-Depth Bridge Inspection IDIQ Statewide, TX. Bridge Inspector. Riley inspected various bridges with NSTMs throughout Texas, including, but not limited to, large and small steel truss 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.			
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 throughout North Dakota. Access methods included rope access and ladders. Notable bridges include the Rainbow Bridge, the Martin Luther King Jr./Gulf Freeway Bridge, the Waco Brazos River Bridges, and the Pennybacker Bridge.			
02/17-06/19 06/19–Ongoing	TxDOT Bridge Division, 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–Ongoing	TxDOT Bridge Division, 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.			

Firm employed by HDR Engineering, Inc.				
Name	Matthew (Matt) Bruno, PE (SPRAT III)		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			BS / 2008 / Civil Engineering	
Active registration number / state / expiration date			PE 51856 / CO / 10-31-2027	
Year registered	2013	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			Structural Support / Assess bridge conditions, plan repairs, verify safety compliance, collaborate with engineers, and monitor preservation effectiveness	
Matt has successfully supported numerous bridge projects in project management, inspection, rating analysis, and design. 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 bridge inspections, including the Golden Gate Bridge (CA), the Margaret Hunt Hill Bridge (TX), and the Indian River Inlet Bridge (DE). Matt is experienced with hands-on, NBIS in-depth, and NSTM bridge inspections, which verify and code SI&A information, determine condition ratings, and develop inspection reports with recommended repairs, rehabilitation, and/or corrections needed. Certificates: Matt has completed courses in NHI Safety Inspection of In-Service Bridges and NSTM (Fracture Critical) Inspection Techniques for Steel Bridges. He is certified as a SPRAT Level 3 Rope Access technician for bridge inspections with nearly 4000 hours on rope. He has also completed FHWA-NHI 130053, FHWA-NHI 135047, FHWA-NHI 130110, FHWA-NHI 130125, and FHWA-NHI 130087. In addition, he has specialty non-destructive testing experience in magnetic particle and ultrasonic thickness testing (UTT ASNT NDT Level II – Limited).				
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).			
05/09-Ongoing	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 utilized. Matt is providing rigging and safety support for the inspection 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 (basculer), 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 utilized conventional and industrial rope access techniques. Matt provided rigging and safety support for the inspection as the Level 3 on-site.			
02/15-Ongoing	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 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 inspections of 200+ floor beams in the main suspension spans added. 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 only using 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. Matt was one of the team leaders on site performing multiple inspections. 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. Matt continues to oversee the inspection team, coordinates the rope access team, and assists with staffing coordination.			
02/25-Ongoing	Delaware Department of Transportation, Indian River Inlet Bridge Inspection Bethany Beach, DE. Bridge Inspection Team Leader. HDR performed an in-depth/special inspection and condition assessment of the Indian River Inlet (cable stay) Bridge in 2025 and 2026.			

	Locations included the upper cable anchorages at the pylons, along with the lower anchorages at deck level. HDR provided hands-on access to 100% of the cables, from top to bottom. Matt provided inspection services, rigging, and safety support for the inspection as the Level 3 on-site.
01/12-Ongoing	Alaska Department of Transportation & Public Facilities (AKDOT&PF), NSTM Bridge Inspections, Tunnel Inspections, and Load Ratings Statewide, AK. <i>Project Manager, Bridge Inspection Team Leader, Load Rater.</i> Each year, the team has been assigned multiple fracture-critical (NSTM) marine facilities located in remote areas of southeast Alaska, northwest Alaska, and the Aleutian Chain, as well as several highway trusses in central Alaska. In addition, HDR inspected the two tunnels in Ketchikan, Alaska, in 2025. The structures inspected include steel, timber, and concrete systems, using both ground- and industrial-ropes access techniques. HDR has also completed load ratings for more than 20 marine structures of varying complexity and supported AKDOT&PF in the development of its Bridge Load Rating Manual. Load ratings were performed using LARSA, BRASS, MathCAD, Excel, and other software tools. Matt has performed multiple bridge inspections for this project and oversees and coordinates multiple bridge and tunnel inspections throughout Alaska. He was also the primary load rater for several load rating calculations.
04/17-Ongoing	Colorado Department of Transportation (CDOT), On and Off System Bridge Inspection and Asset Management Services Statewide, CO. <i>Contract/Project Manager, Bridge Inspection Team Leader, QA/QC Leader.</i> HDR has performed more than 4,500 routine NBIS and NSTM (fracture-critical) bridge inspections, both on- and off-system. The team has also completed over 500 load ratings using BrR, CANDE, and visual methods. Rated bridge types include single- and multi-cell concrete frames and box culverts, as well as single- and multi-span steel girder and steel corrugated deck bridges. Matt conducts bridge inspections and performs load ratings, addressing a wide range of inspection types and complexities. His experience includes ground-level, conventional, and industrial rope access techniques. He has also completed QA/QC reviews for multiple inspection reports. Matt also led the field inspection team for the routine/NSTM inspections of the historic Red Cliff Arch Bridge.

Firm employed by HDR Engineering, Inc.				
Name	John (Mike) Carlton, PE		Years of relevant experience with this employer	10
Title	Movable Bridge Mechanical Practice Lead		Years of relevant experience with other employer(s)	21
Degree(s) / Years / Specialization			BS / 1995 / Mechanical Engineering	
Active registration number / state / expiration date			PE.0043927 / LA / 3-31-2028	
Year registered	2019	Discipline	Mechanical Engineering	
Contract role(s) / brief description of responsibilities			Mechanical Support / design, analyze, and confirm proper integration of mechanical systems and components to verify structural integrity and operational functionality. (Meets MPR 5)	
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).			
03/25-Ongoing	LADOTD, Contract 5 for Movable Bridges (6) Vermillion, Lafayette, St. Martin, and Calcasieu Parishes, LA. QC Reviewer. Mike reviewed the project inspection reports and the scoping and fee documents. He also provided strain gauge balance testing for the following bridges: Ellender, Abbeville Bypass, Old Abbeville, Milton, and Park.			
11/23-03/24	Port of New Orleans, Moveable Bridge Inspection On-call Contract New Orleans, LA. QC Reviewer. This project was for the annual in-depth movable bridge inspections of the Seabrook and Almonaster single-leaf truss bascule bridges (117 ft main span, 240 ft total). The bridges were built in 1923 and 1919, respectively, and span the Inner Harbor Navigation Canal (river crossing). Mike reviewed the project inspection reports.			
01/19-06/25	CSX Transportation, Movable Bridge On-call Engineering Services (Swing Bridges – Philadelphia) Philadelphia, PA. Senior Mechanical Engineer. Mike prepared mechanical systems rehabilitation design plans, calculations, specifications, cost estimates, and post-design services for the Schuylkill River swing bridge. Post-design services include reviewing shop drawings, RFIs, and conducting site inspections during construction.			
01/20-04/20, 12/20-02/21, 08/21-Ongoing	LADOTD, Statewide In-Depth Complex Bridge Inspections Loreauville and Alexandria, LA. Lead Mechanical Engineer Inspector. Mike performed the detailed inspection of the mechanical systems of the Little Caillou Bayou lift bridge, Bayou LaCarpe lift bridge, Teche Bayou lift bridge, and Red River lift bridge, and provided findings and recommendations reports.			
05/17-02/18	CSX Transportation, Movable Bridge On-call Engineering Services (Swing Bridges – Louisiana) Statewide, LA. Senior Mechanical Engineer. Mike provided scoping and assessment reports, mechanical systems rehabilitation design plans, calculations, specifications, and cost estimates for the rehabilitation of two swing bridges (Chef Menteur and Rigolets Swing Bridges). The mechanical rehabilitation scope for both bridges included replacing the end and center wedge drive systems, replacing the Promex rail lift system, and upgrading the hydraulic system for operation of the end wedges, center wedges, and rail lift system.			
02/03-Ongoing	VDOT, Movable Bridge On-Call Contract Statewide, VA. QC Reviewer. Mike provided construction support for clutch coupling replacement on Benjamin Harris Bridge (BHB). He also reviewed the BHB, Berkley, Coleman, the Gwen Islands, the James River Bridge, and the Milford Haven bridges mechanical plans.			
02/16-05/22	CSX Transportation, Movable Bridge On-call Engineering Services (Swing Bridges - Florida) Statewide, FL. Senior Mechanical Engineer. Mike performed the assessment inspection, prepared the scoping and assessment report, mechanical systems rehabilitation design plans, calculations, specifications, cost estimates, and provided post-design services for the rehabilitation of three swing bridges (Little Manatee River, Alafia River, Trout River, and Saint Lucie). The mechanical rehabilitation scope for these bridges included replacing the mechanical drive systems, end and center wedges, and operating the Promex rail lifts via the end wedge system.			
05/17-Ongoing	CSX Transportation, Movable Bridge On-call Engineering Services (Swing Bridges – Louisiana) Statewide, LA. Senior Mechanical Engineer. Mike prepared the scoping and assessment report, mechanical systems rehabilitation design plans, calculations, specifications, and cost estimates for the rehabilitation of six swing bridges (Chef Menteur, Bay St. Louis, Biloxi Bay, Chef Meneur, Pearl River, and Rigolets Swing Bridges). The mechanical rehabilitation scope for these bridges included replacing the end and center wedge drive systems, replacing the Promex rail lift system, and upgrading the mechanical span drive and/or hydraulic system for operation of the main span, end wedges, center wedges, and rail lift system.			

Prime consultant name: HDR Engineering, Inc.

01/17-12/17	CSX Transportation, Movable Bridge On-call Engineering Services (Swing Bridges – Mississippi) Statewide, MS. Senior Mechanical Engineer. Mike performed an assessment inspection, prepared the scoping and assessment report, mechanical systems rehabilitation design plans, calculations, specifications, cost estimates, and provided post-design services for the rehabilitation of three swing bridges (Biloxi Bay, Bay St. Lois, and Pearl River Swing Bridges). The mechanical rehabilitation scope for the bridges included upgrading the end- and center-wedge operating system, replacing the Promex rail lift system, replacing the hydraulic motors, and upgrading the hydraulic power unit to operate the main drive motors, end and center wedges, and rail lift systems. Post-design services included reviewing shop drawings and RFIs, conducting a site inspection during construction, and a final walk-through upon completion.
02/16-7/19	CSX Transportation, Movable Bridge On-call Engineering Services (Bascule Bridges – Florida) Statewide, FL. Lead Mechanical Engineer. Mike inspected and provided scoping and assessment reports, designed the mechanical systems rehabilitation , and performed construction inspection services for three single-leaf bascule bridges (Big Manatee River, Hillsborough River, and Buffalo Bluff Bascule Bridges). The mechanical rehabilitation scope for the bridges included the main drive system, an auxiliary hydraulic backup drive system, and shimming between the track and track girders to compensate for the track girders' sag.
10/15-Ongoing	Florida Department of Transportation (FDOT), Movable Bridge On-call Engineering Services (Bascule Bridges Assessment) Fort Lauderdale, FL. Lead Mechanical Engineer. Mike is performing mechanical systems inspections and evaluations, studies, design, and construction support for task work orders (TWOs), including movable bridge structures. TWOs included inspections and assessment of 34 bascule bridges, and feasibility studies
12/15-01/25	FDOT, NE 79th Street Causeway Bascule Bridges Rehabilitation Miami, FL. Lead Mechanical Engineer, Engineer of Record. Mike inspected and provided a scoping and assessment report, and designed and was in responsible charge of the mechanical systems rehabilitation of the two bascule bridges. The project included the rehabilitation of one twin double-leaf bascule bridge and one twin single-leaf bascule bridge. The mechanical rehabilitation scope included replacing hydraulic operating cylinders, hydraulic power units, span locks, and supports for new motors and brakes on the twin single-leaf bridges.
01/19-01/25	Palm Beach County, FL, Donald Ross Bascule Bridges Rehabilitation Jupiter, FL. Lead Mechanical Engineer, Engineer of Record. Mike inspected and provided a scoping and assessment report, and designed and was in responsible charge of the mechanical systems rehabilitation of the two single-leaf bascule bridges. The project included replacing hydraulic operating cylinders and hydraulic power units.
01/21-Ongoing	FDOT, Sunrise Blvd. Bascule Bridge Rehabilitation Fort Lauderdale, FL. Lead Mechanical Engineer, Engineer of Record. Mike inspected and provided a scoping and assessment report, and designed and was in responsible charge of the mechanical systems rehabilitation of the twin double-leaf bascule bridges. The project included replacing the span drive operating system and span locks, and rehabilitating the live load shoes.
03-22-Ongoing	FDOT, Los Olas Blvd. Bascule Bridge Rehabilitation Fort Lauderdale, FL. Lead Mechanical Engineer, Engineer of Record. Mike inspected and provided a scoping and assessment report and designed and was in responsible charge of the mechanical systems rehabilitation of the double-leaf bascule bridge. The project included replacing the span drive motors and span locks.
11/23-Ongoing	FDOT, Old Roosevelt Bascule Bridge Rehabilitation Stuart, FL. Lead Mechanical Engineer, Engineer of Record. Mike inspected and provided a scoping and assessment report and designed and was in responsible charge of the mechanical systems rehabilitation of the double-leaf bascule bridge. The project included replacing the span drive motors and span locks.
06/25-Ongoing	FDOT, Miami, FL, NW 27th Bascule Bridges Rehabilitation Miami, FL. Lead Mechanical Engineer, Engineer of Record. Mike inspected and provided a scoping and assessment report, and designed and was in responsible charge of the mechanical systems rehabilitation of the twin double-leaf bascule bridges. The project included the rehabilitation of the hydraulic cylinders and hydraulic power unit, and the replacement of the span locks.
05/04-08/08	Wisconsin Department of Transportation, Bascule Bridge over the Fox River Oshkosh, WI. Lead Mechanical Engineer. Mike prepared the design , specifications, cost estimate, and post-design services for the operating machinery and rear lock assemblies of a new double-leaf rolling bascule bridge (Wisconsin Street). The design included calculations of operating loads on the drive machinery, sizing its components, and designing the rear lock system. Post-design work included shop drawing review, responding to RFIs, and field inspection of installed machinery.

Firm employed by HDR Engineering, Inc.				
Name	Matthew Cassera, PE		Years of relevant experience with this employer	11
Title	Senior Mechanical Engineer		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			BS / 2014 / Mechanical Engineering	
Active registration number / state / expiration date			PE52478 / AL / 12-31-2027	
Year registered	2019	Discipline	Mechanical Engineering	
Contract role(s) / brief description of responsibilities			Mechanical Support / assist with the design, analysis, and maintenance of mechanical systems, confirming functionality and integration with other structural components	
Matthew has over a decade of experience delivering mechanical solutions that keep transportation structures operating safely and reliably. He provides mechanical support for bridge preservation programs, translating condition data into practical repair and maintenance actions that extend asset life and reduce downtime. His experience spans inspection support, failure analysis of mechanical components, rehabilitation design for machinery and bearings, evaluation of movable bridge systems, specification development, and construction-phase services that resolve field issues efficiently. He coordinates closely with structural, electrical, and construction teams to align scopes, improve constructability, and maintain traffic and operations during repairs.				
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).			
11/23-03/24	Port of New Orleans, Movable Bridge Inspections On-Call New Orleans, LA. Mechanical Engineer. Matthew provided in-depth mechanical inspections of two Strauss bascule bridges (Almonaster and Seabrook) over the Inner Harbor Navigation Canal. The inspections included measurements of gear wear, bearing clearances, and ancillary machinery clearances. Deliverables included a condition assessment report, rehabilitation recommendations, and cost estimates. Matthew provided a detailed check of the inspection report.			
02/19-05/20	VDOT, Route 156 over the James River, Benjamin Harrison Lift Bridge Hopewell, VA. Mechanical Engineer. Matthew designed the new upper- and lower-span buffers. He performed design calculations, provided specifications and cost estimates, and worked with suppliers and clients to choose economical options based on different design alternatives.			
02/17-04/18	CSX Transportation, Movable Bridge On-call Engineering Services (Lift Bridges) New Johnsonville, TN. Mechanical Engineer. Matthew provided field condition inspection, design, and construction support for a span-drive vertical-lift bridge on Kentucky Lake (Tennessee). He designed new auxiliary span drive machinery, brake supports, and limit switches, and reviewed RFIs and shop drawings.			
04/17-08/18	CSX Transportation, Movable Bridge On-call Engineering Services (Lift Bridges) Mobile, AL. Mechanical Engineer. Matthew inspected field conditions and designed new machinery for a span-drive vertical-lift bridge over the Mobile River. He designed replacement wire-rope rollers and a new remote actuator for auxiliary span drive machinery, and reviewed the shop drawings.			
08/16-07/18	Triborough Bridge & Tunnel Authority (TBTA), MP-03 Electrical and Mechanical Rehabilitation at the Marine Parkway Bridge Queens, NY. Mechanical Engineer. Matthew provided inspection, design, shop testing, and construction support for the rehabilitation of the vertical lift bridge over Jamaica Bay. Work included shop testing for reducers, field support for trunnion friction mitigation, clutch inspection and span balance testing, brake support design, CAD support, and buffer cylinder sizing.			
01/21-Ongoing	TxDOT Design Division, Movable Bridges Asset Maintenance Rio Hondo, TX. Mechanical Engineer. Matthew provided maintenance support for on-site machinery maintenance support and developed a two-year Routine Maintenance Contract for the Rio Hondo vertical lift bridge over the Arroyo, Colorado. Contract deliverables include plans, specifications, and cost estimates for the maintenance work. Matthew led the development of contract deliverables.			
08/16-11/16	NYC Department of Transportation, Roosevelt Island Vertical Lift Bridge NYC, NY. Mechanical Engineer. Matthew provided engineering support for partially replacing and repairing the span-drive-reducer clutch on the vertical-lift bridge over the East River. He provided field support during testing, coordinated with the reducer manufacturer, and led the delivery of reports on repair alternatives.			

Firm employed by: HDR Engineering, Inc.			
Name	William Clementson, PE		Years of relevant experience with this employer
Title	Senior Bridge Engineer		13
Degree(s) / Years / Specialization		BS / 2013 / Civil Engineering ME / 2013 / Civil Engineering	
Active registration number / state / expiration date		PE.0047891 / LA / 09-30-2027	
Year registered	2023	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities		Structural Support / Assess bridge conditions, plan repairs, verify safety compliance, collaborate with engineers, and monitor preservation effectiveness	
William's experience includes structural design and analysis of bridges. He has experience across each stage of bridge design, including preliminary planning, structural design, and construction-phase services. He has also served as a design engineer for design-build and design-bid-build projects, signature bridges, bridge rehabilitations, bridge widenings, and other miscellaneous structures, such as sign structures.			
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).		
11/22–07/23	LADOTD, Bridge Preservation IDIQ - LA 577 at I-20 Repair PS&E Waverly, LA. Structural Engineer. William performed detailed design checks for the demolition and replacement of the PPC AASHTO girder bridge span that was struck by a dump truck. Phase 1 design consisted of PS&E for the phased demolition of the west side of the damaged span to get a single lane of traffic open on the eastern half of the bridge (two undamaged girders). Phase 2 design involved a split-phase replacement span. The existing girders were AASHTO Type 3 (interior) and 4 (exterior). Load ratings were also completed for both phases.		
09/13–09/17	Harris County Toll Road Authority, Houston Ship Channel Bridge Replacement Houston, TX. Bridge Engineer. HDR designed the south approach structures for the proposed twin bridges to replace the existing Houston Ship Channel Bridge carrying Beltway 8 over the Houston Ship Channel. The south approaches are approximately 1 mile in length and feature 43 spans of prestressed concrete girders. William assisted with designing both the substructure and foundation.		
03/24–Ongoing	TxDOT Houston, Pelican Island Bridge Replacement Galveston, TX. Bridge Engineer. This project included the design of a mile-long fixed bridge over the Galveston Channel and the demolition of the existing movable bascule span bridge. It includes 32 spans of precast simple-span I-girders and 4 spans of spliced concrete girders, supported by reinforced concrete substructures and drilled shaft foundations. William designed superstructure, substructure, and foundation elements, including design for coastal storms, wave loading, vessel collision, and significant scour.		
07/18–03/22	VDOT, Hampton Roads Bridge -Tunnel Expansion Norfolk, VA. Bridge Engineer. This design-build project involves the reconstruction and expansion of I-64 from Hampton to Norfolk. The project included many bridges, including multiple long marine trestle bridges, as well as additional tunnels under the main shipping channel. William performed preliminary superstructure, substructure, and foundation design for bridges over Hampton Roads, where the James, Nansemond, and Elizabeth Rivers empty into the Chesapeake Bay. Bridges were primarily prestressed concrete girders supported by trestle bents. In the final design phase, William refined and finalized the design of these elements. There were many complicating factors, including extreme scour potential, large sound walls, heavy wave loading, and vessel collisions.		
12/20–Ongoing	TxDOT Atlanta, SH 43 at Big Cypress Bayou Marion and Harrison County, TX. Bridge Lead Engineer. William designed superstructure, substructure, and foundation elements for a 16-span prestressed precast I-girder structure over Big Cypress Bayou supported on reinforced concrete bents and drilled shafts. The structure's design was influenced by difficult phasing due to the existing steel structure, which could not be demolished in phases, and by limited ROW. The structure was also designed for significant scour.		
06/13–10/15	New York State Thruway Authority, Governor Mario M. Cuomo Bridge (Tappan Zee Bridge Replacement) Westchester and Rockland Counties, NY. Bridge EIT. HDR designed the approach structures for the Tappan Zee Bridge Replacement project over the Hudson River. The bridge is approximately three miles long, with over 40 spans of five curved steel plate girders. William assisted with designing the substructure and foundation of four units with five spans each, including soil-structure interaction and seismic design.		

Firm employed by HDR Engineering, Inc.				
Name	Drake Cole, PE		Years of relevant experience with this employer	4
Title	Electrical Engineer		Years of relevant experience with other employer(s)	3
Degree(s) / Years / Specialization			BS / 2018 / Electrical Engineering	
Active registration number / state / expiration date			0402066695 / VA / 05-31-2027	
Year registered	2023	Discipline	Electrical Engineering	
Contract role(s) / brief description of responsibilities			Electrical support services / Provide comprehensive electrical support services for movable bridge infrastructure, including emergency response, troubleshooting to minimize downtime, designing communication, power, and control systems for both new and existing movable bridges, conducting detailed inspections to verify safety and compliance, and offering construction support	
With a focus on motor controls and power distribution, Drake has successfully delivered projects for various transportation clients, including VDOT, Norfolk Southern, and the North Carolina Department of Transportation. His experience working on 90+ projects for VDOT demonstrates his ability to manage multiple projects simultaneously and provide quality electrical support 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).			
06/25–Ongoing	LADOTD, In-Depth Bridge Inspections Statewide, LA. Electrical Inspector. Drake conducted a comprehensive inspection of multiple vertical lift bridges. The inspection included a complete visual inspection for signs of wear, damage, or malfunction of the entire bridge's electrical system, including, but not limited to, traffic signals, warning gates, resistance, bridge control system, and power system. He also examined conduits, wiring, junction boxes, and enclosures to verify electrical integrity and compliance with safety standards. He observed normal bridge operations, including acceleration, deceleration, and braking. He recorded measurements of no-load and load voltages, as well as main motor load currents, to assess the electrical performance and operational efficiency of each bridge. He wrote a full electrical inspection report documenting findings, observations, and recommendations for each bridge inspected.			
09/23–Ongoing	Virginia Department of Transportation (VDOT), Movable Bridges On-Call Contract Statewide, VA. Electrical Engineer. Drake provides on-call emergency response services for electrical troubleshooting of movable bridges. This includes rapid deployment to address electrical issues on bascule, swing, and vertical lift bridges. Drake diagnoses and resolves faults in control systems, power distribution, motor drives, limit switches, span locks, and other critical components. He performs real-time assessments of bridge operations to confirm minimal downtime and safe restoration of bridge functionality.			
08/21–12/24	VDOT, Benjamin Harrison Bridge Aerial Cable System Richmond, VA. Electrical Engineer. Drake provided electrical design services and construction support for the replacement of the existing submarine cable with a new aerial cable system on the Benjamin Harrison Bridge. He developed termination plans, coordinated with field crews, and confirmed proper integration of the aerial cable system with the bridge's existing electrical infrastructure. Drake oversaw the installation and termination of conductors, verifying correct phasing, grounding, and labeling to meet VDOT standards and verify long-term reliability. He worked with contractors and project engineers to troubleshoot construction issues and confirm that components were installed in accordance with the contract documents.			
07/21–01/22	VDOT, Berkley Bridge In-Depth Inspection Norfolk, VA. Electrical Inspector. Drake performed an in-depth electrical inspection of the Berkley Bridge, a four-leaf rolling bascule bridge. The inspection focused on each span drive, locking, and electrical components critical to bridge operation, including span drive motors, auxiliary motors, limit switches, span locks, and control panels. Drake conducted a thorough visual assessment of conduits, wiring, junction boxes, and enclosures, checking for signs of wear, corrosion, or electrical faults. He monitored bridge operations by recording motor load currents, voltage levels, and system behavior during acceleration and deceleration, utilizing a Fluke 1777 power analyzer. Drake conducted a thorough inspection of the bridge's grounding, control, and power systems, using both visual assessments and hands-on verification. The inspection followed procedures outlined in the AASHTO Bridge Inspection Manual, the National Electrical Code (NEC), and current AASHTO design standards. Drake also contributed to a detailed inspection report that identified deficiencies across key components, including generators, control systems, position indication systems, programmable logic controllers (PLCs), conduits and conductors, and drive systems.			

Firm employed by HDR Engineering, Inc.				
Name	Raphael Costa, PE		Years of relevant experience with this employer	11
Title	Movable Bridge Program Lead		Years of relevant experience with other employer(s)	14
Degree(s) / Years / Specialization			MBA / 2009 / Business Administration MS / 2004 / Electrical Engineering BS / 2001 / Electrical Engineering	
Active registration number / state / expiration date			PE.0043993 / LA / 03-31-2028	
Year registered	2019	Discipline	Electrical Engineering	
Contract role(s) / brief description of responsibilities			Electrical Lead / provide electrical and controls inspection and assessment (Meets MPR 6)	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
04/25-Ongoing	LADOTD, Contract 5 for Movable Bridges (6) Statewide LA. Lafayette, Calcasieu, Cameron, Saint Martin, & Vermillion Parish, LA. Electrical QC Reviewer. This project is to develop and perform NBIS In-Depth and routine inspections/reports, LRFR load ratings, scope of work/report development for six vertical lift bridges: Old Abbeville, Abbeville Bypass, Parks, Milton, West Fork, and Ellender. Raphael conducted QC reviews of the electrical components of the bridges.			
10/23-03/24	Port of New Orleans, Movable Bridge Inspection On-Call Contract New Orleans, LA. Electrical QC. HDR led the annual in-depth movable bridge inspections for the Seabrook and Almonaster single-leaf truss bascule bridges (117 feet main span with 240 feet total). The bridges were built in 1923 and 1919, respectively, and span the Inner Harbor Navigation Canal (river crossing). Raphael performed QC reviews of the electrical systems portions of the reports.			
06/20-Ongoing	Virginia Department of Transportation (VDOT), Movable Bridges On-call Contract Statewide VA. Senior Electrical Engineer and QC Reviewer. Raphael provided quality control reviews for several tasks, including annual bridge inspections and rehabilitation designs. He conducted quality reviews of the electrical systems rehabilitation design plans, calculations, specifications, and cost estimates for this lift bridge.			
01/20-06/22	LADOTD, Statewide Bridge Inspections Statewide LA. Lead Electrical Engineer Inspector. Raphael performed a detailed inspection of the electrical systems of the Teche Bayou, Red River, Bayou LaCarpe, and Bayou Little Caillou Lift Bridges, including power, controls, and lighting, and provided findings and recommendation reports.			
03/20-07/23	Martin County, Hobe Sound Bascule (Movable) Bridge Rehabilitation Hobe Sound, FL. Engineer of Record. Raphael was in responsible charge of the electrical design of the bridge’s control and electrical systems, rehabilitation, and upgrades. The scope of the rehabilitation work included motor/drive systems, power distribution, controls, and replacement of submarine cable systems. Raphael prepared the preliminary engineering and scoping report, and detailed electrical design, including construction documents (plans, specifications, and cost estimates), and performed post-design services associated with the electrical and control system rehabilitation.			
06/19-07/24	Palm Beach County, Donald Ross Bascule (Movable) Bridge Rehabilitation West Palm Beach, FL. Engineer of Record. Raphael was in responsible charge of the electrical design of the bridge’s control and electrical systems, rehabilitation, and upgrade work. The scope of the rehabilitation work included new drive systems to control the new HPUs, power distribution upgrades, and a full controls systems replacement. Raphael prepared the preliminary engineering and scoping report, and detailed electrical design, including construction documents (plans, specifications, and cost estimates), and performed post-design services associated with the electrical and control system rehabilitation.			
01/18-09/22	Pinellas County, Park Boulevard Bascule (Movable) Bridge Rehabilitation Indian Shores, FL. Engineer of Record. Raphael was in responsible charge of the electrical design of the rehabilitation of the double-leaf bascule bridge. The scope of the rehabilitation work included replacing the motor/drive, power distribution, and control systems. Raphael prepared the preliminary engineering and scoping report, and detailed electrical design, including construction documents (plans, specifications, and cost estimates), and performed post-design services associated with the electrical and control system rehabilitation.			
08/16-10/24	Florida DOT (FDOT) D6, NE 79th Street Bridges Rehabilitation Miami, FL. Engineer of Record. Raphael was in responsible charge of the electrical repair design of four bascule (movable) bridges. The project entailed the design for structural, mechanical,			

	and electrical repairs for the bascule bridges along the same causeway. Structures included a double-leaf twin bascule bridge and a single-leaf twin bascule bridge. The scope of the rehabilitation work included replacing the motor/drive, power distribution, and control systems. Raphael prepared the preliminary engineering and scoping report, and detailed electrical design , including construction documents (plans, specifications, and cost estimates), and performed post-design services associated with the electrical and control system rehabilitation.
01/16-12/23	FDOT Districts 1 and 7, Asset Maintenance On-Call Services and Inspections Districtwide FL. Senior Electrical Engineer and Lead Electrical Inspector. Raphael inspected and evaluated movable bridges' electrical and drive elements and provided design and other engineering services for emergency response to the contract's 44 movable bridges.
02/16-08/18	Metropolitan Transportation Authority (MTA) Bridges & Tunnels, Miscellaneous Bridge Design Services Statewide NY. Senior Electrical Engineer. Raphael conducted quality reviews of the scoping and assessment report, electrical systems rehabilitation design plans, calculations, specifications, and cost estimates for the lift bridge rehabilitation.
06/15-Ongoing	CSX Transportation, Movable Bridge On-call Engineering Services Nationwide. Senior Electrical Engineer. Raphael performed quality reviews of the scoping and in-depth reports, electrical systems rehabilitation design plans, calculations, specifications, and cost estimates for rehabilitating four lift bridges. The electrical rehabilitation scope included replacing the control systems with remote-control capabilities and improving electrical power distribution for 8 lift bridges, 18 swing bridges, and 5 bascule bridges.
01/15-01/16	Alabama Department of Transportation (ALDOT), Wintzell Memorial Lift Bridge Assessment and Rehabilitation Mobile County, AL. Project Manager and Lead Electrical Engineer. Raphael was responsible for the project, which included detailed inspections of the existing electrical systems and a recommendation report for the 104-foot-long vertical lift bridge. He managed the project, inspected the bridge's electrical and control systems, and prepared the final inspection report, including recommendations for near-, mid-, and long-term repairs.
01/15-08/15	FDOT District 6, State-Owned Movable Bridge Inspections Districtwide FL. Senior Electrical Engineer and Lead Inspector. The project entailed reviewing existing inspection reports performed by other consultants. Raphael conducted the review process, which included inspecting and evaluating movable bridge electrical and machinery elements and providing a detailed review and assessment of the district's inspection program.
12/14-04/15	Union Pacific Railroad, Steel Bridge Electrical Rehabilitation Portland, OR. Senior Electrical Engineer. Raphael conducted quality reviews of the scoping and assessment report, the electrical and control systems rehabilitation design plans, specifications, and cost estimates for the lift bridge rehabilitation. This historical bridge comprises a double-deck lift span carrying railroad, roadway, and pedestrians across the Willamette River.
02/10-08/14	America Latina Logística, Railway Movable Bridges Services Nationwide Brazil. Senior Electrical Engineer and Lead Inspector. Raphael performed consulting services for two railroad movable bridges, including electrical, mechanical, and structural inspections; repair design; bridge operators' training; emergency response; and maintenance assistance.
06/08-04/10	Connecticut Department of Transportation, Washington Street Bridge (Stroffolino Bascule Bridge) Norwalk, CT. Senior Electrical Engineer and Lead Inspector. Raphael provided mechanical and electrical inspection services to rehabilitate the structural, mechanical, and electrical systems and upgrade the existing double-leaf trunnion bascule bridge.
03/06-10/08	New Jersey Department of Transportation, Route 71 and Route 88 Lift Bridges Rehabilitation Statewide NJ. Electrical Engineer. The rehabilitation involved replacing the tractor-type barrier gates with new barrier gates and platforms, and improving control systems to verify safe, reliable operation. Raphael developed the detailed inspections, design of repairs and improvements, and construction support services for the electrical systems. He designed the rehabilitation of the electrical and control systems , including preparing plans, special provisions, and cost estimates.
11/06-07/09	New York City Department of Transportation, Roosevelt Island Vertical Lift Bridge New York City, NY. Electrical Engineer. Raphael prepared the final design for a 2,877-foot-long bridge over the East River with a 418-foot-long vertical lift span. Raphael prepared the electrical and control systems design for the project. He also provided construction support services associated with rehabilitating the bridge's electrical and control systems.

Firm employed by HDR Engineering, Inc.				
Name	John Danielsen, PE		Years of relevant experience with this employer	10
Title	Senior Bridge Project Manager		Years of relevant experience with other employer(s)	30
Degree(s) / Years / Specialization			BS / 1984 / Civil Engineering	
Active registration number / state / expiration date			No. 41875 / FL / 02-28-2027	
Year registered	1989	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			QAQC-Structural / Manage structural QC of load ratings, emergency repair plans, and calculations	
John's experience includes bridge inspections, rating, and rehabilitation of existing fixed and movable bridges; design of new bridges; asset maintenance; maintenance rating programs; emergency management; fleet operations; and overall infrastructure maintenance programs and practices. Prior to joining HDR, John worked for the Florida Department of Transportation (FDOT) District 4. He has served as team leader, designer, project manager, or quality control manager on numerous bridge inspections, load ratings, rehabilitation, and design projects, many of which involved a large number and variety of structures, including complex and movable 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).			
06/18–07/25	FDOT District 6, Bridge Inspection and Load Rating Continuing Services Contract Monroe and Miami-Dade County, FL. Project Manager. HDR provided bridge load rating analysis for various bridge types throughout Monroe and Dade County. John managed the design, produced plans, engaged the public, and provided post-design services. When John was not the EOR, he provided quality control for assignments.			
08/16–09/25	FDOT District 4, Districtwide Bridge Miscellaneous Structures Consultant Services Districtwide, FL. Program Manager. HDR designed structural repairs and prepared structural repair plans, and provided emergency assistance/response, inspections, and plan reviews. John provided management, coordinated with clients, and led subconsultants. He served as the engineer of record on many assigned task work orders. When John was not the EOR, he provided quality control for assignments.			
04/18–09/24	FDOT District 4, Local Government Bridge Inspection Program Off-System Structures Districtwide, FL. HDR Project Manager. HDR served as a subconsultant to perform County and City-owned and maintained movable bridge inspections on mechanical and electrical components. Data was inputted electronically into the Department's BRM program and uploaded to the FDOT's electronic document management system. John provided quantity control of the reports and coordination with local agencies. When John was not the EOR, he provided quality control for assignments.			
04/19–11/21	FDOT District 6, Districtwide Repair/Rehabilitation Plans Preparation Districtwide, FL. Structures Lead Engineer. HDR provided design services under this contract for the repair and rehabilitation of existing bridges, including prestressed concrete beam repairs, continuous steel plate girder bridge bearing replacements, expansion joint repairs, and fender system repairs. John served as the task order manager for most assignments and as the overall contract manager for HDR. He oversaw project execution and facilitated communication between team members and stakeholders, while managing contract obligations and maintaining project timelines. When John was not the EOR, he provided quality control for assignments.			
10/16–09/25	FDOT District 4, Emergency Bridge Repairs Various Locations, FL. Project Manager. John produced numerous emergency repair plans for bridges struck by over-height vehicles, bridges damaged by fire, and substructures impacted or dislodged. Work included fast response evaluation of the structures, coordination with the FDOT central office for funding, securing replacement materials, producing design plans/specifications or performance criteria, and directing contractors during restoration. When John was not the EOR, he provided quality control for assignments.			
09/08–09/15	Broward County, Segmental Bridge Repairs Various Locations, FL. Project Manager/Engineer of Record. John coordinated each aspect of three separate projects that addressed grout issues on segmental bridges built in the mid-1980s, confirming that timelines and budgets were met, providing technical oversight, and verifying that design solutions met project requirements. Design plans included tendon investigation details and specifications; regrouting and restoration specifications; segmental joint sealing details; tendon pourback replacement details and specifications; and epoxy bridge overlay specifications to prevent water infiltration into the bridge's tendon ducts.			

Prime consultant name: HDR Engineering, Inc.

Firm employed by HDR Engineering, Inc.				
Name	Sarah De Moya, PE		Years of relevant experience with this employer	13
Title	Associate, Bridge Group Lead		Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization			MS / 2007 / Structural Engineering BS / 2006 / Civil Engineering	
Active registration number / state / expiration date			PE.0038011 / LA / 03-31-2027	
Year registered	2013	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			Structural Support / Assess bridge conditions, plan repairs or replacement, and bridge design, including plans, specifications, and estimates. (Meets MPR 3)	
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 design engineer and peer reviewer on traditional delivery and alternate delivery projects for multi-level interchanges, bridge replacements, rehabilitations, and widenings. She has been a bridge engineer for numerous public clients, including LADOTD, TxDOT, FDOT, NYSTA, ADOT, USACE, and various municipalities.				
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).			
11/22–07/23	LADOTD, Bridge Preservation IDIQ – LA 577 at I-20 Repair PS&E Waverly, LA. Engineer of Record. Sarah was in responsible charge of fixed bridge design and load rating. She developed demolition and rehabilitation plans, specifications, and estimates to replace the bridge span damaged by a truck impact. The existing bridge was 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. She 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. Sarah's 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 and plans using DOTD CadConform.			
11/22–07/23	TxDOT Houston, Pelican Island Bridge Replacement PS&E Galveston, TX. Project Manager. HDR is providing engineering services to prepare plans, specifications, and estimates (PS&E) and related documents for the Seawolf Parkway Pelican Island Bridge, a 5,332 ft-long x 65.5 ft-wide off-system bridge replacement. Sarah coordinates with TxDOT, USCG, and other consultants, as well as internal teams and subject matter experts, to advance the project to final design. Sarah monitors progress, budget, and quality of HDR's deliverables. Sarah received a PM score of 98/100 from TxDOT for her work on this project.			
08/22-02/24	TxDOT Dallas, Corsicana Bridge Replacements Navarro County, TX. Engineer of Record. Sarah was in responsible charge of the design for five rural fixed bridge replacements. The SH 31 over Post Oak Creek bridge is one-half of a 4-lane divided highway utilizing a concrete slab beam superstructure, concrete piers, and drilled shaft foundations designed for 12 feet of scour. Low chord elevation was set above the 100-year design flood event, necessitating retaining walls on the bridge approaches to keep final grading within the existing state ROW. Abutment slopes were armored with 18-inch diameter stones for scour protection.			
04/20-Ongoing	TxDOT Corpus Christi, US77 Schematic & PSE Sinton, TX. Bridge Lead/Engineer of Record. Sarah was in responsible charge of the design for four new fixed bridges, four fixed bridge replacements, and six fixed 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 4 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.			
06/19-12/20	TxDOT Beaumont, Old US 90 at Baird's Bayou Bridge Replacement Orange County, TX. Deputy Project Manager/Bridge Lead. Sarah was in responsible charge of fixed bridge design and coordinating with TxDOT, subconsultants, and the internal production team to progress 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 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 was in responsible charge of the fixed bridge design, which included 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–Ongoing	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 is in responsible charge of designing bridge substructure and foundation elements for new twin fixed 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 fixed-bridge design services for a nine-span bridge with two light rail tracks, two highway lanes, and two sidewalks over UPRR tracks. Bridge design included prestressed 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.
01/12–11/12	Central Texas Regional Mobility Authority, US 290 Manor Expressway Manor, TX. Structural Engineer. Sarah was in responsible charge of designing and analyzing steel truss structures for overhead sign bridges, cantilever sign structures, DMS structures, and toll gantries, using 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, all in accordance with AASHTO LRFD, TxDOT, FHWA, and ADA design criteria.
01/10-10/11	Fort Bend County Toll Road Authority, Grand Parkway Segment D5, Northbound Mainlane and Southbound Mainlane Bridges over Harlem Road Fort Bend County, TX. Bridge Engineer. Sarah conducted structural calculations and detailed analyses of the structural elements for these twin rural fixed bridges. This four-lane divided highway overpass was designed for future U-turns underneath and for the future bridge to widen towards the median. Sarah designed bridge layouts, prestressed concrete I-girders, curved steel plate girders, and heavily skewed bents on a curved alignment with super-elevation. She designed abutments for ultimate condition and used client-provided aesthetic guidelines and CADD standards.
06/11-10/11	City of Sugar Land, Sweetwater, Harman, and Dulles Avenue Bridge Condition Assessments and Rehabilitation Sugar Land, TX. Engineer of Record. Sarah was in responsible charge and performed condition assessments of existing concrete and steel fixed bridges at Sweetwater Boulevard over Steep Bank Creek, Harman Street over Oyster Creek, and Dulles Avenue over Oyster Creek. She developed rehabilitation design plans and specifications to repair the bridge deficiencies.
01/10-10/11	City of Sugar Land, University Boulevard South Extension, Bridges over Ditch H Sugar Land, TX. Bridge Engineer. Sarah performed structural calculations and detailed the structural elements of these twin curved bridges. Sarah designed Type IV prestressed concrete I-beams, raised sidewalks, containment rails, deck drains, heavily skewed multi-column bents and abutments with deep foundations, founded wing walls, and bridge-mounted utilities. She also reviewed shop drawings and responded to RFI's during the construction phase.

Firm employed by HDR Engineering, Inc.				
Name	Jessica Forbes		Years of relevant experience with this employer	8
Title	Architectural Historian		Years of relevant experience with other employer(s)	3
Degree(s) / Years / Specialization		MA / 2007 / History/ Public History BA / 2005 / History		
Active registration number / state / expiration date		N/A		
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities		Cultural/Historic Architecture / identify and evaluate historic-age architectural resources for NRHP eligibility (Meets MPR 13)		
Jessica's expertise includes conducting architectural resources surveys and evaluations per Section 106 of the National Historic Preservation Act, with a focus on transportation-related projects. She meets the requirements of the Secretary of the Interior as a qualified architectural historian with a Master's Degree and two years of experience. Having completed projects throughout the Southeast region and across the US, Jessica is well-versed in navigating complex regulatory environments and collaborating with diverse stakeholders. Her creative and technical skills are evident in her ability to develop and design interpretive materials, including brochures, exhibit guides, and exhibit panels.				
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).			
07/22-Ongoing	South Carolina Department of Transportation (SCDOT), Closed and Load Restricted Bridge (CLRB) Projects Multiple Counties, SC. Architectural Historian. HDR is conducting archaeological and architectural surveys for the SCDOT CLRB projects. To date, HDR has provided cultural resources support for 23 projects in 8 counties. Jessica has identified and evaluated historic-age architectural resources in the area of potential effects (APE) for these projects and evaluated newly recorded resources for NRHP eligibility. She also authors portions of the combined archaeological and architectural resources survey report.			
11/22-09/23	SCDOT, US 301 Bridge Replacement Allendale County, SC, and Screven County, GA. Architectural Historian. HDR provided the cultural resources survey for the proposed replacement of the US 301 bridge over the Savannah River. Jessica conducted an architectural resources field survey and archival research to develop a historical context for US 301 and Burton's Ferry, which date to Georgia's British colonial period. Recorded architectural resources included a 1937 steel through-truss bridge with a movable (swing) span and the original US 301 alignment.			
11/21-12/22	Missouri Department of Transportation (MoDOT), IH 70 Corridor Improvements Jackson County, MO. Architectural Historian. HDR provided environmental and cultural resources support for the Second Tier EIS Re-evaluation of the IH 70 Corridor Improvements Project. During the architectural resources survey, HDR recorded a total of 232 architectural resources in the survey area, which extends along a 3.85-mile-long segment of IH 70. Surveyed resources included those on parcels marked for proposed partial ROW acquisitions and/or on parcels with line of sight to proposed sound walls. Jessica planned and managed the architectural resources field survey and reporting, which was conducted with the support of three additional architectural historians. She also conducted archival research and authored sections of the joint architectural and archaeological survey report.			
09/20-12/22	CSXT, Bridge Replacement Mitigation Brantley County, GA. Architectural Historian. CSXT proposed to replace the superstructure of a cast-in-place concrete flat slab bridge built in 1900 . The bridge (Milepost A570.90) was determined eligible as a contributing resource to the NRHP-eligible Atlantic Coast Line Railroad system, resulting in a finding of adverse effect to historic properties. Jessica completed the initial survey report and supported the development of a Memorandum of Agreement between the Georgia Division of Natural Resources, US Army Corps of Engineers, and CSXT. She also prepared and submitted Historic American Engineering Record (HAER) documentation of the structure in coordination with the MOA parties and the National Park Service Atlanta Regional Office.			
08/21-09/22	Southeast Arkansas Economic Development District (SEADD), Track Rehabilitation East Carroll and Madison Parishes, LA. Architectural Historian. HDR conducted a cultural resources survey for the proposed partial rehabilitation of the 91.3-mile Tallulah-McGehee short-line rail corridor . Jessica conducted the architectural resources survey for the project, recording 22 historic-age architectural resources in the field; conducted research at the Main Branch of the Ouachita Parish County Library; and authored portions of the survey report related to history and architectural history.			

Firm employed by HDR Engineering, Inc.				
Name	Isaac Frederick, PE		Years of relevant experience with this employer	4
Title	Movable Bridge Section Manager		Years of relevant experience with other employer(s)	11
Degree(s) / Years / Specialization			BS / 2015 / Mechanical Engineering	
Active registration number / state / expiration date			PE.0044322 / LA / 09-30-2026	
Year registered	2020	Discipline	Mechanical Engineering	
Contract role(s) / brief description of responsibilities			Mechanical Support / design, analyze, and confirm proper integration of mechanical systems and components to verify structural integrity and operational functionality	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
04/25-Ongoing	LADOTD, Contract 5 for Movable Bridges (6) Vermillion, Lafayette, St. Martin, and Calcasieu Parishes, LA. Lead Mechanical Engineer. Isaac is leading the mechanical and electrical portions for the first two tasks in the contract, which include Abbeville Bypass, Old Abbeville, Parks, Milton, Ellender, and West Fork vertical lift bridges. Issac performs document reviews and in-depth inspections. He was the lead mechanical engineer for the in-depth inspections, which included strain gauge testing on five of the six bridges. Each inspection is now complete, with report development complete.			
06/22-06/23	LADOTD, Statewide In-Depth Complex Bridge Inspections Saint Tammany & Livingston Parish, LA. Lead Mechanical Engineer Inspector. Isaac performed the detailed mechanical inspection of the Amite River at Port Vincent, the Amite River at Clio, Chef Menteur, Bayou Lacombe, the Tchefuncte River, Bayou Bonfouca, and Bayou Liberty mechanical systems, and provided his findings in a recommendation report. Each movable bridge was a swing span. Elements inspected included hydraulic power lift (HPU), open gearing, hydraulic cylinders, pivot bearing, center wedges, end wedges, couplings, brakes, and traffic gates.			
01/24-03/24	Florida Department of Transportation, District 6 Inspection Contract Miami-Dade County, FL. Lead Mechanical Engineer, Inspector, and Team Leader. HDR inspected five movable bridges, including three hydraulically driven bascule spans. Each inspection and report provided an in-depth analysis. Isaac conducted mechanical inspections of the NW 17th, 2nd Avenue, 22nd Avenue, West Venetian, and Tamiami bridges, focusing on the electrically and hydraulically operated machinery. The inspected elements included HPU, open gearing, hydraulic cylinders, hydraulic motors, trunnions, span locks, live load shoes, couplings, brakes, and traffic gates.			
06/23–10/23	Florida Department of Transportation, District 4 Inspection Contract Broward County, FL. Lead Mechanical Engineer, Inspector, and Team Leader. HDR inspected six movable bridges, including two hydraulically driven bascule spans. Each inspection and report provided an in-depth analysis. Isaac conducted mechanical inspections on the 3rd Avenue, 7th Avenue, Andrew’s Avenue, Dixie Highway, and Jack L. Saunders bridges, focusing on the operating machinery, which operated electrically and hydraulically. The inspected elements included HPU, open gearing, hydraulic cylinders, hydraulic motors, trunnions, span locks, live load shoes, couplings, brakes, and traffic gates.			
08/23-08/24	Port of New Orleans, Movable Bridge Inspection On-Call Contract New Orleans, LA. Lead Mechanical Engineer, Inspector, and Team Leader. Isaac performed the detailed mechanical inspection of the Almonaster and Seabrook bridges, both century-old Strauss Bascules stretching down the Inner Harbor Navigational Canal. This inspection required attention to detail to account for deficiencies that may not be encountered in bascules of this age. Isaac inspects both bascules. The elements inspected included open gearing, pneumatic systems, trunnions, link pins, span locks, live load shoes, couplings, and brakes.			
05/23–05/23	CSX Transportation, Mobile River Emergency Response Baldwin County, AL. Mechanical Response Team Leader. Isaac responded to a mechanical failure in a vertical lift. He was on site within hours to diagnose the failure, a gear tooth shear in a drive coupling. This became a six-degree skew, shearing off guides and plastically deforming noncritical members. Isaac worked with on-site contractors to develop a solution and get the vertical lift back in service to CSX and the Coast Guard within three days.			

11/22-11/23	Texas Department of Transportation (TxDOT) Bridge Division, Rio Hondo Inspection Cameron County, TX. <i>Mechanical Inspector.</i> Isaac conducted a detailed mechanical inspection of the Rio Hondo bridge, a tower-drive vertical-lift bridge. This inspection included strain-gauge testing and various measurements. Elements inspected included open gearing, brakes, wire rope, sheaves, gearboxes, bearings, span guides, and traffic gates.
07/22-07/22	TxDOT Bridge Division, Rio Hondo Emergency Response Cameron County, TX. <i>Mechanical Response Team Leader.</i> Isaac responded to a vertical lift span lock failure. He was on-site within hours to diagnose the failure, a key shear in a coupling. This developed into barges waiting in the canal as the bridge could not be lifted. Isaac diagnosed the problem and directed TxDOT personnel to manually disengage the lock bar, which allowed the span to be lifted. The vertical lift was temporarily allowed to operate on three-span locks until a new coupling was installed.
06/22–08/22	TxDOT Bridge Division, Cow Bayou Inspection Orange County, TX. <i>Mechanical Inspector.</i> Isaac performed the detailed mechanical inspection of Cow Bayou, a swing-span bridge. This inspection included strain-gauge testing and various measurements. Elements inspected included open gearing, brakes, center wedges, end wedges, gearboxes, bearings, and traffic gates.
01/14-02/14	BNSF Railway, Counterweight Pin Replacement King County, WA. <i>Mechanical Quality Assurance.</i> The plan set specified four pin replacements that connected the counterweight to the frame of a Strauss bascule. Isaac verified that the counterweight was jacked appropriately to relieve the pin for replacement. Once the pin was removed, Isaac verified that the frame was bored to the correct diameter within tolerance. Finally, Isaac oversaw the removal of the new pin and the jacking apparatus. After completing the work, Isaac generated a BNSF report detailing the measurements and work done.

Firm employed by HDR Engineering, Inc.				
Name	Brett Geesey, PE		Years of relevant experience with this employer	19
Title	Vice President, LA/MS Area Operations Manager		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		BS / 2005 / Mechanical Engineering ME / 2006 / Ocean Engineering		
Active registration number / state / expiration date		PE.0035172 / LA / 3-31-2028		
Year registered	2009	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities		Project Principal / Oversee project execution and resource management (Meets MPR 1)		
Brett serves as HDR's Louisiana/Mississippi Area Operations Manager, overseeing the overall operations of HDR's offices in Louisiana and Mississippi. He manages a team of engineers and scientists and has experience managing and designing various engineering projects. He has also implemented projects ranging from feasibility studies through applied design, prepared detailed plans and specifications, and provided construction administration.				
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
10/22-07/23	LADOTD, Bridge Preservation IDIQ – LA 577 at I-20 Repair PS&E Waverly, LA – Project Principal. HDR is providing as-needed services for various bridge preservation-related services. Task orders have included repair plans for a bridge damaged during a vehicular accident and a task order to develop an optimization tool for developing layout and bridge configuration. For each task order, Brett works with the task order manager to develop the scope, schedule, and budget, and to identify the resources required to deliver it.			
08/23-Ongoing	Port of New Orleans, Movable Bridge Inspection On-Call Contract New Orleans, LA. Project Principal. HDR provides as-needed inspection and load rating services for two bridges under the Port of New Orleans authority. Task orders have included annual inspections for the Seabrook and Almonaster bridges. For each task order, Brett works with the task order manager to develop the scope, schedule, and budget, and to identify the resources required to deliver it.			
07/19–03/24	LADOTD, Statewide In-Depth Complex Bridge Inspections Statewide LA. Project Principal. HDR is a subconsultant supporting LADOTD's in-depth inspections of complex bridge structures. Brett worked with HDR's task order managers to review the scope, schedule, and budget; coordinate the required resources to complete the task orders; and assist HDR's task order manager in providing quality services.			
05/21-05/26	Sewerage and Water Board of New Orleans (SWBNO), Internal and External Communications Support New Orleans, LA. Project Principal. HDR provides SWBNO with communications support, including communications planning, protocol development, crisis communications support, content development, graphic design, website development, social media strategy, event coordination, and stakeholder management. Brett works closely with the project manager to provide project resources and supports internal project controls, including contracting, cost controls, and scheduling.			
07/23–06/24	Baton Rouge Water Company, Utility Network Data Migration Baton Rouge, LA. Project Principal. Brett assisted the project manager in providing resources and overall project delivery. HDR assisted the Baton Rouge Water Company with migrating its existing utility network data into ESRI's UN data model.			
05/18-Ongoing	Lafayette Consolidated Government (LCG), LCG Drainage Initiative Project Lafayette, LA. Project Principal. Brett works with the project manager to provide the necessary resources to deliver the project and oversees the overall contract. HDR has provided LCG with wetland delineation services to support its overall drainage initiative program.			

Firm employed by: HDR Engineering, Inc.			
Name	Stephen Grabowski, PE		Years of relevant experience with this employer
Title	Mid-Atlantic Movable Bridge Section Manager		14
Degree(s) / Years / Specialization		BS / 2012 / Mechanical Engineering / Emphasis in Machine Design	
Active registration number / state / expiration date		0402057734 / VA / 12-31-2027	
Year registered	2017	Discipline	Mechanical Engineering
Contract role(s) / brief description of responsibilities		Project Manager, QAQC-Mechanical, Verify mechanical systems and materials meet quality standards through review, inspections, and testing.	
Stephen has 13 years of experience in the design and inspection of mechanical systems for movable bridges and tunnels. Stephen's expertise in mechanical systems, combined with his active membership in Heavy Movable Structures (HMS) and relevant training, enables him to deliver quality QA/QC 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).		
04/25–Ongoing	Transtar, Delray Connecting Railroad Shortcut Bridge Over River Rogue Mechanical and Electrical Rehabilitation Bay City, MI <i>Mechanical QC Reviewer.</i> Stephen performed the technical QC of the 90% mechanical plans to confirm that the design met HDR and the client's quality standards.		
10/24–Ongoing	Ohio DOT, Craig Memorial Bridge Rehabilitation Toledo, OH. Mechanical Calculation QC Reviewer. Stephen conducted a QC review of the span drive and span lock machinery to verify that the proposed equipment design complies with current AASHTO specifications.		
09/22–Ongoing	Virginia DOT (VDOT), Hampton Roads Programmatic Support Services Contract - Berkley Bridge Mechanical and Electrical Rehabilitation Norfolk, VA. Project Manager. Stephen oversaw revisions to and completion of the design package for the mechanical and electrical rehabilitation, including plans, specifications, estimates, construction time duration reports, and coordination with the USCG and USACE for permit applications. He is coordinating with mechanical, electrical, structural, architectural, civil, and traffic to deliver a complete package for advertisement. During the advertisement, Stephen provided responses to the Contractor's questions. He is currently managing construction support services.		
06/21–06/26	VDOT, Movable Bridges On-Call Contract - Jamestown Ferry Transfer Bridge Rehabilitation Jamestown, VA. Lead Mechanical Inspector/Designer. Stephen led and performed a site inspection for a rehabilitation design to replace the horizontally oriented hydraulic cylinders with vertically oriented cylinders and an overhead gantry. He led the design for the rehabilitation, assisted the Department through the advertisement, and is leading the construction support services (CSS).		
09/24–04/25	VDOT, Movable Bridges On-Call Contract - Coleman Bridge (Double Swing Span) AASHTO Inspection Coleman, VA. Project Manager/Lead Mechanical Engineer/Inspector. The project consists of routine inspections (2018, 2022, 2024) and an in-depth inspection (2020) of the Coleman Bridge. Stephen coordinated the mechanical, electrical, and structural disciplines, maintained traffic during inspections, and prepared the report in accordance with VDOT, FHWA, and AASHTO MBI requirements for this double-swing bridge.		
05/25–9/25	VDOT, Statewide Movable Bridges On-Call Contract - Berkley Bridge (Twin Double-Leaf Rolling Bascule) AASHTO Inspection Norfolk, VA. Project Manager/Lead Mechanical Engineer/Inspector. The project consists of routine (2021, 2023) and in-depth (2019, 2025) mechanical and electrical inspections of the Berkley Bridge. Stephen coordinated mechanical, electrical, and structural balance testing, a fracture-critical rope-access inspection, and maintenance of traffic for the inspection and submission of the report in accordance with VDOT, FHWA, and AASHTO MBI requirements for these twin double-leaf bascule bridges.		
01/22–02/24	VDOT, Hampton Roads Programmatic Services Contract – James River Bridge Wire Rope Replacement Newport News, VA. Lead Mechanical Designer. Stephen oversaw the preparation of the main counterweight and auxiliary counterweight wire rope replacement design package, including plans, specifications, and the engineer's estimate. He also prepared procurement documents for wire ropes and accessories and provided on-site construction support during their installation.		
06/19–11/24	VDOT, Movable Bridges On-Call Contract—Gwynn's Island Rehabilitation Gwynn Island, VA. Project Manager. Stephen provided oversight and coordinated the repair plans, specifications, and estimate for Gwynn's Island Rehab. He coordinated all project aspects, including mechanical, electrical, and structural rehabilitation. Stephen also supported the CSS.		

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			BS / 1998 / Civil Engineering	
Active registration number / state / expiration date			PE 0039771 / LA / 09-30-27	
Year registered	2015	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			Structural Support / evaluate and document bridge conditions to verify safety, structural integrity, and compliance with design and regulatory standards & perform load ratings (Meets MPR 4)	
Peter has over 28 years 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 group of structure types, including segmental concrete, truss, cable-stayed, tied arch, and movable bridges. Training Certificates: 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 I				
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-Ongoing	LADOTD, Contract 5 for Movable Bridges (6) Vermillion, Lafayette, St. Martin, and Calcasieu Parishes, LA. Structural QC. This project is to develop and perform NBIS In-Depth and routine inspections/reports, LRFR load ratings, scope of work/report development for six vertical lift bridges: Old Abbeville, Abbeville Bypass, Parks, Milton, West Fork, and Ellender. Peter performed QC reviews for structural components of the bridges.			
01/14-10/22	Texas Department of Transportation (TxDOT) Bridge Division, Fracture Critical In-Depth Inspection IDIQ Statewide TX. Bridge Inspector/Team Leader. Peter managed and led the field inspection and report preparation. This contract has inspected 1,560 bridges to date, comprising 6,248 fracture-critical components. Peter was the on-site team leader for approximately 25 percent of the bridges. Peter developed and performed the load ratings when he was the team leader. Peter was also the on-site team leader for the Corpus Christi Harbor fracture-critical bridge inspection in 2023 and 2021.			
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 Bridge Division, Routine Bridge Inspection Statewide, TX. Project Manager/Inspection Team Leader. Peter managed and led the field inspection and report preparation. He coordinated each of the routine inspection assignments. This contract has inspected a total of 10,428 bridges to date. Peter was the on-site team leader for approximately 20 percent of the bridges. Peter developed and performed the load ratings when he was the team leader.			
02/14-08/15	LADOTD, LA 12 Sabine River Bridge Stage 0 Bridge Evaluation Calcasieu, LA. QA/QC Reviewer. In a sub-consultant role, HDR analyzed the feasibility of rehabilitating and/or replacing 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 inspected fracture-critical members that were difficult to access and performed the inspections within “arm’s length” using industrial rope access. The inspection of 179 truss members, 168 floor beams, 3 girder spans, and portions of the main cables was completed within three weeks using a team of up to seven inspectors and seven rigging technicians.			
06/09-12/09	Nebraska Department of Roads (NDOR), Fracture Critical Inspection and Rating Statewide, NE. Inspection Team Leader. Peter performed inspections and load ratings for 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.			

Firm employed by: HDR Engineering, Inc.			
Name	Donald (Don) Hendon, PE, CFM		Years of relevant experience with this employer
Title	Hydraulics/Hydrology & Coastal Project Manager		6
		Years of relevant experience with other employer(s)	12
Degree(s) / Years / Specialization		MS / 2015 / Civil Engineering (Coastal Emphasis) BS / 2013 / Civil Engineering / (Coastal and Environmental Emphasis)	
Active registration number / state / expiration date		PE.0044893 / LA / 03-31-2027	
Year registered	2018	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities		Hydraulic analysis & design / hydraulic modeling, designing drainage systems, and analyzing flood risks to verify effective water management and regulatory compliance.	
Don has experience in the analysis and design of hydraulic structures, 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. He has also supported structural inspections of bridges. Don contributed to 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 of HEC-HMS and supervised multiple junior staff members for Region 5, which is 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 the 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, 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. The project goal was to provide final design services for the full replacement of the fender system on the Benjamin Harrison Bridge over the James River. The existing fender system will be replaced 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. This analysis included developing 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.		

Firm employed by HDR Engineering, Inc.				
Name	Wesley Jacobs, PE		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		BS / 1998 / Civil Engineering		
Active registration number / state / expiration date		PE.30774 / LA / 9-30-2026		
Year registered	2003	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities		Project Manager and Structural Support / oversee planning/execution/completion of projects, confirming they meet deadlines, stay within budget, and adhere to quality and safety standards (Meets MPRs 2 & 3)		
Wes has nearly three decades 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. Training: Maintenance and Rehab of Historic Bridges - completed 4/12/2016			Benefit to LADOTD: ✓ 28 years of bridge experience reduces risk and accelerates decisions ✓ Direct LADOTD IDIQ experience enables fast startup and smooth coordination ✓ Proven project manager delivers concurrent IDIQ tasks on time	
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).			
11/22-01/25	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. Wes led the emergency inspection and oversaw the engineering design of the PS&E.			
04/25-Ongoing	LADOTD, Contract 5 for Movable Bridges (6) Lafayette, Calcasieu, Cameron, Saint Martin, & Vermillion Parish, LA. Project Manager & Engineering Lead. 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 for six vertical lift bridges: Old Abbeville, Abbeville Bypass, Parks, Milton, West Fork, and Ellender. He coordinated subconsultants and teams to inspect all 6 bridges across two mobilizations, including rope-access inspectors.			
11/19-03/24	LADOTD, Statewide In-Depth Complex Bridge Inspections IDIQ Statewide, LA. Project Manager & Engineering Lead (Sub-consultant). 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. He 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 inspection techniques. 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 & Lead Bridge Engineer. For this river crossing, Wes developed and 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			

Prime consultant name: HDR Engineering, Inc.

	PPC girder approach spans. Due to close similarities with recent projects in Louisiana, the project is 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. <i>Structural Lead</i>. Wes developed 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 were comprised of 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. <i>Engineer of Record</i>. Wes was in responsible charge of design and executed 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. <i>Project Manager & Engineering Lead</i>. Wes was in responsible charge of and 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 on prestressed piles, with approach spans of reinforced concrete slabs connecting to an existing limestone access road. The bridge provides access to LPV 145 in Chalmette, LA, and was constructed on an offset alignment on the protected side of the existing sector gate, with a timber guidewall/fender system tying into the existing system. Designed per LADOTD and AASHTO–LRFD specifications.
10/12-05/15	TxDOT/LADOTD, US 84 Sabine River Bridge Logansport, LA. <i>Structural Lead & Engineer of Record</i>. Wes was in responsible charge of and completed 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, 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. <i>Engineer of Record</i>. Wes was in responsible charge and completed 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. The spans were comprised of precast prestressed concrete girders supported by precast prestressed concrete pile bent substructure.
02/08-06/09	City of Laredo, Calton Road – Union Pacific RR Overpass Laredo, TX. <i>Engineer of Record</i>. Wes was in responsible charge of and developed the final designs , plans, and specifications for this fixed bridge railroad overpass project in accordance with AASHTO–LRFD specifications. The bridge spans Union Pacific RR main lines and spur tracks. The bridge is comprised of steel-welded composite plate girders , reinforced concrete column bents, and drilled shafts, and provides the required horizontal and vertical clearances.
02/04–04/05	TxDOT, IH-35 Southbound Frontage Road Connector Waco, TX. <i>Engineer of Record</i>. Wes was in responsible charge of and executed the final design of this curved steel plate girder roadway overpass . The bridge was comprised of two continuous steel plate girder units . The spans were designed using AASHTO Standard Bridge specifications for Curved Girders and a straight girder case using AASHTO–LRFD specifications. Reinforced concrete hammerhead bents founded on drilled shaft foundations were used for the substructure. His responsibilities included designing the curved steel girder units and developing and sealing the girder details.
05/09-10/10	TxDOT Austin District, SH 95 Brushy Creek Williamson County, TX. <i>Engineer of Record</i>. Wes was in responsible charge of and developed the final designs and plans for this bridge replacement project. 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.
08/06-12/07	TxDOT, SH 31 Bridge Replacements – EB & WB FM 339 Overpasses Waco, TX. <i>Engineer of Record</i>. Wes was in responsible charge of and designed the replacement of two bridges , featuring prestressed concrete U40 box beam girders and concrete column bents supported by drilled shafts. The bridges measured approximately 240 feet in length and 40 feet wide, accommodating two lanes of traffic.

Firm employed by HDR Engineering, Inc.				
Name	Ann Keen		Years of relevant experience with this employer	12
Title	Senior Architectural Historian/Project Manager		Years of relevant experience with other employer(s)	9
Degree(s) / Years / Specialization		MA / 2007 / Art History BS / 2001 / Art History		
Active registration number / state / expiration date		N/A		
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities		Cultural/Historic Architecture / Standing structures and built environment (Meets MPR 13)		
Ann has 21 years of experience in historical studies with a particular emphasis on the built environment. She meets the requirements of the Secretary of the Interior as a qualified architectural historian with a master's degree and two years of experience. Her experience includes architectural and historic sites surveys, National Register of Historic Places (NRHP) eligibility evaluations and nominations, archival research, Section 106 and Section 4(f) compliance, agency and consulting party coordination, agreement document development, and Historic American Buildings Survey (HABS) and Historic American Engineering Record (HAER) documentation. Ann has experience on projects in 38 states for the Federal Highway Administration (FHWA), Departments of Transportation, the U.S. Army Corps of Engineers (USACE), national and regional rail companies, and other public and private entities. She is also a trained and experienced bridge inspection assistant and has assisted in the inspection of more than 10 fracture-critical road bridges in Texas and Louisiana.				
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).			
06/23–07/23	UPRR, Lake Charles Subdivision MP 657.37 Bridge Investigation Allen Parish, LA. Architectural Historian. Ann recorded the 1926 timber stringer bridge on a Louisiana Historic Resources Inventory (LHRI) form, evaluated it for NRHP eligibility, and assessed the bridge's viewshed for potential additional historic resources in advance of bridge replacement.			
08/22–02/23	CSX, Chef Menteur Pass MP 787.20 Bridge Investigation Orleans Parish, LA. Architectural Historian. Ann applied the Program Comment to Exempt Consideration of Effects to Rail Properties within Rail Rights-of-Way for proposed improvements to the 1929 Warren through-truss swing bridge .			
04/21–09/21	Canadian National Railway (CN)/Illinois Central Railway, Baton Rouge Subdivision MP 431 Bridge Cemetery Investigation St. Charles Parish, LA. Architectural Historian. Ann conducted research on the possible presence of a Civil War-era cemetery in the vicinity of a bridge replacement project , as reported by a local resident in 1986 and potentially depicted in a ca. 1863 photograph. Work was conducted with assistance from USACE and the Louisiana Division of Archaeology staff.			
04/17–11/17	CN/Illinois Central Railroad, Bonnet Carré Spillway Bridge NRHP Evaluation St. Charles Parish, LA. Architectural Historian. Ann conducted the NRHP evaluation of the bridge, including an airboat survey. The bridge, built in 1934–1935, is a combination timber trestle, plate girder, and I-beam structure , 11,748 feet long. The survey was undertaken in advance of proposed bridge repairs.			
10/16–03/17	CN/Illinois Central Railway, Cultural Resources Survey of Illinois Central Railroad Bridge 866.2, McComb Subdivision Tangipahoa Parish, LA. Architectural Historian. Ann conducted the NRHP evaluation for the timber and steel bridge , built c. 1965, and she authored the relevant portions of the associated report. The survey was undertaken in advance of the proposed bridge replacement.			
09/14–09/21	Northwest Louisiana Council of Governments, Cultural Resources Survey of the Proposed LA 3132 (Inner Loop) Extension Project Caddo Parish, LA. Architectural Historian. Ann conducted the architectural resources survey for the project, which included documentation and NRHP evaluation of five semi-rural properties. One property included a YWCA lodge , built in 1930–1931 by local architect Edward F. Neild, Sr.			
04/13–10/14	Coastal Protection and Restoration Authority, Mid-Barataria Sediment Diversion Project Cultural Resources Survey Plaquemines Parish, LA. Architectural Historian. Ann completed research of primary and secondary English and French source materials and authored the report's historic context, which focused on the eighteenth and nineteenth century ownership of a sugar plantation in Plaquemines Parish. St. Rosalie Plantation is notable for its ownership by Andrew Durnford, a free man of color, from 1828 until his death in 1859.			

Firm employed by		HDR Engineering, Inc.	
Name	David Knickerbocker, PhD, PE	Years of relevant experience with this employer	11
Title	Movable Bridge Practice Lead	Years of relevant experience with other employer(s)	15
Degree(s) / Years / Specialization		PhD / 2005 / Structural Engineering MS / 2001 / Structural Engineering BS / 1998 / Civil and Environmental Engineering	
Active registration number / state / expiration date		PE.0040004 / LA / 3-31-2028	
Year registered	2015	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities		Structural Support / Lead, coordinate, and execute design of movable bridges and components thereof, in accordance with AASHTO and LADOTD specifications, guidelines, and preferences (Meets MPR 7).	
David has executed projects on movable highway and railroad bridges, covering inspection, rehabilitation design, and new design. He handles project scoping, calculations, and plans while leading bridge inspections and preparing load rating reports. His expertise includes design, analysis, construction staging, and seismic assessment. Recently, he has focused on asset management for movable bridge inventories, including assessments and design plans for repairs and rehabilitation. Certifications: FHWA-NHI-130055 Safety Inspection of In-Service Bridges (2011; Refresher Course 2022)			
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).		
02/26 and 05/26	LADOTD, Contract 5 for Movable Bridges (6) Vermillion, Lafayette, St. Martin, and Calcasieu Parishes, LA. Senior Bridge Advisor. This is a program for the evaluation and rehabilitation of LADOTD's movable bridge inventory. David guided and advised the analysis approach for the load rating evaluation of vessel-collision-damaged steel truss members on the Ellender vertical-lift span. David also served as QC Reviewer for the load rating of the Ellender and Bayou Teche (Parks) Vertical Lift Bridges.		
06/24-02/25	FDOT, Sunrise Blvd Bridge Rehabilitation Fort Lauderdale, FL. Specialty Structure Lead. David oversaw and produced the structural design details and calculations for the first-ever full-movable-span bridge installation of orthotropic aluminum deck, replacement stringers and their connections, and span lock platform replacement and expansion. Additionally, David reviewed other structural items of the twin double-leaf trunnion bascule spans' major rehabilitation, including fender system replacement, scour mitigation, and installation of advanced traffic gates.		
06/23-12/23	CSX Transportation, Schuylkill River Swing Bridge Aerial Cable Philadelphia, PA. Structural Engineer-of-Record. David was in responsible charge of the structural design and produced the detailed design for the aerial messenger cable power supply support system between the stayed pole (with pivoting linkage) at the center of the swing span and the stayed pole at the end of the approach span.		
01/22-09/22	City of Charleston, Ashley River Crossing – Pedestrian/Bicycle Bridge, Charleston, SC. Movable Bridge Lead. As Engineer-of-Record in design-build preparation, including preliminary design and production of RFP documents, David was in responsible charge of the structural design including movable span type selection, preliminary (30%) design plans and estimates for the selected (cable-stayed bobtail swing) span type, cost and risk analysis coordination, RFP production including design criteria and special provisions, comprehensive design reviews, and construction engineering/inspection services.		
05/21-11/21	SCDOT, Wappoo Creek Bascule Bridge Rehabilitation Charleston, SC. Structural Engineer-of-Record. David developed the analysis, detailed design , 60% inspection, and plans, specifications, and estimates for structural aspects of the rehabilitation, which included span lock and associated platforms replacement, floorbeam strengthening, live load bearing stiffeners replacement, re-balancing, grid deck weld repairs, and localized painting; detailed work procedures were developed for each task. Subsequently, David oversaw revisions to the design for full-span open grid deck replacement, full structural steel repaint, and structural steel repairs.		
09/20-03/21	BNSF Railroad, West Seattle Bridge Rehabilitation Seattle, WA. Structural Engineer-of-Record. This project was to replace the rear counterweight pins of the Strauss bascule span bridge . David designed a complex jacking scheme that eliminated the resultant inclined pin force within tight space constraints and reduced navigation outage time. David produced the jacking scheme/pin replacement design from a feasible concept, through complex analysis, calculations, and 'released-for-construction contract plans.		
09/19-02/20	Michigan Department of Transportation, Houghton-Hancock Vertical-Lift Bridge Rehabilitation Hancock, MI. Senior Structural Engineer. David designed the vertical-lift span rehabilitation , including span guides, rocker bearings, structural steel repairs, plug welds for		

	fracture/fatigue considerations, and roadway joint replacement, along with associated staging. Additionally, David prepared design changes during construction for significant open-grid deck replacements, including complex steel detailing and floor system supplementation.
02/19-08/19	Port Authority of New York/New Jersey, Cross-Harbor Freight Program- 65th Street Transfer Bridge Rehabilitation Brooklyn, NY. <i>Inspection Team Leader/ Structural Engineer-of-Record.</i> The project rehabilitated the freight-car ferry terminals across the Hudson Bay, including replacing the ferry transfer ramp and movable bridge , reconfiguring the railyard at the New Jersey terminal, and rehabilitating the transfer ramp and movable bridges at the Brooklyn Terminal. David designed the structural rehabilitation following a comprehensive inspection, load rating evaluation, and summary report for one of the existing 100-foot-long, 2-track, mechanically operated rail car transfer ramp movable bridges between the transport barge and the on-grade track, including analyses of material-loss-induced capacity reductions, comparisons of criteria, fatigue assessments, and the development of a contract drawings package for structural steel repairs.
09/18-01/19 and 05/20-08/20	Virginia Department of Transportation (VDOT), Route 156 over the James River, Benjamin Harrison Lift Bridge Hopewell, VA. <i>Task Manager/Structural Engineer.</i> David oversaw the load rating of the lift span and flanking tower spans through truss main members, gusset plates, floor systems, and the generation of demand-capacity ratios for the tower truss members. This included report production and coordination of quality reviews. David also designed the aerial cable system , including evaluating ice-on-cable and wind loads per ASCE guidelines, producing demand and capacity calculations, and preparing detailed design plans.
06/17-03/18	CSX Transportation, Bayou Sara Swing Bridge Replacement Mobile, AL. <i>Project Engineer.</i> David was the Engineer-of-Record and was in responsible charge of designing the replacement of the two-track, through-girder swing bridge . The new bridge design features a metalized through-girder superstructure with a gantry-mounted operating machinery house, conventional center bearing with hydraulic operating machinery, and an automated control system. During construction, David designed a center pier steel skid (in lieu of the originally designed reinforced concrete cap) to reduce track downtime during the replacement procedure from the originally allotted 40-hour track outage to 14 hours. David also oversaw the on-site float-in procedure.
12/16-05/17	CSX Transportation, Spottsville (Green River) Draw Bridge Rehabilitation Spottsville, KY. <i>Structural Engineer-of-Record.</i> The project consisted of rehabilitation of a single-track rail through-truss (260-foot) swing and (153-foot) approach span bearings and supports, including pivot bearing restoration and reinstallation, as well as rest pier bearing reinstallation and structural pier cap rehabilitation. David developed final design plans and estimates. He coordinated the jacking of the superstructure on the pivot and rest piers, prepared a fully detailed structural steel end-floor beam strengthening design , staged the demolition and rehabilitation of the reinforced concrete cap, and provided detailed designs for the associated temporary work platforms.
09/14-04/15	New York City DOT, Unionport Bridge New York, NY. <i>Lead Structural Engineer.</i> This project replaced a double-leaf bascule span with twin single-leaf bascule spans. David designed the bascule span , comprising a half-filled grid deck, roadway (joint, barrier, walkway, etc.) details, steel stringers, floor beams, and bascule girders.
02/13-08/14	City of Victoria, Johnson Street Bridge Replacement Victoria, BC. <i>Structural Engineer.</i> This project consisted of the design for an architecture-driven roller-nest bearing bascule span. David produced a detailed 3D structural analysis model to produce all structural and mechanical component design forces for all load combinations, including seismic effects from detailed time-history analysis. David then designed the structural 'roller' ring and its supporting roller-nest frames, seismic 'fuse' tail lock, counterweight details, rest pier bearing, drilled shaft foundations (including seismic detailing), end floor beam, shared-use path support outriggers, and counterweight/balance.
05/12-08/12	MassDOT, Fore River Bridge Design Quincy, MA. <i>Lead Structural Engineer.</i> This project required an accelerated preliminary design of a vertical-lift bridge in a design-build tender package. David designed and detailed the vertical-lift span , a 324-foot-long, 77-foot-wide through-truss composed of gusset-plate-connected steel box members.
11/05-03/07	DIT South Australia via AbiGroup, Port River Expressway Adelaide, SA, Australia. <i>Structural Engineer.</i> This project was for the design of two bascule bridges, one railway and one vehicular, under a design-build delivery arrangement. David prepared the detailed design of bascule plate girders, trunnion towers, and counterweights per (LRFD-based) Australian Standard Specifications AS5100. Additionally, David performed multiple bascule balance and inventory calculations, as well as a range of construction support review and calculation services.
02/05-08/05	New York City DOT, Willis Avenue Bridge New York, NY. <i>Structural Engineer.</i> In the replacement of a major \$620M Harlem River crossing, including a 345-foot-long swing span and 3,000 feet of highway approaches, David designed and detailed the swing-span through-truss . He also provided shop drawing review for truss members and assembly, and other structural steel elements (curved tub girder and I-girder).

Firm employed by HDR Engineering, Inc.				
Name	Gregory Kochersperger, PE		Years of relevant experience with this employer	21
Title	Area Project Delivery Lead		Years of relevant experience with other employer(s)	4
Degree(s) / Years / Specialization		BS / 2000 / Architectural Engineering		
Active registration number / state / expiration date		PE. 94869 / TX / 09-30-2026		
Year registered	2004	Discipline	Structural Engineering	
Contract role(s) / brief description of responsibilities		Structural support / Assess bridge conditions, plan repairs, verify safety compliance, collaborate with engineers.		
Gregory's bridge design experience includes numerous over and underpass bridges, railroad bridges, light rail transit structures, stream and river crossings, and major interchanges. He has performed bridge designs comprising steel and concrete and is fluent in the design of precast and post-tensioned concrete structures, long-span steel bridges, including truss bridges, as well as curved steel I-girders and box girders. His recent experience has been focused on the rehabilitation and preservation of existing concrete and steel structures.				
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).			
05/20-04/21	TxDOT Bridge Division, JFK Causeway over Gulf Coast Intracoastal Waterway Rehabilitation Corpus Christi, TX. Project Manager. Greg coordinated the logistics for two field teams for three weeks, including working with the USCG. He led the development of an extensive condition assessment report that included recommendations for concrete repairs and the installation of a cathodic protection system. He then led the development of the PS&E, which included bridge repair details, traffic control plans, cathodic protection details, and environmental commitments.			
10/24-08/25	TxDOT Dallas, IH 30/IH 35E Condition Assessments Dallas, TX. Project Manager. Greg led the condition assessments of IH 30 eastbound and westbound over White Rock Creek and IH 35E over Turtle Creek. The bridges were each over 1,000 feet long, crossing multiple roadways in addition to the namesake creek. Greg coordinated lane closures with the city and TxDOT to gain access for the inspections and utilized a combination of conventional methods, infrared deck scans, and an under-deck unmanned aerial vehicle to gather data on the two very congested urban interstate bridges. He led the development of comprehensive reports documenting deficiencies and providing repair recommendations with cost estimates. The field notes and photo documentation were organized, compiled, and provided to the District to complete the repair plans. They were very pleased with the thorough level of documentation			
04/23-06/25	TxDOT Abilene, District Wide Bridge Maintenance Various Counties, TX. Project Manager and Bridge Rehabilitation Task Lead. Greg developed a comprehensive plan to help the Abilene District eliminate as many outstanding follow-up action items (FUAs) as possible over a multi-year funding cycle. Greg took the District's complete list of FUAs and used his experience to develop gut-level, order-of-magnitude estimates for the repair work based solely on the descriptions and limited inspection reports. He used these estimates to identify the “low-hanging fruit” and prioritize repairs that could be completed on the district's fixed annual budget. He then performed condition assessments of over 50 priority bridges to confirm the repair locations and quantities, and finalized his recommendations. He then developed individual bridge packages, grouped by Area Office within the district, over the course of four fiscal years. In addition to the bridge repairs, Greg developed traffic control plans, railroad exhibits, and SWP3 for each package. The first two packages bid successfully within 5% of Greg's estimate and within the District's budget. The third and fourth packages will bid in the fall of 2025. Through his programmatic approach, Greg helped the district eliminate more than 60 FUAs.			
10/21-09/23	TxDOT Dallas, IH 345 Rehabilitation Dallas, TX. Project Manager / Bridge Rehabilitation Task Leader. Greg led the condition assessment and rehabilitation of 18 structures comprising the IH 345 corridor and the IH 30 Interchange in downtown Dallas. He coordinated with the city, TxDOT, and Dallas Area Rapid Transit to gain access to critical areas of the bridge for inspection, using a combination of under-bridge inspection vehicles and manlifts. Greg and his team developed thorough field notes that served as the basis for the repair plans. Greg led the development of repair plans for deck-level and substructure repairs. He also incorporated steel girder repairs developed by another consultant into his plan set and combined the specifications and estimates to provide a unified bid set for contractors. The extensive rehabilitation scope included rail replacements, joint repairs and replacements, poly-ester polymer overlays, concrete			

	substructure repairs, drainage system repairs, and a deck replacement. Greg was responsible for each aspect of the final design plans, including the extensive traffic control plans.
06/16-03/18	TxDOT Abilene, US87 Overpass at UPRR Rehabilitation Big Spring, TX. <i>Project Manager / Bridge Rehabilitation Task Leader.</i> Greg led the coordination and execution of the extension condition assessment of the existing haunched steel plate girder bridge over a busy rail yard. Based on the assessment findings, he developed a repair recommendation report that included full replacement of the existing bridge deck. TxDOT agreed with the recommendation, and Greg developed the full design plans (PS&E) for the rehabilitation, including bridge details, traffic control plans, illumination details, and railroad exhibits.
09/18-03/21	TxDOT Bridge Division, Bastrop, Travis, and Williamson County Bridge Rehabilitations Various Locations, TX. <i>Project Manager.</i> Over the course of two separate work authorizations, Greg led the condition assessment of 19 bridges, followed by the rehabilitation of 14 bridges based on his recommendations. He coordinated logistics for the condition assessments, including varied access techniques and traffic control based on location. He developed four separate PS&E packages, including bridge details, traffic control plans, roadway safety improvements, SW3P, and Environmental sheets.
01/13–06/15	City of Dallas / Dallas Area Rapid Transit, Houston Street Viaduct Rehabilitation Dallas, TX. <i>Bridge Task Lead.</i> Greg led the condition assessment and rehabilitation of this 100-year-old concrete spandrel arch bridge across the Trinity River. Rehabilitation included retrofit for a proposed streetcar line. Greg led the structural analysis work and load rating to demonstrate that the existing bridge could support the proposed load. He developed the details for the extensive rehabilitation of the historic bridge.
06/13–07/18	Trinity Metro, Trinity Rail Express Double Track Fort Worth, TX. <i>Bridge Task Lead.</i> Greg led the bridge design for five separate railroad structures and the rehabilitation of a 153-foot triple-lattice steel truss carrying a commuter rail line over the Trinity River. Greg developed the rehabilitation scoping report and performed load ratings of the existing truss. He developed the rehabilitation details for the truss, including gusset plate repairs, steel member straightening, and full painting plans.

Firm employed by HDR Engineering, Inc.				
Name	Jonathan Kohler, PE		Years of relevant experience with this employer	13
Title	Engineering Project Manager		Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization			BS / 2007 / Electrical Engineering	
Active registration number / state / expiration date			PE. 0039625 / LA / 9-30-2026	
Year registered	2015	Discipline	Electrical and Computer Engineering	
Contract role(s) / brief description of responsibilities			Electrical Support / Assist in the design of the electrical and control system. Coordinate with other disciplines to provide a complete electrical system. (Meets MPR 6)	
Jonathan has 18 years of experience managing, inspecting, designing, and providing emergency response for over 100 movable bridges throughout the United States and Canada, primarily for Class I railroads. He has substantial experience in providing inspections of electrical power distribution and control systems for movable bridges. Jonathan also has experience with emergency services and troubleshooting. He performs emergency services on a routine basis for several bridge owners throughout. In addition to providing inspections and emergency services, Jonathan also performs project management, designs, and construction management for movable bridges. Jonathan is also highly active in the movable bridge industry, currently serving as the Registrar for Heavy Movable Structures (HMS), which is the only movable bridge-focused organization. In addition to his involvement with HMS, Jonathan is the Movable Bridge Subcommittee Chairman for AREMA Committee 15.				
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 time specified in the applicable MPR(s).			
03/22-05/24	BNSF, Mermentau Swing Span Control System Design and CM Mermentau, LA. Project Manager/Engineer of Record in Responsible Charge of Electrical Design. Jonathan designed the new PLC-based control electrical system for this hydraulically operated swing span. The span was previously operated manually, utilizing levers at the hydraulic power unit (HPU). The new control system includes a PLC to provide automatic and manual control of the newly installed solenoid valves on the HPU. The operator interface for controlling the bridge is from an HMI touchscreen located either in the bridge machinery room on the movable span or within the bridge tender house. The new control system will allow BNSF to remotely control the bridge. Jonathan provided construction management services for the installation, testing, and final commissioning of the new control system.			
04/25-Ongoing	Canadian National Railway, St. Charles Air Line Bridge Mechanical and Electrical Inspection Chicago, IL. Project Manager/Engineer of Record in Responsible Charge of Electrical Design. The project consists of the mechanical and electrical rehabilitation of this single-leaf Strauss Bascule. Jonathan is designing the electrical and control systems for the bridge. The new control system will include a main drive motor, variable-frequency drives (VFDs), and a programmable logic controller (PLC). The new control system will also support remote control.			
01/25-Ongoing	Ohio DOT, Craig Memorial Bascule Bridge Rehabilitation Toledo, OH. Engineer of Record in Responsible Charge of Electrical Design. Jonathan is designing a complete electrical system rehabilitation of this double-leaf bascule. The existing power distribution and control systems were installed in the 1970s and are in poor condition. The rehabilitation includes removing the existing power distribution, controls, and lighting systems for the bridge. The new design will include new power distribution equipment, lighting, and controls. The new control system will include a PLC with a relay-type auxiliary system. In addition to the designs, Jonathan performed an alternatives analysis to determine the desired type of control system and submarine cable alternatives.			
04/25-Ongoing	Wisconsin DOT, Bayview Bridge Detailed Inspection Sturgeon Bay, WI. Project Manager and Lead Electrical Engineer. Jonathan is performing an in-depth inspection of the electrical components, including the power distribution and control systems of this double-leaf bascule bridge. During the inspection, the bridge experienced an operational outage due to pack rust affecting the tail locks. The inspection consisted of insulation testing and three-phase voltage and current measurements for the motors. A condition report and recommendations, along with preliminary cost estimates, were provided. This inspection will serve as the basis for future rehabilitation scopes of work.			
11/21-03/22	BNSF Railway, Berwick Vertical Lift Bridge VFD Replacement Morgan City, LA. Project Manager and Lead Electrical Engineer. Jonathan designed the replacement of the existing variable-frequency drives (VFDs) and associated motor encoders for this			

	tower-drive vertical-lift bridge. In addition to the designs, Jonathan provided construction management services for the installation, testing, and final commissioning of the new VFDs.
06/21-02/22	BNSF Railway, Bayou Boeuf Conductor Replacement Amelia, LA. Project Manager and Lead Electrical Engineer. BNSF has been plagued by several operational failures, including conductors failing within conduits on the movable span and terminations becoming loose within electrical enclosures. Jonathan designed and led construction management services to replace the existing conduit and conductor system with armored cable and install vibration dampeners on electrical enclosures to reduce the effects of vibration on the conductors. Jonathan led the design, which included a new submarine cable/droop loop termination cabinet, a droop loop support system, and drive motors. The droop loop design eliminated the need for the flexible cable to be dragged across the concrete pier during bridge operations.
08/13-10/15	BNSF Railway, Bridge 32.06 Over Bayou Des Allemands Des Allemands, LA. Engineer of Record in Responsible Charge of Electrical Design. Jonathan was the engineer of record for the electrical and control designs for this swing-span railroad bridge. Previously, the bridge utilized a diesel motor located on the span for operations. The swing span was replaced, and a new power distribution and control system was installed. Jonathan designed the PLC-based control system to operate the span locally at the bridge or remotely from the control house on the shore. In addition to the design, he also served as resident engineer during construction, overseeing and inspecting the work.
08/20-04/22	BNSF Railway, Ft. Madison Swing Span Ft. Madison, IA. Project Manager and Lead Electrical Engineer. Jonathan designed the replacement of the existing end lift motors for this double-track, double-deck swing span . In addition to the motor replacement, a new armored cable was installed on each motor, along with some control modifications.
10/20-10/25	TxDOT, Movable Bridges Asset Management Orange, TX. Lead Electrical Engineer. Jonathan performed an in-depth inspection of the electrical components, including the power distribution and control systems of this Cow Bayou swing span. The inspections also consisted of insulation testing and three-phase voltage and current measurements for the motors. He also provided the condition report and recommendations with preliminary cost estimates. These inspections serve as the basis for future rehabilitation scopes of work. In addition to the inspection and report, an operations and maintenance manual was created to assist the DOT with maintenance activities.
03/16-02/22	Canadian Pacific Railway, Mississippi River Swing Span (Tomah Bridge 283.40) La Crescent, MN. Project Manager/Lead Electrical Engineer. Jonathan designed and installed several new mechanical and electrical upgrades on this 110+-year-old swing bridge . For this multi-year project, the mechanical design included replacing the existing centering latch, main pinions, rail lift/eccentric motors, and supports, as well as several limit switches throughout the span. Jonathan's electrical design included installing new VFDs and a PLC-based control system. Jonathan performed additional designs provided, including a control design for the end lifts, a new alignment ram, and new rail lifts to assist with bridge alignment, and a new rail lift system. During construction, he also provided on-site testing and commissioning services.
05/20-04/22	Michigan Dept. of Transportation, Houghton-Hancock Vertical Lift Bridge Houghton, MI. Lead Electrical Engineer. Jonathan designed the electrical system, including replacing the existing main and auxiliary motors with inverter-duty motors. Additional electrical designs that Jonathan provided include heat tracing for hydraulic intermediate retractable bearings, replacement of cable reels, re-indexing of bridge-height rotary cam limit switches, updating bridge control schematics, and requirements for modifying the PLC and VFD programming for the new motors.

Firm employed by		HDR Engineering, Inc.	
Name	Carlos Larco, PE	Years of relevant experience with this employer	9
Title	Movable Bridge Electrical Lead	Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization		BS / 2015 / Electrical Engineering	
Active registration number / state / expiration date		PE.0048606 / LA / 9-30-2026	
Year registered	2024	Discipline	Electrical
Contract role(s) / brief description of responsibilities		Electrical Support / Assist in the design of the electrical and control system. Coordinate with each discipline to provide a complete electrical system.	
Carlos has over a decade of experience in electrical design, including design specification, inspection, and construction support for mechanical systems for movable 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).		
05/25-Ongoing	LADOTD, Contract 5 for Movable Bridges (6) Lafayette, Calcasieu, Cameron, Saint Martin, & Vermillion Parish, LA. Electrical Team Lead. Carlos led the electrical inspections for the Abbeville Bypass, Old Abbeville, Parks, Milton, Ellender, and West Fork, the six vertical-lift bridges in this contract. He determined deficiencies in the electrical equipment and assisted in developing the in-depth inspection report sections for each bridge.		
8/23-Ongoing	Port of New Orleans, Moveable Bridge Inspection On-call Contract Orleans Parish, LA. Lead Electrical Engineer Inspector. Carlos performed the detailed electrical inspection of Almonaster and Seabrook, both century-old Strauss Bascules stretching down the Inner Harbor Navigational Canal. This inspection takes more attention to detail to account for deficiencies that may not be encountered on newer bridges. Carlos has inspected both bascules, including motors, transformers, drive system, controls, power distribution system, traffic control system, operator's house, and lighting.		
06/22-06/23	LADOTD, Statewide In-Depth Complex Bridge Inspections Saint Tammany & Livingston Parish, LA. Electrical Inspector. Carlos performed detailed electrical inspections of the Tchefuncte River, Bayou Bonfouca, and Bayou Liberty electrical systems and provided findings and recommendation reports. Elements inspected included motors, transformers, drive systems, controls, power distribution systems, traffic control systems, the operator's house, and lighting.		
09/20-04/21	TxDOT Bridge Division, Movable Bridges Asset Maintenance Bridge City, TX. Electrical Inspector. Carlos performed an in-depth inspection of the Cow Bayou Swing Bridge. The work involved visual inspection of electrical equipment on the bridge, observation of several operations, interlock testing, and preparation of the inspection report. The report included issues found during the inspection and recommended repairs.		
05/20-04/24	Martin County, Hobe Sound Bascule Bridge Rehabilitation Martin County, FL. Electrical Designer. Carlos provided scoping and assessment reports, electrical and control systems rehabilitation design plans, calculations, specifications, cost estimates, and construction inspection reporting. The work includes total control system replacement, flux vector drive installation, submarine cable replacement, and electrical system rehabilitation.		
12/18-Ongoing	CSX Transportation, Movable Bridge On-call Engineering Services (Lift Bridges) Various Locations, AL, SC, and TN. Electrical Designer. Carlos is preparing scoping and assessment reports, electrical and control systems rehabilitation design plans, calculations, specifications, cost estimates, and construction inspection reporting for Mobile River (AL), Tailrace (SC), New Johnsonville (TN), and Joliet (IL) Vertical Lift Bridges. His work included replacing control systems, power distribution systems, and flux vector drives; implementing remote control; and making miscellaneous electrical system improvements.		

Firm employed by HDR Engineering, Inc.			
over	Daniel Leard, RPA		Years of relevant experience with this employer
Title	Louisiana Gulf Coast Archaeology Team Lead		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		MA / 2004 / Anthropology with an Archaeology Specialization BA / 2001 / Anthropology	
Active registration number / state / expiration date		No. 28576943 / US / N/A	
Year registered	2014	Discipline	Registered Professional Archaeologist
Contract role(s) / brief description of responsibilities		Cultural/Historic Architecture / Archaeological surveys (Meets MPR 12)	
Daniel has 21 years of experience in cultural resource management, covering surveys, site testing, data recovery, lab analysis, monitoring, and technical reporting for archaeological projects. Notable work includes excavations at a late Bronze Age cemetery in Jordan, the Lospe prehistoric village site in California, and colonial-period sites in New Orleans, providing Section 106 support for the MC 252 Oil Spill Response, and surveying over 100,000 acres at New Mexico's White Sands Missile Range. He holds a master's degree in Anthropology with a specialization in archaeology. His thesis, entitled "Ideology and Social Complexity in the Peruvian Highlands During the Chavín Horizon," compared burial data from different archaeological sites to understand regional cultural developments. Daniel has completed the National Preservation Institute's Section 106 training (The Basics for Planners, Project Managers, and Developers) and meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology and Archaeologist Qualifications as published in the Louisiana Register on April 20, 1994.			
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).		
01/26–Ongoing	Entergy Services, Babel to Webre Transmission Line Project Various Locations, LA. Principal Investigator. Daniel is currently leading a crew of archaeologists and historians for a cultural resources survey of a proposed 160-mile transmission line across central Louisiana. The project requires a Section 404 permit with USACE, which is subject to Section 106 of the NHPA. Fieldwork included systematic shovel testing, deep auger testing, and architectural survey. Daniel conducted background research, directed field efforts, coordinated with agencies, and prepared reports.		
03/24–04/25	Sempra Energy, Texas Connector Pipeline Amendment Project Jefferson and Orange Counties, TX. Principal Investigator. Daniel managed a crew of archaeologists and historians for a cultural resources survey of 39.3 miles of proposed pipeline, access routes, and associated facilities totaling approximately 1,910 acres. The project was overseen by the FERC and was subject to Section 106 of the NHPA. Fieldwork included systematic shovel testing and architectural survey. Daniel completed background research, directed the field efforts, managed agency coordination, prepared technical reports, and provided significance evaluations and NRHP eligibility recommendations for archaeological resources identified during the survey. As a result, sections of the pipeline were rerouted to avoid impacts to significant cultural resources.		
01/25–04/25	Orsted P2X US Holding LLC, Orsted Star Project Baytown, TX. Principal Investigator. Daniel managed the cultural resources survey for the proposed Star e-Methanol facilities totaling 95 acres. The project was overseen by the DOE Office of Clean Energy Demonstrations and was completed in compliance with Section 106 of the NHPA. Daniel also managed an archaeological survey of the APE and a historic architecture survey of the visual-range APE.		
09/22–09/23	Alaska DOT, Sterling Highway MP 45 to 60 Squilantnu Data Recovery Project Kenai County, AK. Field Director. Daniel provided Section 106 support for a highway realignment project with the Alaska DOT within lands managed by the USFS and the State of Alaska. Fieldwork included systematic testing and excavation at a series of known habitation sites within the Sqilantnu Archaeological District on the Kenai Peninsula. Daniel provided field management for data recovery excavations of a prehistoric house pit and storage pit features.		
05/23–06/23	Department of the Air Force, Columbus Air Force Base T-7A Recapitalization Project Lowndes County, MS. Principal Investigator. Daniel completed a survey of 37 acres on Columbus AFB in support of Section 106 for proposed construction. Fieldwork included systematic shovel testing in accordance with the Mississippi Standards for Archaeological Practice. Daniel conducted background research, directed field efforts, managed report preparation, and evaluated the project's impact on cultural resources.		
09/21–02/24	Sentinel Test Program, Vandenberg Space Force Base (VSFB) Lompoc, CA. Field Director. In cooperation with Space Launch Delta 30, U.S. Space Force, VSFB, and the U.S. Air Force Nuclear Weapons Center, Daniel provided Section 106 support for modifications to		

	existing infrastructure at VSFB at two existing Minutemen launch facilities as part of the Sentinel Test Program. Daniel oversaw data recovery investigations at CA-SBA-512, the ethnohistoric Chumash Village of Lospe, and CA-SBA-760. Data recovery included excavation-unit sampling of shell midden features, laboratory analysis of lithic and faunal artifacts and botanical samples, collection of samples for radiocarbon dating, and report preparation.
10/20–06/22	San Diego Gas and Electric (SDG&E), ETS 42129: Cameron Corners Wildfire Mitigation Plan Due Diligence Project Cameron Corners, CA. <i>Principal Investigator.</i> Daniel supported the SDG&E for the planned construction of the Cameron Corners microgrid. He led field surveys, monitoring, site testing, technical report preparation, implementation of an archaeological data recovery plan and monitoring and discovery plan, and attended planning and tribal consultation meetings. Site testing and data recovery were completed for each archaeological site identified within the project area to evaluate significance and assess the project's impacts on cultural resources.
02/16–07/16	Federal Highway Administration (FHWA) Central Federal Lands Highway Division, El Camino Real del Adentro National Historic Trail Santa Fe County, NM. <i>Principal Investigator.</i> Daniel completed a cultural resources survey of a proposed recreational trail retracing portions of the historic El Camino Real across BLM and National Forest Service land. The survey identified and evaluated significant historic and prehistoric resources along the proposed trail. As a result, Daniel made informed recommendations to the client and the government agencies on the use of and alterations to the trail.
12/14–02/15	USACE - Tulsa District, Biological and Cultural Site Program, White Sands Missile Range Otero Maneuver Area Archaeological Site Testing Otero County, NM. <i>Field Director.</i> Daniel managed data recovery excavations at 20 selected sites recorded during the Otero Maneuver Area cultural survey. Archaeological test units were excavated at hearths and other cultural feature locations. HDR systematically collected artifacts and faunal remains for further analysis, collected soil and charcoal samples for flotation analysis and radiocarbon dating, and collected ceramics for rim sherd index tests, clay and temper studies, and other testing.
11/12–02/14	USACE Tulsa, White Sands Missile Range (WSMR), Sierra, Otero, and Thurgood Maneuver Areas Cultural and Natural Survey WSMR, NM. <i>Field Director.</i> Daniel completed cultural resources surveys and site evaluations for over 100,000 acres on White Sands Missile Range. Daniel managed a team of 20 archaeologists that identified, recorded, and evaluated 607 archaeological sites. The study required biological surveys, cultural surveys, site protection markings, and boundary markers in three maneuver areas on the North Range of WSMR for the Army Test and Evaluation Command.
06/10–03/13	BP Exploration, MC252 Oil Spill Response, Gulf Coast Incident Management Team LA, MS, AL, and FL. <i>Archaeological Crew Chief.</i> Daniel provided field management of cultural resources across the four-state area of response. He provided field coordination, research, report preparation, shoreline treatment recommendation review, archaeological survey, QA/QC, and coordination with federal, state, tribal, and BP officials on compliance with the Section 106 process. Daniel was part of a team that identified and recorded every archaeological site along the shores of Louisiana, Mississippi, Alabama, and Florida that could be affected by oil. He recommended protective measures for cultural resources, provided support for cultural resources, and conducted monitoring during project-related activities. Daniel produced technical reports that provided significance evaluations and NRHP eligibility recommendations for numerous cultural resources documented during the field surveys.

Firm employed by HDR Engineering, Inc.				
Name	Daniel Marsalone, PE		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			BS / 1994 / Civil Engineering	
Active registration number / state / expiration date			PE.0028554 / LA / 09-30-2027	
Year registered	1999	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			Structural Support / Evaluate and document the condition of bridges to verify safety, structural integrity, and compliance with design and regulatory standards	
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 concepting, 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.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
10/25-Ongoing	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 routine inspection (at the east bank westbound approach). Daniel also determined the cause of the pier damage near the bearings, providing alternative designs to rehabilitate the pier and bearings for bridge preservation, and producing 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. <i>Lead Bridge Engineer / Project Manager / Engineer of Record.</i> 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. <i>Lead Bridge Engineer / Project Manager / Engineer of Record.</i> 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. <i>Lead Bridge Engineer / Project Manager / Engineer of Record.</i> 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. <i>Lead Bridge Engineer / Project Manager / Engineer of Record.</i> 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. <i>Lead Bridge Engineer / Project Manager / Engineer of Record.</i> 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. <i>Bridge Engineer.</i> 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.

Firm employed by HDR Engineering, Inc.				
Name	Matt McGuire, PE		Years of relevant experience with this employer	22
Title	Movable Bridge Program Manager		Years of relevant experience with other employer(s)	4
Degree(s) / Years / Specialization			MBA / 2007 / Business Administration BS / 2000 / Mechanical Engineering	
Active registration number / state / expiration date			PE.0043785 / LA / 03-31-2028	
Year registered	2019	Discipline	Mechanical Engineering	
Contract role(s) / brief description of responsibilities			Mechanical Lead / confirm mechanical systems meet quality standards and are designed for practical construction and performance (Meets MPR 5)	
Matt has extensive experience in the design, inspection, emergency troubleshooting, and construction of mechanical, electrical, and structural systems. This includes experience with highway, railway, and infrastructure systems, including movable bridges, travelers, transfer bridges, and tunnels. Matt's experience also includes inspecting over 100 movable bridges, and he is a National Certified Tunnel Inspector (NCTI). He is an industry-recognized leader, active in the Heavy Movable Structures organization, and the Technical Committee Chairman for Machinery and Mechanisms. He has also authored the FHWA Specification for the National Tunnel Inventory (SNTI), classes for certifying tunnel inspectors (NHI 130110 and 130125), and is a certified NHI instructor.				
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
10/25-12/25	LADOTD, Contract 5 for Movable Bridges (6) Vermillion, Lafayette, St. Martin, and Calcasieu Parishes, LA. Mechanical QC. Matt reviewed the mechanical portions of the condition assessment report for the Parks Bridge, H.013819- Recall No. 008700, and provided comments on the report. He reviewed the report text for compliance with the scope of work, clarity, and uniform documentation of the conditions witnessed, including qualitative and quantitative assessments of defects. The comment resolution process and back-check of revisions were collaboratively performed by Matt with the original report authors prior to the final submission of the report.			
07/19-04/20	Canadian Pacific Railroad (CP), Sabula Swing Span Operating Machinery Rehabilitation (CP474) Sabula, IA. Project Manager and Lead Mechanical Engineer. Matt was the engineer of record and was in responsible charge of the mechanical design. He designed the complete rehabilitation of the turning machinery for the swing span over the Mississippi River. Mechanical scope for the machinery included replacement or refurbishment of the turning machinery gears, shafts, and bearings, along with the replacement of the motor brakes and position limit switches for the movement of the span. Matt integrated the coordination of motor and brake remounting with the new limit switches into the control system he replaced during a previous HDR design task. He also performed the commissioning and interlock test of the full system from the operator's house. Matt developed plans and specifications for the project and provided construction support in the review of RFIs and submittals.			
01/18-12/18	Canadian Pacific Railroad, Truman Bridge Span Lock Machinery Replacement (CP169) Kansas City, MO. Project Manager and Lead Mechanical Engineer. Matt was the engineer of record and was in responsible charge of the mechanical design. He designed the replacement for the span lock machinery on the span-driven vertical lift bridge over the Missouri River. The use of a portable hydraulic power unit and a hydraulic cylinder replaced the unreliable mechanical linear actuators used to drive the lock bars. Matt developed plans and component selections for the design, and the CP maintenance staff procured and installed the replacement machinery. The hydraulic operating system is a manual system and requires the bridge tender to operate the machinery from the location of the span lock to confirm the proper state of pulled or driven, to avoid misoperation.			
06/14-10/17	Union Pacific Railroad (UP), Steel Bridge Electrical Rehabilitation Portland, OR Project Manager and Lead Mechanical Engineer. Matt was the mechanical engineer of record and was in responsible charge of the mechanical design of this two-deck telescoping vertical lift bridge. He designed the mounting for the new electrical limit switches, thrustor brakes, and span lock motor. He also designed the revisions for the machinery brakes. He also delivered the contract documents to UP in the form of plans, specifications, and a construction cost estimate			
08/15-09/21	Multnomah County, Burnside Bridge Rehabilitation Multnomah County, OR Lead Mechanical Engineer. Matt was the mechanical engineer of record and was in responsible charge of the mechanical design. He designed the span lock rehabilitation and field device mounting for the PLC and drive replacement. The Burnside Bridge Rehabilitation project was intended to address repairs and rehabilitation to the double-leaf Strauss bascule bridge for a 15-year lifespan. The design work included sorting and filtering down the			

Prime consultant name: HDR Engineering, Inc.

	rehabilitation work to a \$35M budget to address civil, structural, mechanical, and electrical work needs for the bridge. During the process, Matt performed an analysis to determine the appropriate level of seismic treatment for the rehabilitation design. Matt provided contract documents for bid in the form of plans, specifications, and construction cost estimates as part of the design services. He also provided construction support for responses to RFI's and submittal review.
04/07-12/08	NYSDOT, Replacement of the Ingersoll Street Lift Bridge Over the Erie Canal Monroe County, NY. Mechanical Engineer. Matt designed the rehabilitation of the operating machinery and counterweight machinery for this towerless vertical-lift bridge. The project work included the complete replacement of machinery components and structural repairs to the span, counterweight, and operating machinery pits. Mechanical plumbing and electrical work were performed in the operator's house . Contract documents for the bid, including plans, specifications, and construction cost estimates, were provided as part of the design services. Matt also provided construction support services, including shop and site inspections of the new machinery.
04/07-12/08	NYSDOT, Replacement of the Washington Street Lift Bridge Over the Erie Canal Monroe County, NY. Mechanical Engineer. Matt designed the rehabilitation of the operating machinery and counterweight machinery for this towerless vertical-lift bridge. The project work included the complete replacement of machinery components and structural repairs to the span, counterweight, and operating machinery pits. Mechanical plumbing and electrical work were performed in the operator's house . Contract documents for the bid, including plans, specifications, and construction cost estimates, were provided as part of the design services. Matt also provided construction support services, including shop and site inspections of the new machinery.
12/13-06/20	San Joaquin County, Rehabilitation of the 8-mile Bridge over Honker Cut San Joaquin County, CA. Lead Mechanical Engineer. Matt performed the rope access and mechanical inspection of the swing span, and then developed design concepts for balancing the bridge during construction staging. During design development, Matt was the mechanical engineer of record in responsible charge of developing the span balance plan sheet and performing the design calculations for the adjustments. The Eight Mile Road Bridge over Honker Cut is a swing span bridge in need of a deck replacement. HDR's scope was to perform an inspection of the bridge and develop alternatives for the replacement of the deck, while maintaining a certain level of roadway and marine traffic through the bridge. The project proceeded with the preferred alternative, and Matt developed contract documents for bid in the form of plans and specifications.
01/24-Onhoing	BNSF, Bridge 37.0 Mechanical and Electrical Rehabilitation Everett, WA Project Manager and Lead Mechanical Engineer. Matt is the mechanical engineer of record and is in responsible charge of the mechanical design. He designed the overall mechanical system for the project and specifically worked on the mechanical mounting of the limit switches. The project was the electrical controls rehabilitation of the swing span over the Snohomish River. New turning machinery motors, motor drives, a programmable logic controller (PLC), and electrical limit switches were provided. The design utilized limited railroad closure windows and staging to install the new equipment and remove the existing after commissioning and testing of the new equipment in the operator's house . The project has currently developed plans, a bid sheet, and a project manual to the 30% design milestone.
02/23-Ongoing	BNSF, Bridge 38.3 Mechanical and Electrical Rehabilitation, Marysville, WA Project Manager and Lead Mechanical Engineer. Matt is the mechanical engineer of record and in responsible charge of the mechanical design. He designed the overall mechanical system for the project and specifically worked on the mechanical mounting for the limit switches. The project was the electrical controls and machinery rehabilitation of the swing span over the Ebey Slough. New turning-machinery motors, end-lift motors, motor drives, programmable logic controller (PLC), and electrical limit switches were provided. The design utilized limited railroad closure windows and staging to install the new equipment and remove the existing after commissioning and testing of the new equipment in the operator's house . The project has currently developed plans, a bid sheet, and a project manual to the 30% design milestone.
10/14-05/15	Port of Hood River, Port of Hood River On-Call Multiple Task Orders Hood River, OR. Movable Bridge Lead. Matt was in charge of reporting, including tabulating and reviewing previous deficiencies, preparing project summaries for potential future projects, and developing a projected spending plan for the movable span. He was also the mechanical engineer of record and in responsible charge of the mechanical design. He designed replacement span guides for the vertical-lift span as part of emergency repairs following misoperation. Matt also performed a rope-access inspection of the bridge wire ropes and documented problems with the control system interlocks. As a follow-up to the inspection, HDR helped plan the future work on the tower-driven vertical lift bridge . Matt authored several reports to support budgetary planning for the bridge's future. His recommendations include repairing the bridge's electrical systems at the operator's house and implementing a predictive/preventive maintenance program for the bridge.

Firm employed by HDR Engineering, Inc.				
Name	Philip Monticciolo, PE		Years of relevant experience with this employer	13
Title	Senior Structural Engineer		Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization		ME / 2012 / Structural Engineering BS / 2012 / Civil Engineering		
Active registration number / state / expiration date		24GE05642400 / NJ / 04-30-2028		
Year registered	2020	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities		Structural support / assist with the design and analysis of the structural components and integration with the mechanical and electrical systems		
Philip has a strong background in bridge design, scoping inspections, and developing bridge plans and specifications. Philip has successfully delivered projects for various clients, including NJDOT, NJ Transit, CN Railway, TxDOT, SCDOT, and FDOT.				
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-Ongoing	South Carolina Department of Transportation (SCDOT), Old Ashley River Bascule Span Replacement Charleston, SC. Structural Engineer. Philip is preparing the design and detailing of the structural components of the movable span and bascule pier. He is coordinating with the mechanical and electrical disciplines and assisting in determining solutions and options for the complex staging effort for the bascule span replacement.			
12/24-Ongoing	New Jersey (NJ) Transit, Movable Bridge Inspections Statewide, NJ. Bridge Inspection Team Lead. The project consists of five movable bridge inspections on NJ Transit's Atlantic City Line, North Jersey Coast Line, and Princeton Line. The bridges consisted of two rolling-lift bascule bridges, two movable swing-span bridges, and one former swing bridge made fixed. Philip led the overall inspections, performed the structural inspections, and coordinated efforts between mechanical and electrical disciplines, subconsultants, the US Coast Guard, and NJ Transit. The structural inspection work consisted of hands-on observation of structural elements at the top of the deck, the underside of the span, and substructure elements, including the movable spans and all approach spans. Philip wrote and reviewed the structural sections of the report for each bridge and performed the load rating calculations.			
09/22-12/23 & 11/26-Ongoing	NJ Transit, Fixed Bridge Inspections Statewide, NJ. Structural Inspection Lead. The project consisted of two cycles of numerous fixed bridge inspections on NJ Transit's Boonton Line, Main Line, Montclair Line, Raritan Valley Line, and North Jersey Coast Line. The structural inspection work consisted of hands-on observation of structural elements at the top of the deck, the underside of the span, and the substructure elements. Philip led one of the structural inspection teams and coordinated efforts with subconsultants and NJ Transit. Philip wrote and reviewed the structural sections of the report for each bridge.			
10/21-04/26	Canadian National Railway (CN), Black Rock Swing Bridge Rehabilitation Black Rock, NY. Structural Engineer. Philip performed the structural inspection of the swing span and bulkhead and provided repair recommendations in conjunction with a mechanical and electrical rehabilitation effort. He is overseeing structural rehabilitation recommendations, design, and detailing, and providing construction support services.			
08/16–08/17	SCDOT, Movable Bridge Inspections Statewide, SC. Assistant Team Leader. Philip conducted structural inspections of five movable bridges, including bascule spans and truss-swing spans. The structural inspection work consisted of hands-on observation of structural elements at the top of the deck, the underside of the span, and the substructure, including the movable spans and approach spans. The structural inspections were coordinated with the mechanical and electrical inspections and accommodated bridge openings as needed for boat traffic. Philip wrote the structural sections of the report for each bridge.			

Firm employed by HDR Engineering, Inc.				
Name	Michael (James) O'Keefe, PE		Years of relevant experience with this employer	2
Title	Mechanical Engineer, Movable Bridge		Years of relevant experience with other employer(s)	14
Degree(s) / Years / Specialization			BS / 2011 / Mechanical Engineering	
Active registration number / state / expiration date			35103 / SC / 06-30-2028, 0402068567 / VA / 06-30-2028, 061882 / NC / 12-31-2026	
Year registered	2017	Discipline	Mechanical Engineering	
Contract role(s) / brief description of responsibilities			Mechanical Support / design, analyze, and confirm proper integration of mechanical systems and components for structural integrity and operational functionality	
Michael has successfully served clients such as VA DOT, Norfolk Southern Corp., CSX, and SC DOT Headquarters, demonstrating his expertise in designing and implementing complex mechanical systems. With his strong technical background and collaborative approach, Michael excels at working with multidisciplinary teams to deliver innovative solutions that meet clients' needs.				
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-Ongoing	LADOTD, Contract 5 for Movable Bridges (6) Vermillion, Lafayette, St. Martin, and Calcasieu Parishes, LA. Bridge Inspection Team Member. Michael performed mechanical inspections and wrote inspection reports for the Abbeville Bypass over Bayou Vermillion, Milton over Bayou Vermillion, and West Fork (Moss Bluff) over Bayou Calcasieu vertical lift bridges.			
04/25-04/25	CSX Transportation, Movable Bridges Emergency Response Charleston, SC. Mechanical Response Team Member. Michael responded to a mechanical failure on a rolling lift. He was onsite within two hours to diagnose the failure - a failed babit insert for a bearing supporting the bevel gear between the drive motor and the pinion gear, allowing enough backlash for the gearing to not drive the bridge open. Michael worked with onsite contractors to develop a solution and get the rolling lift bridge back in service to CSX within a week.			
05/25-Ongoing	Norfolk Southern Corp, Engineering and Design Services Agreement New Bern, NC. Mechanical Response Team Member. Michael evaluated the auxiliary power unit for the NS bridge to prepare a specification for a direct replacement. He also evaluated the bridge's mechanical elements and prepared a memo for recommended bridge repairs.			
02/24-12/24	VDOT, Movable Bridge Inspections Gloucester, VA. Mechanical Inspector. Michael performed mechanical inspections and wrote inspection reports for the Gwynn's Island Bridge and the Coleman Memorial Bridge. Both bridges are swing-span designs, and the Coleman bridge has multiple movable spans hydraulically driven. The inspections included in-depth gear-tooth measurements, general machinery inspections, and secondary inspections of components such as generators and traffic gates.			
12/24-Ongoing	Norfolk Southern Corp, Sandusky Bridge Track & Tread Replacement Danbury, OH. Mechanical Engineer. Michael prepared the design drawing package for a rolling lift bridge track and tread replacement, including mechanical sheets, outage plan, and budget estimate.			
06/26-Ongoing	VDOT, John B. Whealton Memorial Bridge Span Drive Rehab Chincoteague, VA. Mechanical Engineer. Michael created a design and performed calculations and FEA for a new auxiliary span drive mount to relocate the gear motor, which was causing substantial deformation of the floor beam it was previously mounted to.			
11/23-Ongoing	SCDOT, Bridge Inspection Contract Columbia, SC. Bridge Inspection Team Lead. Michael performs inspections in District 1 of the South Carolina Department of Transportation's State Bridge Map. He has passed the NHWA/NHI Bridge Inspection Training and is registered with SCDOT as a Bridge Inspection Team Lead.			

Firm employed by HDR Engineering, Inc.				
Name	Erin O'Malley, PE (SPRAT 3)		Years of relevant experience with this employer	15
Title	Senior Bridge Engineer		Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization		MS / 2010 / Structural Engineering BS / 2008 / Architectural Engineering		
Active registration number / state / expiration date		PE.0043899 / LA / 03-31-2028		
Year registered	2019	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities		Structural Support / Coordination and oversight of rope access inspection teams		
Training: 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, No. 131089 Expires: 02/02/2027				
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) Vermillion, Lafayette, St. Martin, and Calcasieu Parishes, LA. <i>Bridge Inspection Team Leader.</i> 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. <i>Bridge Inspection/Rope Access Site Supervisor.</i> Erin performed rope-access inspections of lifting towers, floor systems, and truss members where other access methods were not practical 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. <i>Bridge Inspection Team Leader.</i> 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	TxDOT, Movable Bridges Asset Maintenance Rio Hondo, TX. <i>Bridge Inspection/Rope Access Site Supervisor.</i> 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 and 07/24-Ongoing	TxDOT, Non-Redundant Steel Tension Members (NSTM) (formerly Fracture Critical) and Complex Bridge Inspection Contract Statewide, TX. <i>Bridge Inspection Team Leader.</i> Erin has worked on five full contract cycles since 2012. 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.			

Firm employed by HDR Engineering, Inc.				
Name	Zack Overfield, RPA		Years of relevant experience with this employer	5
Title	Cultural Resources Practice Leader, South Central		Years of relevant experience with other employer(s)	16
Degree(s) / Years / Specialization		MA / 2013 / Anthropology BA / 2011 / Sociology with Anthropology Emphasis		
Active registration number / state / expiration date		RPA 28577359 / US / N/A		
Year registered	2014	Discipline	Cultural Resources	
Contract role(s) / brief description of responsibilities		Cultural/Historic Architecture / Manage cultural resources compliance under Section 106 of the NHPA (Meets MPR 11)		
Zack is a dedicated leader in cultural resources consulting with experience across the southern United States and the Midwest. At HDR, he supervises complex cultural resources investigations for major infrastructure projects. He verifies projects successfully navigate the National Environmental Policy Act, Clean Water Act, National Historic Preservation Act (NHPA), and other applicable federal, state, and local regulations. Zack manages intensive archaeological and historic resources surveys, cemetery investigations, burial exhumations, evaluative testing, data recovery, alternative mitigation efforts, and historic preservation documentation. He authors and reviews technical reports for regulatory compliance across the continental US and conducts quality control reviews of project data and deliverables. Zack is a registered archaeologist and meets the Secretary of the Interior's Standards and Guidelines for Archaeology. Certifications: Section 106 of the National Historic Preservation Act course				
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).			
05/26 - Ongoing	Brazos River Authority, GFT Engineering, Allens Creek Reservoir, Austin County, TX. Cultural Resources Task Manager/Responsible Charge of NHPA Section 106 Documentation. Zack is managing Section 106 compliance for a major reservoir development in Austin County, Texas, west of Houston. He is overseeing the intensive survey of the approximately 10,000-acre reservoir project. Zack is preparing Texas antiquities permit applications, work plans for federal and state regulatory approval, and technical reports evaluating historic properties.			
05/25–Ongoing	Oklahoma Department of Transportation (ODOT), Cultural Resources IDIQ, Statewide OK. Principal-in-Charge/Responsible Charge of NHPA Section 106 Documentation. Zack is managing Section 106 compliance and confirming archeological and built environment tasks are completed to the client's satisfaction. These projects have primarily consisted of bridge improvements and/or replacement projects. Zack confirms projects are staffed appropriately, client needs are met, and that work is completed in accordance with ODOT specifications for Section 106 compliance. Zack prepared and reviewed cultural resources technical reports involving evaluations of historical significance.			
05/23–05/25	Sempra, Louisiana Connector Pipeline, Cameron, Calcasieu, and Beauregard Parishes, LA. Project Manager/Responsible Charge of NHPA Section 106 Documentation. Zack managed compliance with the National Historic Preservation Act for a 77-mile natural gas pipeline. Zack supervised field efforts and managed client communications. He handled agency consultation and verified compliance with Section 106 of the NHPA. He also assessed the NRHP significance of an early-20th-century sulfur mining site in Calcasieu Parish. While the site as a whole was eligible, the portion of the site that the project traversed was determined not to be a contributing component of the site's eligibility. Zack prepared the cultural resources technical report for review and approval by the lead federal agency and consulting parties.			
06/21–05/22	Illinois Central Railroad, Bonnet Carré Spillway Bridge Reconstruction Project – Baton Rouge Subdivision at Milepost 431 St. Charles Parish, LA. Principal Investigator. Zack managed compliance with the National Historic Preservation Act and the Louisiana Unmarked Human Burial Sites Preservation Act for the reconstruction of the wooden trestle bridge spanning the Bonnet Carré Spillway. Zack developed the multi-technology survey carried out for the project and led agency coordination for the cultural resources compliance work. He worked with the USACE, SHPO, and the Louisiana Attorney General's office to receive approval on the novel data collection methods. Zack led the successful Section 106 compliance efforts for the client and saved the project over \$700k in estimated excavation costs by implementing the multi-technology remote survey methods. Zack prepared the cultural resources technical report for review and approval by the lead federal agency and consulting parties.			

6/21–Ongoing	Palo Pinto County Municipal Water District 1, Turkey Peak Reservoir, Palo Pinto and Parker Counties, TX. <i>Project Manager/Principal Investigator/Responsible Charge of NHPA Section 106 Documentation.</i> For the eligibility testing component of this project, Zack managed and served as Principal Investigator for the field, lab, and analysis work and co-authored the draft and final reports, assessing potential effects of the project on resources eligible for listing in the National Register of Historic Places and recommending the level of mitigation efforts where warranted. For the current data recovery project phase, Zack serves as project manager, verifying that the work is completed in accordance with the schedule. Zack also supports the senior archaeologists in verifying compliance with Section 106 and the Antiquities Code of Texas. Zack is leading advanced technological applications, including photogrammetry, and coordinating LiDAR data acquisition with the geospatial data acquisition team.
07/15–10/17	Bayou Bridge Pipeline LLC, Bayou Bridge Pipeline Project Multiple Counties, LA. <i>Principal Investigator.</i> Zack completed a cultural resources field investigation for a 162-mile crude oil pipeline across southern Louisiana, documenting 27 archaeological sites and four historic structures and their associated outbuildings. He supervised each aspect of the Phase I cultural resources survey and agency consultation under the Clean Water Act and NHPA. Zack prepared the cultural resources technical report for review and approval by the lead federal agency and consulting parties.
01/17–10/17	Gulf South Pipeline Company LP, Westlake Expansion Project Calcasieu Parish, LA. <i>Principal Investigator.</i> Zack completed a cultural resources investigation for the approximately 42-acre Westlake Compressor Station. He documented one historic archaeological site that included two historic buildings determined to be the remains of the Krause and Managan Houston River Road Mill. The project design was modified through consultation with the Louisiana Division of Archaeology to avoid direct and indirect effects on the historic site. Zack prepared the cultural resources technical report for review and approval by the lead federal agency and consulting parties.
01/16–12/16	Hatch Mott MacDonald, American Midstream, Midla Natchez Line Multiple Counties, LA and Natchez County, MS. <i>Project Manager/Principal Investigator.</i> Zack completed a cultural resources field investigation for a 50-mile FERC natural gas pipeline. He supervised each aspect of the Phase I cultural resources survey, agency consultation, and the completion of Resource Report 4. The investigation assessed two newly recorded archaeological sites, one site revisit, and one historical resource. Zack prepared the cultural resources technical report for review and approval by the lead federal agency and consulting parties.
12/13–12/14	Hatch Mott Macdonald, Midla Abandonment, Multiple Parishes, LA. <i>Project Archaeologist.</i> Zack supervised field investigations at select pipeline abandonment sites throughout eastern Louisiana to support FERC and NHPA compliance. The investigation resulted in a revisit to site 16RI307, which consists of an Early Woodland to potentially Mississippian-period occupation. The survey recovered Tchefuncte pottery, faunal remains, including bone tools, and lithic debitage. Zack prepared the cultural resources technical report for review and approval by the lead federal agency and consulting parties.
10/12–08/13	CPRA, Mid-Barataria Sediment Diversion Channel, Plaquemines Parish, LA. <i>Historical Archaeologist.</i> Zack led the cemetery identification and served as the historical archaeologist for the large-scale survey of the planned diversion channel, which focused on documenting and archaeological testing a late-eighteenth- to early-nineteenth-century French colonial plantation. He completed historic artifact analysis for the project, including the identification and analysis of several hundred artifacts related to the enslaved persons on the plantation recovered from the former site of their quarters. Zack completed the historical artifact analysis and wrote the historical artifact analysis section of the cultural resources technical report.

Firm employed by HDR Engineering, Inc.				
Name	Steven Pierce, PE (SPRAT II)		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			2026 / CA / 09-30-2026	
Year registered	2022	Discipline	Metallurgy	
Contract role(s) / brief description of responsibilities			Protective Coatings Specialist / AMPP CP1 Coatings Inspector	
Steven is a NACE-certified engineer who 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, Contract 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 Paint 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, KA. 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 to complete the work.			
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.			

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		BS / 2012 / Environmental & Sustainable Resources BS / 2008 / Business Management		
Active registration number / state / expiration date		Professional Wetland Scientist, No. 3286 / US / Exp. 10/22/30		
Year registered	2020	Discipline	N/A	
Contract role(s) / brief description of responsibilities		Environmental & permitting services / Wetland delineation and threatened and endangered species surveys (Meets MPR 14)		
Amber has 13 years of environmental experience with an emphasis on Federal and State permits, including in-field data collection, and agency coordination in support of bridge replacement and maintenance projects. Her technical areas of expertise include: delineation of waters of the US, USACE navigable waters and waters of the U.S. permit coordination; USACE Section 408 engineering review coordination; parish/city floodplain permit coordination, levee permits from levee boards; Scenic Stream Permits; State coastal use permit coordination; US Coast Guard bridge permit coordination, including advance approvals and exemptions; NEPA documentation; threatened and endangered 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, Louisiana 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).			
09/25 - Ongoing	Norfolk Southern Railroad, NS MP 5.2 Railway Bridge Maintenance Project Orleans Parish, LA. Environmental Task Lead. This project is for railroad bridge maintenance at Mile Post 5.2 in New Orleans, Louisiana. Amber conducted a wetland delineation and habitat assessment (a threatened and endangered species survey) of the project area. She led the preparation of the Joint permit application, for which she now serves as applicant agent. She oversaw the development of the LDWF Natural and Scenic Rivers Permit Application.			
07/23-Ongoing	CSX Transportation, CSX NO&M Gulf Coast Hardening 20 Mile Project, CSX Transportation Orleans Parish, LA. Environmental Task Lead. This project is for a CSX railroad roadbed hardening approximately 20 miles long near New Orleans, Louisiana. The purpose of roadbed hardening is to address the continual erosion of the embankment, which is exacerbated during hurricane conditions. Amber is conducting a wetland delineation and habitat assessment (a threatened and endangered species survey) for the 20-mile project. She also led the preparation of the Joint Permit Application, including a hydrologic modification impact assessment and a needs and justifications analysis. Amber serves as the applicant agent for CSX, assisting with agency coordination, such as hosting a pre-application meeting with the State of Louisiana, the USACE Vicksburg District, and the New Orleans District. She is currently leading permit compliance during the construction of a two-mile segment of the project.			
02/23 - Ongoing	CSX Transportation, LA Railroad Movable Bridge Program Orleans & St. Tammany Parish, LA. Environmental Task Lead. This project provides professional permitting services for power and communication 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 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 the three projects.			
03/21–Ongoing	Illinois Central RR, Baton Rouge Subdivision MP 431 Reconstruction Permitting Project Norco, LA. Environmental Scientist/Project Manager. Amber performed 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 Mile Post 431 on the Baton Rouge Subdivision. She also led the development and submission of a joint permit application, a request for Section 408 review, a request for USCG advance approval and lighting exemption, and a draft Stormwater Pollution Prevention Plan for an 8,000-foot-			

	long railroad bridge replacement project spanning the USACE's Bonnet Carré Spillway, and guided the team in securing authorization under Section 106 for an unmarked Civil War-era burial ground without the need for a costly excavation investigation. Each required authorization was obtained within 11 months of the original joint permit application submittal, and the project is currently under construction, with an expected completion date of December 2026. During this period, Amber and her team are responsible for annual compliance monitoring.
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 Carré Spillway at Mile Post 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, assisted with the documentation needed to support a USCG bridge permit application, and coordinated with the USACE Operations Division throughout project construction. Amber led compliance monitoring during construction, which was completed in May 2022. Amber worked with the Federal and State permitting agencies to close the project out in January 2024
05/13–Ongoing	Union Pacific Railroad (UPRR), Bridge Replacement Program Field and Professional Permitting Services Various Locations in LA, TX, and AR. Environmental Scientist/Project Manager. Amber conducted wetland and stream delineation 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. Amber has also completed vegetation community assessments, habitat mapping, hydrologic evaluations, and permit coordination activities for USACE Nationwide and State of Louisiana Coastal Use Permits, USCG bridge permitting, including requests for advance approval and exemptions, and levee permits, including coordination with the Red River Atchafalaya and Bayou Boeuf Levee District. Amber develops permit application packages and coordinates permitting with State and Federal agencies. Additionally, she tracks permitting efforts for UPRR, from site survey through construction, within a web-based permit tracking system for many bridge replacement projects in the south central and western regions.
05/18–Ongoing	Lafayette Consolidated Government, LCG Drainage Initiative Program Field Services Lafayette Parish, LA. Environmental Scientist/Project Manager. Amber conducts stream and wetland delineations and identifies Waters of the US for drainage laterals proposed for maintenance in the drainage improvement program. In total, Amber has conducted over 40 wetland delineations throughout Lafayette Parish as a result of this program.
05/18–06/26	UPRR, Livonia Yard Project Livonia, LA. Environmental Scientist. Amber led a wetland delineation and identification of Waters of the US in support of the development of a USACE individual permit for a phased capacity improvement project of an existing UPRR yard. Amber also prepared the individual permit application and recent permit modification, led the purchase of mitigation credits, coordinated the permit with the USACE New Orleans District, and led a team that conducted post-construction compliance monitoring.
12/16–02/18	Bayou Lafourche Freshwater District, Railroad Bridge Replacement Project Donaldsonville, LA. Environmental Scientist. Amber conducted a wetland and stream delineation in support of developing a Section 404 Nationwide Permit 14 Pre-Construction Notification to replace a railroad culvert crossing owned by UPRR. She also developed the permit application and coordinated with the USACE New Orleans District.
04/15–04/17	CDM Smith, Port Bienville Railroad Project Hancock County, MS. Environmental Scientist. Amber conducted a wetland delineation and habitat assessment, a type of threatened and endangered species survey, in support of the development of an environmental impact statement for the proposed construction of a new railroad line.

Firm employed by HDR Engineering, Inc.				
Name	Edwin Rydell, PE		Years of relevant experience with this employer	27
Title	Senior Project Manager		Years of relevant experience with other employer(s)	14
Degree(s) / Years / Specialization			BS / 1986 / Civil Engineering,	
Active registration number / state / expiration date			PE.0047343 / Louisiana / Exp. 03-31-2027	
Year registered	2022	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			Roadway Lead / Implement traffic control plans to verify safe/efficient traffic flow on roadways (Meets MPR 8)	
Edwin has extensive experience in transportation engineering, including roadway design, and served for seven years as a Texas Department of Transportation Design Engineer. He is familiar with multiple aspects of roadway design, including horizontal and vertical alignments, traffic control, utility coordination, signing and pavement markings, and specifications. He is proficient in Geopak, Microstation, and OpenRoads.				
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 time specified in the applicable MPR(s).			
11/22–03/23	LADOTD, Bridge Preservation IDIQ – LA 577 at I-20 Repair PS&E Waverly, LA. Roadway Engineer of Record and Traffic Control Plan Lead. Edwin developed the roadway design and TCP plans for both phases of this emergency site inspection to assess the condition of a bridge struck by a truck. HDR completed the Phase 1 design, consisting of a PS&E to open a single traffic lane.			
02/18-12/19	TxDOT Wichita Falls, US 287 NB Little Wichita River Bridge Replacement Clay County, TX. Roadway Task Lead. The project consisted of the phased replacement of two on-system bridges on US 287. Bridge 1 is over the East Fork of the Little Wichita River, replacing a five-span bridge with a phased three-span bridge, and Bridge 2 is over the East Fork of the Little Wichita River. Edwin established the horizontal and vertical alignments for the bridge replacement project and designed the roadway to connect the existing road to the proposed bridge. He also managed the development of the traffic control plan to complete the bridge in phases, allowing one lane of traffic throughout construction.			
11/22-12/23	Port of Corpus Christi Authority, Kay Bailey Hutchison Road Corpus Christi, TX. Roadway/TCP Lead. HDR prepared the design for the Kay Bailey Hutchison Road reconstruction, which led to industrial facilities associated with the Port of Corpus Christi Authority. The existing asphalt roadway will be removed and replaced with a concrete roadway, along with drainage improvements. Edwin prepared the traffic control plan so that a two-course surface treatment would be placed on the adjacent Heavy Haul Road to allow it to be used for traffic control during construction. Edwin designed the roadway and verified that disciplines were working together. Edwin also designed a temporary road adjacent to Kay Bailey to provide industrial traffic with continuous access to the facility during construction.			
06/25 - Ongoing	LADOTD, Bridge Preservation IDIQ – LA 301 over Priest Canal, Jefferson Parish, LA. Roadway Engineer of Record/TCP Plan Lead. Edwin developed the roadway design for the replacement of the bridge over Priest Canal. After reviewing the existing bridge structure and with a small amount of traffic in the area, it was determined to close the existing bridge for replacement. With no other access for residents beyond the bridge, Edwin developed an alignment and design for a one-lane diversion road with traffic signals to maintain access for the residents.			
07/15 – 03/17	Harris County, Louetta Road Design Harris County, TX. Project Manager. Edwin designed the roadway (a four-lane boulevard section). The design included roadway, drainage, detention, striping, and environmental. He also assisted with the construction administration.			
07/22-11/24	Harris County, Market Street Design Baytown, TX. Project Manager. Edwin prepared the final design for Market Street from Bayway Drive to West Sterling. He completed the design of a one-lane roadway in each direction, four roundabouts, a 12-foot shared-use path, and a five-foot sidewalk. After coordinating with each entity, Edwin also added parking lanes at the high school and a city park.			
02/18-07/20	TxDOT Yoakum, IH 10 West of San Bernard River to East of Crooked Branch Sealy, TX. TCP Task Lead. Edwin designed the traffic control plans for a four-phase project that included a complete freeway reconstruction from four to six lanes and the reconstruction of the frontage road. The TCP maintained the existing number of lanes during construction.			

05/17-10/20	Brazoria County, SH 288 Managed Lanes General Engineering Consultant Brazoria County, TX. TCP Task Lead. HDR was the GEC for the construction of the SH 288 Managed Lanes. Edwin set up the general phasing layout for the entire project. He led team coordination meetings with various designers to establish seamless TCP across sections and achieve a complete TCP for construction.
07/21–03/23	LADOTD, Statewide Complex In-Depth Bridge Inspections – Task Order 4 Statewide LA. Traffic Control Lead. Edwin designed traffic control plans for this project, including inspections of three steel swing-span bridges in Livingston and Tangipahoa Parishes.

Firm employed by		HDR Engineering, Inc.		
Name	Ronald Sanchez, PE		Years of relevant experience with this employer	6
Title	SE Movable Bridge Program Lead		Years of relevant experience with other employer(s)	24
Degree(s) / Years / Specialization			BS / 1995 / Civil Engineering	
Active registration number / state / expiration date			PE.0036556 / LA / 03-31-2028	
Year registered	2011	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			Structural Lead / evaluate the structural integrity of bridges and develop a design to confirm safety, functionality, and compliance with engineering standards (Meets MPR 7)	
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).			
03/25–Ongoing	LADOTD, Contract 5 for Movable Bridges (6) Lafayette, Calcasieu, Cameron, Saint Martin, & Vermillion Parish, LA. Lead Structural. Ronald is leading movable bridge scoping and developing design plans, calculations, and specifications. He also performed quality control of NBIS Inspection Reports.			
04/23-3/25	CSX, Pearl River Pearlton, LA. Project Manager & Engineer of Record. Ronald was in responsible charge of the structural design of the movable bridge. He oversaw delivery for the bridge project, including design of the movable bridge equipment replacement with remote operation capability, machinery repairs, and access improvements (platforms and lighting)			
05/23-03/25	FDOT D4, Sunrise Blvd over the ICWW Fort Lauderdale, FL. Project Manager & Engineer of Record. Ronald was in responsible charge of the structural design of the movable bridge. He oversaw delivery for the bridge project, including movable bridge equipment replacement, replacement of the MSE wall, movable span grid deck with aluminum deck, fender system, and load rating.			
03/20–05/24	Martin County, Hobe Sound Bascule Bridge over the ICWW Martin County, FL. Project Manager & Engineer of Record. Ronald was in responsible charge of the movable bridge structural design. This emergency project developed the contract plans, performed utility coordination, and prepared permits within 140 days. The scope of work included a complete replacement of the electrical system and submarine cable, and the replacement of the live load shoes and bumper blocks.			
02/13–02/15	FDOT, Sunny Isles Blvd Bascule Bridge over ICWW Miami, FL. Engineer of Record. Ronald was in responsible charge of the structural design, and he oversaw the complete movable bridge structural rehabilitation design, which included the Bridge Development Report (BDR) and comprehensive design services required to rehabilitate the twin four-lane Sunny Isles Bridges. He designed deck grating, steel cantilever deck support brackets, and span lock installation procedures.			
03/16–02/19	FDOT, North Causeway Bridge Over ICWW Fort Pierce, FL. Project Manager. Ronald designed the replacement of the SR A1A North Causeway movable bridge. The project included the alignment, segmental bridge superstructure, and substructure design. The superstructure is prestressed concrete beams (FIB-78). The substructure is reinforced concrete supported on a prestressed concrete pile.			
02/12–03/13	Miami Dade County, Port Miami/FEC Railroad Rolling Lift Bridge over Biscayne Bay Miami, FL. Project Engineer. The scope for this fast-track \$6 million DB contract included the rehabilitation of structural and mechanical systems and the replacement of the entire electrical system. This railroad bridge consists of a through girder Hopkins trunnion single-leaf/single-track 152 ft bascule span. Ronald designed the movable bridge, provided calculations, plan preparation, and post-design of the bridge's structural systems.			
08/10-12/12	FDOT, CSX Railroad Rolling Lift Bridge over the New River Broward, FL. Project Engineer. Ronald oversaw complete movable bridge rehabilitation, which included a preliminary PD&E study and final design for the off-line replacement of a single-leaf heavy rail bridge. Ronald designed the bascule and approach piers. Design challenges included vessel impact, deep mudlines, and a narrow construction site.			
06/04-04/10	FDOT, SR 7 NW 5th Street Bascule Bridge Replacement over the Miami River Miami, FL. Project Engineer. Ronald designed the entire new \$50 million double-leaf bascule. His design included the bascule pier and footing consisting of a 30 ft deep cofferdam, 30” sq. prestressed piles for AASHTO LRFD loads, including vessel collision, steel trunnion towers and access platforms, stairs, door, and hatches.			

Firm employed by HDR Engineering, Inc.				
Name	Venkata Sathiraju, PE		Years of relevant experience with this employer	2
Title	Bridge Engineer		Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization		MS / 2019 / Structural Engineering Bachelor of Technology / 2016 / Civil Engineering		
Active registration number / state / expiration date		PE 0048436 / LA / 03-31-2028		
Year registered	2023	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities		Structural Support / evaluate the condition of bridges and determine load-bearing capacity to verify safety and compliance with engineering standards		
Venkata has 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. Certifications - Completed NHI Safety Inspection of In-Service Bridges (including refresher) and S-BRITE Inspecting Steel Bridges for Fatigue.				
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).			
04/25-Ongoing	LADOTD, Contract 5 for Movable Bridges (6) Vermillion, Lafayette, St. Martin and Calcasieu Parishes, LA. Bridge Inspector/Load Rater. Venkata coordinated with district bridge engineers to conduct an in-depth inspection of the six vertical-lift bridges. He was part of the structural inspection team and worked on the submission of in-depth reports. He also signed and stamped the load rating reports for the main span portion of four of these six bridges. These load ratings were performed using AASHTOWare BrR and other internally developed spreadsheets.			
01/25-Ongoing	Port of New Orleans (PONO), Movable Bridge Inspection On-call Contract, Independent Structural Design Review (ISDR), ESB Highway Bridge St. Bernard Parish, LA. Bridge Designer. HDR provided ISDR of the ESB Highway Bridge design. Venkata produced independent calculations to check bridge geometry, prestressed girder designs, and substructure designs based on the 60% and 95% plans. 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-Ongoing	CSX, Rigolets Project Rigolets, LA. Bridge Designer. Venkata designed 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-Ongoing	TxDOT Houston, Pelican Island Bridge Replacement PS&E 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, during which two representative span units were selected to model the prestressed girder portion of the bridge. Using PGSuper software, he analyzed and designed Tx40 and Tx70 girders for those two representative span units. For the abutment design, he used CAP18 software and internally developed spreadsheets to complete the analysis and design.			
06/24-Ongoing	LADOTD, Bridge Preservation 2022 Contract, Bridge Optimization Study Statewide LA. Bridge Designer. 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. He is currently working on a new task order for this project to develop a similar spreadsheet for AASHTO I beams, Quad Beams, and Slab Spans.			
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.			

Prime consultant name: HDR Engineering, Inc.

04/23-06/24	Tennessee Department of Transportation, Complex and Standard Bridge Load Rating Statewide TN. Bridge Load Rater. 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 box beam bridges.
08/23–01/24	Florida Department of Environmental Protection, Lover's Key State Park Rehabilitation Fort Myers, FL. Bridge Designer. Venkata performed load rating checks on the tram bridge in accordance with FDOT Bridge Load Rating Manual guidelines. It is a 725-foot-long bridge with identical 25-foot spans supported by prestressed concrete box beams. He also designed and developed plans for 60% and 90% submissions for the new pedestrian bridge.
12/22-03/23	LADOTD, Rehabilitation of Perry Vertical Lift Bridge Perry, LA. Bridge Designer. 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 designed the approach-span steel beams and deck, performed analyses for tower rehabilitation, and reviewed the lift-span design and load rating for the 60% design submission.
11/22-12/22	Port of New Orleans, Inner Harbor Navigational Canal, Seabrook Bridge Load Rating New Orleans, LA. Bridge Load Rater. The Seabrook Railroad Bridge consists of the east and west approach spans, a tower span, and a bascule span for navigational access. Venkata checked 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 performed other 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 consists of the reconstruction design of multiple bridges at the I-65 and I-70 split, northeast of downtown Indianapolis. Venkata designed superstructure and substructure elements for bridges on New York Street, East Ohio Street, East Michigan Street, and St. Clair Street. LEAP Bridge Concrete/RC Pier software was used in the design process. The bridge superstructure type included prestressed I beams. Substructure types included integral and semi-integral end bents and multi-column piers on piles. Venkata designed a bridge widening between North Alabama Street and N Delaware Street on the west leg of the interchange. This included a complicated flared geometry with two steel girders added throughout the bridge, and a girder added from an intermediate pier. Merlin Dash, AASHTOWare BrR, and RC Pier software were used for bridge design and rating.
07/20-08/22	Vigo Co., New Bridge over Railroad Crossing Terra 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 was used for beam designs, and RC Pier software was used for substructure designs.
08/19-06/20	INDOT, I-69 Finish Line Project Johnson County, IN. Bridge Designer. Six bridges were designed and constructed at the intersection of SR 37 and SR 144. The bridges were composed of prestressed girders. Integral end bents were used for the bridges. Venkata designed the girders, decks, and substructure units for these bridges. LEAP Bridge concrete/RC Pier software was used in the design process.
06/19-09/22	INDOT, Countywide Bridge Inspections and Load Ratings Statewide, IN. Bridge Inspector. Venkata was part of countywide bridge inspections of small to medium-sized bridges for Wells, Jackson, Martin, and Crawford Counties. The bridge types inspected included prestressed I-beam bridges, prestressed box-beam bridges, steel girder bridges, and timber bridges. Venkata also helped perform load ratings for newer bridges and update ratings for previously rated bridges that warranted a load rating following inspections. AASHTOWare BrR and internally developed Excel spreadsheets were used to perform these load ratings.

Firm employed by HDR Engineering, Inc.				
Name	Mitchell Wisniewski, PE		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		087778 / NY / 11-30-2027		
Year registered	2010	Discipline	Electrical Engineering	
Contract role(s) / brief description of responsibilities		QA/QC Electrical / Oversee electrical quality control, conduct inspections, verify compliance with standards, and document findings on bridge preservation projects.		
Mitchell has 36 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).			
11/22–07/23	TxDOT Houston, Pelican Island Bridge Replacement PS&E Galveston, TX. Senior Electrical Engineer. HDR is providing engineering services to prepare plans, specifications, and estimates (PS&E) and related documents for the Seawolf Parkway Pelican Island Bridge, a 5,332 ft-long x 65.5 ft-wide off-system bridge replacement. Mitchell provided preliminary code analysis and guidance to illumination designers for temporary and permanent navigation lighting for temporary and permanent bridges and temporary work platforms. Navigational aids will include center channel lights, channel margin lights, clearance gauges, and fender lighting.			
04/24–Ongoing	FHWA, Fundamental Research Support Services for the FHWA Office of Bridge Technology Washington, DC. Principal Investigator. Mitchell served as a Principal Investigator for FHWA Contract No. 693JJ324C000007, “Safety Inspection and Evaluation of Functional Systems for Highway Tunnels and Movable Bridges”. He develops 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.			
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.			
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.			
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 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, restoring 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 the electrical design 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 the staging of the replacement of the 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.

Firm employed by: APS Engineering and Testing, LLC			
Name	Sergio Aviles, PE, MASCE	Years of relevant experience with this employer	14
Title	President/Geotechnical Manager	Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization		BS Civil Engineering/2001/Geotechnical	
Active registration number / state / expiration date		P.E.0033571/ LA / 03-31-2028 ATSSA Work Zone Traffic Control Technician, Flagger, Water Well Contractor's License	
Year registered	2007	Discipline	Civil
Contract role(s) / brief description of responsibilities		Geotechnical Services / Design, field crew and lab management (Meets MPR 9)	
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).		
Sergio is the President and Geotechnical Manager of APS Engineering and Testing, LLC. He has extensive expertise in slope stability analysis, embankment settlement calculations, mechanically stabilized earth (MSE) wall design, pile design, sheet pile design, pile integrity testing, and Pile Dynamic Analyzer (PDA). Since founding APS 14 years ago, Sergio has led geotechnical, laboratory, and materials testing projects statewide for both government agencies and private clients. His professional portfolio includes the design and construction supervision of complex infrastructure projects throughout Louisiana, ensuring technical accuracy, adherence to DOTD specifications, and the highest standards of quality control.			
09/19–Ongoing	Project No. H.0041005.5 and .6: I-10 LA415 to Essen Lane on I-10 and I-12: The geotechnical investigation performed comprised the advancement of 77 deep borings along the project alignment, spanning from the Washington Street Exit to the LSU Lakes. Sergio executed the geotechnical investigation and design, integrating the unique properties of Louisiana soils with the structural requirements of bridge foundations. APS performed 16 over-water borings utilizing barge-mounted drilling platforms and 61 land-based borings using truck-mounted rigs. Subsurface characterization included Shelby tube sampling, Standard Penetration Testing (SPT), and split-spoon recovery to obtain representative soil profiles. Laboratory testing included approximately 1,000 tests, including Unconsolidated Undrained (UU) Triaxial Compression tests for shear strength evaluation and Atterberg Limits for plasticity classification, in accordance with ASTM standards. Pile foundation performance was assessed through dynamic testing services, including Pile Driving Analyzer (PDA) instrumentation and signal matching via CAPWAP analysis. These tests provided real-time data on pile capacity, drivability, and soil-pile interaction, supporting recommendations for axial load design and installation. Sergio is providing technical oversight across all phases—from field exploration and lab testing to analysis and reporting. His leadership ensured conformance with DOTD specifications, QA/QC protocols, and schedule adherence.		
06/20–04/23	Rural Bridge Replacement Initiative Phase I: The scope included geotechnical investigation and design for the replacement of 60 bridge structures along the LA state highway system. The Geotechnical Investigation consisted of drilling, laboratory testing, soil classification, and site characterization. Engineering analysis included slope stability analysis (where applicable) and pile capacity analysis for foundations supporting the new bridge structures. Sergio served as Geotechnical Manager for the Geotechnical Investigations and Design Team, overseeing every phase of the project with hands-on leadership to ensure technical excellence and on-time delivery.		
03/19–05/25	Project No. H.001344 US 190: LA 437 to US 190 BUS: APS performed Geotechnical Investigation and Design of the proposed new bridge. The scope of work included the drilling and testing of 19 deep borings to support bridge foundation design recommendations. Sergio executed the geotechnical investigation and design, integrating the unique properties of Louisiana soils with the structural requirements of bridge foundations. In addition to deep foundation investigations, APS		

	conducted site-specific testing of subsurface soils, base materials, and concrete placement zones to evaluate compliance with structural and geotechnical performance criteria. Laboratory testing supported classification, strength, and constructability assessments for proposed bridge elements. APS also provided PDA instrumentation, testing, and CAPWAP analysis. Sergio served as Geotechnical Manager for the investigation and design team, providing direct oversight of field operations, laboratory analysis, and engineering deliverables, ensuring technical accuracy and timely completion across all phases of the project. He oversaw every aspect of the project with hands-on leadership to ensure technical excellence and on-time delivery.
01/22–05/24	Project No. H.001352.6 and H.002273.5 Comite River Diversion Bridge at LA 67, LA 19, and LA 19 RR Bridge: APS was selected as part of the winning team for the Design of the Diversion CMAR project. Sergio executed the geotechnical investigation and design, integrating the unique properties of Louisiana soils with the structural requirements of bridge foundations. The scope also included testing of subsurface soils, base materials, and concrete placement areas to evaluate compliance with design standards for the proposed roadway and bridge structures. APS conducted four Pile Driving Analyzer (PDA) tests during construction monitoring to assess pile performance and verify installation criteria. Sergio served as Geotechnical Manager for the Geotechnical Investigations and Design Team, overseeing all phases of exploration, analysis, and reporting.
09/21–05/24	Port Hudson-Pride Road (LA-964 – LA-19) - The scope included a geotechnical investigation to evaluate suitable foundations for the proposed pavement rehabilitation and new bridge. A total of 26 borings were drilled and tested for Geotechnical recommendations for the City of Baton Rouge. Sergio served as Geotechnical Manager for the investigation and Design Team, overseeing every phase of the project with hands-on leadership to ensure technical excellence and on-time delivery.
11/19–12/23	Project No. H.010155: US 90 Railroad Overpass SE of LA 85- APS was selected as part of the winning team for the Geotechnical Investigation and Design for the proposed new overpass. Sergio executed the geotechnical investigation and design, integrating the unique properties of Louisiana soils with the structural requirements of bridge foundations. A total of 12 deep borings were drilled and tested for geotechnical recommendations. Sergio served as Geotechnical Manager for the Geotechnical Investigations and Design Team, overseeing every phase of the project with hands-on leadership to ensure technical excellence and on-time delivery.
03/21–11/22	Nicholson Drive Segment 2 (Bluebonnet Blvd-Ben Hur Rd.)- The scope included a comprehensive geotechnical investigation to support foundation recommendations for proposed pavement rehabilitation and new bridge construction. A total of 32 borings were drilled and tested to characterize subsurface conditions and develop geotechnical design parameters for the City of Baton Rouge. Sergio served as Geotechnical Manager for the Geotechnical Investigations and Design Team, providing hands-on leadership and technical oversight throughout all phases of the project to ensure accuracy, quality, and timely delivery.
03/15–04/15	Holly Drive Bridge Replacement- St. Tammany Parish: The scope included a geotechnical investigation for the replacement of a bridge structure in Covington, Louisiana. A P S performed piles vertical resistance analyses for square PPC piles with sizes ranging from 16-inch to 18-inch and 24-inch, roadway design, and culvert design. Sergio served as Geotechnical Manager for the Geotechnical Investigations and Design Team, overseeing every phase of the project with hands-on leadership to ensure technical excellence and on-time delivery.

Firm employed by: APS Engineering and Testing, LLC				
Name	Surendra Pathak, PE, MS		Years of relevant experience with this employer	11
Title	Senior Supervisor Engineer		Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization			MSCE/ 2013/ Civil Engineering BE/ 1998/ Civil Engineering	
Active registration number / state / expiration date			P.E.0043487/ LA/ 09-30-2027 ACI Certified Technician Pile Dynamic Analyzer Proficient Rank ATSSA Work Zone Traffic Control Supervisor, Flagger,	
Year registered	2019	Discipline	Civil	
Contract role(s) / brief description of responsibilities			Geotechnical Services / Design, field crew and lab 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).			
Surendra serves as Senior Supervisor Engineer at A P S Engineering and Testing, LLC. Mr. Pathak brings 21 years of experience in geotechnical engineering, with specialized expertise in Pile Driving Analyzer (PDA) testing and field quality control. His technical experience spans the geotechnical design of roadways, bridges, levees, and T-walls, as well as the design and analysis of shallow and deep foundation systems. In the field, Mr. Pathak has directed and performed quality control inspections for auger cast piles, drilled shafts, soil, and concrete testing, and Pile Driving Analyzer (PDA) testing operations for driven pile testing, including data collection, real-time analysis, and coordination with project engineers to establish pile driving criteria.				
09/19–Ongoing	Project No. H.0041005.5 and .6: I-10 LA415 to Essen Lane on I-10 and I-12: The Geotechnical Investigation comprised the advancement of 77 deep borings along the project alignment, spanning from the Washington Street Exit to the LSU Lakes. A P S performed 16 over-water borings utilizing barge-mounted drilling platforms and 61 land-based borings using truck-mounted rigs. Subsurface characterization included Standard Penetration Testing (SPT), Shelby tube sampling, and split-spoon recovery to obtain representative soil profiles. Laboratory testing included approximately 1,000 tests, including Unconsolidated Undrained (UU) Triaxial Compression tests for shear strength evaluation and Atterberg Limits for plasticity classification, in accordance with ASTM standards. Pile foundation performance was assessed through dynamic testing services, including Pile Driving Analyzer (PDA) instrumentation and signal matching via CAPWAP analysis. These tests provided real-time data on pile capacity, drivability, and soil-pile interaction, supporting recommendations for axial load design and installation. Surendra serves as the Senior Supervisor Engineer on the Project Design Team, providing foundation design expertise, and acts as Team Leader for Pile Dynamic Analyzer (PDA) testing and analysis.			
06/20–04/23	Rural Bridge Replacement Initiative Phase I: The scope included geotechnical investigation and design for the replacement of 60 bridge structures along the LA state highway system. The geotechnical investigation consisted of drilling, laboratory testing, soil classification, and site characterization. Engineering analysis included slope stability analysis (where applicable) and pile capacity analysis for foundations supporting the new bridge structures. Mr. Pathak served as the Senior Supervisor Engineer on the Project Design Team, providing foundation design expertise.			
03/19–05/25	Project No. H.001344 US 190: LA 437 to US 190 BUS: A P S was selected as part of the winning team for the Geotechnical Investigation and Design of the proposed new bridge. The scope of work included the drilling and testing of 19 deep borings to support bridge foundation design recommendations. In addition to deep foundation investigations, A P S performed site-			

	specific testing of subsurface soils, base materials, and concrete placement zones to evaluate compliance with structural and geotechnical performance criteria. Laboratory testing supported classification, strength, and constructability assessments for proposed bridge elements. A P S also provided PDA instrumentation, testing, and CAPWAP analysis. Mr. Pathak served as the Senior Supervisor Engineer on the Project Design Team, providing foundation design expertise, and acted as Team Leader for Pile Dynamic Analyzer (PDA) testing and analysis.
01/22–05/24	Project No. H.001352.6 and H.002273.5: Comite River Diversion Bridge at LA 67, LA 19, and LA 19 RR Bridge: A P S was selected as part of the winning team for the Design of the Diversion CMAR project. A P S performed the Geotechnical Investigation and Design for the project. The scope also included testing of subsurface soils, base materials, and concrete placement areas to evaluate compliance with design standards for the proposed roadway and bridge structures. A P S performed four Pile Driving Analyzer (PDA) tests during construction monitoring to assess pile performance and verify installation criteria. Mr. Pathak served as the Senior Supervisor Engineer on the Project Design Team, providing foundation design expertise, and acted as Team Leader for Pile Dynamic Analyzer (PDA) testing and analysis.
09/21–05/24	Port Hudson-Pride Road (LA-964 – LA-19) - The scope included a geotechnical investigation to support an evaluation of acceptable foundations for the proposed pavement rehabilitation and new bridge. A total of 26 borings were drilled and tested for Geotechnical recommendations for the City of Baton Rouge. Mr. Pathak served as the Senior Supervisor Engineer on the Project Design Team, providing foundation design expertise, and acted as Team Leader for Pile Dynamic Analyzer (PDA) testing and analysis.
11/19–12/23	Project No. H.010155: US 90 Railroad Overpass SE of LA 85- A P S was selected as part of the winning team for the Geotechnical Investigation and Design for the proposed new overpass. A total of 12 deep borings were drilled and tested for Geotechnical recommendations. Mr. Pathak served as the Senior Supervisor Engineer on the Project Design Team, providing foundation design expertise.
03/15–04/15	Holly Drive Bridge Replacement- St. Tammany Parish: The scope included a geotechnical investigation for the replacement of a bridge structure in Covington, Louisiana. APS performed vertical resistance analyses of square PPC piles with sizes ranging from 16-inch to 18-inch and 24-inch, for roadway and culvert design. Mr. Pathak served as the Senior Supervisor Engineer on the Project Design Team, providing foundation design expertise, and acted as Team Leader for Pile Dynamic Analyzer (PDA) testing and analysis.

Firm employed by: Bridge Diagnostics, Inc. (BDI)			
Name	Brett Commander		Years of relevant experience with this employer
Title	Vice President / Principal		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		BS / 1986 / Civil Engineering MS / 1989 / Structural Engineering	
Active registration number / state / expiration date		P.E. 35864 / LA / 3/31/27	
Year registered	2010	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities		Structural Support / Inspection Lead and NDT Engineer	
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).		
10/89 – Present	Brett is a co-founder of BDI and has led the engineering team for more than 32 years. He started his engineering career developing software and analytical methods for the realistic assessment of structural performance, particularly load distribution across various bridge types and the loading applied to bridges. All BDI’s modeling procedures have been compared with and calibrated to actual response measurements during live-load tests and structural health monitoring applications. Brett’s experience with vehicle load considerations includes Bridge Weigh-in-Motion research and numerous super-heavy load tests and permit load ratings on more than 500 highway and railway bridges, using a variety of design codes, including AASHTO, LADOTD BDEM, and many state-specific codes, including Louisiana specifications. Brett now leads a team of engineers to accurately assess bridge performance through instrumentation and data-driven methods. He is currently a licensed professional engineer in 30 states (including Louisiana), primarily because heavy permit truck routes typically cross state lines. Brett has also designed and overseen capacity-testing projects for concrete and steel structures using various NDE techniques, and has implemented hundreds of structural monitoring systems.		
01/23 - Ongoing	UNITED STATES ARMY CORPS OF ENGINEERS, INSTRUMENTATION AND MONITORING IDIQ <i>US Army Corps of Engineers, Walla Walla District</i> Brett serves as the Principal-in-Charge responsible for instrumentation, structural testing, and structural health monitoring of mechanical and structural systems at several dams in the northwest region. Brett’s role is to address issues raised by USACE project personnel and to develop instrumentation methods that best address complex problems related to the condition and behavior of structural systems. He manages BDI engineers in the design and implementation of testing and monitoring programs to achieve this goal. This \$ 7M, 5-year IDIQ contract is available to all districts in the northwest region.		
02/23 - Ongoing	VIRGINIA DOT STATEWIDE INSTRUMENTATION AND MONITORING ON-CALL <i>Virginia Department of Transportation (VDOT)</i> As Subject Matter Expert in the areas of instrumentation, structural testing, and monitoring for the duration of this contract, Brett’s role is to develop monitoring and quality control plans to address specific structural concerns on bridges, tunnels, and ancillary systems. This includes developing monitoring scopes, provisioning instrumentation and data acquisition, and overseeing teams of engineers and technicians to install and maintain monitoring systems. Various monitoring methods and structural evaluation techniques are implemented, ranging from Automated Total Stations to strain-gage installation and load testing to geotechnical monitoring systems. The current IDIQ is a \$ 7M-per-year contract for up to 4 years. BDI held the previous contract, 2017-2022, a \$3 million, two-year contract with two renewable terms.		

07/22-09/22	NONDESTRUCTIVE EVALUATION OF THE EIGHT (8) USDA FOREST SERVICE BRIDGES, MT AND ID <i>USDA Forest Service / Great West Engineering</i> BDI performed nondestructive evaluation (NDE) of eight bridges in the Missoula, Montana, and northeastern Idaho areas. These structures are owned and managed by the National Forest Service and comprise reinforced concrete slabs, prestressed concrete slabs, prestressed double tees, and concrete arches. Due to the lack of available as-built drawings, various non-destructive and minimally destructive techniques were utilized to determine critical information and calculate load ratings. Techniques included ground penetrating radar (GPR), Ultrasonic Shear Wave Tomography (USWT), and removal of concrete cover at selected locations to assess bar/strand size, shape, and cover depth. The collected data helped determine information such as reinforcing steel and prestressing strand location, orientation, size, shape, spacing, and cover depths at each bridge. Overall geometric information, such as span length, width, and member dimensions, was also obtained and used to prepare a report and develop CAD drawings for each structure. Great West Engineering used this information to calculate load ratings for each structure. Brett provided PE Review and Sealing of all deliverables.
10/21-05/22	LOAD TEST AND FIELD-VERIFIED LOAD RATINGS OF 10 STRUCTURES, LA <i>Louisiana Department of Transportation and Development (LADOTD)/Forte & Tablada</i> BDI performed refined load ratings for 10 structures based on diagnostic load testing for each structure. The evaluated structures ranged from short-span reinforced concrete slabs to various types of culverts with minimal fill depths. In all cases, the bridges were selected for refined analysis because they could not meet posting requirements using standard evaluation techniques. BDI's approach validated structural response characteristics to increase or remove posting requirements. Load rating calculations were performed in accordance with LADOTD and AASHTO requirements, and load rating reports meeting LADOTD requirements were submitted for each structure. Brett was the Principal Engineer for the project and provided a PE review of all deliverables.
11/12-9/22	US-90 BAYOU RAMOS BRIDGE LOAD TESTING AND MONITORING, LA <i>Louisiana Department of Transportation and Development (LADOTD)</i> Due to unexpected cracking in PS concrete AASHTO beams, BDI performed load tests to determine the cause and effect of cracks in continuous multi-span prestressed concrete girders. Field-verified load ratings were also calculated in accordance with LADOTD specifications, based on a finite-element model calibrated using the collected test data. After completing the initial evaluation, BDI designed and installed monitoring systems on two sections of the structure to monitor its condition. BDI has maintained the structural health monitoring system throughout the project duration, and data collection is still ongoing. As a technical advisor/principal engineer, Brett oversaw live-load and thermal load monitoring during and after repairs to evaluate the performance of the retrofit.
01/17 – 1/22	RETAINER CONTRACT FOR TESTING UNKNOWN FOUNDATIONS STATEWIDE (DOTD CONTRACT NO. 4400009224) <i>Louisiana Department of Transportation and Development (LADOTD)</i> Brett was the principal investigator for NDT-E services to determine the condition of the foundations of 1,857 piles in Louisiana. The project utilized multiple NDT-E methods, including ultra-seismic testing, parallel seismic survey, sonic echo/impulse response, and guided wave. Thousands of piles have been tested to determine the embedded depth for subsequent NBIS 113 scour evaluation and reporting. BDI also assisted LADOTD in FHWA reporting these items by uploading all reports into AssetWise.

Firm employed by: Bridge Diagnostics, Inc. (BDI)			
Name	Steven Fall, PE		Years of relevant experience with this employer
Title	Project manager		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		BS / 2019 / Civil Engineering	
Active registration number / state / expiration date		PE.0048637 / LA / 09/30/2026	
Year registered	2024	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities		Sampling, instrumentation, & non-destructive testing / Conduct sampling, install and maintain instrumentation, perform non-destructive testing, analyze data, and report findings	
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).		
05/18 - Ongoing	General Experience – Beginning work for BDI in May of 2019, Steven has spent more than 6 years in the private sector in both non-destructive testing and evaluation and routine infrastructure inspection and monitoring, and is the current office manager of the Louisiana office. Steven has been involved with non-destructive testing and evaluation of hundreds of structures, including bridges, buildings, and hydro-structures such as lock gates and spill gates. His involvement in these projects included project management, planning, implementation, instrumentation installation, testing, data processing, data review, and reporting. Previously, Steven worked at HNTB Inc. in the transportation and civil department, performing inspections of substructures and bridges on various projects. He is a member of ASCE and ACI in the Louisiana chapter. Steven is a certified Professional Engineer, SPRAT L1 ropes access technician, ASNT Level I GPR inspector, and Team Lead under FHWA guidelines for routine inspections. He is also a certified traffic control supervisor in the state of Louisiana. He has also worked with various NDE methods for fracture-critical applications, including, but not limited to, Magnetic Particle Testing, Ultrasonic Testing (UT), and Dye Penetrant Testing. He graduated from the University of New Orleans with a bachelor’s degree in civil engineering.		
05/23 – Ongoing	Retainer Contract for Non-Destructive Evaluation of Statewide Structures (DOTD Contract 4400025002) – The Louisiana Department of Transportation awarded BDI with the retainer contract for Non-Destructive Evaluation of Statewide Structures. This IDIQ has 8 Task Orders awarded. These task orders include, but are not limited to, steel inspection using Ultrasonic testing and Magnetic Particle Testing; deck evaluations via non-destructive testing methods, including SoundAR, Ground Penetrating Radar, Infrared Thermography, and High Resolution Imaging; material sampling using coring; NHI routine and fracture-critical inspections; and emergency response efforts. Steven serves as the project manager for this contract and is responsible for developing and implementing the testing plan, managing the team, and performing QA/QC for various project tasks.		
11/23 – 12/23	Paris Road Emergency Bridge Inspection in Chalmette, LA– After noting a critical finding in a routine inspection on bridge recall 001621 by LADOTD on Paris Rd., BDI was called to perform an emergency in-depth inspection on the underside of the structure, along with an NDE of the deck. The inspection results led to repairs to the bridge and its reopening. Steven was the inspection lead on this project for both the NBIS emergency inspection and the Non-destructive testing and evaluation of the structure. He was also responsible for the project management and reporting on the structure.		

01/21 – 05/23	Task Orders for Retainer Contract for Non-Destructive Evaluation of Statewide Structures (DOTD Contract 4400017163) – – The Louisiana Department of Transportation awarded BDI with the retainer contract for Non-Destructive Evaluation of Statewide Structures. This IDIQ had 13 Task Orders awarded and lasted until 2023. These task orders include, but are not limited to, steel inspection using Ultrasonic testing and Magnetic Particle Testing; deck evaluations via non-destructive testing methods, including SounDAR, Ground Penetrating Radar, Infrared Thermography, and High Resolution Imaging; material sampling using coring; NHI routine and fracture-critical inspections; and emergency response efforts. Steven served as a staff engineer on this project and was responsible for developing and implementing the testing plan, managing the team, and field application of the various project tasks.
06/22-06/22, 06/23-06/23	Counterweight Balance Testing of the Seabrook Bascule Bridge (Port of New Orleans) in New Orleans, LA – This bridge is a Strauss double-heel-trunnion bascule bridge that carries St. Claude Avenue over the Industrial Canal. It is subject to hurricane winds and saltwater, resulting in severe corrosion and operational issues. During an inspection, the counterweight-to-span link bushings were found to be broken and falling out of the bearing hub. As a subconsultant, BDI measured the force and moment in the truss link member and evaluated the span balance and operational friction. Operational test results showed high friction and asymmetry in both friction and lifting torque. Tests were initially performed to identify operational issues, and then again after the bushings were replaced and the drive torque imbalance was addressed. BDI's instrumentation and data analysis were essential to identifying and solving the operational problems. The primary relevance of this project is the identification and quantification of the operational performance of bascule bridges.
07/2019 – 01/20	Counterweight Balance and Friction Assessment of the St. Claude Bridge (LADOTD) in New Orleans, LA – BDI performed a counterweight Balance and friction assessment of the St. Claude Bridge to assist LADOTD in bringing their bridge into lifting specifications and to determine the friction in each member during lifts. Steven installed all gages on the shafts and some on the steel members of the bridge, performed all testing, and helped report the findings to help LADOTD balance the counterweight in the bridge and analyze friction in each member. Steven was a team member responsible for field instrumentation and operational testing.
04/21 – 05/21	LA 324 over Bayou Teche – As a subconsultant, BDI was contracted to perform short- term testing on the pivot pier of this swing bridge. During the initial inspection, the pivot pier was observed to rotate/translate significantly during the opening operation. BDI's testing was performed as part of an emergency response to the inspection findings and consisted of taking laser displacement measurements of the pier during operational swings. Through this testing, BDI verified that up to 6" of movement was occurring at the end of the opening operation and provided short- and long-term recommendations. Steven was a team member responsible for team coordination, field instrumentation and testing, data processing and review, and reporting.

Firm employed by: Bridge Diagnostics, Inc. (BDI)			
Name	Jesse Sipple, PhD, PE		Years of relevant experience with this employer
Title	Vice President, Services Division Manager		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		PhD / 2013 / Civil Engineering MS / 2008 / Civil Engineering BS / 2007 / Civil Engineering	
Active registration number / state / expiration date		41028 / LA / 03/31/2027 50709 / CO / 10/31/2027 0402059651 / VA / 11/30/2026 84285 / MT / 6/30/2026	
Year registered	2016	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities		Structural Support / Inspection Lead and NDT Engineer	
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).		
05/07-Ongoing	Jesse has over 18 years of experience in instrumentation, diagnostic testing, structural health monitoring, and analysis of heavy civil structures, with a focus on bridges. Jesse's experience includes planning and executing field installations and testing for large, complex projects; project management; development of new methods for monitoring and data processing; and performing detailed analysis and reporting. Jesse is a licensed Professional Engineer in several states, sits on various technical committees, and was the former chair of the ASCE SEI Methods of Monitoring Structural Performance Committee. Jesse is the Engineering Division Manager at BDI. His role includes overseeing the testing, monitoring, and engineering groups, including oversight in both the operation of the division and the technical oversight of active projects. Jesse's research expertise is in dynamic testing of bridges to estimate parameters through finite-element model updating. Jesse's research on parameter estimation for model calibration used both static and dynamic data to update finite-element models based on field-measured structural response.		
07/18-08/18 & 07/23-08/23	BEAR RIVER BRIDGE DYNAMIC TESTING As a subconsultant, BDI performed dynamic tests on the Bear River Siphon Bridge near Auburn, CA. The bridge is a single-span suspension bridge carrying a water supply pipe. The testing focused on measuring vibration responses across the bridge to determine the dynamic response of the entire structure. The overall goal of these tests was to validate the predicted structural response. Additionally, cable dynamic testing was performed to determine the in-situ tensile forces in each hanger cable and stay cable. Jesse performed quality control on the analysis and reporting for this project.		
2022 - Ongoing	WEST SEATTLE HIGH BRIDGE INVESTIGATION AND MONITORING, WA <i>Seattle Department of Transportation (SDOT)</i> BDI was contracted by Seattle DOT to provide a nondestructive testing and structural health monitoring program to evaluate the structure's performance during the first phase of retrofitted internal post-tensioning. The monitoring program helped the Seattle DOT make decisions and resulted in the next phase of strengthening to open the bridge by 2022. Jesse is the project manager and monitoring engineer in charge of BDI's emergency response participation, including running several drills with mock alarm scenarios developed by Jesse and the project team.		

06/20 - Ongoing	VIRGIN RIVER GORGE TESTING & MONITORING, AZ <i>Arizona Department of Transportation</i> BDI was contracted as a subconsultant under ADOT for the Accelerated Innovation Deployment grant as part of FHWA's Technology and Innovation Deployment Program to perform load testing and structural health monitoring on three bridges along I-15 in the Virgin River Gorge. Jesse is the project manager for this project's various phases, including the live-load testing and long-term monitoring. Jesse is also a monitoring engineer on this project and is in charge of monthly reporting, including rainflow data analysis, reporting on changes in structural response throughout the project, and system alarm response.
03/20 - Ongoing	BALLARD BRIDGE MONITORING, WA <i>BNSF Railway</i> Jesse was the Project Quality Control Engineer responsible for QC of the trunnion friction and operating torque monitoring system installed on this double-trunnion Strauss bascule bridge. BDI installed strain gages, shaft torque gages, and tiltmeters to monitor changes in trunnion friction, system friction, and shaft torque over a 2-year monitoring period. Jesse managed the analysis team that set up automated computation and reporting for trunnion friction, system friction, and shaft torque.
07/20-01/21	LA507 OVER I-20 ABC SPAN MOVE MONITORING, LA <i>JB James Construction LLC</i> During the replacement of this bridge, accelerated bridge construction was used, with spans cast nearby and moved into place during short outages. Jesse was a field/analysis engineer responsible for monitoring plan implementation, instrumentation, monitoring during span moves, on-site data interpretation, and data processing and reporting.
02/20 – 11/20	LIVE LOAD TESTING AND FIELD-VERIFIED LOAD RATING OF 16 BRIDGES, VA <i>Virginia Department of Transportation</i> BDI provided load testing and field-verified load rating of 16 structures in the Fredericksburg and Richmond districts of VDOT. BDI was responsible for designing load-testing requirements, developing instrumentation plans, executing fieldwork and load testing, analyzing data, creating and calibrating finite element (FE) models, and performing load rating per VDOT and AASHTO requirements. Jesse acted as the quality control manager for this project and all related tasks.
6/19-1/20	ST. CLAUDE BASCULE BRIDGE BALANCING Instrumentation tasks were performed to investigate a bearing failure on the span-to-counterweight link and determine whether it was related to an imbalance between the counterweight and lift span. As a subconsultant, BDI performed strain gage testing on the link frame and counterweight balance procedures. Jesse was the Project Quality Control Engineer responsible for QC of counterweight/span balance, friction calculations, and structural performance evaluation on this double-trunnion Strauss bascule bridge.

Firm employed by: Bridge Diagnostics, Inc. (BDI)				
Name	Charles Young, PE		Years of relevant experience with this employer	8
Title	Vice President		Years of relevant experience with other employer(s)	6
Degree(s) / Years / Specialization			MS / 2017 / Civil Engineering BS / 2012 / Civil Engineering	
Active registration number / state / expiration date			PE.0042773 / LA / 03/31/2027 PE.0066578 / CO / 10/31/2027 PE.0402065368 / VA / 06/30/2026	
Year registered	2018	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			Sampling, instrumentation, & non-destructive testing / Conduct sampling, install and maintain instrumentation, perform non-destructive testing, analyze data, and report findings	
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).		
06/12-Ongoing		Charles has extensive experience in nondestructive evaluation and testing (NDE/NDT), structural monitoring, and the inspection/evaluation of civil infrastructure. Charles is responsible for program management, project management, analysis, and field services related to inspection and NDE/NDT of civil infrastructure. Charles is certified ASNT Level II GPR and IR Inspector, SPRAT Level I certified, is a registered Part 107 UAV Pilot, and holds multiple certifications from NHI, including FHWA-NHI-130055 Safety Inspection of In-Service Bridges (2014), FHWA-NHI-130053 Bridge Inspection Refresher Training (2021), and FHWA-NHI-420018 Instructor Development Course (2022). He is a registered Professional Engineer in multiple states, including Louisiana.		
12/22-Ongoing		IDIQ Contract for Nondestructive Evaluation of Structures Statewide (DOTD Contract No. 4400025002) Charles is the Project Manager for statewide NDE of structures for DOTD under this contract. Scope items include testing of bridge decks, concrete substructures, steel elements (such as welds and pin-and-hanger assemblies), unknown foundations, tunnels, culverts, and other highway transportation infrastructure. Charles assists DOTD and the project team in successfully implementing NDE and inspection technologies, determining the best methods for analysis and reporting findings into DOTD’s AssetWise.		
10/25 – Present		Bonnet Carre Spillway I-10 Deck Evaluation in St. Charles Parish, LA – BDI performed nondestructive evaluation testing of the I-10 bridge over the Bonnet Carre Spillway in St. Charles Parish to assess the condition state of the bridge deck and evaluate any appropriate means of preservation that could be necessary for the bridge’s longevity. Charles was a Subject Matter Expert throughout the project's lifespan, responsible for QA/QC and testing plan development.		

05/23-Ongoing	Twin Spans and Six Mile Bridge Inspection and NDE - The objective of this project is to perform a comprehensive inspection and NDE of the reinforced concrete bridge decks of the Twin Spans and Six Mile Bridges in Louisiana. Also included are supplemental inspection access techniques, including unmanned aerial systems (UAS). Nondestructive evaluation includes a multi-technology bridge deck assessment, including Deck Acoustic Response, Ground Penetrating Radar, Infrared Thermography, and High-Resolution Imagery. Charles was the Project Manager. This work is being performed under LADOTD contract 4400025002.
01/19-12/22	IDIQ Contract for Nondestructive Evaluation of Structures Statewide (DOTD Contract No. 4400015262) Charles is the Project Manager for statewide NDE of structures for DOTD under this contract. Scope items include testing of bridge decks, concrete substructures, steel elements (such as welds and pin-and-hanger assemblies), unknown foundations, tunnels, culverts, and other highway transportation infrastructure. Charles assists DOTD and the project team in successfully implementing NDE and inspection technologies and in determining the best methods for analysis and reporting findings in DOTD's AssetWise.
07/21–10/22	I-10 Over Atchafalaya Basin Inspection and NDE - The objective of this project is to perform an NHI routine and fracture critical (NSTM) inspection of the bridge carrying I-10 over the Atchafalaya Basin between New Baton Rouge and Lafayette, along with targeted NDE techniques at various critical portions of the structure. Also included are supplemental inspection access techniques, including unmanned aerial systems (UAS). Nondestructive evaluation includes a multi-technology bridge deck assessment, including Deck Acoustic Response, Ground Penetrating Radar, Infrared Thermography, and High-Resolution Imagery. Charles was the Project Manager. This work was performed under LADOTD contract 4400015262.
10/20–09/22	Bonnet Carre Spillway Inspection and Nondestructive Evaluation, LA – This project involved an NHI routine and fracture critical (NSTM) inspection of the Bonnet Carre Spillway Bridge and targeted NDE techniques at various critical portions of the structure. Two cycles of Routine and NSTM inspections were conducted for this structure. This work was performed under an IDIQ Contract for Non-destructive Evaluation of Structures for DOTD. Also included were supplemental inspection access techniques, including unmanned aerial systems (UAS). Nondestructive evaluation includes a multi-technology bridge deck assessment, including Deck Acoustic Response, Ground Penetrating Radar, Infrared Thermography, and High-Resolution Imagery. Charles acted as the Project Manager. This work was performed under LADOTD contract 4400015262.
08/19–07/20	NDE of City Park Lake Bridge, LA – Charles was the project manager for the NDE of the City Park Lake Bridge in Baton Rouge, LA. This project included a routine inspection of the structure, along with NDE technologies such as ground-penetrating radar (GPR), deck acoustic response (DAR), infrared thermography (IR), and high-resolution video (HRV). The remote inspection of the substructure was conducted using visual and IR methods. This work was performed under LADOTD contract 4400015262.

Firm employed by		C. H. Fenstermaker & Associates, L.L.C.	
Name	Travis Bodin, MBA, PLS, PMP		Years of relevant experience with this employer
Title	Chief Operating Officer, Survey		22
Degree(s) / Years / Specialization		Years of relevant experience with other employer(s)	
		1	
Active registration number / state / expiration date		B.S. / 2004 / Industrial Technology M.S. / 2021 / Business Administration	
Year registered		PLS.0005067 / LA / 3-31-2028	
2011	Discipline	Professional Land Surveyor	
Contract role(s) / brief description of responsibilities		Surveying / Professional Land Surveyor for Topographic Survey (Meets MPR 10)	
Travis Bodin is the Chief Operating Officer at Fenstermaker with extensive experience in surveying and project management. He has served as the Lead Professional Land Surveyor for various projects in Louisiana, managing surveying/ROW services, utility relocations, and coordinating with agencies and sub-consultants. His work includes cost estimation, planning, resource management, and construction management. Travis has contributed to multi-million-dollar projects involving topographic and bathymetric surveys, GPS networks, landowner documentation, DTM development, GIS integration, and process development.			
12/13-01/14	S.P. No. H.011014 LA 3002: U-Turn (Livingston Parish, LA) Fenstermaker was responsible for the improvements made for a J-Turn between North Range Rd and South Range Rd (LA 3002). Travis was responsible for preparing ROW Maps in accordance with DOTD requirements. Travis conducted topographic surveys for LADOTD and coordinated the Fenstermaker survey crews. Travis also served as quality control for title research and ROW maps, and processed the survey data.		
10/12-05/14	US 190 & 4-H Club Rd (LA 1032) Turn Lanes (Livingston Parish, LA) This project involved the construction of an additional turning lane along 4-H Club Roadway in Livingston Parish, LA. Fenstermaker was responsible for creating construction plans, and Travis served as the Lead Surveyor. He conducted topographic surveys for LADOTD and coordinated the survey crew to collect topographic, boundary, and drainage data. He also coordinated with the title abstractor and processed the survey data into a LADOTD format for use in CAD.		
11/17-04/18	I-10: Texas State Line–E. of Coone Gully – Roadway Lighting (Calcasieu Parish, LA) As a sub-consultant, Fenstermaker provided surveying services on this project, which included the widening of 10.5 miles of I-10 to six lanes from the Texas state line to east of LA 108, replacing and widening 10 bridges, and replacing the eastbound weigh-in-motion system. Fenstermaker performed a utility location survey for subsurface and above-ground utilities and a mobile LiDAR Survey to capture 3D topographic data, including existing ground and hard surfaces. Fenstermaker collected data on existing drainage structures, communication towers, billboard signs, trees, other overhead structures, and on the edge of the existing roadway/pavements. Travis conducted topographic surveys for LADOTD, QA/QC of data, and reporting related to LiDAR.		
04/20-04/24	Louisiana Watershed Initiative Region 4 (De Soto, Sabine, Vernon, Rapides, Beauregard, Allen, Jefferson Davis, Calcasieu, and Cameron Parishes) Travis served as the Lead Surveyor for the Louisiana Watershed Initiative Region 4, an unprecedented project that will manage the future flood risk in the State of Louisiana through watershed-based solutions. Travis conducted topographic surveys for LADOTD, data collection, and management to successfully complete an interactive, usable, and manageable hydraulic and hydrologic Region 4, which encompasses De Soto, Sabine, Vernon, Rapides, Beauregard, Allen, Jefferson Davis, Calcasieu, and Cameron Parishes in the State of Louisiana. These models will assess the degree to which communities within a watershed are hydraulically and hydrologically connected and will guide decisions on coordinating and implementing land-use, policy, and infrastructure improvements to manage flood risk at the watershed level.		
05/19-03/21	S.P. H.005967 Port of Lake Charles Rail at W. Sallier St. (Calcasieu Parish, LA) Fenstermaker completed the topographic and boundary surveys, established control, processed data, reviewed title reports, established property boundaries, and mapped encumbrances for the ~0.75-mile Railroad Relocation. LADOTD survey feature codes were utilized for this project, and LADOTD right of way maps, along with COGOWIN legal descriptions, were created. Travis served as Project Principal, conducted topographic surveys for LADOTD, and completed data QA/QC for this project.		
12/13-01/14	S.P. No. H.011014 LA 3002: U-Turn (Livingston Parish, LA) Fenstermaker was responsible for the improvements made for a J-Turn between North Range Rd and South Range Rd (LA 3002). Travis was responsible for preparing ROW Maps in accordance with DOTD requirements. Travis conducted topographic surveys for LADOTD and coordinated the Fenstermaker survey crews. Travis also served as quality control for title research and ROW maps, and processed the survey data.		
10/12-05/14	US 190 & 4-H Club Rd (LA 1032) Turn Lanes (Livingston Parish, LA) This project involved the construction of an additional turning lane along 4-H Club Roadway, located in Livingston Parish, LA. Fenstermaker was responsible for creating construction plans, and Travis served as the Lead Surveyor, conducting topographic surveys for LADOTD and coordinating the survey crew to collect topographic, boundary, and drainage data. He also coordinated with the title abstractor and processed the survey data into a LADOTD format for use in CAD.		

Firm employed by		C. H. Fenstermaker & Associates, L.L.C.	
Name	Justin Bordelon, PLS		Years of relevant experience with this employer
Title	Manager, Surveyor		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		B.S. / 2009 / Business Administration	
Active registration number / state / expiration date		PLS.0005271 / LA / 03-03-2028	
Year registered	2021	Discipline	Professional Land Surveyor
Contract role(s) / brief description of responsibilities		Surveying / Professional Land Surveyor for Topographic Surveys, 3D Scanning, and Underwater Acoustical Imaging	
Justin Bordelon, PLS, is a Professional Land Surveyor in Louisiana. His initial surveying work included performing underwater acoustic investigations and hydrographic surveys. As he gained more experience, Justin became Fenstermaker's underwater acoustic investigation manager and worked on many projects, including an inspection of over 100 bridges for the Louisiana Department of Transportation and Development. Justin currently coordinates and supervises field and office personnel for remote sensing projects. He also serves as Project Manager and assists with pre-project planning, post-data-collection analysis, and deliverable preparation.			
10/24-08/25	Port of New Orleans Moveable Bridge Inspection (Orleans Parish, LA) Justin served as Project Manager for the Port of New Orleans Moveable Bridge Inspection, overseeing hydrographic and underwater survey services at the Seabrook Railroad and Almonaster Avenue Bridges. He directed survey control, underwater acoustic imaging, and multibeam bathymetric surveys, ensuring accurate documentation of substructure conditions, scour, and debris. He also managed reporting and coordination with HDR and the bridge owners to support inspection findings and maintenance planning.		
03/11-08/11	Mississippi River Bridge (I-20) Underwater Acoustic Imaging (Madison Parish, LA & Warren County, MS) Justin served as Lead Survey Technician on this LADOTD project to perform an underwater acoustic investigation of bridge piers E-1 and E-2 following a barge collision. He directed sonar survey operations to document the condition of piers, support caissons, and instrumentation caissons, providing detailed imagery and data to assess potential structural damage.		
03/10-03/10	Almonaster Avenue Bridge Drainage Inspection (Orleans Parish, LA) Justin served as Project Manager and Survey Technician for an underwater acoustic imaging investigation of the Almonaster Avenue Bridge. He oversaw scanning of bridge abutments, fender systems, and dolphin cells, and coordinated dive operations while documenting debris and underwater conditions to support structural assessment and maintenance planning.		
09/15-09/15	Winston County Commission & ALDOT – Underwater Acoustic Imaging of Four Bridges (Lewis-Smith Lake, Winston County, AL) Justin served as Underwater Acoustic Imaging Lead Field Technician and Survey Technician for inspections of four bridge structures (BIN 7374, 7442, 7453, and 9371) over Crooked Creek and the Sipsey River. He conducted multi-axis steered beam acoustic imaging and RTK-positioned surveys to evaluate submerged piers, identify structural damage, and assess scour and erosion, producing detailed imagery mosaics and inspection reports to support ALDOT's asset management.		
06/13-06/14	West Larose Bridge Survey (Lafourche Parish, LA) Justin served as Project Manager for a topographic and high-definition laser scan survey of the West Larose Vertical Lift Bridge on LA 1 in support of LADOTD's bridge renovation program. He oversaw survey planning, field data collection, and deliverables for the prime, ensuring accurate mapping to support design and rehabilitation efforts.		
01/12-05/14	Underwater Acoustic Imaging for Bridge Inspection – Statewide (Louisiana) Justin served as Project Manager, overseeing UAI inspections of 72 state-maintained bridges across Louisiana. He managed all field resources, including survey personnel and equipment, and ensured the quality and accuracy of multi-axis sonar and RTK-positioned data collection used to assess submerged pier conditions, scour, and potential structural deterioration.		
06/10-06/10	Sunshine Bridge Underwater Acoustic Survey (St. James Parish, LA) Justin served as Survey Technician on an underwater acoustic imaging investigation of the pier protection systems at Piers 3, 4, and 5 of the Sunshine Bridge near Donaldsonville. He performed sonar imaging of submerged structures, processed data, updated AutoCAD drawings, and reviewed deliverables submitted to LADOTD to support structural assessment.		
07/20-08/20	Pointe-à-la-Hache Ferry Landings Rehabilitation (Plaquemines Parish, LA) Justin served as Survey Technician on this ferry landing rehabilitation project for the Mississippi River crossing, supporting Modjeski & Masters and LADOTD. He performed quality control on sidescan and MS1000 sonar data, processed survey results, created mosaic analyses and deliverables, and provided critical hydrographic support for the design of new ramp bridges, lift towers, and dolphins.		

Firm employed by		C. H. Fenstermaker & Associates, L.L.C.	
Name	Dax Douet, PE		Years of relevant experience with this employer
Title	Director, Engineer		29
Degree(s) / Years / Specialization		Years of relevant experience with other employer(s)	
		1	
Active registration number / state / expiration date		B.S. / 1997 / Civil Engineering	
Year registered		PE.0030170 / LA / 09-30-2026	
2002	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities		Roadway & Traffic Control / Civil Engineer for Roadway Design.	
Dax Douet is an Engineering Director at Fenstermaker with extensive professional experience in civil engineering, including design, planning, construction oversight, and project management. He has served as the lead design engineer and project manager on a wide range of transportation projects, including local, collector, and arterial roadways, as well as large interstate interchange projects. Dax has expertise in roadway design, transportation corridor studies, line and grade studies, roundabout design, environmental assessments, open channel and subsurface drainage systems, large one and two-dimensional hydrologic numerical modeling, municipal engineering, public speaking, and project management of large complex, multi-disciplinary projects.			
05/13 – 09/19	US 90 (I-49 South) Albertson Parkway to Ambassador Caffery Design-Build (Lafayette Parish, LA) Dax served as Lead Design Manager and directed roadway, drainage, traffic, bridge, and MSE wall design for the six-lane corridor upgrade, new overpasses, ramps, and frontage road improvements. As Engineer of Record for Phase III roadway and drainage plans, he reviewed all construction RFIs for LADOTD compliance and managed four subconsultants to ensure design quality and to achieve project objectives.		
07/07 – 11/20	Cane River Bridge Church Street Route LA 1-X (Natchitoches Parish, LA) Dax served as Project Manager and Lead Engineer, overseeing the preparation of the NEPA environmental assessment. His responsibilities included public outreach, agency coordination, traffic and line-and-grade studies, development of project alternatives and cost estimates, and coordination of environmental, historical, and archeological analyses to support FHWA and LADOTD decision-making.		
09/17-Ongoing	Verot School Road Interchange at U.S. Highway 90 (Lafayette Parish, LA) Dax served as Lead Design Engineer, overseeing the widening of the corridor from two to four lanes and the development of a project line-and-grade study to minimize right-of-way and infrastructure impacts. He also designed the multi-lane roundabout at Verot School Road and South College Road and led public outreach efforts, including coordination and hosting of the LADOTD public meeting.		
04/23-02/26	Spanish Trail Industrial Park Access Road (St. Martin Parish, LA) Dax supported the Spanish Trail Industrial Park Access Road, which extended Lake Talon Road to LA 182 with a new at-grade intersection. He contributed to the traffic study, coordinated permitting with the BNSF railroad, provided client updates, and reviewed project plans and documents while supporting Fenstermaker's overall engineering, survey, and permitting services.		
11/13-06/15	Sasol LCCP Heavy Haul Road project (LA 378 & LA 379) (Calcasieu Parish, LA) Dax served as Senior Design Engineer, supporting LADOTD permit reviews under a \$12.9 million contract with Fluor. He performed technical analysis to determine roadway widening and geometric modifications for oversized transport modules, designed subsurface drainage improvements, and provided quality control of roadway construction plan submittals.		
04/22-01/26	LA 182 (UNIV) @ LA 723 (Renaud) Roundabout (Lafayette Parish, LA) LADOTD selected Fenstermaker to provide roadway design, hydraulic analysis, and utility design for a roundabout realigning Renaud Drive and Stone Avenue to improve traffic flow and reduce congestion at University Avenue, addressing average daily traffic volumes of over 3,300 vehicles. Dax is serving as the project manager and has worked closely with the deputy project manager to oversee all project tasks and report progress to LADOTD.		
07/10-06/23	Kaliste Saloom Road Widening & Intersection Improvements - LA3073 to LA733 (Lafayette Parish, LA) Dax managed the \$35 million project, overseeing design for 1.7 miles of roadway, a multi-lane roundabout, and a 5-girder span bridge. He led public outreach, constructability reviews, and construction management, and developed a line-and-grade study to guide LCG's selection of roadway typical sections. He also fast-tracked real estate appraisals, plats, and construction plans to advance the multi-phase project, which included drainage, utility relocations, and roadway construction.		

Firm employed by		C. H. Fenstermaker & Associates, L.L.C.	
Name	Lance Fontenot	Years of relevant experience with this employer	20
Title	UAS Manager	Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		B.A. / 2006 / Survey and Drafting	
Active registration number / state / expiration date		Not applicable	
Year registered	Not applicable	Discipline	Not applicable
Contract role(s) / brief description of responsibilities		Survey Technician for Topographic Surveys, 3D Scanning, and Underwater Acoustical Imaging	
Lance Fontenot is a UAS Manager in the Advanced Technologies Division. Lance serves as the lead Unmanned Aerial Vehicle (UAV) and High-Definition Scanning (HDS)/Dimensional Control survey technician, and oversees all field HDS/DC operations for the project to ensure corporate QA/QC guidelines and procedures are followed. He also provides day-to-day technical guidance and has the final say on the submission of all data to project managers. Lance has performed UAV Surveys, HDS Scanning, Dimensional Control support, Boundary/Right-of-Way, Pipeline, Topographic, Roadway, Construction, Oil & Gas, Geodetic, Hazard, and Accident Surveys.			
02/12-08/13	DOTD – Underwater Acoustic Imaging for Bridge Inspection (Statewide, LA) Lance served as Lead Survey Technician on LADOTD's program, inspecting 72 bridges statewide using sonar and RTK GPS. He supported acoustic imaging surveys to evaluate pier conditions, scour, and underwater anomalies.		
11/18-11/19	Farm Road Bridges Project (Calcasieu Parish, LA): Lance conducted field data collection, surveyed property corners, and conducted topographic surveys of driveways along Farm Road. His survey data supported roadway improvements and bridge replacements.		
02/14-09/14	LADOTD – Harrisonburg Bridge Laser Scanning Survey (Catahoula Parish, LA) Lance processed 3D laser scan data and generated deliverables documenting bridge pier alignments and potential movement. His work provided LADOTD with high-precision measurements for comparison to prior surveys.		
07/13-07/13	West Larose Bridge Survey (Lafourche Parish, LA): Lance surveyed bridge elevations and clearances and processed laser-scanned data for the West Larose Vertical Lift Bridge. His deliverables supported the LADOTD renovation design.		
09/13-10/19	Sasol LCCP Heavy Haul Road (Calcasieu Parish, LA): Lance conducted field surveys, processed data, and created maps and plats for the 1.5-mile heavy-haul corridor. He also performed UAV photogrammetry and processed aerial data to support project deliverables.		
12/20-01/21	New Orleans Outfall Canals Survey (Orleans Parish, LA) Lance processed LiDAR data for surveys of the 17th Street, London Avenue, and Orleans Canals. His work supported erosion detection and long-term monitoring using multibeam and LiDAR technology.		
06/20-07/20	New Gulf Facility LiDAR Topo (Wharton County, TX) Lance conducted UAV LiDAR surveys and processed data to create digital surface models for reservoir analysis. His work identified low points around the New Gulf Reservoir.		
05/10-10/21	Kaliste Saloom Road Widening (Lafayette Parish, LA) Lance served as Lead UAV Field Technician, operating drones and producing topographic plats. His aerial mapping supported roadway design, utility relocation, and the development of construction plans.		
11/17-04/18	I-10 Texas State Line to East of Coone Gully – Roadway Lighting (Calcasieu Parish, LA) Lance managed LiDAR data collection and ground-truthing for utility and topographic surveys along a 10.5-mile stretch of I-10. His work supported roadway widening, bridge replacements, and drainage design.		
10/23-10/23	First Solar Plant Site Development (Iberia Parish, LA) Lance performed UAV LiDAR and photogrammetry data collection and processed orthomosaics for this 2-million-square-foot manufacturing facility. His survey data supported civil design, permitting, and construction administration.		
04/15-02/19	Coach Williams Drive Extension & Roundabout (Calcasieu Parish, LA) Lance performed ROW and construction servitude stakeout for this \$18.4 million, three-mile roadway project. His work supported the design of roadways, roundabouts, railroad crossings, and canal crossings through wetlands.		
03/19-05/21	Apollo Road (LA 93) Extension to Dulles Drive (Lafayette Parish, LA) Lance conducted UAV flights, video capture, and surveying for ROW, drainage laterals, and utilities to support roadway extension design. His work provided critical data for construction administration and inspection services.		

Firm employed by		C. H. Fenstermaker & Associates, L.L.C.		
Name	Luke Hebert, PE, CFM		Years of relevant experience with this employer	22
Title	Director, Engineer		Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization			B.S. / 2003 / Civil Engineering	
Active registration number / state / expiration date			PE.0034715 / LA / 09-30-2027	
Year registered	2009	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities			Roadway & Traffic Control / Civil Engineer for Roadway Design. (Meets MPR 8)	
Luke Hebert is an Engineering Director at Fenstermaker with experience in engineering design, planning, and project management. During his career, Luke has been involved in many different types of designs, ranging from various roadway types to surface and subsurface drainage systems, water and sewer distribution systems, and water and sewer treatment. Luke is proficient in Bentley Software such as MicroStation, Storm and Sanitary, InRoads, and LADOTD's HYDRWIN and AutoTurn.				
05/13-10/17	US 90 (I-49 South) Albertson Parkway to Ambassador Caffery Design-Build (Lafayette Parish, LA) As Lead Roadway Design Engineer for James Construction Group's design-build team, Luke designed roadway enhancement designs for the six-lane corridor upgrade, including new overpasses, frontage roads, and ramps. He designed the horizontal and vertical alignments, typical sections, sequencing, erosion control, cross sections, quantity tabulations, MSE wall layouts, and roadway drainage design.			
03/11-02/21	Kaliste Saloom Road Widening & Intersection Improvements – LA 3073 to LA 733 (Lafayette Parish, LA) Luke served as a Design Engineer on this \$35 million project to widen 1.7 miles of Kaliste Saloom Road from a two-lane asphalt roadway to a five-lane concrete facility with a continuous center turn lane, 8-foot sidewalks, and shared bicycle lanes. He assisted with the design of the multi-lane roundabout at South College Road, developed roadway geometrics, and prepared waterline layouts, supporting Fenstermaker's broader role in surveying, right-of-way platting, engineering design, and construction plan development.			
04/15-02/20	Coach Williams Drive Extension & Roundabout (Calcasieu Parish, LA) Luke served as a Design Engineer on this \$18.4 million, three-mile roadway extension project connecting Coach Williams Boulevard to LA 379, which included a two-lane open ditch section, a roundabout, a railroad crossing, a Sabine River Authority Canal crossing, and multiple wetland crossings. He provided quality control for preliminary and final design plans, assisted with waterline layout and utility relocations, and supported Fenstermaker's role as prime consultant responsible for surveying, environmental assessments, drainage, pavement design, and roadway geometrics.			
01/09-08/18	East Pont des Mouton Road Widening – Phases I & II (Lafayette Parish, LA) As Lead Design Engineer for Phase II of the East Pont des Mouton Roadway Widening, Luke directed the expansion of a two-lane asphalt roadway into a five-lane concrete urban arterial. He was responsible for horizontal and vertical alignments, typical sections, geometric and intersection design, utility relocations, drainage and subsurface drainage systems, construction sequencing, and plan/specification development. He also served as Lead Construction Engineer, supporting plan implementation during project delivery.			
02/14-01/17	Sasol LCCP Heavy Haul Road (LA 378 & LA 379) (Calcasieu Parish, LA) As Project Engineer under Fenstermaker's contracts with Fluor, Luke designed heavy haul routes critical for transporting oversized modules from the Calcasieu River to the Sasol plant site in Westlake. He designed the roadway and intersections on two projects valued at \$11.4 million and \$6 million, covering over 3.9 miles of routes and major intersection improvements at John Stine/Sampson, Houston River Road/Beglis, and Sulphur/Sampson.			
07/11-04/20	Apollo Road (LA 93) Extension to Dulles Drive (Lafayette Parish, LA) Luke served as Project Engineer on this \$15 million, 2.2-mile four-lane boulevard extension with sidewalks for the City of Scott, connecting Apollo Road to Dulles Drive. The project included a bow-tie intersection at LA 90 and a roundabout at LA 93 to improve traffic flow and multimodal access. Luke was responsible for quality control of the final design plans prior to project advertisement.			
09/12-08/19	Acadiana Regional Airport (ARA) Access Roadway (Iberia Parish, LA) As Project Manager, Luke oversaw the design of a new two-lane roadway connecting LA 3212 and LA 675, with provisions for future expansion to four lanes. He provided roadway and drainage design, including roadside ditches and cross drains; bid and contract administration; and construction engineering and inspection services. He also supported the City of New Iberian in securing capital outlay funding for project implementation.			

Firm employed by		C. H. Fenstermaker & Associates, L.L.C.		
Name	Aimee Latiolais, PE		Years of relevant experience with this employer	11
Title	Engineer		Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization			B.S. / 2014 / Civil Engineering	
Active registration number / state / expiration date			PE.0042932 / LA / 03-31-2027	
Year registered	2018	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities			Roadway & Traffic Control / Civil Engineer for Roadway Design (Meets MPR 8)	
Amiee Latiolais is a Professional Engineer with experience in roadway design, open channel and subsurface drainage systems, hydraulic systems analysis, traffic studies, line and grade studies, commercial site design, roundabout design, and construction oversight. She has served as a design engineer for transportation projects ranging from urban local to collector and arterial roadways. Her responsibilities at Fenstermaker include developing various transportation, drainage, and construction documents.				
02/17-05/26	Verot School Road Interchange at U.S. Highway 90 (Lafayette Parish, LA) Amiee served as Design Engineer on the widening of Verot School Road from two to four lanes with a median, including a multi-lane roundabout at South College Road. She designed horizontal and vertical roadway elements, intersection improvements, and open-channel and subsurface drainage, and also contributed to the project line and grade study and a public outreach meeting in coordination with LADOTD.			
06/18-06/19	US 90 (I-49 South) Albertson Parkway to Ambassador Caffery Design-Build (Lafayette Parish, LA) Amiee served as a Design Engineer on this \$69.4 million design-build project to upgrade US 90 to a six-lane, interstate-standard facility. She worked closely with the project manager on the design of roadway guardrail systems, supporting Fenstermaker’s role as the lead design firm in a joint venture with James Construction Group.			
02/22-05/26	LA 182 (University) at LA 723 (Renaud) Roundabout (Lafayette Parish, LA) Amiee served as Deputy Project Manager on this LADOTD roundabout project to improve traffic flow and safety at University Avenue. She managed project administration, coordinated plan drafting and exhibits, oversaw the traffic analysis, and maintained client communication to ensure project progress and responsiveness.			
04/21-07/25	Spanish Trail Industrial Park Access Road (St. Martin Parish, LA) Amiee served as Project Manager for the extension of Lake Talon Road to LA 182, overseeing survey coordination, permitting, engineering design, and construction services. She managed subconsultants for traffic and geotechnical studies, directed the BNSF permitting process, reviewed plans and reports, and provided client updates and invoicing throughout the project.			
04/16-10/16	Sasol LCCP Heavy Haul Road Engineering & Construction (LA 378 & LA 379, Calcasieu Parish, LA) Amiee served as a Design Engineer on this 1.5-mile heavy haul route project supporting Sasol’s Lake Charles Chemicals Project in Westlake, Louisiana. She used AutoTURN to design and verify driveway layouts for access permitting and to develop cost estimates for required driveway realignments, supporting Fenstermaker’s overall roadway design and consulting services.			
03/18-07/20	Roddy Road at Churchpoint Road Roundabout Redesign (Ascension Parish, LA) Amiee served as Design Engineer on the redesign of a roundabout at the Churchpoint Road/ Roddy Road intersection to meet updated LADOTD standards. She revised the roundabout geometry and striping layouts, conducted a comparative analysis of an all-way stop versus a single-lane roundabout, and provided QA/QC reviews of reports and plan sets.			
10/15-05/16	Nelson Road and Ham Reid Road Roundabout Design (Calcasieu Parish, LA) Amiee served as Design Engineer and quality control reviewer for subsurface drainage on this project to improve intersections at Nelson Road, Ham Reid Road, and Gauthier Road. The project delivered a new multi-lane roundabout, supported by Fenstermaker’s role in surveying, ROW plats, roadway design, bidding, contract administration, and construction engineering services.			
09/15-06/23	Kaliste Saloom Road Widening & Intersection Improvements – LA 3073 to LA 733 (Lafayette Parish, LA) Amiee served as Design Engineer on this \$35 million, 1.7-mile roadway widening project in Lafayette, where she led subsurface drainage design, utility relocations, and preparation of the Opinion of Probable Cost and construction documents. She optimized the roundabout design, developed TTC signage and striping layouts, assisted with permitting and agency coordination, and provided QA/QC on drainage and plan sets.			

Firm employed by		C. H. Fenstermaker & Associates, L.L.C.	
Name	Bradford Millett, PLS, EI		Years of relevant experience with this employer
Title	Surveyor		13
Degree(s) / Years / Specialization		Years of relevant experience with other employer(s)	
		0	
Active registration number / state / expiration date		B.S. / 2014 / Civil Engineering	
Year registered		PLS.0005245 / LA / 03-31-2027 EI.0032848 / LA / 06-30-2026	
Discipline		Professional Land Surveyor Engineer Intern	
Contract role(s) / brief description of responsibilities		Professional Land Surveyor for Topographic Survey and Property and Boundary Survey, Title Work. (Meets MPR 10)	
Bradford Millett is a Professional Land Surveyor at Fenstermaker whose responsibilities consist of field crew coordination, data collection and processing, preliminary layout and design of boundary and right of way plats, ALTA surveys, and the development and planning of the subdivision platting process. Her experience also includes project management, public meetings, client relations, utility coordination, and other components of surveying services. Bradford is also responsible for preparing proposals for the Engineering, Advanced Technologies, and Surveying Divisions.			
02/22-12/25	Spanish Trail Industrial Park Access Road (St. Martin Parish, LA) Bradford served as Survey Coordinator on the extension of Lake Talon Road to LA 182, supporting Fenstermaker's survey and engineering responsibilities. She oversaw topographic survey tasks, coordinated with BNSF Railway on survey activities, managed utility coordination through LA One Call, and processed and reviewed survey data.		
01/17-03/21	Sasol LCCP Heavy Haul Road (LA 378 & LA 739, Calcasieu Parish, LA) Bradford supported this \$12.9 million heavy haul road project by leading topographic and boundary data collection, data processing, and preparation of LADOTD right-of-way maps for the 1.5-mile corridor. She also coordinated utilities for the relocation of AT&T facilities along the route.		
08/13-11/15	US 90 (I-49 South) Albertson Parkway to Ambassador Caffery Design-Build (Lafayette Parish, LA) Bradford served as Survey Coordinator on this \$69.4 million design-build project to upgrade US 90 to a six-lane controlled-access facility with new overpasses, ramps, and frontage road improvements. She conducted topographic surveys for LADOTD and reviewed all LADOTD right-of-way maps to ensure accuracy and compliance.		
09/14-04/21	Arceneaux Road Drainage Improvements (Lafayette Parish, LA) Bradford served as Survey Lead for this project, which improved drainage along Arceneaux Road across a 170-acre watershed. She managed boundary surveys, prepared property plats and legal descriptions, reviewed servitude plats, and coordinated field crews to establish temporary benchmarks supporting design and construction planning.		
06/23-03/26	IJA Off-System Bridge Program – District 03 (South Louisiana) Bradford supported LADOTD's program to replace 14 bridges across eight parishes by leading survey efforts. She conducted topographic surveys for LADOTD , coordinated field crews, processed boundary and topographic data, reviewed control sketches, and prepared survey deliverables to support project development and stakeholder coordination.		
02/21-11/22	Louisiana Watershed Initiative – Region 4 (Southwest Louisiana) As Survey Project Manager, Bradford oversaw and conducted topographic surveys for LADOTD's watershed-based flood risk management program across nine parishes. She reviewed existing data, identified gaps, scoped survey needs for task orders, coordinated field crews, processed data, and reviewed deliverables, ensuring accurate inputs for hydrologic and hydraulic model development.		
11/20-08/23	Louisiana Watershed Initiative – Region 6 (South & Southeast Louisiana) Bradford served as Survey Project Manager on this LWI effort addressing regional flood risk across 16 parishes. She conducted topographic surveys for LADOTD , reviewed existing survey data on hydraulic structures, coordinated survey crew access and field activities, oversaw data collection and validation, and finalized survey deliverables. Her work supported data-gap analyses, drone imagery, and GIS tasks that informed the development of regional hydrologic and hydraulic models.		
05/19-03/21	S.P. H.005967 – Port of Lake Charles Rail at W. Sallier Street (Calcasieu Parish, LA) Bradford served as Project Manager for survey services on the 0.75-mile railroad relocation project at the Port of Lake Charles. She conducted and oversaw topographic and boundary field surveys for LADOTD , established and post-processed control, reviewed title reports, and prepared LADOTD right-of-way maps and COGO-based legal descriptions to support property boundary and encumbrance mapping.		
11/22-05/24	US 61 Super Street – Nell & Churchpoint (Ascension Parish, LA) Bradford served as Project Manager for survey services on the US 61 (Airline Highway) Super Street project in Gonzales, providing topographic and right-of-way surveys as a subconsultant to Gresham Smith. She planned and scheduled survey activities, directed field crews, managed survey data, and prepared client reports and presentations to support project delivery.		

Firm employed by Civil Design & Construction, Inc. (CD&C)				
Name	Chris Ballard, PLS		Years of relevant experience with this employer	10
Title	Survey Manager		Years of relevant experience with other employer(s)	19
Degree(s) / Years / Specialization			BS / 2004 / Biological Science / Southeastern LA University	
Active registration number / state / expiration date			PLS.0005033 / LA / 9-30-2026	
Year registered	2010	Discipline	Land Surveyor	
Contract role(s) / brief description of responsibilities			Survey Support / Professional surveyor for survey support (Meets MPR 10)	
Chris serves as the Survey Manager for this project. He will confirm that the project stays on schedule, assist with both crew coordination and office production, and provide final QC of the firm’s deliverables to the Prime Consultant. Chris has an extensive background in providing topographic surveys for LADOTD in accordance with Location and Survey policies and procedures. He has overseen projects that use traditional data-collection methods, as well as those that employ 3D Terrestrial Scanning.				
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).			
12/23 – 05/24	LADOTD, H.012618 LA 347 Drainage Improvements: Chris is the Survey Manager for this project. Chris conducted a topographic survey for just over 2 miles of roadway. Both traditional means and methods and 3D Scanning were used to collect topographic data for this roadway improvement project. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.			
02/23 – 12/23	LADOTD, H.012027.5 - I-20 UPRR: Chris is the Survey Manager for this project. Chris conducted a topographic survey for the interstate in North Louisiana. Both traditional means and methods and 3D Scanning were used to collect topographic data for this interstate and overpass improvement project. This project also included a coordinate and survey of the Union Pacific Railroad line crossing I-20. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.			
09/18-01/20	LADOTD, H.004100 I-10: LA 415 to Essen Lane on I-10 and I-12, West and East Baton Rouge, LA: Chris is the Survey Manager for this project. As a sub-consultant on this project, Chris conducted topographic surveying of the portion of I-10 in West Baton Rouge Parish, beginning at the start of the project limits to a point just before the approach of the I-10 Bridge and the limits of the project along LA 415, including work on Tributaries of the Intercoastal Canal. This work included using 3D Scanning for the bridge at I-10 bridge @ LA 415, as well as scanning every 500’ for control verification and incorporation of the Mobile Lidar for the I-10 pavement.			
04/17-07/17	LADOTD, H.010006.5-3 LA 58 Petit Caillou Bridge Rehabilitation (Sarah Bridge), Terrebonne Parish, LA: Chris is the Survey Manager for this project, where he conducted a complete topographic survey, utility coordination, channel cross sections, and the scanning of the existing vertical lift bridge for the design of its repairs/replacement. The project included data collection of topography using traditional methods, along with 3D terrestrial scanning and hydrographic surveying.			
02/19-09/19	East Feliciana Parish Government, Bridge Replacements in East Feliciana Parish, Rural East Feliciana Parish, LA: Chris is the Survey Manager for this project for the East Feliciana Parish Police Jury. It includes replacing two bridges damaged by flooding and repairing many rural roadways throughout the parish. These projects are funded by FEMA, and all documentation must comply with FEMA’s policies and procedures.			
01/17-12/17	East Baton Rouge Parish Government, East Baton Rouge Parish Bridges, East Baton Rouge Parish, LA: In 2017, CD&C performed topographic surveys for 4 Bridge Replacement Projects throughout East Baton Rouge Parish. Chris served as Survey Manager on each of these projects, which included cross-sectioning and channel tracing at each location. These included bridges over Dawson Creek, Claycut Bayou, Copper Mill Bayou, and Cypress Bayou.			
10/16-11/16	LADOTD, H.012728.5 LA 443: Tangi River Bridge Replacement, Tangipahoa Parish, LA: Chris served as the Project Manager for this Project. Chris reviewed crew work conditions, processed survey data, verified the final submittal, and reviewed it. He also completed a topographic survey that included all utilities with depths, all drainage, all building information, including finish floor elevations, and			

	all superstructure and substructure of the bridge over the Tangipahoa River. Additional information regarding the river was located by traditional means upstream and downstream for the engineer's design of the new bridge. To collect data on the failed bridge, 3D Terrestrial Scanning was incorporated alongside traditional methods to complete the topographic survey. Due to the nature of the project as an emergency bridge replacement, all staff worked non-stop until fieldwork was completed in less than 3 weeks.
09/17-09/17	LADOTD, H.012650.5-1 District 62 Bridges, Livingston and Tangipahoa Parishes, LA: Chris was the Survey Manager for this project, which included 5 bridge sites in District 62. In addition to the existing data for the bridge and roadway at each site, each channel was cross-sectioned upstream and downstream of the bridge. These included bridges over the US 190 Bridge over Gray's Creek, 2 bridges on LA 442, both crossing East Hog Branch, LA 1063 over the Natalbany River, and US 51 over Ponchatoula Creek. Chris conducted topographic surveys of several of these bridges, including the US190, where he utilized 3D Terrestrial Scanning.
10/15 - 12/18	LADOTD, H.003184.5 I-10 Texas State Line – East of Coone Gully, Calcasieu Parish, LA: Chris served as the Survey Project Manager on this project, which is a 6-lane widening of I-10. He reviewed crew-sourced survey information, verified the project delivery schedule, processed data, and conducted the final review of the project submittal. He also conducted topographic surveys using 3D Terrestrial Scanning in conjunction with traditional methods to complete this project.

Firm employed by Civil Design & Construction, Inc. (CD&C)				
Name	Scott Benton		Years of relevant experience with this employer	10
Title	Survey Project Manager		Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization				
Active registration number / state / expiration date			ATSSA Traffic Control Supervisor, Technician & Flagger	
Year registered		Discipline		
Contract role(s) / brief description of responsibilities			Survey Support / Provide support for surveying services	
Scott serves as a Survey Project Manager and Senior Technician specializing in 3D Terrestrial Scanning, processing, and extraction.				
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).			
11/24-05/25	LADOTD, H.015949 LA 335: Scott is the 3D Scanning Technician on this project. He performed a detailed topographic survey of the project at the intersection of LA 335 and Port Street, and a limited survey of a 3.5-mile portion of LA 335. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.			
12/24 – 04/25	LADOTD, H.014824.5 LA 317 - Wax Lake B: Scott is the 3D Scanning Technician on this project. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.			
10/24 – 01/25	LADOTD, H.015849 US 190 R Cuts @ LA741: Scott is the 3D Scanning Technician on this project. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed to the LADOTD Location and Survey Standards and practices.			
12/23 – 05/23	LADOTD, H.012618 LA 347 Drainage Improvements: Scott is the 3D Scanning Technician on this project. Topographic Survey for just over 2 miles of roadway. Both traditional means and methods and 3D Scanning were used to collect topographic data for this roadway improvement project. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.			
05/23 – 08/23	LADOTD, H.015056 - LA 685: Scott is the 3D Scanning Technician on this project. Topographic Survey for just over 4,503 feet of roadway. Both traditional means and methods and 3D Scanning were used to collect topographic data for this roadway improvement project. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.			
05/23 – 08/23	LADOTD, H.015058 - LA 14 Business: Scott is the 3D Scanning Technician on this project, Topographic Survey for just over 12,300 feet of roadway. Both traditional means and methods and 3D Scanning were used to collect topographic data for this roadway improvement project. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.			
02/23 – 12/23	LADOTD, H.012027.5 - I-20 UPRR: Scott is the 3D Scanning Technician on this project. Topographic Survey for the interstate in North Louisiana. Both traditional means and methods and 3D Scanning were used to collect topographic data for this interstate and overpass improvement project. This project also included coordinate and survey of the Union Pacific Railroad line crossing I-20. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.			
10/20 – 01/21	LADOTD, H014302 US 165 Lighting, Monroe, LA: Scott served as the firm’s lead 3D Scanning Technician on this lighting project. CD&C was a sub-consultant on this project and was responsible for topographic surveying of US 165 south of Monroe for a highway lighting improvement. The topographic data for this project was collected both traditionally and using 3D Terrestrial Scanning.			
12/19 – 01/20	LADOTD, H.004100 I-10: LA 415 to Essen Lane on I-10 and I-12, West and East Baton Rouge, LA: Scott served as a 3D Scanning Technician for this project. CD&C, as a sub-consultant on this project, is responsible for topographic surveying the portion of I-10 in West Baton Rouge Parish, from the start of the project limits to a point just before the approach to the I-10 Bridge, and along the project limits on LA 415.			

Prime consultant name: HDR Engineering, Inc.

Firm employed by Civil Design & Construction, Inc. (CD&C)				
Name	Drennon Humphreys		Years of relevant experience with this employer	5
Title	Survey Party Chief		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization				
Active registration number / state / expiration date			ATSSA Traffic Control Supervisor, Technician & Flagger	
Year registered		Discipline		
Contract role(s) / brief description of responsibilities			Survey Support / Provide support for surveying services	
Drennon will serve as a Survey Party Chief managing a crew to collect topographic data in the field in accordance with LADOTD Location and Survey means and 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).			
11/24-05/25	LADOTD, H.015949 LA 335: Drennon served as a Party Chief for this project. He assisted with a detailed topographic survey of the project at the intersection of LA 335 and Port Street and a limited survey of a 3.5-mile portion of LA 335. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.			
12/24 – 04/25	LADOTD, H.014824.5 LA 317 - Wax Lake B: Drennon served as a Party Chief for this project. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.			
10/24 – 01/25	LADOTD, H.015849 US 190 R Cuts @ LA741: Drennon served as a Party Chief for this project. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.			
12/23 – 05/23	LADOTD, H.012618 LA 347 Drainage Improvements: Drennon served as a Party Chief for this project. Topographic Survey for just over 2 miles of roadway. Both traditional means and methods and 3D Scanning were used to collect topographic data for this roadway improvement project. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.			
09/23 – 12/23	LADOTD, H.015619.5 LA 106: Drennon served as a Party Chief for this project. Topographic Survey for just over 8 miles of roadway. Traditional means and methods were used to collect limited topographic data for this overlay and roadway rehabilitation project. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.			
05/23 – 08/23	LADOTD, H.015056 - LA 685: Drennon served as a Party Chief for this project. Topographic Survey for just over 4,503 feet of roadway. Both traditional means and methods and 3D Scanning were used to collect topographic data for this roadway improvement project. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.			
05/23 – 08/23	LADOTD, H.015058 - LA 14 Business: Drennon served as a Party Chief for this project. Topographic Survey for just over 12,300 feet of roadway. Both traditional means and methods and 3D Scanning were used to collect topographic data for this roadway improvement project. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.			
02/23 – 12/23	LADOTD, H.012027.5 - I-20 UPPR: Drennon served as a Party Chief for this project. Topographic Survey for the interstate in North Louisiana. Both traditional means and methods and 3D Scanning were used to collect topographic data for this interstate and overpass improvement project. This project also included coordinate and survey of the Union Pacific Railroad line crossing I-20. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.			
08/22 – Ongoing	LADOTD, 4400017091 Louisiana Watershed Initiative Region 5 – Task Order 3: Drennon is working as a Party Chief on this Louisiana Watershed Initiative project. He has been responsible for collecting topographic data at various bridge locations that will be used in the watershed model for this area. CD&C is a sub-consultant on this project.			

Firm employed by Civil Design & Construction, Inc. (CD&C)				
Name	Jacob Stoehr		Years of relevant experience with this employer	11
Title	Senior Survey Party Chief		Years of relevant experience with other employer(s)	1.5
Degree(s) / Years / Specialization				
Active registration number / state / expiration date			ATSSA Traffic Control Supervisor, Technician & Flagger	
Year registered		Discipline		
Contract role(s) / brief description of responsibilities			Survey Support / Provide support for surveying services	
Jacob will serve as a Survey Party Chief managing a crew to collect topographic data in the field in accordance with LADOTD Location and Survey means and 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).			
12/24 – 04/25	LADOTD, H.014824.5 LA 317 - Wax Lake B: Jacob served as Senior Party Chief on this project. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.			
10/24 – 01/25	LADOTD, H.015849 US 190 R Cuts @ LA741: Jacob served as Senior Party Chief on this project. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.			
02/23 – 12/23	LADOTD, H.012027 I 20: Union Pacific RR Overpass: Jacob served as a Party Chief on this project. CD&C was responsible for the topographic survey beginning and ending 5000 feet beyond either end of the approach slab of the I-20 eastbound and westbound subject bridge structure. Terrestrial Laser Scanning was used on all hard-surface areas, including Parking Lots, Roadway and Bridge structures, and Union Pacific Railroad rails.			
09/21 – 03/22	LADOTD, H.014747 Southern University Ravine Protection, East Baton Rouge Parish: Jacob served as one of the Survey Party Chiefs on this project, managing a crew to collect topographic data in the field, utilizing LADOTD Field Codes.			
07/20 – 04/21	LADOTD, H.001352.5 and H.002273.5 Comite River Diversion Bridge at LA 67, LA 19 and LA 19 Railroad Bridge, East Baton Rouge Parish: Jacob was a Party Chief on this project. CD&C, as a sub-consultant on this project, was responsible for topographic surveying the LA 67 and LA 19 sites of the Comite River Diversion project. The topographic data for this project was collected traditionally.			
01/18-01/2020	LADOTD, H.004100 I-10: LA 415 to Essen Lane on I-10 and I-12, West and East Baton Rouge, LA: Jacob is the Survey Party Chief for this project. CD&C was responsible for topographic surveying the portion of I-10 in West Baton Rouge Parish, from the start of the project limits to a point just before the approach to the I-10 Bridge, and along the project limits on LA 415.			
07/17-12/2018	LADOTD, H.010960.5-2, LA 30 Roundabouts at Tanger I-10, Ascension Parish, LA: Jacob served as one of the Survey Party Chiefs on this project, managing a crew to collect topographic data in the field, utilizing LADOTD Field Codes.			
08/16-01/2018	LADOTD, H.011235 I-49 Verot School Road, Lafayette, LA: Jacob served as one of the Survey Party Chiefs on this project by managing a crew in the collection of topographic data in the field, utilizing LADOTD Field Codes.			
02/19 - 09/19	East Feliciana Parish Government, Bridge Replacements in East Feliciana Parish, Rural East Feliciana Parish, LA: Jacob served as a Jr. Party Chief on this project for East Feliciana Parish Police Jury. It includes replacing 2 bridges damaged by flooding and repairing many rural roadways throughout the parish. These projects are funded by FEMA, and all documentation must comply with FEMA’s policies and procedures.			

Firm employed by Moffatt & Nichol Inc.				
Name	Jeffrey Gazarek, ADCI		Years of relevant experience with this employer	11
Title	Dive Safety Officer/Compliance Manager		Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization			Commercial Diving with Concentration in Subsea Inspection / 2005 / Divers Institute of Technology	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Underwater inspection / Underwater safety manager will develop the underwater safety plan, lead and perform NBIS underwater inspections, and perform acoustic imaging	
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).			
05/21-08/25	LADOTD Underwater Bridge Inspections, Statewide, LA. Safety Manager, Engineering Technician Diver, and Team Leader for the current five-year retainer contract, 2020-2025, to perform underwater bridge inspections throughout Louisiana. Performed Level I, II, and III inspections of submerged elements in accordance with the FHWA BIRM, AASHTO MBE, current NBIS requirements, and LADOTD requirements.			
06/17-12/20	LADOTD Underwater Bridge Inspections and Underwater Acoustic Imaging, Statewide, LA. Safety Manager, Engineering Technician Diver, and Dive Supervisor for the five-year retainer contract 2017-2021 to perform underwater bridge inspections throughout Louisiana. Performed Level I, II, and III inspections of submerged elements in accordance with the FHWA BIRM, AASHTO MBE, current NBIS requirements, and LADOTD requirements. Acoustic imaging techniques were used to identify structural deficiencies and determine scour limits, conduct emergency underwater investigations, and inspect bridges over high-risk waterways.			
11/15-03/17	LADOTD Underwater Bridge Inspections, Statewide, LA. Site Safety Specialist, Engineering Technician Diver, and Team Leader for the five-year retainer contract 2012-2017 to perform underwater bridge inspections throughout Louisiana. Performed Level I, II, and III inspections of submerged elements in accordance with the FHWA BIRM, AASHTO MBE, current NBIS requirements, and LADOTD requirements.			
04/19-04/24	LADOTD In-Depth Bridge Inspections, Statewide, LA. Engineering Technician Diver, Sonar Specialist, Site Safety Specialist, and Senior Dive Supervisor for the five-year retainer contract to perform in-depth bridge inspections on complex and movable bridges throughout Louisiana. As the primary sub-consultant, M&N is performing comprehensive in-depth inspections (covering both routine and fracture-critical inspection types) as a quality assurance measure for the district personnel of the Headquarters Bridge Inspection Office. Performed Level I, II, and III inspections of submerged elements in accordance with the FHWA, BIRM, AASHTO MBE, and Manual for Bridge Element Inspection, current NBIS requirements, and the LADOTD BIM will be required as needed. Bridge types include cantilever trusses, segmental concrete box girders, movable swing-span bridges, bascule bridges, cable-stayed bridges, and bridges with various configurations featuring timber elements.			
03/24-Ongoing	MDOT 2023 IDIQ Underwater Bridge Inspection, Jackson, MS. Safety Manager responsible for the review and approval of dive and field safety plans for specialty access projects, both above- and below-water. This includes oversight of diving operations, rope access, fall protection, mobile elevated work platforms, and confined space safety.			
10/22-10/22	USACE, Bridge Inspection Services at USAG Fort Polk, Leesville, LA. Project Safety Manager and Inspection Team Member responsible for field inspections and safety oversight. This task order covered the inspection of 63 bridges and the			

	preparation of reports in accordance with NBIS and USACE procedures. Field inspections required extensive coordination with the Directorate of Public Works and range control to avoid affecting base operations. Four bridges required an underwater inspection. Duties included pre-site visit, dive plan and safety plan review, and on-site bridge inspection.
04/20-04/25	LADOTD Inventory and Inspection of Sign Trusses, Statewide, LA. Site Safety Specialist who supported the overall project safety, logistics, and compliance. He led meetings to present findings related to sign inventory issues and reviewed guidance documents and logistical considerations across project teams. He addressed bucket truck safety concerns, maintenance planning, and contract modifications, including transitioning from a standard lease to a custom agreement. He reviewed and discussed hazard analyses, including electrical hazards and rope access safety. He evaluated and updated the Access Work Plan, project-wide Activity Hazard Analysis (AHA), and Rope Access AHA. He oversaw incident-reporting processes and facilitated safety meetings for flaggers, traffic control technicians, and traffic control supervisors. He coordinated with the sub-consultant's regional manager to verify compliance with safety documentation, M&N standards, and contract requirements, and actively supported field team safety through regular reviews of the Field Safety Plan and by promoting clear communication and procedural adherence.
10/22-12/24	MDOT Bridge Load Rating Inspection, Statewide, MS. Team Leader and Technician who performed in-depth inspection for load rating of four bridges. The team identified and verified bridge defects from previous inspection reports and cross-referenced on-site measurements with the original build drawings, which helped develop a load rating report and provide bridge posting recommendations.
07/15-12/19	LADOTD Truss Sign Inspection, Statewide, LA. Team Leader and Site Safety Specialist to perform ancillary structure inspections throughout Louisiana. Inspections include steel and aluminum welds, critical moment connections, fatigue-prone details, safety features, and general maintenance items to increase service life in accordance with FHWA guidelines.

Firm employed by Moffatt & Nichol Inc.				
Name	Chace Hulon, PE, ADCI		Years of relevant experience with this employer	12
Title	Program Manager		Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization		Bachelor of Science / 2005 / Civil Engineering		
Active registration number / state / expiration date		P.E. 39701 / LA / 09-30-2026		
Year registered	2015	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Underwater inspection / Engineer-diver for bridge investigations and managing underwater evaluation 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).			
08/14-Ongoing	LADOTD Underwater Bridge Inspections, Statewide, LA. Project Manager, Dive Supervisor, and National Bridge Inspection Standards (NBIS) Team Leader for the fourth consecutive retainer contract. Contracted to perform 2,386 underwater bridge inspections throughout Louisiana and in the most challenging environments, including dive operations in the Lower Mississippi River under the U.S. Coast Guard (USCG) Waterways Management Division. Level I, II, and III inspections of submerged elements were performed in accordance with the Federal Highway Administration (FHWA), Bridge Inspector's Reference Manual (BIRM), American Association of State Highway and Transportation Officials (AASHTO) Manual for Bridge Evaluation (MBE), current NBIS requirements, LADOTD Engineering and Maintenance Directives, and the LADOTD Bridge Inspection Manual (BIM). Bridge types included movable swing span bridges with pivot piers, bascule bridges with large chamber piers, long-span cantilever through truss bridges with caisson piers, timber trestle bridges with timber piles, cable-stayed bridges with drilled shafts, and multi-span bridges with drilled shafts up to 8 miles in length, and ferry terminals. Managed the QA/QC plan and performed QC reviews as the confirming engineer on NBIS inspection reports. Underwater bridge inspections in large waterways were conducted with commercial divers and augmented with multibeam high-resolution acoustic imaging to consistently monitor streambed changes and structural deficiencies across subsequent inspection cycles. Acoustic hydrographic surveying methods were performed using the HydroLite-TM, Kongsberg Mesotech MS 1000, R2Sonic, and the Norbit Winghead i77 units deployed from a vessel. QINSy, Qimera, Applanix POSPac, MMS systems, and MATLAB were used for accurate, repeatable post-processing. Scour evaluations are integrated into every underwater bridge inspection; however, focused scour evaluations for the purpose of performing a scour analysis were conducted, including a macroscopic view of the surrounding site conditions. Performed emergency underwater damage assessments while augmenting sonar technology and advising on corrective actions and repair alternatives. Performed more than 20 emergency response damage assessments, including the recent allision of the Grosse Tete Bridge (LA77) over the Port Allen Lock canal.			
09/24-03/25	ARDOT, A6476 Bridge Investigation, Siloam Springs, AR. Project Manager, Dive Supervisor, and Team Leader for the investigation of Bent 3A Pier. This reinforced concrete hammerhead pier shaft has a spread footing keyed into shale and is experiencing severe cracking in the shaft and the footing. Chace led the investigation team, along with another representative, to safely perform diving and rigging operations in a river with challenging access. Maintenance of traffic (MOT) devices were utilized for shoulder closures in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) and the American Traffic Safety Services Association (ATSSA) safety standards. Rigging operations were performed in accordance with Society of Professional Rope Access Technicians (SPRAT) safety standards for heavy equipment. Diving operations were performed in accordance with the Association of Diving Contractors International (ADCI) safety standards.			

	Material sampling was required to thoroughly assess the chemical composition of the concrete matrix. Chace supervised and performed the concrete core extraction operations above- and below-water with a hydraulic unit with core sizes of 4-in diameter by 36-in long. Concrete coring was performed to investigate the concrete matrix's chemical composition and to determine the cracking limits in the footing. Testing included compressive tests and petrographic analyses. Tests concluded that excessive amounts of secondary ettringite (DEF) are present along with minor traces of alkali-silica reaction (ASR). Repairs consisted of crack injections and a monitoring plan to assess the stage of chemical reaction and the rate of deterioration, as the reaction may be near completion.
03/20-Ongoing	LADOTD Indefinite Delivery/Indefinite Quantity (IDIQ) for Complex Bridge Inspection, Statewide, LA. Project Manager and Chief Editor for major revisions of the 2020 bridge maintenance policies and procedures (BIM) to incorporate the 2022 NBIS Final Rule. The new policies and procedures included LADOTD On-System BIM, LADOTD Off-System BIM, and LADOTD Coding & Field Guide. While the above documents have been completed, the development of the LADOTD Bridge Load Rating Manual is ongoing. M&N collaborated with the LADOTD staff throughout the development to meet expectations and maintain their direction. In-person progress meetings were held monthly, including sessions facilitated by various District Bridge Engineers throughout the state. The BIM policies and procedures were completed and published in December 2024, with full implementation in January 2025 and full compliance for the FHWA audit in 2028. Compliance with the National Bridge Inspection Program (NBIP) and the associated Specifications for the National Bridge Inventory (SNBI) data tape is in alignment with the anticipated timeline published by FHWA. The tables of contents of the Off-System and On-System manuals were purposefully ordered primarily for the bridge inspector. The vital forms and checklists for the Bridge Inspection Program were reduced to eight and placed in the appendix. The Coding and Field Guide is uniquely designed for a seamless user experience, enabling efficient navigation through large volumes of technical data. Performed in-depth bridge inspections on complex movable and long-span bridges. Performed structural, mechanical, and electrical inspections of six movable bridges utilizing detailed, nondestructive, and laboratory testing methods with hand sketches. Installed a wireless SHM (system health monitoring) system on the Greater New Orleans bridge to monitor significant deficiencies in Nonredundant Steel Tension Members (NSTM) members due to poor design details and advised of repair alternatives. Utilized nondestructive examination (NDE) methods (laser and acoustic) to analyze the rotational movement of an unstable pivot pier. Performed the inspections of two cable-stayed bridges with rope access techniques to inspect 208 cables between the two bridges, their Gensui Dampers, and anchorage systems. Performed two inspections of the I-10 Horace Wilkinson Bridge and two inspections of the Greater New Orleans Bridges, which are cantilever truss bridges utilizing rope access techniques and rolling lane closures to minimize traffic impacts. Performed a fracture critical inspection of the Green Bridge, a steel tied arch in New Orleans, utilizing rope access and Unmanned Aircraft Systems (UAS) access techniques. Performed the inspection of the I-10 Bridge over the Calcasieu River in Lake Charles, utilizing rope access on NSTM and UAS access techniques on columns. The Skydio X10 drone with DroneDeploy and 3D Scan was used to capture an orthomosaic projection of the structure for digital twin models. Hands-on management and implementation of the QC review plan are vital to the continued success of this project.
08/22-03/23	U.S. Army Corps of Engineers (USACE), Bridge and Waterfront Facility Inspection Services at US Army Garrison (USAG) Fort Polk, Leesville, LA. Project Manager, Dive Supervisor, and Quality Assurance Field Engineer Lead for inspection of 63 FHWA reportable structures in the Fort Polk inventory.

Firm employed by Moffatt & Nichol Inc.				
Name	Bryan Tyson, P.E., ADCI		Years of relevant experience with this employer	6
Title	Structural Engineer		Years of relevant experience with other employer(s)	8
Degree(s) / Years / Specialization			Master of Science / 2010 / Civil Engineering; Bachelor of Science / 2008 / Civil Engineering	
Active registration number / state / expiration date			P.E. 0043425 / LA / 03-31-2027	
Year registered	2019	Discipline	Civil	
Contract role(s) / brief description of responsibilities			Underwater inspection / Engineer-diver for planning, directing, and monitoring each aspect of underwater inspections, including serving as the underwater diving team leader on-site	
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).			
09/23-11/24	LADOTD SNBI Program Development and Manual Publications, Statewide, LA. Structural Engineer and Lead Technical Editor for revising the 2020 bridge maintenance policies and procedures (BIM) to incorporate the 2022 NBIS Final Rule. The revised BIM was a major revision of the previous manual, adding the 2022 NBIS Final Rules to 23 CFR Part 650, along with the SNBI and the Metrics for the Oversight of the National Bridge Program. Primary contributor to the On-System and Off-System Bridge Inspection Manuals. Secondary contributor to the development of the Coding & Field Guide, which is an intuitive and interactive PDF allowing inspection personnel to quickly reference the relevant SNBI codes, state-specific standard element numbers, rating definitions, and examples of proper documentation while in the field. Responsible for incorporating updates to the LADOTD bridge inspection policies and procedures, along with more than 30 reference documents from FHWA, LADOTD, and AASHTO. Early in the project, the M&N team worked closely with LADOTD to review bridge inspection manuals from other states and compare their pros and cons to determine the best outline to meet LADOTD’s needs. Led weekly progress meetings with LADOTD throughout the entire project to discuss updated policies and review the living action item list. Maintained quality through the quality control plan, and each chapter was reviewed by a dedicated team of subject matter experts to verify overall quality and adherence to the new inspection policies, procedures, standards, and guidelines that were being established.			
07/23-Ongoing	LADOTD Underwater Bridge Inspection Statewide, LA. Structural Engineer and Team Leader for the current 5-year retainer contract to perform underwater bridge inspections throughout Louisiana for the LADOTD, including 100% visual inspections of submerged elements in accordance with NBIS requirements. Served as inspector for the underwater inspection of concrete, steel, and timber bridges.			
09/24-03/25	ARDOT, A6476 Bridge Investigation, Siloam Springs, AR. Team Member, Engineer-Diver, Rigger, and Drone Pilot for the investigation of Bent 3A Pier. This reinforced concrete hammerhead pier shaft has a spread footing keyed into shale and is experiencing severe cracking in the shaft and the footing. MOT devices were utilized for shoulder closures in accordance with MUTCD and ATSSA safety standards. Rigging operations were performed in accordance with SPRAT safety standards for heavy equipment. Diving operations were performed in accordance with ADCI safety standards. Drone operations were performed in accordance with Federal Aviation Administration safety standards. Performed the 3D reconstruction of Pier 3A to provide a visual model of each crack location accurately referenced, quantified, and rated. Material sampling was required to thoroughly assess the chemical composition of the concrete matrix. Bryan supported the concrete core extraction operations			

	above- and below-water with a hydraulic unit with 4-in-diameter cores by 36-in long. Concrete coring was performed to investigate the concrete matrix's chemical composition and to determine the cracking limits in the footing. Testing included compressive tests and petrographic analyses. Tests concluded that excessive amounts of secondary ettringite (DEF) are present along with minor traces of ASR. Repairs consisted of crack injections and a monitoring plan to assess the stage of chemical reaction and the rate of deterioration, as the reaction may be near completion.
10/23-12/23	Hollingshead Dock Inspection, Panama City, FL. Team Leader and Engineer-Diver for the underwater inspection of a steel bulkhead relieving platform built in the 1920s. Performed Level I, II, and III inspections of submerged elements in accordance with the American Society of Civil Engineers (ASCE) Underwater Investigations Standard Practice Manual and ASCE Waterfront Facilities Inspection and Assessment. QC review of the dock load, the existing structural configuration, and the inspection memo.
03/24-Ongoing	MDOT, Underwater Bridge Inspection, Statewide, MS. Project Manager and Team Leader for a 1-year retainer contract to perform underwater inspections throughout Mississippi, including 100% visual inspections of submerged elements in accordance with NBIS requirements. Served as inspector for the underwater inspection of concrete, steel, and timber bridges.
09/16-10/16	TxDOT EBDG Galveston Bolivar Ferry Landing Repairs, Bolivar Peninsula, TX. Engineer-Diver on an above-water and below-water inspection of the marine facilities. Performed Level I, II, and III inspections of submerged elements in accordance with the ASCE Underwater Investigations Standard Practice Manual and ASCE Waterfront Facilities Inspection and Assessment.
09/15-01/18	LADOTD Underwater Bridge Inspections, Statewide, LA. Structural Engineer and Dive Team Member for two out of ten tasks completed for this LADOTD five-year-long retainer contract to perform underwater bridge inspections throughout Louisiana. Provided Level I, II, and III inspections of submerged elements in accordance with the FHWA, BIRM, AASHTO MBE, current NBIS requirements, and LADOTD Engineering and Maintenance Directives. Bridge types included movable swing-span bridges, bascule bridges, truss bridges, timber stringer bridges, cable-stayed bridges, and single- and multi-span bridges up to 8 miles in length. Assisted with the preparation of NBIS inspection reports. During the two tasks, provided inspection of more than 45 concrete, steel, and/or timber bridges. Included emergency evaluations utilizing underwater acoustic imaging. The second task involved bridges over large waterways with high-risk environmental conditions. Also, provided NBIS inspection reports.
05/16-07/16	Port Freeport Underwater Inspection of Berths 1, 2, 3, 5, and 7, Freeport, TX. Team Lead and Structural Engineer for the underwater inspection of approximately 3100 linear feet of steel bulkhead. Performed Level I, II, and III inspections of submerged elements in accordance with the ASCE Underwater Investigations Standard Practice Manual and ASCE Waterfront Facilities Inspection and Assessment.
06/17-11/18	Underwater Bridge Inspection of Large River Crossings, Statewide, LA. Structural Engineer and Diver for two tasks under a five-year, open-ended retainer contract to perform underwater bridge inspections throughout Louisiana. Served as an inspector and Team Leader. Provided Level I, II, and III inspections of submerged elements in accordance with the FHWA, BIRM, AASHTO MBE, current NBIS requirements, and LADOTD Engineering and Maintenance Directives. Bridge types included movable swing-span bridges, bascule bridges, truss bridges, timber stringer bridges, cable-stayed bridges, and single- and multi-span bridges up to 8 miles in length. Assisted with the preparation of NBIS inspection reports. During the two tasks, inspection of 41 major bridges over large waterways with deep foundation and dynamic channel conditions.

Firm employed by: THOMPSON ENGINEERING, INC., OF LOUISIANA				
Name	Raymond Brown, III, AIA		Years of relevant experience with this employer	7
Title	Project Architect		Years of relevant experience with other employer(s)	35
Degree(s) / Years / Specialization			B.S. / 1985 / Architecture	
Active registration number / state / expiration date			#3601 / LA / 12-31-2026	
Year registered	1985	Discipline	Architecture	
Contract role(s) / brief description of responsibilities			Architecture support / Registered architect to support architectural needs	
Experience dates (mm/yy–mm/yy)	<i>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).</i>			
Raymond J. Brown, III, AIA, has a wealth of knowledge and experience, having practiced architecture for over forty-one years. His architectural design experience spans buildings in both the public and private sectors, including Assisted Living Facilities, Hotels, Educational Facilities, Churches, Military Facilities, Banks, Hospitals, and Theme Parks. He is responsible for all phases of project development for public buildings, including design schematics through construction administration, building design, project team coordination, contract document production, and quality control. He also provides timely document delivery through all contract phases, coordination during construction, and expertise in building envelope assembly design and performance. Mr. Brown’s professional recognition includes Gambit Weekly’s People’s Choice Award 2000 for Best Architecture for Jazzland Theme Park – New Orleans, and the Louisiana Contractor Magazine Award of Merit for Jazzland Theme Park.				
09/20 – Present	St. John the Baptist Parish West Bank Multipurpose Complex St. John the Baptist Parish, LA. Project Manager. Raymond prepared construction documents, submitted plan reviews to the Fire Marshal and St. John Parish Code Enforcement, and coordinated with the owner and subconsultants. The project consists of a new 13,538 SF multipurpose facility for the West Bank of St. John the Baptist Parish. The facility will be used for public events and will include the following spaces: multipurpose room, conference room, storage, mechanical and electrical storage, laundry, catering kitchen/concession stand, corridor, Porte cochere, patio, and janitor’s closet. The new sitework includes 18,800 SF of parking, roads, and sidewalks.			
03/19 – 08/22	Lamar Dixon Expo Center Gymnasium Expansion Ascension Parish, LA. Project Manager. Raymond developed design and construction drawings and specifications for the new 13,568 SF gymnasium expansion, which includes a basketball area with bleacher seating for 527 occupants. The structure also includes a lobby, restroom facilities, janitor closets, storage, a sprinkler riser room, an electrical room, and a mechanical mezzanine. The occupancy is classified as Assembly under NFPA 101, 2015. The occupancy classification type per IBC 2015 is Assembly Group A-4. The construction type per NFPA 101 2015 is Type II (000), and per IBC 2015, it is Type II-B. The structure is protected throughout by an automatic sprinkler system. A pre-engineered metal building frame with an eave height of approximately 25’ is the primary structure of the building. The roof is metal building roof panels, and the metal building wall panels sheath the upper portion of the exterior walls. The lower portion of the exterior wall is an insulated cavity wall with 4” split-faced concrete masonry units at the exterior and 8” concrete masonry units at the interior.			
07/23 – Present	Jefferson Parish East Bank Animal Adoption & Services Facility Jefferson Parish, LA. QA/QC. Raymond provided Quality Assurance/Quality Control review of the new animal adoption and services facility to replace the old one on the east bank of Jefferson Parish. The project consists of the design of a new Animal Care and Services Facility. The site is designed to accommodate the new building, exterior spaces for people and animals, and parking. The new 27,000 SF building featured three public lobbies that host the animal adoption wing, clinic center, and intake housing. Ancillary spaces include restrooms, storage, food storage, mechanical, electrical, and IT rooms, laundry, and cage washing.			
11/21 – 05/25	Parc des Families Visitor Center Jefferson Parish, LA. Project Architect/Designer. Raymond provided the preliminary design of a 2,500 SF visitor center. The project consists of a building that will serve visitors seeking information on park activities, attractions, hours, shelter rentals, disc golf, and other amenities. The visitor center will be located near the park entrance. The building was designed in the style of an Acadian Cottage. The building includes a reception/display area, two offices with a closet, a vestibule to restrooms, restrooms, a meeting room with seating for 25-30, a storage room, a break room, a mechanical/electrical room, an IT room, a sprinkler riser closet, a janitor closet, attic mechanical space, a service building, and a porch area. A new parking lot will be constructed with sufficient parking spaces as required by Planning and Zoning. Mr. Brown provided a full range of architectural services, from project programming to project closeout. He coordinated with the owner and all project consultants to ensure the facility was completed on time and within budget.			

Firm employed by: THOMPSON ENGINEERING, INC., OF LOUISIANA				
Name	Alton Davis, AIA, NCARB, ICC		Years of relevant experience with this employer	4
Title	Director of Architecture		Years of relevant experience with other employer(s)	37
Degree(s) / Years / Specialization			B.S. (University of Louisiana at Lafayette) / 1987 / Architecture	
Active registration number / state / expiration date			#6837 / LA / 12-31-2026	
Year registered	2008	Discipline	Architecture	
Contract role(s) / brief description of responsibilities			Architecture Support / Registered architect to support architectural needs	
Experience dates (mm/yy–mm/yy)	<i>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).</i>			
Alton O. Davis, AIA, NCARB, ICC has over thirty-nine years of architectural experience, including all facets of architectural design and management services from programming through construction administration, including but not limited to, master planning, code review, cost estimating, scheduling, project management, design development, engineering coordination, construction documents, and specification writing as well as project staff scheduling and firm revenue projections.				
04/25 - Present	DOTD Contract 5 for Movable Bridges (6) Vermilion, St. Martin, Calcasieu, and Lafayette Parishes, LA. Sr Architectural Manager. This project was to rehabilitate six bridge tender houses throughout Louisiana. The scope of work includes removing and replacing all existing windows with new impact resistant glazing, removing and replacing all interior and exterior doors, removing and replacing all finish flooring ceiling, repairing and re-painting all interior wall finishes and damaged areas, repairing and refinishing roof ladder and canopy as required, cleaning all exterior wall surfaces and inspecting and resealing all wall penetrations, removing and replacing all furniture/millwork with new construction and installing a new weather-resistant roofing system. Alton provided oversight and client contact for the project and was responsible for coordinating the planning and execution of the services provided.			
06/25 - Present	DOTD Contract 2 for Movable Bridges (5) Vermilion, St. Martin, Cameron, and Assumption Parishes, LA. Sr Architectural Manager. This project was to rehabilitate five bridge tender houses throughout Louisiana. The scope of work includes removing and replacing all existing windows with new impact resistant glazing, removing and replacing all interior and exterior doors, removing and replacing all finish flooring ceiling, repairing and re-painting all interior wall finishes and damaged areas, repairing and refinishing roof ladder and canopy as required, cleaning all exterior wall surfaces and inspecting and resealing all wall penetrations, removing and replacing all furniture/millwork with new construction and installing a new weather-resistant roofing system. Alton provided oversight and client contact for the project and was responsible for coordinating the planning and execution of the services provided.			
09/20 – Present	St. John the Baptist Parish West Bank Multipurpose Complex St. John the Baptist Parish, LA. Architectural Manager. Alton supervises the preparation of construction documents, oversees submittal plan reviews to the Fire Marshal and St. John Parish Code Enforcement, and coordinates directly with the owner and subconsultants. The project consists of a new 13,538 SF multipurpose facility for the West Bank of St. John the Baptist Parish. The facility will be used for public events and will include the following spaces: multipurpose room, conference room, storage, mechanical and electrical storage, laundry, catering kitchen/concession stand, corridor, Porte cochere, patio, and janitor's closet. The new sitework includes 18,800 SF of parking, roads, and sidewalks.			
01/23 – Present	City of Gonzales Care Center Ascension Parish, LA. Architectural Manager. This project consists of a large multipurpose space (gymnasium), meeting rooms, offices, a concession stand, men's and women's restrooms, and a prominent public lobby with an architecturally unique roof design and large storefront windows that provide natural lighting throughout the entry. In addition, there are the necessary utilitarian spaces for storage, IT, mechanical, electrical, etc. The interior design was programmed and planned to meet the needs of the various events it may be used for, and to include clear circulation and wayfinding patterns, consistent with the efficient movement of the numerous patrons expected to use it. Alton designed a building that contained all required spaces, was visually appealing, and cost within the owner's budget. The result is this architecturally significant structure that will be home to many recreational and educational events in the future and will serve the City of Gonzales and the local community for years to come.			

07/25 – Present	New Kenner City Hall Jefferson Parish, LA. Senior Architect. This project is for the design of either one 4-6-story or two 2-3-story government office buildings, with proper ground-level parking, drainage, sewer/water, lighting, landscaping, etc. The project site is to be on the west side of Williams Boulevard (LA 49), in the vicinity of W. Metairie Avenue. The site is where the old City Hall complex once stood, before several buildings sustained significant, irreparable damage during Hurricane Ida. On the project site, two existing office buildings currently occupied by City personnel will remain in place. On the project site, there is also a Veterans Park that contains numerous decommissioned pieces of military equipment. The approximate rough square footage is 44,150 SF. Alton met with individual department heads to gather their specific program requirements, met with the City of Kenner Mayor and staff to discuss the comprehensive building program, and developed concept plans based on those requirements.
03/17 – 11/22	Port of South Louisiana Administrative Building and Business Center St. John the Baptist Parish, LA. Senior Architect. This project was for the design of a three-story 31,761 SF structure with a parking garage on the ground level and two stories of office and meeting space. The structure is poured-in-place concrete and steel trusses, with a prefinished standing-seam metal roof. The site includes new utilities, new paved parking, site lighting, and concrete walks. Alton met with government staff and facility users/managers to ascertain their specific needs and oversaw the design and documentation for this facility.
04/22 – 03/25	Assumption Parish Water District Administration Building Assumption Parish, LA. Senior Architect. This project was for the new 6,750 SF administration building for Assumption Parish Waterworks District #1, located in Napoleonville, Louisiana. The project consists of designing an administrative office building for citizens to pay their water bill, an open office area for the administration staff, men's and women's restrooms, lounge/lunchroom, a Commissioners Board Room for Public Meetings, a Commissioners Private Conference Room, storage closets, exterior patio area, mechanical, electrical and janitor rooms, phone and computer server room and other ancillary spaces. A new parking lot will be constructed at the rear of the building for administration staff, and the front parking lot will be extended for visitors. Alton interacted with the User agency to ensure the project design was responsive to their specific needs, coordinated the various trades involved in the project (Civil, Structural, MEP), and provided a quality review of the Construction Documents.

Firm employed by: THOMPSON ENGINEERING, INC., OF LOUISIANA				
Name	Marco Perez, III		Years of relevant experience with this employer	2
Title	Senior Designer		Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization			B.S. / 2023 / Architecture	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Architecture Support / Support architectural needs	
Experience dates (mm/yy–mm/yy)	<i>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).</i>			
Marco A. Perez, III, has two years of architectural experience. During his academic career, he gained practical experience through multiple internships, where he was exposed to a range of project types and professional workflows. Since joining Meyer, Marco has been actively involved in every phase of project development – from initial design and programming through construction documentation and administration. He has contributed to the design, drafting, and 3D modeling of various projects, demonstrating a strong grasp of both technical detail and architectural intent. His hands-on approach and collaborative mindset have made him an integral part of the project team.				
04/25 - Present	DOTD Contract 5 for Movable Bridges (6) Vermilion, St. Martin, Calcasieu, and Lafayette Parishes, LA. Architectural Manager. This project is to rehabilitate six bridge tender houses throughout Louisiana. The scope of work includes removing and replacing all existing windows with new impact resistant glazing, removing and replacing all interior and exterior doors, removing and replacing all finish flooring ceiling, repairing and repainting all interior wall finishes and damaged areas, repairing and refinishing roof ladder and canopy as required, cleaning all exterior wall surfaces and inspecting and resealing all wall penetrations, removing and replacing all furniture/millwork with new construction and installing a new weather-resistant roofing system. Marco oversaw the document production and submission of each submittal to the client.			
07/23 – Present	Jefferson Parish East Bank Animal Adoption & Services Facility Jefferson Parish, LA. Architectural Designer. Marco developed the design, construction documents, and consultant coordination for the new animal adoption and services facility to replace the old one on the east bank of Jefferson Parish. The project consists of the design of a new Animal Care and Services Facility. The site is designed to accommodate the new building, exterior spaces for people and animals, and parking. The new 27,000 SF building featured three public lobbies that host the animal adoption wing, clinic center, and intake housing. Ancillary spaces include restrooms, storage, food storage, mechanical, electrical, and IT rooms, laundry, and cage washing.			
04/25 – Present	Gonzales Readiness Center Modernization Ascension Parish, LA. Architectural Designer. Marco is currently designing the multi-phased interior and exterior renovation to the existing Readiness Center in Gonzales, Louisiana, for the Louisiana National Guard. The exterior renovations include the construction of a new storefront entrance with signage and decorative brick. The interior renovations include the construction of new offices, a fitness center, a lactation room, and fully renovated bathrooms, kitchen, and food service. Marco worked with the architect to generate the Construction Documents for the renovations.			
02/25 – Present	Central Middle School ITTC Building Renovations Ascension Parish, LA. Architectural Manager and Designer. Marco designed the renovations to the Instructional Technology Training Center (ITTC) located at Central Middle School in Gonzales, Louisiana. The project consists of demolishing the existing interior conditions and new construction to create five spaces with all-new finishes throughout the building; a new main entrance with a column-supported canopy; removal of the existing entryway; addition of a new restroom; and a new adjoining sidewalk. The building plays a vital role not only in the schools’ training and education but also as a dedicated meeting space for future school board meetings and other important gatherings for the school system.			

17. Firm Experience: Project 1

Firm name	HDR Engineering, Inc.		Discipline(s)*		Bridge, Road	
Project name	Bridge Preservation IDIQ - LA 577 at I-20 Repair PS&E				Firm responsibility (prime or sub?)	Prime
Project number	H.015472	Owner's name	State of Louisiana Department of Transportation & Development (LADOTD)			
Project location	Waverly, LA			Owner's Project Manager	Phillip Grasso	
Owner's address, phone, email		1201 Capitol Access Road, Baton Rouge, LA 70802 225.379.1412 phillip.grasso@la.gov				
Services commenced by this firm (mm/yy)		11/22	Total consultant contract cost (\$1,000's)			\$241.4
Services completed by this firm (mm/yy)		07/23	Cost of consultant services provided by this firm (\$1,000's)			\$241.4

LADOTD contacted HDR to assist with an emergency site inspection and assess the condition of a prestressed, precast concrete girder overpass bridge (built in the late 1960s) across I-20 that was struck by a dump truck. Work was authorized using **HDR's Bridge Preservation IDIQ contract (Task Orders 1 and 2)**. The first two girders were damaged beyond repair, and secondary damage was done to the middle girder and abutment cap.

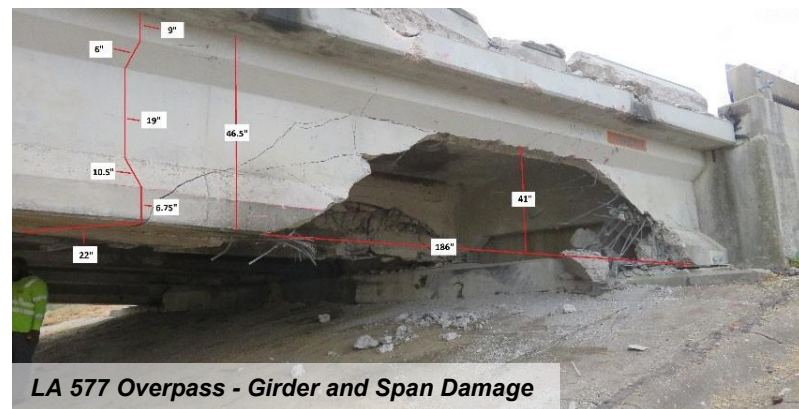
HDR's Phase 1 design consisted of developing plans, specifications, and cost estimates (PS&E) for the phased demolition of the west side of the damaged span to get a single lane of traffic back open on the eastern portion of the bridge. The remaining section is supported by three girders (two undamaged and one partially damaged). We completed an LRFR load rating analysis as part of the demolition design, traffic control layout, and signage for the temporary condition. HDR's Phase 2 design involved a split-phased replacement span. The existing girders were AASHTO Type 3 (interior) and 4 (exterior). During a discussion with LADOTD, HDR recommended AASHTO Type 3 girders for the replacement and added a girder due to split-phased construction. We modified the existing substructure to accommodate the new girder layout and analyzed it under the new loading configuration.

We also developed additional load-rating analysis for the span's interim and final conditions. HDR designed the guardrail to match the old "post and beam" section prevalent during that period, the traffic control layout and signage for phased construction, and the final condition. We also performed construction-related engineering services throughout the bid and construction phases, including responses to RFIs and shop drawing/submittal reviews.

KEY PROJECT ELEMENTS:

- Emergency Inspection of Damaged Bridge Span
- Repair/Rehabilitation Design - Multi-Phased
- LRFR Load Rating
- Roadway/Traffic Control & Bridge Design PS&E
- Bid Phase Engineering Services
- Engineering Services During Construction

HDR MEMBERS INVOLVED: Wesley Jacobs, Jason Abendroth, Sarah De Moya, Edwin Rydell, William Clementson, and Brett Geesey



Project 2

Firm name	HDR Engineering, Inc.		Discipline(s)*		Bridge	
Project name	Contract 5 for Movable Bridges (6)				Firm responsibility (prime or sub?)	Prime
Project number	Multiple	Owner's name	State of Louisiana Department of Transportation & Development (LADOTD)			
Project location	Vermillion, Lafayette, St. Martin and Calcasieu Parishes		Owner's Project Manager		T.J. Dunlevy	
Owner's address, phone, email		1201 Capitol Access Road, Baton Rouge, LA 70802 225.379.1083 tj.dunlevy@la.gov				
Services commenced by this firm (mm/yy)		03/25	Total consultant contract cost (\$1,000's)			\$2,651
Services completed by this firm (mm/yy)		Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$2,058

HDR performed Stage 3 (Design) for six vertical lift bridges in Vermillion, Lafayette, St. Martin, and Calcasieu Parishes. Our subconsultant, Thompson Engineering, provided architectural and engineering support, with CH Fenstermaker providing traffic control plans for the inspections. HDR performed the following key elements for the rehabilitation of these bridges: Stage 3 – design: document review; coordination with district and design staff; site/NBIS inspections; LRFR load rating; and scope-of-work proposals, meetings, and reports. Future addenda will encompass Stage 3 – design services for rehabilitating each bridge and Stage 5 – construction services.

The following is the list of vertical lift bridges for which HDR has performed the key project elements for this contract:

- Old Abbeville – H.011997 – Recall No. 009430; Abbeville Bypass – H.001998 – Recall No. 009460; Parks – H.013819 – Recall No. 008700; Milton – H.011990 – Recall No. 006520; Ellender – H.010001 – Recall No. 031751; West Fork – H.012043 – Recall No. 033353

The team developed and coordinated **traffic control plans** with District Bridge Engineers and the US Coast Guard prior to inspection. **Rope-access inspectors were used on the towers to minimize lane-closure** time, along with boat access for underside inspections of the main span, approaches, and substructure. HDR developed in-depth reports, in addition to routine reports, for three bridges, which were then uploaded to **InspectX**. HDR developed **LRFR** load ratings for the main and approach spans using **AASHTOWare Bridge Rating** software. This was used to develop the rehabilitation scope of work for each bridge. HDR also conducted full mechanical (including strain gauge testing), electrical, coatings, and architectural (operator houses) inspections for each bridge and included them in the In-Depth reports. Fieldwork was completed within 2.5 weeks, with multiple crews to **improve mobilization efficiency and expedite work** in anticipation of the impending hurricane season.

KEY PROJECT ELEMENTS:

- In-depth NBIS Inspections (Including Operator Houses)
- Traffic
- LRFR Load Rating
- Scope of Work Report Development

HDR MEMBERS INVOLVED: Wesley Jacobs, Venkata Sathiraju, Erin O'Malley, Peter Harrison, Raphael Costa, David Knickerbocker, Mike Carlton, Isaac Frederick, Matt McGuire, Steven Pierce, Michael O'Keefe, Carlos Larco, Daniel Marsalone, Ronald Sanchez; **THOMPSON ENGINEERING SERVICES PERFORMED:** Facility inspection; **CH FENSTERMAKER & ASSOCIATES SERVICES PERFORMED:** Traffic control plans



Project 3

Firm name	HDR Engineering, Inc.		Discipline(s)*		Bridge	
Project name	Port of New Orleans Movable Bridge Inspection On-call Contract - TO 1			Firm responsibility (prime or sub?)		Prime
Project number	PORTNOLA-2023-781-01	Owner's name	Port of New Orleans			
Project location	New Orleans, LA			Owner's Project Manager		Randy Songy, PE
Owner's address, phone, email	1350 Port of New Orleans Pl, New Orleans, LA 70130 504.528.3308 randy.songy@portnola.com					
Services commenced by this firm (mm/yy)		11/23	Total consultant contract cost (\$1,000's)			\$207
Services completed by this firm (mm/yy)		03/24	Cost of consultant services provided by this firm (\$1,000's)			\$202

HDR performed in-depth inspections, and our subconsultant, CH Fenstermaker, provided hydrographic and underwater survey services for two 100-year-old bridges in New Orleans, LA. The **Almonaster Avenue Bridge** is a single-leaf Strauss Trunnion Bascule Bridge spanning the Inner Harbor Navigational Canal (IHNC). Constructed in 1919, the bridge carries two CSX railroad tracks and runs east-west. There are also cantilevered roadways outside the truss lines, which are closed to vehicular traffic. The **Seabrook Bridge** is a single-leaf Strauss Trunnion Bascule Bridge spanning the IHNC. HDR performed an Independent Structural Design Review of the East St. Bernard Hwy overpass (curved steel main span with PPC LG girder approaches and associated column bents) for the Louisiana International Terminal, which is currently under design. Our team executed plan reviews for the 60% and 90% submittals, developed independent design calculations, and compiled them into a comprehensive report with full conclusions and recommendations.

HDR assembled a multidisciplinary team to inspect the main span primary and secondary steel members, the structural inspection of the approach spans, and the mechanical and electrical systems. The team conducted the inspections following the guidance and in accordance with the National Bridge Inspection Standards (NBIS), the American Railway Engineering and Maintenance of Way (AREMA), and other accepted practices for inspecting rail bridges, including the Port NOLA Bridge and Safety Standards and Bridge Management Program.

The structural inspection included a rope-access visual inspection and a hands-on inspection of the Bascule span trusses and floor systems, tower span trusses and floor systems, and counterweight trusses. It also included a visual routine-level inspection of the piers, approach spans, counterweight, and fender system. Elements below the water line were not inspected.

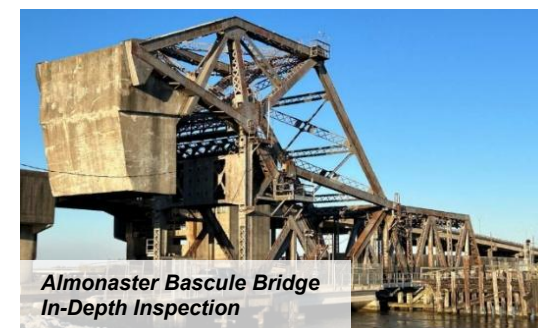
CHALLENGE: Impacts to rail operations. **SOLUTION:** Using rope access methods for structural inspections saved time and minimized impacts to rail operations for CSX and BNSF by avoiding the need for man lifts on the tracks, which would have required several setups and repositionings.

The mechanical and electrical inspections included a walk-through, visual and audible examination, testing of components, and observation of the components during bridge operation. The mechanical components include the pins, trunnions, span locks, and operating machinery. The electrical components include motors, control panels, switches, navigational aids, power distribution equipment, conduits, cables, and raceways.

KEY PROJECT ELEMENTS:

- Visual, Hands-On Inspection
- Complex Structures
- 100+-Year-Old Rail Bridges
- Rope Access Inspection Methods to Minimize Impacts on Rail Operations
- Movable Bridges (Single-Leaf Bascules)
- Independent Structural Design Reviews

HDR MEMBERS INVOLVED: Wesley Jacobs, Jason Abendroth, Matthew Cassera, Isaac Frederick, Erin O'Malley, Riley Boone, Mike Carlton, Raphael Costa, Peter Harrison, Brett Geesey, Venkata Sathiraju, and Carlos Larco; **CH FENSTERMAKER & ASSOCIATES SERVICES PERFORMED:** Hydrographic and underwater survey services



*Almonaster Bascule Bridge
In-Depth Inspection*



*Seabrook Bascule Bridge - In-Depth
Inspection*

Project 4

Firm name	HDR Engineering, Inc.		Discipline(s)*		Bridge, Environmental	
Project name	Virginia DOT Movable Bridges On-call Contract				Firm responsibility (prime or sub?)	Prime
Project number	Multiple	Owner's name	Virginia Department of Transportation (VDOT)			
Project location	Statewide			Owner's Project Manager	Bob Jacobus	
Owner's address, phone, email	1700 North Main St., Suffolk, VA 23434 757.925.2434 Robert.Jacobus@VDOT.Virginia.gov					
Services commenced by this firm (mm/yy)		02/03	Total consultant contract cost (\$1,000's)			\$15,420
Services completed by this firm (mm/yy)		On going	Cost of consultant services provided by this firm (\$1,000's)			\$12,310

HDR has been serving VDOT on this contract since 2003. During this period, we have **completed more than 200 task order assignments** for VDOT's movable bridges and ferries. We have provided emergency response, field inspections, NBIS/AASHTO evaluation inspections, condition assessment and report, health indices, scoping and inspection reports, construction document reviews, rehabilitation plans, specifications, construction estimates, CTDRs, and construction oversight. In addition, our team has prepared environmental permit sketches and maintained continuous coordination with VDOT throughout the contract.

We have responded to and resolved emergency calls for various VDOT movable bridges, including Benjamin Harrison (skew control failure), High Rise Bridge (primary drive motor support failure), James River Bridge (control system failure), etc. In addition to emergency response, our team follows up with rehabilitation plans to implement repair and design modifications that correct the root cause of the failure. We have also proactively corrected issues before they became bigger problems, such as on the high-rise bridge (cracked span lock motor mounts), the Berkley Bridge (spans misaligned at the toe), and the Gwynn's Island Bridge (oil selection for the pivot bearing). Bridge components that were rehabbed or replaced include limit switches, conduits, submarine cables, warning gates, generators, drive systems, drive shafts, span locks, HPU, mechanical drive systems, aerial cable installations, deck replacements, fenders, live load bearings, access systems, and foundations. An overview of our work on these movable bridge tasks is summarized in the chart below.



In-depth Inspection - Truss Swing Bridge VDOT

KEY PROJECT ELEMENTS:

- USCG and Utilities Coordination
- Routine and In-Depth Bridge Inspections
- Emergency Response
- Repair and Rehabilitation Design
- Construction Services
- Multi-Facility Program Management

HDR MEMBERS INVOLVED: Raphael Costa, Mike Carlton, Matt McGuire, David Knickerbocker, Issac Frederick, Matthew Cassera, Drake Cole, Samir Abdo, Carlos Larco, Mitchell Wisniewski, Stephen Grabowski, and Jonathan Kohler

Bridge Facility:	Benjamin Harrison	Berkley	James River	High Rise	Coleman	Chinco-teague	Eltham	Gwynn's Island	Ferry Ramps
Span Type: Tasks	Vertical Lift	Dbl-Leaf Bascule	Vertical Lift	Dbl-Leaf Bascule	Double Swing	1-Leaf Bascule	Dbl-Leaf Bascule	Swing	Transfer Bridges
Inspection	✓	✓	✓	✓	✓	✓	✓	✓	✓
Emergency Response	✓	✓	✓	✓	✓	✓	✓	✓	
Maintenance Engineering	✓	✓	✓	✓	✓	✓	✓	✓	✓
Structural Rehab	✓	✓	✓	✓	✓	✓	✓	✓	✓
M&E* Rehab	✓	✓	✓	✓	✓	✓	✓	✓	✓
Condition Assessment	✓	✓	✓	✓	✓	✓	✓	✓	
Health Index/ Prioritization	✓	✓	✓	✓	✓	✓	✓	✓	

Prime consultant name: HDR Engineering, Inc.

Project 5

Firm name	HDR Engineering, Inc.		Discipline(s)*		Bridge	
Project name	Pelican Island Bridge Replacement PS&E				Firm responsibility (prime or sub?)	Prime
Project number	CSJ 0912-73-213	Owner's name	TxDOT Houston			
Project location	Galveston, TX			Owner's Project Manager	Prasanna Chebbi	
Owner's address, phone, email	7600 Washington Ave, Houston, TX 77007 713.802.5000 prasanna.chebbi@txdot.gov					
Services commenced by this firm (mm/yy)		07/24	Total consultant contract cost (\$1,000's)			\$2,750
Services completed by this firm (mm/yy)		Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$1,250

The proposed Pelican Island bridge spans the Galveston Channel from Galveston Island to Pelican Island in Galveston, TX. The new fixed bridge will replace an existing movable single-leaf bascule span bridge that was built in the 1950s. As part of the **TxDOT Houston On/Off System Bridge IDIQ contract**, HDR is providing engineering services to prepare plans, specifications, and estimates (PS&E), as well as related documents, for the Seawolf Parkway Pelican Island Bridge, a 5,332 ft-long x 65.5 ft-wide off-system bridge replacement.

HDR is developing the PS&E for the final structural design from abutment to abutment of the new Pelican Island Bridge, as well as demolition plans for the existing Pelican Island Bridge, a single-bascule movable bridge. The proposed bridge includes prestressed concrete girders, spliced concrete girders, water-level footings, and drilled shaft foundations, and is designed for vessel allision and wave loading. The design also includes constructability considerations such as temporary access platforms in water too shallow for barges, water-tight temporary shoring for footings in the water, and permanently cased drilled shaft foundations. HDR also prepared the exhibits for the US Coast Guard Section 9 Bridge Permit.

HDR is developing PS&E for full-length project illumination, including navigational and temporary access lighting, while completing the final wave-loading design through spectral wave modeling for the proposed bridge.

HDR MEMBERS INVOLVED: Sarah De Moya, William Clementson, Venkata Sathiraju, Gregory Kochersperger, Mitchell Wisniewski, and Raphael Costa



Existing Single Leaf Bascule Pelican Island Bridge

PROJECT SUCCESS:

HDR optimized the spliced girder design by reducing the depth and weight of the segments, accounting for the difficulty of transporting very deep segments on Texas roadways. HDR also identified the need for temporary access platforms to build the new bridge near the shore, where barges could not reach. These will be included in the permit to reduce construction duration.



Project 6

Firm name	APS Engineering and Testing, LLC		Discipline(s)*		Geotech	
Project name	I-10 Widening LA 415 to Essen LN				Firm responsibility (prime or sub?)	Prime
Project number	H.004100	Owner's name	State of Louisiana Department of Transportation & Development (LADOTD)			
Project location	Baton Rouge, LA			Owner's Project Manager	Kristy Smith, PE	
Owner's address, phone, email	1201 Capital Access Rd., Baton Rouge, LA 70802-4438 225-379-1016 kristy.smith2@la.gov					
Services commenced by this firm (mm/yy)		09/19	Total consultant contract cost (\$1,000's)			N/A
Services completed by this firm (mm/yy)		05/25	Cost of consultant services provided by this firm (\$1,000's)			\$600

APS performed a **comprehensive geotechnical investigation** to provide the client with the necessary subsurface information for planning and designing the I-10 widening project between the **Washington Street Exit and LSU Lakes**. The scope included **drilling and sampling of 77 deep borings**, consisting of **16 over-water borings** and **61 land borings**, strategically located to address anticipated deep foundation and MSE Walls design needs. Our field operations incorporated **multiple drilling techniques** to address varying site conditions, and all sampling was conducted in accordance with **ASTM and DOTD standards**. The project required complex over-water operations with specialized equipment mobilization and safety compliance procedures. Laboratory testing was performed exclusively in our **AASHTO-Accredited Geotechnical Laboratory**, including:

- Soil Classification – **ASTM D2487 (Unified) / ASTM D3282 (AASHTO)**
- Natural Moisture Content – **ASTM D2216**
- Liquid limit, plastic limit, and plasticity index (**ASTM D4318**)
- Grain Size Analyses – **ASTM D422**
- Minus No. 200 Wash Sieve Analysis – **ASTM D1140**
- Unconsolidated Undrained (UU) Triaxial Tests – **ASTM D2850**
- One-Dimensional Consolidation Testing – **ASTM D2435**
- Specific Gravity – **ASTM D854**

Senior geotechnical engineers subjected all results to a QA/QC review, ensuring that the design team received reliable engineering parameters for their work. Consequently, they prepared a geotechnical report with site-specific design recommendations for deep foundations, embankment stability, and MSE wall structures, enabling the client to move forward with confidence in the design phase.

APS MEMBERS INVOLVED: Sergio Aviles and Surendra Pathak

KEY PROJECT ELEMENTS:

- Geotechnical Explorations (GE)
- Geotechnical Design (GD)
- Geotechnical Construction (GC)
- CMAR
- Constructability
- Contract Management (CM)

Project 7

Firm name	APS Engineering and Testing, LLC		Discipline(s)*		Geotech	
Project name	Comite River Diversion Bridge at LA-67, LA-19 and LA-19 Railroad Bridge			Firm responsibility (prime or sub?)		Sub
Project number	H.001352; H.002273	Owner's name	State of Louisiana Department of Transportation & Development (LADOTD)			
Project location	East Baton Rouge, LA			Owner's Project Manager		Thomas M. Gattles III, P.E.
Owner's address, phone, email		922 West Pont des Mouton Rd., Lafayette, LA 70507 337.264.3798 tgattle@huvalassoc.com				
Services commenced by this firm (mm/yy)		11/19	Total consultant contract cost (\$1,000's)			N/A
Services completed by this firm (mm/yy)		06/22	Cost of consultant services provided by this firm (\$1,000's)			\$150

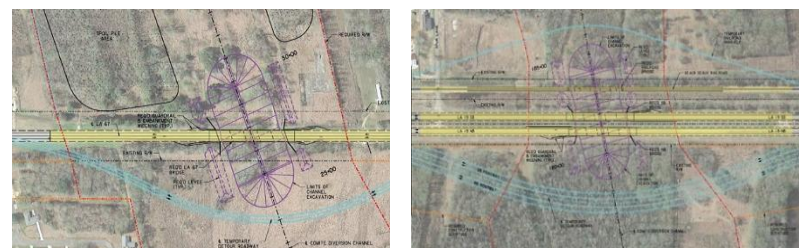
APS Engineering and Testing, LLC provided complete geotechnical services to support the planning, design, and construction of multiple structures along the LA-19 corridor, including the LA-19 bridge (slope stability/embankment), LA-19 railroad bridge (embankment/MSE wall settlement/retaining wall), LA-19 twin bridges, and the LA-67 bridge (prestressed concrete piles). The investigation included drilling and sampling of **19 deep borings** ranging from 50 ft to 120 ft, followed by an extensive laboratory testing program in our **AASHTO-accredited laboratory, including:**

- Moisture content (**ASTM D2216**)
- Liquid limit, plastic limit, and plasticity index (**ASTM D4318**)
- Unconsolidated-Undrained triaxial compression (**ASTM D2850**)
- One-Dimensional Consolidation (**ASTM D2435**)

All data were analyzed to develop geotechnical design parameters for slope stability, settlement, MSE wall design, and deep foundation **design**. As the project advanced into construction, A P S was also retained by DOTD to provide **full geotechnical engineering services during construction**, services included:

- PDA instrumentation and CAPWAP analysis for driven piles
- Field inspection and verification of test piles
- Construction Materials Testing (CMT) for soils, concrete, and aggregates

APS MEMBERS INVOLVED: Sergio Aviles and Surendra Pathak



KEY PROJECT ELEMENTS:

- Geotechnical Explorations (GE)
- Geotechnical Design (GD)
- Geotechnical Construction (GC)
- CMAR
- Constructability
- Contract Management (CM)

Project 8

Firm name	APS Engineering and Testing, LLC		Discipline(s)*		Geotech	
Project name	US-90 Railroad Overpass (S. East of LA-85)			Firm responsibility (prime or sub?)		Sub
Project number	H.010155	Owner's name	State of Louisiana Department of Transportation & Development (LADOTD)			
Project location	East Baton Rouge, LA			Owner's Project Manager		Kristy Smith, PE
Owner's address, phone, email		1201 Capital Access Rd., Baton Rouge, LA 70802-4438 225.379.1387 kristy.smith2@la.gov				
Services commenced by this firm (mm/yy)		11/19	Total consultant contract cost (\$1,000's)			N/A
Services completed by this firm (mm/yy)		12/23	Cost of consultant services provided by this firm (\$1,000's)			\$105

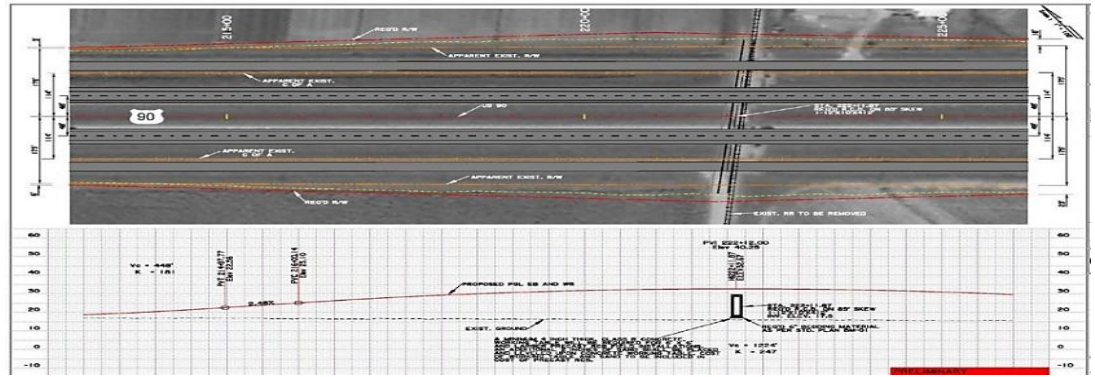
Comprehensive Geotechnical Investigation and Design for 2,400-Foot Span Bridge-APS Engineering and Testing performed a full-service geotechnical investigation and engineering analysis to support the planning and design of a 2,400-foot bridge. The scope of work included drilling twelve (12) borings to depths of 120 ft, with continuous undisturbed sampling from the ground surface to 20 ft and at 5-ft intervals thereafter to ensure high-quality data for design purposes.

All laboratory testing was performed in our AASHTO-accredited laboratory following ASTM standards, including:

- Visual description and classification of soils (ASTM D2488)
- Moisture content (ASTM D2216)
- Minus No. 200 Wash Sieve Analysis – ASTM D1140
- Liquid limit, Plastic limit, and Plasticity index (ASTM D4318)
- Unconsolidated-Undrained triaxial Compression (ASTM D2850)
- One-Dimensional Consolidation (ASTM D2435)

The engineering analysis included Slope Stability, Settlement analysis, MSE wall design, and deep Pile foundations design recommendations, ensuring a complete geotechnical design report. Recommendations were also provided for the constructability and long-term performance of the bridge foundations.

APS MEMBERS INVOLVED: Sergio Aviles and Surendra Pathak



KEY PROJECT ELEMENTS:

- Geotechnical Explorations (GE)
- Geotechnical Design (GD)
- Geotechnical Construction (GC)
- CMAR
- Constructability
- Contract Management (CM)

Project 9

Firm name	Bridge Diagnostics, Inc.		Discipline(s)*		Bridge	
Project name	Bayou Ramos Bridge Multi-Phase Field-Verified Evaluation				Firm responsibility (prime or sub?)	Prime
Project number	H.009730.5	Owner's name	Louisiana Department of Transportation and Development (LADOTD)			
Project location	Morgan City, LA			Owner's Project Manager	Bradley Mistich	
Owner's address, phone, email		Office of Engineering PO Box 94245 Baton Rouge, LA 70804-9245 225-379-1200 Bradley.Mistich@la.gov				
Services commenced by this firm (mm/yy)		10/24	Total consultant contract cost (\$1,000's)			\$501 (NTE)
Services completed by this firm (mm/yy)		Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$172 (Ongoing)

The Bayou Ramos bridges are currently load-posted due to cracking and deterioration at many prestressed girder ends. When this deterioration was first observed, BDI teamed up with LADOTD to conduct diagnostic live-load testing and monitoring of these structures to identify their response characteristics and determine potential causes of the observed distress. As part of Task Order 5 of BDI's NDT/E IDIQ 4400025002, BDI was contracted to provide a multi-phase evaluation to reevaluate the structures' live-load capacity after multiple retrofit strategies were deployed. This evaluation included:

- **Phase I:** AASHTOware BrR load rating evaluation where multiple strut-and-tie method (STM) models were considered and evaluated. BDI Phase I calculations and related findings were summarized in a submitted load rating report and calculation package.
- **Phase II:** Diagnostic load test-based evaluation used to validate both the structural behavior and STM capacity assumptions. BDI provisioned, installed, and maintained all required instrumentation and data acquisition equipment. BDI utilized the collected structural responses to evaluate the structure's distribution behavior and refine the STM capacity assumptions, with analysis and evaluation results submitted in a report and calculation package.
- **Phase III:** The performance monitoring program, which is set to provide crucial information on the girder's condition, ends by monitoring the activity level of the observed deterioration once/if load restrictions are lifted. During this phase, BDI's team will provision, install, maintain, and calibrate all monitoring equipment.



BDI is currently finalizing Phase II with LADOTD and will continue monitoring Phase III, subject to coordination with and approval from LADOTD.

KEY PROJECT ELEMENTS:

- Bridge Design Services
- General Bridge Engineering Services
- Sampling, Instrumentation, and Non-destructive Testing
- Bridge Inspection Services
- Environmental and Permitting Services

BDI MEMBERS INVOLVED: Steven Fall

Prime consultant name: HDR Engineering, Inc.

Project 10

Firm name	Bridge Diagnostics, Inc.		Discipline(s)*	Bridge	
Project name	Louisiana Statewide Non-Destructive Testing and Evaluation IDIQ			Firm responsibility (prime or sub?)	Prime
Project number	H.009730	Owner's name	Louisiana Department of Transportation and Development (LADOTD)		
Project location	Statewide, LA			Owner's Project Manager	Bradley Mistich
Owner's address, phone, email	Office of Engineering PO Box 94245 Baton Rouge, LA 70804-9245 225-379-1200 Bradley.Mistich@la.gov				
Services commenced by this firm (mm/yy)	05/23	Total consultant contract cost (\$1,000's)			\$5,000
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$4,607 (Ongoing)

BDI was awarded the Non-Destructive Testing and Evaluation IDIQ across the state of Louisiana.

- Task Order II Twin Span and 6-mile Deck Evaluation:** BDI performed deck assessments involving various NDT-E methods including SounDAR, Ground Penetrating Radar (GPR), High Resolution Imaging (HRI), Infrared Thermography (IR), and concrete material sampling on bridge recall numbers 204140, 204150, 020467, and 020468 for the purpose of assessment of reinforcement concrete condition, cover, location, and diameter; detections of voids and delaminations in concrete, and concrete material sampling.
- Task Orders III and VI Interstate 20 Deck Evaluation and Pin and Hanger Testing:** To assist with bridge preservation efforts, BDI is performing deck assessments for 273 structures on the Interstate 20 corridor in Louisiana involving various NDT-E methods including SounDAR, GPR, HRI, and IR for the purpose of assessment of reinforcement concrete condition, cover, location, and diameter and detection of voids and delaminations in concrete. BDI is also performing steel member condition assessment via ultrasonic testing (UT) on 39 structures statewide.
- Task Order IV US-11 over Lake Pontchartrain Deck Evaluation and NBIS Inspection:** BDI performed deck assessments involving various NDT-E methods, including SounDAR, GPR, HRI, and IR for the purpose of assessment of reinforcement concrete condition, cover, location, and diameter, and detection of voids and delaminations in concrete on bridge recall numbers 001525, 001545, 001552, and 200830. BDI also performed NBIS Routine inspections on these structures, including detailed in-depth field inspections.
- Task Order VIII LA-9 over Black Lake Deck Evaluation and Material Testing:** BDI performed a deck assessment involving SounDAR, GPR, HRI, and IR for the purpose of quantifying the concrete condition, cover, location, and diameter, and detection of voids and delaminations in concrete of the bridge deck of recall number 080572. After the deck evaluation data is analyzed, ten (10) 3" diameter cores are extracted and tested for chloride ion concentrations.



KEY PROJECT ELEMENTS:

- Non-Destructive Testing and Evaluation Services
- Sampling, Instrumentation, and Non-destructive Testing
- Bridge Inspection Services
- General Bridge Engineering Services

BDI MEMBERS INVOLVED: Steven Fall, Brett Commander, Charles Young, and Jesse Sipple

Project 11

Firm name	Bridge Diagnostics, Inc.		Discipline(s)*		Bridge	
Project name	TO 10 – Bonnet Carre Spillway Deck Assessment				Firm responsibility (prime or sub?)	Prime
Project number	H.009730.5	Owner’s name	Louisiana Department of Transportation and Development (LADOTD)			
Project location	St. Charles Parish, LA			Owner’s Project Manager	Bradley Mistich	
Owner’s address, phone, email	Office of Engineering PO Box 94245 Baton Rouge, LA 70804-9245 225-379-1200 Bradley.Mistich@la.gov					
Services commenced by this firm (mm/yy)	02/26		Total consultant contract cost (\$1,000’s)			\$476
Services completed by this firm (mm/yy)	Ongoing		Cost of consultant services provided by this firm (\$1,000’s)			\$172 (Ongoing)

LADOTD awarded BDI the opportunity to perform nondestructive deck evaluation of the I-10 Bonnet Carre Spillway bridges (East and Westbound) in St. Charles Parish. The objective of this project is to provide a quantitative assessment of the condition of the ten (10) mile bridge deck to determine the overall change in deterioration over time between the bridges' inspections. As part of Task Order 10 of BDI's NDT/E IDIQ 4400025002, BDI was contracted to provide a multi-phase evaluation to re-evaluate the structures' deck condition. This evaluation included:

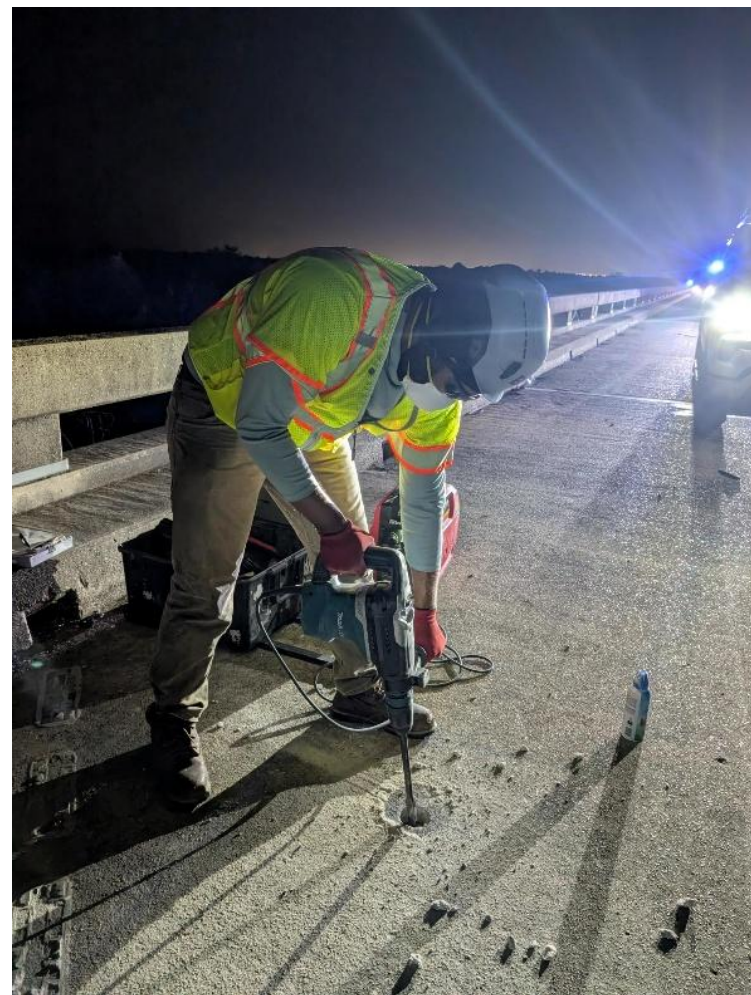
- **Phase I:** Deck nondestructive evaluation (NDE) to include Deck Acoustic Response (SoundAR) and Ground Penetrating Radar (GPR) to investigate rebar cover depth and potential delamination through acoustic sounding and changes in dielectric properties. This data is verified physically by drilling to the rebar and manually measuring the cover depth at several locations.
- **Phase II:** High Resolution Imaging (HRI) and Infrared Thermography (IR) are also used to probe for delaminations, spalling, and general defects in the bridge's deck.

BDI is currently finalizing Phase II with LADOTD.

KEY PROJECT ELEMENTS:

- General Bridge Engineering Services & Condition Assessment
- Sampling, Instrumentation, and NDT
- Bridge Deck Evaluation & Deterioration Mapping

BDI MEMBERS INVOLVED: Steven Fall, Charles Young, and Jesse Sipple



Project 12

Firm name	C.H. Fenstermaker & Associates, L.L.C.		Discipline(s)*		Road, Survey, Traffic	
Project name	US 90 (I-49 South) Albertson Parkway to Ambassador Caffery Design-Build			Firm responsibility (prime or sub?)		Sub/JV
Project number	H.010620	Owner's name	Louisiana Department of Transportation and Development (LADOTD)			
Project location	Natchitoches Parish, LA			Owner's Project Manager	Peggy Jo Paine	
Owner's address, phone, email	1202 Capital Access Road, Baton Rouge, LA 70802 225.379.1065 peggy.paine@la.gov					
Services commenced by this firm (mm/yy)		11/14	Total consultant contract cost (\$1,000's)			\$4,939
Services completed by this firm (mm/yy)		10/19	Cost of consultant services provided by this firm (\$1,000's)			\$3,105

This was a design-build project for the Louisiana Department of Transportation and Development for the Future I-49 South corridor improvements to US Hwy. 90, LA 182, and associated frontage roads in Broussard, Louisiana. The design-build Team, under James Construction Group, Inc. (Primoris), was responsible for both the design and construction of the following improvements: upgrading a portion of US Highway 90 from an existing four-lane facility to a six-lane controlled access facility that meets interstate standards, providing a system of frontage roads that provide connectivity to highways, ramps, and businesses within the project limits; constructing a new US Highway 90 overpass structure providing six-lanes at Albertson Parkway along with ramps; removing the existing BNSF bridge structure and construction of a new US Highway 90 overpass structure providing six-lanes over the BNSF railroad; providing improvements to existing LA Hwy. 182 and 96; and providing signalization improvements at the intersection of Albertson Parkway and east and westbound frontage roads.

Fenstermaker served as the lead design firm, responsible for all design aspects of the project. Fenstermaker managed a total of five sub-consulting engineering firms providing specialized services for the project, provided direct design services for all roadway and drainage improvements, prepared the multi-stage sequence of construction and traffic control plans, geometric details, pavement design, and the design of Mechanically Stabilized Earth Walls (MSEW); and had complete design management and construction oversight. Fenstermaker's survey team provided survey control, boundary/right-of-way verification, topographic input, and geometric layout support, ensuring that the design-build team had accurate, QA/QC-checked survey data integrated into roadway, drainage, and structural plans.

CHALLENGE: This project was a design-build delivery with a pre-established lump sum construction cost. The existing US 90 corridor right of way was not large enough to accommodate all required improvements. Due to the lump-sum construction costs restraint, avoiding the acquisition of additional right of way to accommodate all improvements was the biggest challenge for the design team. **SOLUTION:** The design team was creative in providing geometric roadway layouts requiring less space within the right of way. These layouts met all existing codes. The designed retaining wall structures (i.e., MSE walls) minimized the footprint of improvements. These solutions resulted in no additional right of way acquisition.

FENSTERMAKER MEMBERS INVOLVED: Dax Douet, Luke Hebert, Travis Bodin, Bradford Millett, Aimee Latiolais



Project 13

Firm name	C.H. Fenstermaker & Associates, L.L.C.		Discipline(s)*		Survey	
Project name	Port of New Orleans Movable Bridge Inspection On-call Contract - TO 1				Firm responsibility (prime or sub?)	Sub
Project number	N/A	Owner's name	Port of New Orleans			
Project location	New Orleans, LA			Owner's Project Manager	Randy Songy, PE	
Owner's address, phone, email	1350 Port of New Orleans PI, New Orleans, LA 70130 504.528.3308 randy.songy@portnola.com					
Services commenced by this firm (mm/yy)		10/24	Total consultant contract cost (\$1,000's)			\$115
Services completed by this firm (mm/yy)		08/25	Cost of consultant services provided by this firm (\$1,000's)			\$54

CH Fenstermaker & Associates served as a **subconsultant to HDR**, providing specialized hydrographic and underwater survey services in support of structural inspections for the Seabrook Railroad Bridge and the Almonaster Avenue Bridge, both historic bascule bridges spanning the Inner Harbor Navigational Canal in Orleans Parish, Louisiana. The project objective was to assess the condition of the bridges' underwater substructures, including piers, footings, fender systems, and dolphins, to identify deterioration, scour, and erosion that could compromise long-term serviceability. Fenstermaker's work incorporated advanced sonar technologies and precision survey control to deliver comprehensive inspection data that informed HDR's engineering evaluations and supported the Port of New Orleans and Norfolk Southern in planning future maintenance and preservation strategies.

Surveying Services: Fenstermaker provided the following survey services under this contract:

Survey Control & Positioning

- Established and utilized Real-Time Kinematic (RTK) survey control points to ensure geospatial accuracy across both sites.
- Collected all data in Louisiana South Zone, NAD83 (2011) HARN coordinates, with elevations referenced to NGVD29.

Underwater Acoustic Imaging (UAI)

- Utilized Kongsberg MS1000 acoustic scanning sonar to capture high-resolution 2D imagery of submerged bridge elements, including bascule piers, trunnion supports, dolphins, and fender systems.
- Documented structural deficiencies such as spalling, cracks, possible holes in pier concrete, broken timber piles, and displaced structural elements.

Multibeam Bathymetric Surveying

- Deployed Norbit WBMS multibeam sonar to map the canal bottom and characterize scour, exposed footings, sediment deposits, and debris fields.
- Produced hydrographic contour maps and acoustic survey drawings illustrating erosion patterns and scour conditions at both bridges.

Documentation & Reporting

- Delivered detailed reports, sonar imagery, and hydrographic charts summarizing findings.
- Recommended diver verification of selected deficiencies and ongoing monitoring of scour-prone areas following major storm or flood events.

Through these efforts, Fenstermaker provided HDR and the bridge owners with critical data to guide structural evaluations, support maintenance prioritization, and extend the service life of vital navigation infrastructure.

FENSTERMAKER MEMBERS INVOLVED: Justin Bordelon



Project 14

Firm name	Civil Design & Construction, Inc.		Discipline(s)*		Survey	
Project name	LA 58: Petit Caillou Bridge Rehabilitation / Sarah Bridge				Firm responsibility (prime or sub?)	Sub
Project number	H.010006.5-3	Owner's name	Louisiana Department of Transportation and Development (LADOTD)			
Project location	Terrebonne Parish, LA			Owner's Project Manager	Thomas Gattle (Huval & Assoc.)	
Owner's address, phone, email	922 W. Point Des Mouton Rd., Lafayette, LA 70507 337-234-3798 tgattle@huvalassoc.com					
Services commenced by this firm (mm/yy)	04/17	Total consultant contract cost (\$1,000's)				N/A
Services completed by this firm (mm/yy)	07/17	Cost of consultant services provided by this firm (\$1,000's)				\$31

The purpose of this project is to provide structural, architectural, mechanical, and electrical rehabilitation of the movable bridge and approaches, allowing it to remain in service for an additional 50 years with routine maintenance, along with various other repairs and updates to the site. CDC was tasked with performing the topographic survey and DTM for this movable bridge structure and site.

CDC performed a topography survey along LA 58 from Little Caillou Road to Bayside Drive within the existing right of way. Also, CDC located all utilities within the designated areas of the bridge site and cross-sectioned this large bayou up and downstream of the bridge. Utilities were marked by LA One Call. 3D terrestrial scanning was used in conjunction with single-beam hydrographic surveying and traditional methods to collect data for the project. To obtain all critical information for designing the bridge, it was scanned at both raised and lowered positions.



KEY PROJECT ELEMENTS:

- Topographic surveying
- Structure surveying
- Data collection
- Existing conditions mapping
- Survey deliverables

CDC MEMBERS INVOLVED: Christopher Ballard and Jacob Stoehr

Performed in LA 100%

Project 15

Firm name	Civil Design & Construction, Inc.		Discipline(s)*		Survey	
Project name	LWI Region 5 – Task Order #2			Firm responsibility (prime or sub?)		Sub
Project number	H.02728.5	Owner’s name	Louisiana Department of Transportation and Development (LADOTD)			
Project location	Tangipahoa Parish, LA			Owner’s Project Manager		Jie Gu
Owner’s address, phone, email		1202 Capital Access Road, Baton Rouge, LA 70802 225.379.1483 Jie.Gu2@la.gov				
Services commenced by this firm (mm/yy)		02/22	Total consultant contract cost (\$1,000’s)			\$5,722
Services completed by this firm (mm/yy)		11/22	Cost of consultant services provided by this firm (\$1,000’s)			\$159

In 2018, the state launched the Louisiana Watershed Initiative, introducing a watershed-based approach to reducing flood risk in each basin. Guided by a federally approved Action Plan, the funds supported statewide planning, watershed modeling, data collection, and projects that reduce flood risk. This specific task order covered the survey of over 60 structures in St Landry Parish, Jefferson Davis Parish, Acadia Parish, and St. Mary Parish.

As a subconsultant to HDR, CDC completed a variety of topographic survey deliverables, tailored to each structure's modeling needs.

KEY PROJECT ELEMENTS:

- Data collection
- Topographic surveying
- Structure surveying
- Existing conditions
- Field investigations
- Survey deliverables

CDC MEMBERS INVOLVED: Chris Ballard, Scott Benton, Jacob Stoehr, and Drennon Humphreys

Performed in LA: 100%



Project 16

Firm name	Civil Design & Construction, Inc.		Discipline(s)*		Survey	
Project name	LA 443: Tangipahoa River Emergency Bridge Replacement				Firm responsibility (prime or sub?)	Sub
Project number	H.02728.5	Owner's name	Louisiana Department of Transportation and Development (LADOTD)			
Project location	Tangipahoa Parish, LA			Owner's Project Manager	Thomas Gattle (Huval & Assoc)	
Owner's address, phone, email		922 W. Point Des Mouton Rd., Lafayette, LA 70507 337-234-3798 tgattle@huvalassoc.com				
Services commenced by this firm (mm/yy)		10/16	Total consultant contract cost (\$1,000's)			N/A
Services completed by this firm (mm/yy)		11/16	Cost of consultant services provided by this firm (\$1,000's)			\$81

This Project was for the Emergency replacement of the bridge on LA 443 over the Tangipahoa River due to the Historic Floods in August of 2016. The project is located Northeast of Hammond, Tangipahoa Parish, Louisiana, 4 miles Northeast of the intersection of La 1064 and La 443. The survey total length was approximately 1500'. The width of the survey and DTM was extended to a total of 170 feet (90 feet North of the existing centerline of La 443 and 80 feet South of the existing centerline of La 443).

CD&C completed a topographic survey that included all utilities with depths, all drainage, all building information, including finish floor elevations, and all superstructure and substructure of the bridge over the Tangipahoa River. Additional cross-sectional information regarding the river was located by traditional means upstream and downstream for the engineer's design of the new bridge. To collect data on the failed bridge, 3D Terrestrial Scanning was incorporated alongside traditional methods to complete the topographic survey. Due to the nature of the project as an Emergency Bridge replacement, all staff worked non-stop until **fieldwork was completed in less than 3 weeks.**

KEY PROJECT ELEMENTS:

- Data collection
- Topographic surveying
- Structure surveying
- Existing conditions
- Field investigations
- Survey deliverables

CDC MEMBERS INVOLVED: Chris Ballard and Jacob Stoehr

Performed in LA: 100%



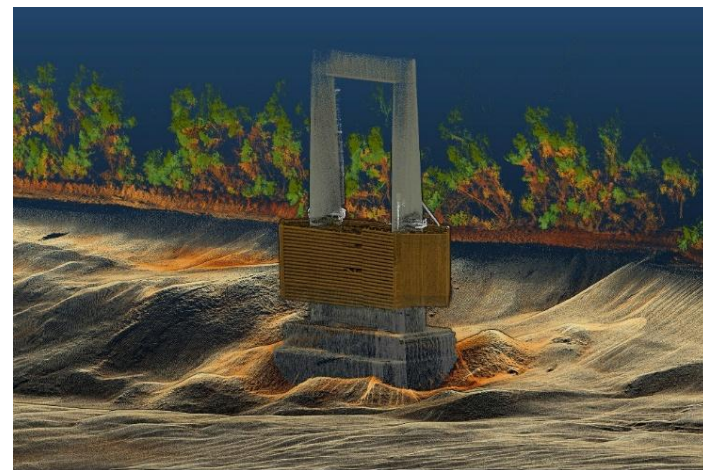
Prime consultant name: HDR Engineering, Inc.

Project 17

Firm name	Moffatt & Nichol Inc.		Discipline(s)*		Bridge	
Project name	LADOTD Underwater Bridge Inspections				Firm responsibility (prime or sub?)	Prime
Project number	H.009730.5, Task Order 2	Owner's name	Louisiana Department of Transportation and Development (LADOTD)			
Project location	Statewide, LA			Owner's Project Manager	Stephanie Doolittle, PE	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802 225-379-1329 stephanie.doolittle@la.gov					
Services commenced by this firm (mm/yy)		06/22	Total consultant contract cost (\$1,000's)			\$2,402
Services completed by this firm (mm/yy)		08/25	Cost of consultant services provided by this firm (\$1,000's)			\$1,419

As part of a five-year retainer contract, M&N has been tasked with performing underwater bridge inspections for over 500 bridges throughout the state of Louisiana through Task Order 2 and over 800 bridges across all three task orders on this contract. The bridges consist of small to mid-sized waterways, nine bridges passing through large swamps and bayous that vary in length from 3 to 14 miles, 15 culverts, and four bridges crossing large waterways (the Mississippi River, Prien Lake, and Whiskey Bay Channel). Many of the bridges crossed over waterways inhabited by alligators, which posed a potential hazard to the inspectors. To mitigate the risk of an incident, M&N hired a Louisiana Department of Wildlife and Fisheries-approved nuisance alligator trapper to conduct inspections at specific locations. M&N has safely performed Level I, II, and III underwater dive inspections and emergency damage assessments while augmenting 2D and 3D sonar technologies per the NBIS.

The M&N dive team captures images and bathymetric data using high-resolution side-scan sonar and multibeam sonar. High-resolution images and point cloud data of bridge piers/bents were collected to identify channel bottom conditions and structural deterioration. Underwater acoustic imaging services were provided over large navigable waterways with high-risk diving conditions, including fast currents, low visibility, heavy debris, extreme depths, cold water, and vessel traffic.



Scour evaluations (inherent to underwater bridge inspections) are vital to the inspection and report process. All inspector-divers were trained to observe soundings near submerged substructure units, channel migration/alignment, bank erosion, channel bed material, condition of scour protection structures and channel training devices, flow velocity, timber debris quantity and location, major changes in watershed and hydraulic capacities from upstream development and construction; and to review all conditions in real-time on-site to establish a rate of scour and erosion for effective prioritization of repairs and development of scour plan of actions for monitoring.

KEY PROJECT ELEMENTS:

- NBIS Underwater Bridge Inspection and Reporting
- Underwater Acoustic Imaging and Hydrographic Surveying
- NBE and SNBI ratings
- Retainer Contract
- InspectX Submittals
- High-Risk Diving Operations and Hazardous Wildlife
- Emergency Response
- TTC and Work Zone Safety

MOFFATT & NICHOL MEMBERS INVOLVED: Chace Hulon, Jeffrey Gazarek, and Bryan Tyson

Prime consultant name: HDR Engineering, Inc.

Project 18

Firm name	Thompson Engineering, Inc., of Louisiana			Discipline(s)*	Other (Architectural Design)	
Project name	Causeway Bridge Bascule Bridge Tender House				Firm responsibility (prime or sub?)	Sub
Project number	GNOEC #212	Owner's name		Greater New Orleans Expressway Commission		
Project location	Jefferson Parish, LA			Owner's Project Manager		Clinton Dufrechou
Owner's address, phone, email		3939 N. Causeway Boulevard, Suite 400, Metairie, LA 70002 504.835.3118 cdufrechou@gnoec.org				
Services commenced by this firm (mm/yy)		01/22	Total consultant contract cost (\$1,000's)			\$25
Services completed by this firm (mm/yy)		Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$25

This project includes the rehabilitation of the two upper levels of the Bridge Tender's House located on the Causeway Bridge. Built in 1968, the Bridge Tender's House at the North Channel Bascule has not undergone any renovations in over 35 years. The project aims to rehabilitate the existing upper two levels to provide a more comfortable and secure working environment. Thompson Engineering, operating as Meyer Engineers, designed the rehabilitation based on the following considerations. Meyer reviewed the current conditions of the structure and, in collaboration with the prime firm, determined the scope of work as follows:

- Remove and replace all existing windows at the operator's level with new, impact-resistant glazing. All new glazing will be tinted or have interior shading devices installed to minimize heat gain into the tender's work environment.
- Reconfigure the tender's windows into an impact-resistant, operable door to allow direct access to the catwalk outside.
- Paint all interior surfaces.
- Remove and replace all finish flooring with new material.
- Remove and replace all furniture/millwork with new construction to facilitate a more efficient layout for tenders.
- Provide better lighting for nighttime operations.
- Reduce ambient noise by installing acoustical absorbent materials.
- Upgrade existing air conditioning units and ventilation.
- Remove and replace stair tread anti-slip strips.
- Recover existing roof surface with new seamless waterproofing membrane.
- Repair access ladder to the roof and install new roof safety railings.
- Patch and repair any structural damage within the scope of work.

The lower level holds the critical electronic equipment vital to the bridge's operation. Even though the room is provided with adequate air conditioning, the dispersal of tempered air from this room percolates into the upper two floors. This exacerbates the imbalance in ambient air temperature, making it uncomfortable for the tenders. This imbalance will be investigated and rectified as part of this project.

THOMPSON ENGINEERING MEMBERS INVOLVED: Alton Davis

100% of the work for this project is performed in Louisiana.

Prime consultant name: HDR Engineering, Inc.



Project 19

Firm name	Thompson Engineering, Inc., of Louisiana			Discipline(s)*		Other (Architectural Design)	
Project name	DOTD Contract 2 for Movable Bridges				Firm responsibility (prime or sub?)		Sub
Project number	State Project Nos. H.012003, H.011995, H.010007, H.012568, H.12000	Owner's name	Louisiana Department of Transportation and Development (LADOTD)				
Project location	Vermilion, St. Martin, Assumption and Cameron Parishes			Owner's Project Manager		Fallen Farber	
Owner's address, phone, email		1201 Capitol Access Road, Baton Rouge, LA 70802 225.379.1986 fallon.farber@la.gov					
Services commenced by this firm (mm/yy)		06/25	Total consultant contract cost (\$1,000's)				Unknown
Services completed by this firm (mm/yy)		On-Going	Cost of consultant services provided by this firm (\$1,000's)				\$130

The project includes the rehabilitation of five Bridge Tender Houses located on vertical-lift bridges on LA-330, LA-96, LA-27, and LA-82 throughout Louisiana. Thompson Engineering, operating as Meyer Engineers, reviewed the existing conditions of the building's exterior, doors, windows, interior finishes, and roof, and has determined, in conjunction with the prime firm, that the scope of work is as follows:

- Remove and replace all existing windows with new, impact-resistant glazing. All new glazing will be tinted or have interior shading devices installed to minimize heat gain into the tender's work environment.
- Remove and replace all existing interior and exterior doors with insulated, commercial-grade doors and frames, appropriate weatherstripping, and updated hardware.
- Remove and replace all finish flooring and ceiling with new material.
- Repair and re-paint all interior wall finishes and damaged areas as required.
- Repair and re-finish the roof access ladder and canopy as required, and inspect all connections to the building.
- Clean all exterior wall surfaces and inspect and re-seal all wall penetrations.
- Remove and replace all furniture/millwork with new construction to facilitate a more efficient layout for tenders.
- Install a new weather-resistant roofing system with updated drainage, flashing, and upgraded insulation.

THOMPSON ENGINEERING MEMBERS INVOLVED: Alton Davis and Marco Perez

100% of the work for this project was performed in Louisiana.



Project 20

Firm name	Thompson Engineering, Inc., of Louisiana		Discipline(s)*	Other (Architectural Design)	
Project name	Contract 5 for Movable Bridges (6)			Firm responsibility (prime or sub?)	Sub
Project number	State Project Nos. H.11998, H.011990, H.013819, H.011997, H.010001	Owner’s name	Louisiana Department of Transportation and Development (LADOTD)		
Project location	Vermillion, Lafayette, St. Martin and Calcasieu Parishes		Owner’s Project Manager	T.J. Dunlevy	
Owner’s address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802 225.379.1083 tj.dunlevy@la.gov				
Services commenced by this firm (mm/yy)		03/25	Total consultant contract cost (\$1,000’s)		\$2,651
Services completed by this firm (mm/yy)		Ongoing	Cost of consultant services provided by this firm (\$1,000’s)		\$164

The project includes the rehabilitation of six bridge tender houses on vertical-lift bridges on LA-14, LA-27, LA-92, LA-350, and LA-378 throughout Louisiana. Thompson Engineering, operating as Meyer Engineers, reviewed the existing conditions of the building's exterior, doors, windows, interior finishes, and roof, and has determined, **in conjunction with HDR**, that the scope of work is as follows:

- Remove and replace all existing windows with new, impact-resistant glazing. All new glazing will be tinted or have interior shading devices installed to minimize heat gain into the tender's work environment.
- Remove and replace all existing interior and exterior doors with insulated, commercial-grade doors and frames, appropriate weatherstripping, and updated hardware.
- Remove and replace all finish flooring and ceiling with new material.
- Repair and re-paint all interior wall finishes and damaged areas as required.
- Repair and re-finish the roof access ladder and canopy as required, and inspect all connections to the building.
- Clean all exterior wall surfaces and inspect and re-seal all wall penetrations.
- Remove and replace all furniture/millwork with new construction to facilitate a more efficient layout for tenders.
- Install a new weather-resistant roofing system with updated drainage, flashing, and upgraded insulation.

THOMPSON ENGINEERING MEMBERS INVOLVED: Alton Davis and Marco Perez

100% of the work for this project was performed in Louisiana.



Prime consultant name: HDR Engineering, Inc.

18. Approach and Methodology:

The HDR team fully understands the RFQ's scope of services and the quality engineering services sought by LADOTD for the IDIQ for Bridge Preservation Services Statewide Contract Nos. 4400035420, 4400035421, and 4400035422. We bring a strong local team with experience in complex and traditional bridge inspection/preservation design in Louisiana and nationwide. We have a deep bench of over 600 dedicated bridge engineers with direct experience in bridge inspection/design, and have successfully executed hundreds of inspection contracts for clients across the nation. **HDR consistently ranks among the top design firms and was ranked No. 2 nationally for bridges by ENR in 2025.**

HDR TEAM

Our team is structured to **deliver multiple concurrent task orders**, with a deep, right-sized bench, and is supported by valued partners with **extensive LADOTD-relevant experience and prior work with HDR to optimize project efficiency.**

Firm	Role/Services	Benefit to Team
APS Engineering & Testing (DBE)	Geotechnical drilling, testing, & engineering	Deep experience with LADOTD standards, processes, & procedures
Bridge Diagnostics	NDT, load testing, monitoring, & structural evaluation	Longstanding HDR partner (10+ years) with specialized expertise and track record with LADOTD
CH Fenstermaker & Associates	Underwater imaging, surveying, roadway design, ROW mapping, & traffic engineering	Strong relationship with HDR; multiple successful South Louisiana projects
Civil Design & Construction (DBE/WBE)	Topographic surveying	Excellent relationship with LADOTD
Moffatt & Nichol	Underwater bridge inspections	Nationally recognized expertise in underwater inspection, including LADOTD
Thompson Engineering (formerly Meyer Engineers)	Architectural design & construction inspection	Established relationship with LADOTD

PROJECT/CONTRACT MANAGEMENT

Wesley Jacobs is our designated PM and will be responsible for overall **contract and task order management**. He will work with LADOTD leadership and subject-matter experts, as he has on our current Bridge Preservation task orders, to define the scope of work, validate the project schedule, and formalize HDR's project-specific project management plan (PMP) and quality management plan (QMP). This initial phase will include a formal **kick-off meeting** to introduce HDR's and LADOTD's project leadership teams, align project expectations, and define critical success factors. Our comprehensive PMP will outline the confirmed work plan, detailed schedule, deliverables, stakeholder roles, and engagement approach. The PMP will also define communication protocols, documentation procedures, and a QA/QC process tailored to LADOTD's requirements. Regular progress meetings will

be held at intervals determined by LADOTD, supported by monthly progress reports that include status on schedule, budget, and key issues, to track milestones and maintain transparency throughout the project. Invoicing guidelines will be discussed at the outset of the first task order to verify accurate, timely submittals to LADOTD monthly.

GENERAL BRIDGE ENGINEERING SERVICES

HDR's experience on complex projects such as the Bayonne Bridge (pictured right), including full rehabilitation and raising the roadway to improve navigational clearance, positions us as a leader in delivering exceptional bridge and structure programs with challenging constraints. Through this experience, HDR has refined **our approach to bridge preservation projects** to include a condition assessment, preparation of an inspection/condition survey report, a PS&E development phase (if LADOTD chooses to proceed with rehab designs), and construction-related engineering services (CRES). We will present a general approach to the phases and then elaborate on the specifics of the proposal scenarios.



Preliminary Design: After completing our data collection tasks, our team will coordinate with LADOTD to hold a pre-design meeting to confirm design criteria and discuss any critical areas or project preferences. Subsequently, we will revisit our PMP and QMP to confirm our design process, criteria, strategy, and quality reviews, thereby setting project goals/objectives with bridge design and key stakeholders. We propose a 60%, 95% (plan-in-hand), 98%, and 100% submittal schedule for most projects. 60% design will set geometry, develop MOT plans, identify utility relocations/conflicts, ROW, construction limits, and the type, size, and location of the span arrangement and foundations. Should H&H be required, it will be accomplished during this stage as well. Environmental evaluations will also be conducted during the preliminary design phase, with early design team coordination and SWPPP plans. Our team will address review comments and complete the 95% package; attend the plan-in-hand meeting set by LADOTD to address additional comments as they arise; and obtain any required railroad or environmental permits. Finally, local stakeholder coordination and public outreach will also take place during the preliminary design phase to avoid changes during final design.

Final Design: Once an NTP is issued and environmental clearances are provided, our team will initiate the formulation of final plans, which will be delivered as 60%, 90%, 98% (if requested), and 100% submittals. Each submittal will undergo our in-depth QC/QA process, as noted in our QMP at project initiation. Detailed plan sheets, quantities, cost estimates, and special provisions/specs will be created, incorporating design review comments at each submittal. After the 100% submittal, our team will support LADOTD during the bidding phase, including responding to bidder RFIs, required amendments, and bid tab assessments.

Tailored Approach for LADOTD: We recognize that a central concern for LADOTD is determining the extent of repairs required to restore reliable bridge operation. Many older systems no longer comply with current AASHTO guidelines, and the obsolescence of key components often leads to performance issues. Our approach includes:

- **Service Life Evaluation** – Identifying the expected life of machinery and electrical systems. For example, gear drives often exceed 60 years of service, while hydraulic systems typically require major upgrades after 35 years.
- **Component Reliability** – Assessing control systems, brakes, limit switch mounts, and anchor bolts that are frequent causes of reliability issues.
- **Machinery Support Improvements** – Reviewing anchor bolts, machinery alignment, and adjustability to verify proper operation.
- **System Interdependencies** – Analyzing cascading effects of motor and drive replacement on mechanical and electrical systems, including retrofitting feasibility, conversion options, and capacity upgrades in response to structural modifications or new AASHTO wind load criteria.
- **Advanced Diagnostics** – Performing span balance testing via strain gauges and hydraulic pressure monitoring and verifying trunnion alignment using piano wire and 3D scanning.

Load Rating & Rehabilitation Design: HDR routinely performs load rating and delivers rehabilitation plans, specifications, and estimates for traditional & complex bridges for LADOTD and across the country. 🔄 **PROJECT EXAMPLES:** For LADOTD on our Contract 5 for Movable Bridges (6), HDR conducted in-depth inspections, load-rated, and developed **detailed scopes of work to rehabilitate 6 vertical lift bridges** in Lafayette, St. Martin, and Calcasieu Parishes – Abbeville Bypass, Old Abbeville, Parks, Milton, West Fork, and Ellender Bridges. Additionally, for TxDOT, HDR **inspected, load-rated, and designed the rehabilitation** of the Corpus Christi Harbor Bridge, a 1,782-foot-long deck truss and through-truss structure constructed in 1959. A detailed inspection of the bridge required access via man-lifts, under-bridge inspection vehicles, and industrial rope access techniques. Based on the inspection, HDR prepared a condition evaluation report documenting the bridge's condition, including structural deterioration, phased-array ultrasonic pin test results, specific locations of all defects, and preliminary repair recommendations. Members and gusset plates were load-rated with and without structure deterioration, using the latest FHWA criteria. Working closely with TxDOT, HDR produced rehabilitation plans to repair members and gussets with an operating rating below 1.3. **HDR developed detailed repair sequences and specific procedures that could be executed while maintaining traffic on the bridge.**

Repair Recommendations: When addressing defects, **we will first determine the cause and address the underlying issue, in addition to the repair.** Without this forensic approach, the repairs would be purely cosmetic. Examples of root causes we have encountered include leaking expansion joints, water infiltration and sediment transport behind abutments, premature coating failures, elevated chloride content, inadequate rebar cover, debonding of overlays, locked-up bearing devices, and improper support of precast panel bedding strips. ☆ **INNOVATION:** Based on our experience with bridge maintenance and preservation projects, **HDR has implemented an innovative bridge repair matrix to**

determine the most effective repair for each defect. This tool is continuously refined using feedback from the bridge design section. Not all recommendations are defect-driven; many are proactive and preservation-focused. HDR will also incorporate routine maintenance activities, such as joint cleaning, debris removal, surface treatments, and maintenance of drainage and bridge lighting, to extend the service life of LADOTD bridges.

Movable Bridge Rehabilitation: Movable bridges are highly complex machines that demand specialized knowledge to operate, maintain, and rehabilitate. Many of these structures are now decades old and require significant upgrades to avoid costly downtime. Breakdowns are inevitable, and when they occur, rapid response is critical to maintain the flow of highway, pedestrian, bicycle, railroad, and marine traffic. HDR has extensive experience addressing these challenges. Our engineers provide constructible, maintainable **designs that reduce life-cycle costs and minimize impacts on the traveling public.** We support clients across a full spectrum of services, from emergency repairs and inspections to full rehabilitation studies. Our track record includes task-driven, on-call contracts such as the CSX Transportation Movable Bridge On-Call, VDOT Movable Bridge Limited Services, and FDOT District 4 Bridge Structures Services. Over the past five years, **HDR has delivered more than 120 repair and rehabilitation projects, including four major design efforts and three emergency responses in Louisiana alone.**



Emergency Response: 🔄 **PROJECT EXAMPLES** - BNSF Railway and CN Railway rely on HDR to provide **emergency response assistance** on their movable bridges throughout the state. When the BNSF Berwick Bridge was unable to lift the movable span, HDR **quickly identified the root cause** over the phone and dispatched a third-party integrator to the bridge to make the necessary programming changes for bridge operations while the structure's staff made their repairs. HDR has also been dispatched to the CN Manchac Bridge to perform emergency assessments on the brakes and span balance. These projects are only a small sample of the emergency response tasks HDR has completed for bridge owners throughout North America, and of the **approach we will bring to LADOTD** for this contract.

Bridge Replacement: HDR's engineers have extensive experience delivering both fixed and movable bridge replacement projects. Through the development process, we will collaborate with LADOTD to evaluate whether a structure warrants rehabilitation or full replacement. Our team is committed to minimizing traffic impacts through innovative construction phasing, maintenance of traffic (MOT) strategies, and careful consideration of applicable environmental constraints. Bridge types and alternatives will be evaluated early in project planning in coordination with LADOTD and key stakeholders. ☆ **INNOVATION:** HDR has created **bridge-optimization tools for LADOTD** under our current task orders that identify economical structural types as a starting point, streamlining the design process. Combined with close coordination on alignment, geometrics, traffic, geotechnical, and H&H, this approach **promotes cost-effective bridge solutions** that meet clearance requirements and optimize span types and lengths.

Design Peer Review Services: We will thoroughly review the plan set, prepare design models (bridge geometry, steel/PPC spans, substructure, and foundations) using LADOTD-approved software. Our team will then compile a comprehensive comment log and a detailed technical report, with supporting calculations, summarizing the independent design. Finally, comment resolution and review meetings will be held to close out and produce the final report.

☑ **PROJECT EXAMPLE:** Our team recently completed this process for the Port of New Orleans East St Bernard Hwy overpass for the new Louisiana International Terminal, as noted in our project sheet.

Construction-Related Engineering Services (CRES): Our team of engineers understands our designs from top to bottom and is experienced in providing timely responses during construction for RFI reviews, shop drawings, and submittal reviews. We will efficiently draft amendments and generate change orders as needed. Our reviews will be thoroughly documented to confirm compliance with the contract documents to promote an efficient construction process.

SAMPLING, INSTRUMENTATION, & NON-DESTRUCTIVE TESTING & COATINGS

Our subconsultant, BDI, has expertise in advanced inspection techniques, non-destructive testing, sampling, and instrumentation. After planning, BDI will use in-house resources to support approved NDE, testing, monitoring, and engineering. The success of NDE, testing, and monitoring projects resulting from inspection findings is contingent on a well-prepared instrumentation and work plan. BDI has performed these engineering services for more than 30 years and is currently developing the FHWA Structural Health Monitoring (SHM) Current Practice and Web Manual to better define these goals industrywide. Our team has NACE-certified coatings specialists who will work closely with our bridge inspection teams during in-depth inspections to sample and test materials and determine the remaining service life of bridge paint systems.

GEOTECHNICAL SERVICES

The engineering team at APS provides comprehensive geotechnical services with specialized expertise in Louisiana soils. They will work with our bridge engineers to define subsurface investigation and testing plans aligned with the LADOTD Geotechnical Design Manual and determine soil boring and cone penetration test methodologies consistent with LADOTD standard practices. APS brings extensive LADOTD experience in geotechnical analyses and soil testing, including environmental site assessments, USACE- and AASHTO-accredited laboratory testing, soil borings, bridge and construction materials testing, and construction monitoring/instrumentation.

ROADWAY DESIGN AND TRAFFIC SERVICES

Our subconsultant, CHF, has extensive experience in roadway design, hydraulic analysis and design, traffic engineering, traffic control, and **transportation management plans (TMPs)**. The roadway design will consist of the at-grade portions of the roadway associated with the required construction, replacement, rehabilitation, maintenance, repair, and lighting of the bridge structures; while the hydraulic analysis and design, traffic engineering, traffic control plans, and transportation management plans would impact the entire task order. In accordance with LADOTD's project development process, once the topographic survey is complete, our roadway designers will begin on the details of each task order as requested.

The team will then determine the extent to which at-grade services, hydraulic analysis, and traffic engineering are required. If needed, the design process will proceed through the standard 30%, 60%, and 90% preliminary and final plan phases, with reviews by LADOTD. Throughout the process, close coordination would be maintained to verify that the disciplines are coordinated smoothly. Appropriate H&H/drainage analyses will be conducted to verify that runoff from the roadway is conveyed appropriately with proper bent locations and low chord elevations, which will be coordinated with the bridge teams.

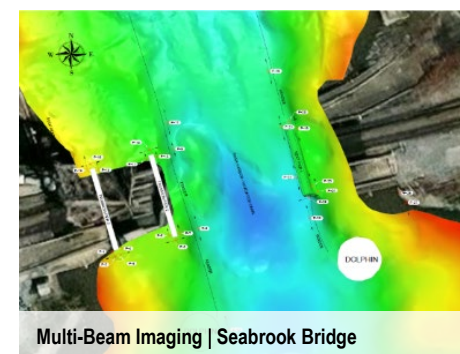
SURVEYING AND TITLE WORK SERVICES

CHF and CDC provide comprehensive land surveying services, including traditional topographic surveys, **underwater multi-beam digital imaging/hydrographic surveys** (CHF only), and LIDAR applications, to support our design teams in bridge preservation and replacement. They will complete a boundary survey of the parcels along the proposed project route as required. Boundaries shall be delineated utilizing the "Title Research Reports" and "Title Take-Offs". Project control is

requested from the department for use on the property survey task. Upon receipt of the project control information, they will verify the project control, and any deviations will be reported back to the LADOTD location and survey group for direction moving forward. Once this has been established, boundary and topographic survey features would be collected based on the minimum standards provided in the latest issue of LADOTD's "Location and Survey Manual Addendum A" and shall utilize LADOTD Survey Feature Codes. We will follow the following phases of submittals for ROW Maps: Property Survey Maps, 60% Base ROW Maps, and Final ROW Maps, in accordance with LADOTD's "Location & Survey Manual Addendum A" and current LAPELS standards.

BRIDGE INSPECTION SERVICES

HDR's approach to condition assessment field investigations starts with a deep understanding of the bridges before leaving the office. We review as-built plans and previous routine/in-depth inspection reports, and highlight areas noted as defective. HDR reviews the existing load rating to verify that it has not been affected by the placement of additional asphalt on the bridge. Once we have reviewed the existing information, we determine (using **NBIS procedures and protocols**) what level of detail and how long the inspection at each bridge site may take (including underwater inspection). We have evaluated various technology-based approaches, including tablet computers and digital plan markups; however, our experience shows that a well-documented photo log and clear handwritten field notes remain the most effective. At the end of our field notes template, we include a section for key repair items. While still in the field, the team considers how repairs will be presented in the final report and PS&E. By evaluating repairs early in the process, we can confirm that necessary information has been collected before returning to the office. When safety issues or critical findings are identified, the team follows established protocols to notify LADOTD immediately.



Field assessments are scheduled with advance coordination with District personnel, and any required traffic control plans are submitted to District Bridge Engineers for approval, along with **US Coast Guard coordination** as applicable for navigation. Assessments on low-volume roadways can typically be performed using advance warning signage and vehicle-mounted safety beacons; however, on higher-volume roadways and interstates, lane closures will be implemented as needed to protect field crews. Our safety plan includes a detailed job hazard analysis (JHA) for each location, identifying potential hazards such as working near high-traffic areas, near railroads, and over water.

The HDR team utilizes a full range of access methods, including under-bridge inspection vehicles, bucket trucks, man lifts, and industrial rope access. The team has extensive experience applying these techniques in the appropriate conditions and project settings. HDR places strong emphasis on rope access to reduce or eliminate the need for lane closures. HDR has invested in rope access over the years and has an engineering team of leaders with Level III Society of Professional Rope Access Technicians (**SPRAT**) certification, enabling them to supervise rope access assignments. Currently, **HDR has 66 rope-access-certified inspectors who have assisted in over 20 inspections in Louisiana.** We will develop and execute TCPs in accordance with the latest version of the Manual on Uniform Traffic Control Devices (MUTCD) and coordinate with the LADOTD District Offices. Our subconsultant, Moffatt & Nichol, will support **underwater inspections** using ADCI-certified divers to assess channel scour and map it, and to correlate findings with CHF's digital and acoustic imaging. **Coating system inspections** will be conducted by in-house HDR professionals who are SPRAT and AMPP/NACE-certified.

ENVIRONMENTAL AND PERMITTING SERVICES

The HDR team will conduct appropriate GIS database evaluations and field surveys of natural and cultural resources to identify potential permitting constraints and work closely with the engineering team to **avoid and minimize impacts to the extent practicable.** This approach will help streamline permitting and the negotiation of mitigation plans. For unavoidable impacts, we will prepare and submit the required permit applications and drawings to the regulatory agencies with jurisdiction and responsibility for regulatory review over the project (bridge) location and activities. Our approach is to provide follow-up correspondence to each regulatory agency until the permits are issued. The following permits will be obtained from regulatory agencies, depending on the bridge's location.

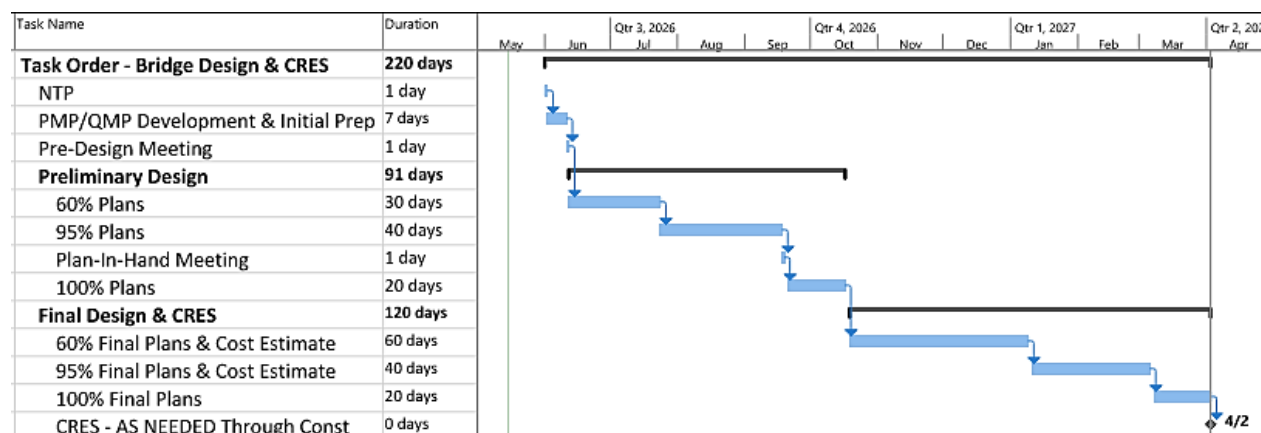
- Coastal Use permits (CUP) from the LA Department of Natural Resources, Office of Coastal Management (OCM)
- Clean Water Act, Section 404, and River & Harbor Act, Section 10 permits from the US Army Corps of Engineers (USACE)
- Clean Water Act - Section 401, Water Quality Certification requests to the LA Department of Environmental Quality

- Scenic Stream permits from the LA Department of Wildlife and Fisheries
- Rivers and Harbors Act, Section 9, Bridge permits from the US Coast Guard
- Levee permits from various levee boards

Additionally, if a project is near a completed Federal Civil Works project area, we will support LADOTD in evaluating and submitting USACE Section 408 reviews and approvals, as requested.

EXAMPLE TASK ORDER SCHEDULE AND ACTIVITIES UNDERSTANDING

For a typical design task order (actual durations may vary based on the magnitude and complexity of the project scope), our team will prepare preliminary and final PS&E in accordance with the Stage 3 design steps/protocols in the LADOTD BDEM. As discussed above, we will coordinate with LADOTD to verify the traffic control approach, establish design criteria, and discuss environmental/permitting issues. We will determine the required topographic/bathymetric survey limits and potential geotechnical boring/testing needed to support the preliminary designs. Aerial imagery can be **used to expedite preliminary layouts while survey data collection is taking place.** Our team will efficiently move through the deliverable phases and work with LADOTD to address design comments. Once final PS&E are complete, our team will work closely with LADOTD during the bidding phase to answer any RFI's or develop any plan addenda, as well as attend pre-construction meetings. Once construction begins, our engineers of record will review shop drawings/submittals, respond to RFI, and conduct site visits to verify compliance with the contract documents. For movable bridges, our team will conduct training and functional checkout during the commissioning phase at the end of construction to facilitate an efficient transition to full operation.



*Preliminary Schedule, Subject to Change

19. Workload:

For all contracts where a firm on the team is a prime consultant or sub-consultant and where **a)** the consultant selection was made by DOTD, and **b)** a contract was executed by the consultant and the contracting entity by the date the advertisement for this proposal was posted, list all work meeting the following criteria:

- 1) one of the team's firms is responsible for the performance of the work;
- 2) authorization to perform the work has been provided, as provided in the contract between the consultant and the contracting entity;
- 3) the work has not yet been performed and invoiced; and
- 4) the work is not currently suspended for an indefinite period of time.

For indefinite delivery/indefinite quantity (IDIQ) contracts, list open Task Orders individually.

List only the portion of the fees attributable to firms on the team.

Firm(s) ALL FIRMS MUST BE REPRESENTED IN THIS TABLE	Discipline(s) *	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance**
HDR Engineering, Inc.	Bridge	4400024186/H.015472	LADOTD Br Preservation TO4	\$106,185
	Planning	4400026365/H.015223.2	Baton Rouge to New Orleans Rail Corridor Environmental Study	\$591,461
	Bridge	4400021517	Contract 5 for Movable Bridges (6)	\$526,728
	Bridge	4400024186	LADOTD LA301 Priest Canal TO#5	\$40,072
	Bridge	4400024186	LADOTD_Br Preservation TO6	\$112,382
	Other (Hydraulic Modeling)	440017091	LADOTD LWI Region 5 TO 5	\$126,320
	Planning	4400030630/H.015724.5	Kings Hwy: Healthcare and Development Corridor	\$640,494
	Planning	44000323498/H.972419.1	SHSP – VRU Safety Assessment #10461622	\$675,327
	Planning	4400027876	HNTB TO3 Advisory Services	\$86,776
APS Engineering and Testing, LLC	Geotech	4400024653/ H.004005.5	I-10 LA415 to Essen Lane on I-10 and I-12	\$55,000
	CE&I/OV	4400014913/ H.010155.6	US 90 RR Overpass SE of LA 85	\$233,076
	CE&I/OV	4400032793/ H.014239.6	LA-589 Alligator Bayou Bridge	\$36,710
	CE&I/OV	4400024653/ H.014560.6	LA-94 Vermillion River Bridge	\$14,987
Bridge Diagnostics, Inc.	Bridge	4400025002 H.009730.5	IDIQ Contract for Non-Destructive Testing/Evaluation of Structures Statewide TO5	\$294,799
	Bridge	4400025002 H.009730.5	IDIQ Contract for Non-Destructive Testing/Evaluation of Structures Statewide TO7	\$5,035
	Bridge	4400025002 H.009730.5	IDIQ Contract for Non-Destructive Testing/Evaluation of Structures Statewide TO9	\$115,918
	Bridge	4400025002 H.009730.5	IDIQ Contract for Non-Destructive Testing/Evaluation of Structures Statewide TO10	\$408,471
	Bridge	44-24187 H.004647.6	I-20 Miss. R. Bridge Geotechnical & Stru IDIQ Contract for Bridge Preservation Statewide TO 15	\$145,113

	Bridge	4400023812	Mast Plan Development for the Weigh Station Assessment, Rehabilitation, and Plan Development Statewide TO3	\$27,081
C.H. Fenstermaker & Associates, L.L.C.	Road	Contract No. 400005673 State Project No. H.011235.5	I-49 South @ Verot School Road US 90	\$61,851
	Road	Contract No. 4400020291 State Project No. H.012869	LA 182 (UNIV) @ LA 723(RENAUD) Roundabout LA 182 and LA 723	\$130,961
	Bridge	Contract No. 4400025023 State Project No. H.015513	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program District 03 Elenor Road Over Coulee	\$1,100
	Bridge	Contract No. 4400025023 State Project No. H.015335	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program District 03 Puma Road Over Coulee	\$34,050
	Bridge	Contract No. 4400025023 State Project No. H.015516	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program District 03 Bieber Road Over Nezpique Bayou	\$550
	Bridge	Contract No. 4400025023 State Project No. H.015512	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program District 03 Mullins Road Over Tete Bayou	\$550
	Bridge	Contract No. 4400025023 State Project No. H.015515	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program District 03 Andover Road Over Indian Bayou Lateral	\$550
	Bridge	Contract No. 4400025023 State Project No. H.015514	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program District 03 Sarah Dee Pkwy. Over Coulee	\$21,650
	Bridge	Contract No. 4400025023 State Project No. H.015505	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program District 03 Solid Waste Water Road Over Bayou Boeuf	\$1,100
	Bridge	Contract No. 4400025023 State Project No. H.015510	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program District 03 Phillip Street Over Drainage Bayou	\$12,950
	Bridge	Contract No. 4400025023 State Project No. H.015509	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program District 03 Huval Street Over True Canal	\$550
	Bridge	Contract No. 4400025023 State Project No. H.015508	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program District 03 Adam Guidry Road Over Coulee	\$48,550
	Bridge	Contract No. 4400025023 State Project No. H.015507	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program District 03 Minos Road Over Coulee	\$2,850

	Bridge	Contract No. 4400025023 State Project No. H.015506	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program District 03 Aristide Road Over Coulee	\$550
	Bridge	Contract No. 4400025023 State Project No. H.015517	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program District 03 Guegnon Street Over Youngs South Coulee	\$41,500
	Road	Contract No. 4400025625 State Project No. H.014622.2	St. Nazaire Road Ext: LA 96 – Corne Road	\$481,861
	Environmental	Contract No. 4400027474	IDIQ Contract for Environmental Permitting and Biological Services Task Order No. 2 MS4 Permitting Support East Baton Rouge Parish	\$14,854
	Road	Contract No. 4400030052 State Project No. H.015966.5	IDIQ Contract for Roadway Design Services Statewide with Majority of Work in Districts 03 & 07 Task Order No. 2 LA 2333 R-Cut at I-49 South Interchange	\$50,871
	Road	Contract No. 4400030052 State Project No. H.015484.5	IDIQ Contract for Roadway Design Services Statewide with Majority of Work in Districts 03 & 07 Task Order No. 3 LA 1162: Keith Duplechain Road – LA 29	\$229,396
Civil Design & Construction, Inc.	Survey	4400027093/H.014041	LA 92 ROW Maps	\$5,028
	Survey	44-29196; H.016255.5	LA 1: WGS Riverplex RR Overp	\$142,431
	Survey	44-26911; H.016083.5	West Worthey Sidewalks	\$27,690
Moffatt & Nichol Inc.	Bridge	4400029207; H.009730.5	LaDOTD IDIQ Contract for Underwater Inspections – Task Order 1	\$1,730,605
	Bridge	4400029683; H.009730.5	LaDOTD IDIQ Contract for Complex Bridge Inspections – Task Order 1	\$396,506
	Bridge	4400024187; H.014609.1	LaDOTD IDIQ Contract for Bridge Preservation – Task Order 14 Cameron Ferry Landing Replacement	\$36,453
	Other (Rail)	4400011834; H.012811.1	LaDOTD Railroad Inventory Systems Railroad Inventory Upgrade – Supplemental Agreement 1	\$21,602
Thompson Engineering, Inc., of Louisiana *The line items highlighted in light blue to the right are outstanding contracts for Meyer Engineers, Ltd.	CE&I/OV	#4400017430 / H.001498	LA 24 & LA 316: Company Canal Bridge (CE&I)	\$65,608
	CE&I/OV	#4400021186 / H.013520	Barringer Drive Sidewalks	N/A
	Road	#4400023075 / H.013522	S. Lewis Street Widening	\$26,227
	CE&I/OV	#4400024988 / H.006457.6	Roundabout @PR 929 and Parker Road	N/A
	CE&I/OV	#4400025412 / H.006459.6	Roundabout Churchpoint Road and Roddy Road (CE&I)	\$323
	CE&I/OV	#4400025702 / H.013813.6	Vintage Drive Multi Use Path: Power - Wilson (CE&I)	\$37,811
	CE&I/OV	#4400024021/#4400024022 H.015028 / H.002264	Bayou Barataria MB Replacement, Phase I (CE&I) Bayou Barataria MB Replacement (CE&I)	\$129,085

	Road	#4400027183 / H.016012 – Task 1	IDIQ Contract for Design of Transportation Alternatives Projects Statewide	\$10,031
	CE&I/OV	#4400027183 / H.01582.5 – Task 2	LA Hwy. 403 Sidewalks (Paincourtville)	\$97,240
	CE&I/OV	#4400027183 / H.015860.5 – Task 3	LA 1 & LA 308 Sidewalks (Belle Rose)	\$135,966
	CE&I/OV	#4400029079 / H.014625.6	Terry Parkway: LA 23-US 90B	\$1
	CE&I/OV	#4400029159 / H.014682	Veterans Boulevard: David Drive to Clearview	\$524
	Road	#4400028908 / H.014334.6	Doucet Road Sidewalks	\$78,455
	CE&I/OV	#4400028908 / H.014334.6	Bonnabel Boulevard: Metairie Road – I-10 (CE&I)	\$35,708
	Bridge	#440021517	DOTD Contract 5 for Movable Bridges (6)	\$161,129
	CE&I/OV	#4400030093 / H.015547.6	IDIQ Contract for Construction, Engineering and Inspection Task Order 1 – Alphonse Forbes over Drainage Bayou	\$44,859
	Road	#440014181 / H.011310.5	Ford Street Extension	\$133,611
	Bridge	#4400021514	DOTD Contract 2 for Movable Bridges (5)	\$121,623
	CE&I/OV	#4400030093 / H.014837.6	IDIQ LA 30: LA 74-EBR P/L	\$284,969
	CE&I/OV	#4400030093 / H.015530.6 – Task 3	IDIQ Devall Road over Drainage Ditch	\$138,143
	Geotech	#4400019016 / H.014986	Hales Road Bridges	\$37,755
	Geotech	#4400019016 / H.015013	Sibley Road & Chappapeela Road Bridges	\$58,020
	Geotech	#4400019016 / H.015014	Stateline Road Bridge	\$34,345
	Geotech	#4400019016 / H.013817	LA 8 to LA 118 Improvements	\$55,710
	Geotech	#4400019016 / H.012736	Tensas River Bridge	\$207,733
	Geotech	#4400019016 / H.015017	Patricia Street Bridge	\$50,655

(Add rows as needed)

DO NOT SUM

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

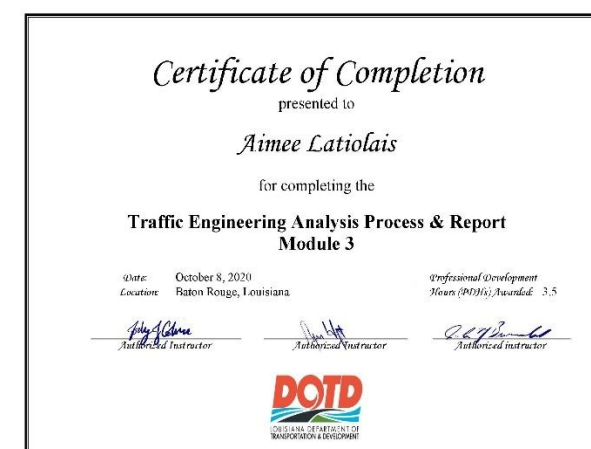
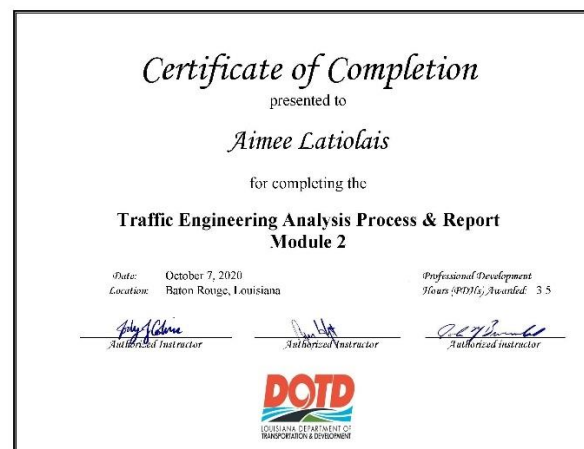
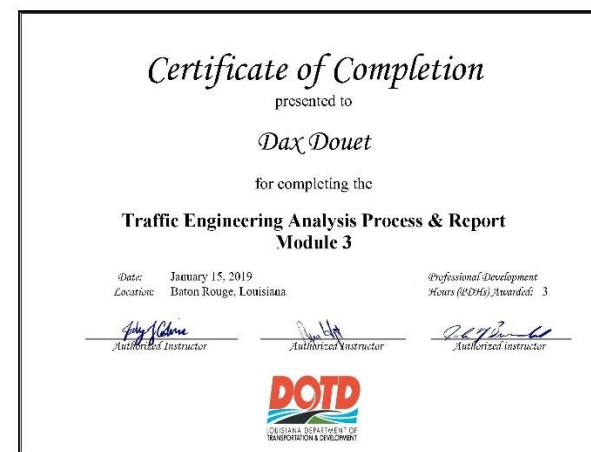
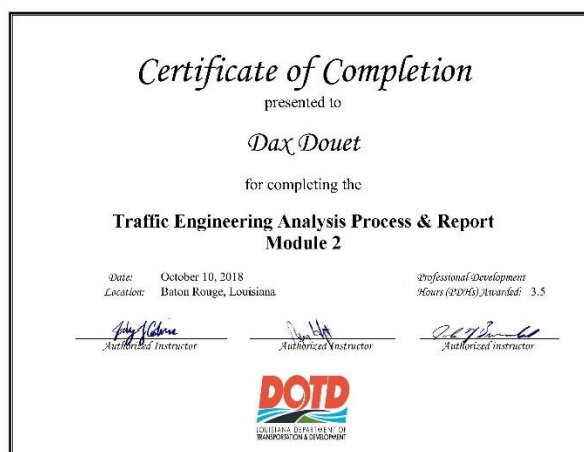
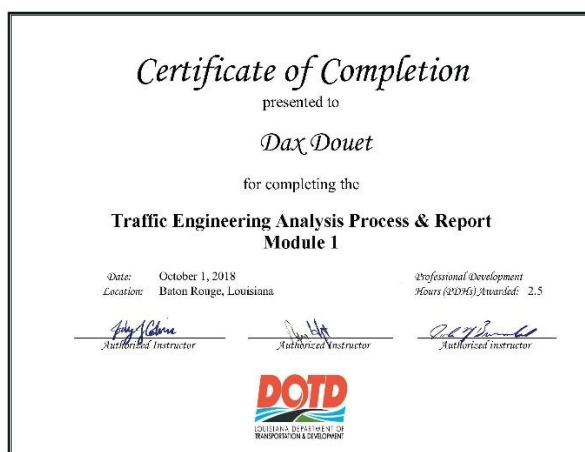
**** Round to the nearest dollar. Do not round to the nearest thousands.** If there are no active contracts with a remaining unpaid balance, place N/A in the Remaining Unpaid Balance column. **NOTE: ALL FIRMS MUST BE REPRESENTED IN THIS TABLE.** LEAVING THE “REMAINING UNPAID BALANCE” COLUMN BLANK IS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

20. Certifications/Licenses:

MPR 11 Certifications (HDR)



Three modules of the Traffic Engineering Process and Report Course (CHF)



APS Traffic Control Certifications



BDI Traffic Control Certifications



Steven Fall
has attended
Louisiana Traffic Control Supervisor Refresher

Completed: 03-SEP-2025

CEU (If Applicable): 0.75

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

This certificate provides proof of training, not certification.

American Traffic Safety Services Association
ATSSA.com

CHF Traffic Control Certifications



PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Travis Bodin
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

9/23/2022 to 9/23/2026
Training Valid Through

Lafayette, LA
Location

Ramona Smith
Director of Training
Alan Teichner
President, CEO

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



American Traffic Safety Services Association ATSSA.com



PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Justin Bordelon
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

9/23/2022 to 9/23/2026
Training Valid Through

Lafayette, LA
Location

Ramona Smith
Director of Training
Alan Teichner
President, CEO

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



American Traffic Safety Services Association ATSSA.com



PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Aimee Latiolais
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

9/23/2022 to 9/23/2026
Training Valid Through

Lafayette, LA
Location

Ramona Smith
Director of Training
Alan Teichner
President, CEO

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



American Traffic Safety Services Association ATSSA.com



PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Lance Fontenot
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

9/23/2022 to 9/23/2026
Training Valid Through

Lafayette, LA
Location

Ramona Smith
Director of Training
Alan Teichner
President, CEO

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



American Traffic Safety Services Association ATSSA.com



Dax Douet
has attended
Louisiana Traffic Control Supervisor

Completed: 15-MAY-2025

CEU (If Applicable): 1.5

ATSSA provides training and certification but neither constitutes employment by ATSSA.
This certificate provides proof of training, not certification.

American Traffic Safety Services Association
ATSSA.com

CDC Traffic Control Certifications



Christopher Ballard
has attended
Louisiana Traffic Control Supervisor Refresher

Completed: 14-MAR-2025

CEU (If Applicable): 0.75

ATSSA provides training and certification but neither constitutes employment by ATSSA.
This certificate provides proof of training, not certification.

American Traffic Safety Services Association
ATSSA.com



Scott Benton
has attended
Louisiana Traffic Control Supervisor Refresher

Completed: 23-FEB-2024

CEU (If Applicable): 0.75

ATSSA provides training and certification but neither constitutes employment by ATSSA.
This certificate provides proof of training, not certification.

American Traffic Safety Services Association
ATSSA.com



Jacob Stoehr
has attended
Louisiana Traffic Control Supervisor Refresher

Completed: 14-MAR-2025

CEU (If Applicable): 0.75

ATSSA provides training and certification but neither constitutes employment by ATSSA.
This certificate provides proof of training, not certification.

American Traffic Safety Services Association
ATSSA.com

	
PROOF OF TRAINING THIS CERTIFICATE HEREBY RECOGNIZES THAT	
Drennon Humphreys has attended Louisiana Traffic Control Supervisor Training Course	
7/12/2023 to 7/12/2027 Training Valid Through	<i>Donna M. Clark</i> Vice President of Education and Technical Services
Baton Rouge, LA Location	<i>Sharon Taylor</i> President, CEO
ATSSA provides training and certification but neither constitutes employment by ATSSA.	
 American Traffic Safety Services Association ATSSA.com	

ATSSA American Traffic Safety Services Association
Safer Roads Save Lives

This is to affirm that

CHRIS BALLARD

has satisfied the requirements to be designated as a
CERTIFIED FLAGGER

Issue Date 2/29/2024 Instructor Name Debbie Purcella
Exp. Date 2/29/2028 *Debbie Purcella*
State Issued LA Instructor Signature
V0000287042 Verify at Flaggar.com

ATSSA American Traffic Safety Services Association
Safer Roads Save Lives

This is to affirm that

SCOTT BENTON

has satisfied the requirements to be designated as a
CERTIFIED FLAGGER

Issue Date 2/2/2024 Instructor Name Debbie Purcella
Exp. Date 2/2/2028 *Debbie Purcella*
State Issued LA Instructor Signature
V0000258961 Verify at Flaggar.com

ATSSA American Traffic Safety Services Association
Safer Roads Save Lives

This is to affirm that

JAKE STOEHR

has satisfied the requirements to be designated as a
CERTIFIED FLAGGER

Issue Date 6/2/2025 Instructor Name Debbie Purcella
Exp. Date 6/2/2029 *Debbie Purcella*
State Issued LA Instructor Signature
V0000390005 Verify at Flaggar.com

ATSSA American Traffic Safety Services Association
Safer Roads Save Lives

This is to affirm that

DRENNON HUMPHREYS

has satisfied the requirements to be designated as a
CERTIFIED FLAGGER

Issue Date 6/2/2025 Instructor Name Debbie Purcella
Exp. Date 6/2/2029 *Debbie Purcella*
State Issued LA Instructor Signature
V0000388007 Verify at Flaggar.com

HDR Secretary of State Certification

State of
Louisiana
Secretary of
State



COMMERCIAL DIVISION
225.925.4704

Fax Numbers
225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

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 70503			
Status			
Status:	Active		
Annual Report Status:	In Good Standing		
Qualified:	6/17/1985		
Last Report Filed:	6/15/2026		
Type:	Business Corporation (Non-Louisiana)		
Registered Agent(s)			
Agent:	REGISTERED AGENTS INC		
Address 1:	201 RUE BEAUREGARD, STE. 202		
City, State, Zip:	LAFAYETTE, LA 70508		

Prime consultant name: HDR Engineering, Inc.

APS Secretary of State Certification

State of
Louisiana
Secretary of
State



COMMERCIAL DIVISION
225.925.4704

Fax Numbers
225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

Name	Type	City	Status
APS ENGINEERING AND TESTING, LLC	Limited Liability Company	BATON ROUGE	Active

Previous Names

Business: APS ENGINEERING AND TESTING, LLC

Charter Number: 40911984K

Registration Date: 8/9/2012

Domicile Address

1645 NICHOLSON DR
BATON ROUGE, LA 70802

Mailing Address

5261 HIGHLAND RD. #320
BATON ROUGE, LA 70808

Status

Status: Active

Annual Report Status: In Good Standing

File Date: 8/9/2012

Last Report Filed: 7/15/2025

Type: Limited Liability Company

Registered Agent(s)

Agent:	SERGIO AVILES
Address 1:	5261 HIGHLAND RD. #320
City, State, Zip:	BATON ROUGE, LA 70808
Appointment Date:	6/25/2018

BDI Secretary of State Certification

State of
Louisiana
Secretary of
State



COMMERCIAL DIVISION
225.925.4704

Fax Numbers
225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

Name	Type	City	Status
BRIDGE DIAGNOSTICS, INC.	Business Corporation (Non-Louisiana)	LOUISVILLE	Active

Previous Names

Business: BRIDGE DIAGNOSTICS, INC.

Charter Number: 40760203F

Registration Date: 2/27/2012

Domicile Address

740 S PIERCE AVE
UNIT 15
LOUISVILLE, CO 80027

Mailing Address

4300 S I-10 SERVICE RD W
SUITE 210
METAIRIE, LA 70001

Principal Business Office

740 S PIERCE AVE
UNIT 15
LOUISVILLE, CO 80027

Registered Office in Louisiana

8550 UNITED PLAZA BUILDING II, STE. 305
BATON ROUGE, LA 70809

Principal Business Establishment in Louisiana

4300 S I-10 SERVICE RD W
SUITE 210
METAIRIE, LA 70001

Status

Status: Active

Annual Report Status: In Good Standing

Qualified: 2/27/2012

Last Report Filed: 2/16/2026

Type: Business Corporation (Non-Louisiana)

Prime consultant name: HDR Engineering, Inc.

CHF Secretary of State Certification

State of
Louisiana
Secretary of
State



COMMERCIAL DIVISION
225.925.4704

Fax Numbers
225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

Name	Type	City	Status
C. H. FENSTERMAKER & ASSOCIATES, L.L.C.	Limited Liability Company	LAFAYETTE	Active

Previous Names

C. H. FENSTERMAKER & ASSOCIATES, INC. (Changed: 12/31/2011)

Business: C. H. FENSTERMAKER & ASSOCIATES, L.L.C.

Charter Number: 33922270K

Registration Date: 8/10/1982

Domicile Address

135 REGENCY SQUARE
LAFAYETTE, LA 70508

Mailing Address

P.O. BOX 52106
LAFAYETTE, LA 70505

Status

Status: Active

Annual Report Status: In Good Standing

File Date: 8/10/1982

Last Report Filed: 7/11/2025

Type: Limited Liability Company

Registered Agent(s)

Agent:	WILLIAM H. FENSTERMAKER
Address 1:	135 REGENCY SQUARE
City, State, Zip:	LAFAYETTE, LA 70508
Appointment Date:	8/12/1993

Officer(s)

Additional Officers: No

Officer:	W. H. FENSTERMAKER
Title:	Manager, Member
Address 1:	135 REGENCY SQUARE
City, State, Zip:	LAFAYETTE, LA 70508

CDC Secretary of State Certification

State of
Louisiana
Secretary of
State



COMMERCIAL DIVISION
225.925.4704

Fax Numbers
225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

Name	Type	City	Status
CIVIL DESIGN & CONSTRUCTION, INC.	Business Corporation	PORT ALLEN	Active

Previous Names

Business: CIVIL DESIGN & CONSTRUCTION, INC.

Charter Number: 35961196D

Registration Date: 6/15/2005

Domicile Address

3251 SOUTHERN PACIFIC ROAD
PORT ALLEN, LA 70767

Mailing Address

P O BOX 857
PORT ALLEN, LA 70767

Principal Office Address

3251 SOUTHERN PACIFIC ROAD
PORT ALLEN, LA 70767

Status

Status: Active

Annual Report Status: In Good Standing

File Date: 6/15/2005

Last Report Filed: 5/18/2026

Type: Business Corporation

Registered Agent(s)

Agent:	KARLA E. WESTON
Address 1:	7951 FALSE RIVER ROAD
City, State, Zip:	NEW ROADS, LA 70760
Appointment Date:	6/15/2005

Prime consultant name: HDR Engineering, Inc.

Moffatt & Nichol Secretary of State Certification

State of
Louisiana
Secretary of
State



COMMERCIAL DIVISION
225.925.4704

Fax Numbers
225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

Name	Type	City	Status
MOFFATT & NICHOL INC.	Business Corporation (Non-Louisiana)	LONG BEACH	Active

Previous Names

MOFFATT & NICHOL, ENGINEERS, INC. (Changed: 11/17/2003)

Business: MOFFATT & NICHOL INC.

Charter Number: 34527896F

Registration Date: 5/23/1996

Domicile Address

4225 E. CONANT STREET, SUITE 101

LONG BEACH, CA 90808

Mailing Address

4225 E. CONANT STREET, SUITE 101

LONG BEACH, CA 90808

Principal Business Office

4225 E. CONANT STREET, SUITE 101

LONG BEACH, CA 90808

Registered Office in Louisiana

3867 PLAZA TOWER DR.

BATON ROUGE, LA 70816

Principal Business Establishment in Louisiana

301 MAIN STREET

SUITE 800

BATON ROUGE, LA 70801

Status

Status: Active

Annual Report Status: In Good Standing

Qualified: 5/23/1996

Last Report Filed: 5/8/2026

Type: Business Corporation (Non-Louisiana)

Registered Agent(s)

Agent: C T CORPORATION SYSTEM

Address 1: 3867 PLAZA TOWER DR.

City, State, Zip: BATON ROUGE, LA 70816

Thompson Engineering Secretary of State Certification

State of
Louisiana
Secretary of
State



COMMERCIAL DIVISION
225.925.4704

Fax Numbers
225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

Name	Type	City	Status
THOMPSON ENGINEERING, INC., OF LOUISIANA	Business Corporation (Non-Louisiana)	MOBILE	Active

Previous Names

THOMPSON ENGINEERING TESTING, INC. (Changed: 3/24/2004)

Business: THOMPSON ENGINEERING, INC., OF LOUISIANA

Charter Number: 35015664F

Registration Date: 12/15/2000

Domicile Address

2970 COTTAGE HILL RD., STE. 190
MOBILE, AL 36606

Mailing Address

PO BOX 9637
MOBILE, AL 36691

Principal Business Office

2970 COTTAGE HILL RD., STE. 190
MOBILE, AL 36606

Registered Office in Louisiana

4937 HEARST STREET
SUITE 1B
METAIRIE, LA 70001

Principal Business Establishment in Louisiana

4937 HEARST STREET, SUITE 1B
METAIRIE, LA 70001

Status

Status: Active

Annual Report Status: In Good Standing

Qualified: 12/15/2000

Last Report Filed: 11/17/2025

Type: Business Corporation (Non-Louisiana)

Prime consultant name: HDR Engineering, Inc.

21. QA/QC Plan:



QA/QC Plan

LADOTD

*IDIQ Contracts for Bridge Preservation
Services Statewide*

Contract Nos. 4400035420, 4400035421, and
4400035422

Baton Rouge, LA

June 30, 2026

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Appendix C:	QA Information Package Checklist
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Appendix E:	Peer Review Resolution Agreement
Appendix F:	Bridge Design Section Records and Retention Policy
Appendix G:	Evaluation Instructions For Consultants QA/QC Plan Document
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Appendix G.2:	QA/QC Plan Document Rating Matrix
Appendix G.3:	QA/QC Plan Document Grading Sheet
Appendix H:	Consultant Project Kick-off Meeting Agenda
Appendix I:	Consultant Submittal QC-QA Certification
Appendix J:	Project Log Sheet Template
Appendix K:	Consultant Submittal Review Checklist

1 General Project Information

This plan will be used throughout the duration of the project and will follow the guidelines depicted in the LADOTD Bridge Design and Evaluation Manual – Part I - Policies and Procedures and attachments herein. This project involves the inspection, rehabilitation/preservation of several bridge structures statewide.

Client	Louisiana Department of Transportation and Development (LADOTD)
Project Name	Contract No. 4400035420, 4400035421, and 4400035422– IDIQ Contract for Bridge Preservation
HDR Project Number	TBD

Rev No.	Description	Date
0	Initial - 4400035420, 4400035421, and 4400035422	June 30, 2026

2 Project Purpose and Objective

2.1 Project Background and Purpose

HDR will support LADOTD with engineering services for bridge preservation as noted below:

From the Scope of Services noted in the advertisement:

1. Bridge Design Services

1.1 General Bridge Engineering Services

Provide bridge engineering services for fixed and movable bridges. Bridge project types may include, but are not limited to, new bridges, bridge replacements, bridge rehabilitation, bridge preventive maintenance and repair, and roadway lighting. Bridge engineering services include, but are not limited to, structural, mechanical, electrical, and architectural feasibility, design, plan development, and the following:

- Bridge/structural inspection and evaluation of existing bridges or other structures (sign trusses, fender systems, etc.). Associated reports shall be provided as required.
- As-designed, as-built, and condition bridge ratings.
- Design peer review of developed plans or conceptual designs to verify concept, constructability, and accuracy of designs along with associated reports, conclusions, calculations, and recommendations as needed.
- Construction engineering support including construction drawing review, shop drawing review, request for information support, contractor proposals, etc.

1.2 Sampling, Instrumentation, and Non-destructive Testing

Provide sampling, instrumentation, and non-destructive testing services. These services may include, but are not limited to, collection of samples of materials from existing structures for evaluation, diagnostic and/or proof testing to determine specific structure response characteristics and/or to determine the causation of observed distresses, instrumentation, and the following:

Sampling

- Collection of samples.
- Evaluation of protective coating material samples for determination of compatibility with proposed coatings, analysis for heavy metals, proper procedures for treatment, handling, disposal of waste, etc.

Instrumentation

- Design of instrumentation plans. Installation of instrumentation, data acquisition, analysis, and evaluation of structure based on instrumentation plan.
- Provision and installation of instrumentation, including all materials required to mount the instrumentation.
- Provision of data acquisition systems, software updates, power supplies, communication to data servers, data hosting services, maintenance, and data access to DOTD.
- Calibration services for instrumentation systems and sensors.
- Maintenance services to repair and/or replace sensors, data acquisition systems, and power supplies.
- Analysis and evaluation of accumulated data and final assessments and development of corresponding reports based on data and associated calculations.

Non-destructive Testing

- Proof loading.
- Estimation of concrete strength.
- Assessment of reinforcement condition, cover, location, and diameter.
- Detection of cracks, voids, and delamination in concrete.
- Assessment of steel member condition.

2. Geotechnical Services

Provide all geotechnical services necessary to perform geotechnical investigations, analysis, and design. These services may include, but are not limited to, the following:

- Geotechnical field investigations including both shallow and deep soil borings.
- Geotechnical laboratory testing and analysis.
- Preparation of soil boring logs.
- Geotechnical analysis and design based on obtained data or data furnished by DOTD.
- Construction related engineering services.

3. Road Design and Traffic Services

Provide all services necessary to perform hydraulic, road, and traffic investigation, analysis, and design. These services may include, but are not limited to, the following:

- Preliminary and final roadway design and plan development.
- Hydraulic analysis and design.
- Traffic engineering, traffic control design, and data collection.
- Transportation Management Plan (TMP) development.

4. Surveying and Title Work Services

Provide all surveying and title work services necessary to perform topographic, and boundary surveying, develop right-of-way maps, and provide other existing site data. These services may include, but are not limited to, the following:

- Topographic surveying, 3D laser scanning, and underwater acoustical imaging including both multi-beam and side scan hydrographic surveys.
- Property and boundary surveying.
- Property title work, including title research and reports.
- Construction related surveying services.

5. Bridge Inspection Services

Provide all services required to perform Statewide NBIS In-Depth Inspections of complex structures. These services may include, but are not limited to, the following:

- Detailed in-depth field inspection on all bridge components, including an element level inspection. An NBIS underwater bridge inspection may be required for submerged elements.
- Assessment of the coating system, conducted by a certified SSPC Protective Coating Specialist or a certified NACE Bridge Coating Inspector.
- In-depth inspection report outlining recommended repairs, rehabilitation, and corrections.

6. Environmental and Permitting Services

Provide all environmental and permitting services necessary to obtain State, Federal, and local approvals, including project permits. Required permits may include, but are not limited to, the following:

- Coastal Use permits (CUP) from the LA Department of Natural Resources.
- Wetland permits (404 and Nationwide) and Section 10 permits from the US Army Corps of Engineers.
- Water Quality Certification from the LA Department of Environmental Quality.
- Scenic Stream permits from the LA Department of Wildlife and Fisheries.
- Bridge permits from the US Coast Guard.
- Levee permits from various levee boards.

All work shall be performed in accordance with all applicable DOTD policies, procedures, and manuals. Design criteria shall be developed and submitted to the Bridge Task Manager for review and approval prior to proceeding with design.

Project submittals, associated schedule, and format shall be established in each Task Order. At minimum, all bridge plan submittals shall be submitted in PDF format and the 100% signed final plans shall be submitted both in full size paper and in PDF format. Design and rating calculations shall be submitted in PDF format no later than 30 days after the 100% final plan submittal.

Unless waived by the Task Order Project Manager, ProjectWise shall be utilized for all PDF submittals and electronic plan delivery will be required. See the following website for details on electronic plan delivery:

<https://www.dotd.louisiana.gov/media/ip5corrw/ladotd-software-standards-for-electronic-plans.pdf>

• **SERVICES TO BE PERFORMED / ITEMS TO BE PROVIDED BY DOTD**

If available, DOTD will provide the following information as applicable:

- Existing survey, plans, details, and design information.
- Right of Way Maps, Title Research Reports, Updates, Take-Offs, and Property Survey.
- Pavement design.
- Hydraulic data.
- Traffic data.
- Standard Plans and Special Details.
- As-built plans.
- Access to General Files for viewing available plans, details, and records.
- DOTD design and rating manuals, policies, and guidelines.

• **ELECTRONIC DELIVERABLES**

The Consultant hereby agrees to produce electronic deliverables in conformance with DOTD Software and Deliverable Standards for Electronic Plans document in effect as of the effective date of the most recent contract action or modification, unless exempted in writing by the Project Manager. The Consultant is also responsible for ensuring that sub-consultants submit their electronic deliverables in conformance with the same standards. DOTD Software and Deliverable Standards for Electronic Plans document and DOTD CAD Standards Downloads are available via links on the DOTD web site.

The Consultant shall apply patches to CAD Standard Resources and install incremental updates of software as needed or required. The Consultant hereby agrees to install major updates to software versions and CAD Standard Resources in a timely manner. Major updates of CAD standards and software versions shall be applied per directive or approval of the DOTD Design Automation Manager. Such updates will not have a significant impact on the plan development time or project delivery date, nor will they require the Consultant to purchase additional software. Prior to proceeding with plan development, the Consultant shall contact the Project Manager for any special instructions regarding project-specific requirements.

In the event that any Digital Plan Delivery Standard conflicts with written documentation, including DOTD plan-development Manuals, the Digital Plan Delivery Standard governs. The Consultant is responsible for contacting the Project Manager should questions arise.

The Consultant shall upload (or check in) electronic deliverables directly into the DOTD ProjectWise repository at each plan delivery milestone. The Consultants are responsible for performing certain operations 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 Project Manager shall notify the Consultant 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. The Consultant shall take these reports into account and make any necessary adjustments to plans before the next submittal milestone; or sooner, if directed by the Project Manager.

- **SPECIFIC SOFTWARE AND / OR EQUIPMENT DESIRED**

A list of pre-approved commercially available software is posted on the bridge design website at the following location:

<https://dotd.la.gov/media/5gpg0f2i/bridge-design-approved-software-list.pdf>

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.

2.2 Document Objective

The QA/QC Document objective is to describe the best practices for implementing HDR's QC and QA processes on bridge (all disciplines) and structural design work. It will lay out a framework that will follow the requirements for the LADOTD Quality Control and Quality Assurance policies and guidance. **The QA/QC processes will be clearly described to verify accuracy in design, plan details, and construction related activities.** As defined in paragraph 3.2 of the Bridge Design and Evaluation Manual Part I – Policies and Procedures:

Quality Control (QC): Procedures of checking the accuracy and consistency of the calculations and the drawings, detecting and correcting design omissions and errors before the design plans are finalized, and verifying the specifications for the load-carrying members are adequate for the service and operation loads.

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 and specifications.

LADOTD's QA/QC process is outlined with the following steps:

1. Selection of a Qualified Design Team
2. Development of Project Design Criteria
3. Development of Designs and Plan Details by the Designer and Detailer (T,S, & L)
4. Quality Control (QC) of Designs and Plan Details by the Design Checker and The Detail Checker
5. Quality Assurance (QA) of Designs and Plan Details by the Reviewer
6. Peer Review
7. Sealing of Design Calculation Book and Plans by the Engineer of Record (EOR)
8. QA/QC for Design Activities after Final Plans are Signed by Chief Engineer
9. Archiving Bridge Design Files.
10. Construction Related Engineering Services.

As part of the QA/QC Plan herein we will demonstrate the following **criteria**:

- A. Understanding of our team's role and responsibility as part of the QA/QC process
- B. Understanding of the QA/QC concepts in Bridge Design
- C. Responsibilities of roles: Designer, Checker, Reviewer, and Engineer of Record
- D. Provide a description of the QC and QA processes and their effectiveness to ensure accuracy in the designs and plan details
- E. Identification of our team's personnel qualified to perform the bridge design QA/QC for the designs and plans
- F. Illustrate use of QA/QC tools such as checklists, standard forms, training materials that HDR uses throughout the process

3 QA/QC Process and Development

3.1 Selection of a Qualified Team

The team presented in our form 24-102 for this contract describes our team organization and qualifications to deliver this project with the quality and timeliness LADOTD expects. Our team has successfully delivered designs with similar scopes of work nationally for several DOT's. Our roster consists of strong national/regional expertise coupled with local senior staff who have worked with LADOTD for years. Our Project Manager, Wesley Jacobs, has been involved with several LADOTD bridge designs over his 28-year career. He is currently serving as the HDR PM for our work on the current Bridge Preservation IDIQ and the Contract for Movable Bridges (5). Ron Sanchez, our proposed

structural lead, has over 25 years of bridge design experience and will support Mr. Jacobs as the structural technical lead for executing this scope of services. Raphael Costa, HDR's National Movable Bridge Program Manager and electrical lead for this contract, has over 25 years' experience in the design and rehabilitation of movable bridges. Matt McGuire has over 25 years' experience and will serve as our mechanical engineering lead. John Danielsen has over 40 years' of bridge design experience and will serve as our team's structural QA/QC. Our other team members are noted in our organizational chart within our 24-102 and demonstrate the depth of experience and team resources we have to execute this work efficiently.

3.2 Development of Project Design Criteria

Development of design criteria for each bridge project, at the outset, will be key to the success and quality of the project. The team will use the LADOTD Design Criteria Checklist in *Appendix A* as a base document to build a comprehensive set of criteria to maximize performance of the rehabilitated structure. We will work closely with the LADOTD PM for review and approval of the criteria before any design work begins. The design criteria document will be a "living" document and kept up to date in the event scenarios change as part of the design process. Along with the criteria will be a list of design assumptions which will be referenced in the calculations package as well as the drawings when appropriate.

3.3 Development of Designs and Plan Details by the Designer and Detailer

Our team has experience working cohesively to develop comprehensive design packages for multiple projects simultaneously if required. Our engineering leads will be directly responsible for the designs in their purview. They will direct their teams during the development of the design calculations, drawings, special provisions, and cost estimates. The project design criteria will be used as a framework to develop the preliminary plans and submitted to LADOTD for approval prior to proceeding to full design of the bridge components. The multi-disciplined design calculations will be organized in a clear and succinct manner for ease of reference/review. The calculations package will utilize the Final Calculation Book Checklist in *Appendix B* and will include the complete book therein. Close coordination between design engineer and CADD designers will be key to clear, concise sections and details that are consistent with the calculations. We understand that **LADOTD is not responsible for performing QA/QC of our work.**

3.4 Quality Control (QC) of Designs and Plan Details by the Design Checker and The Detail Checker

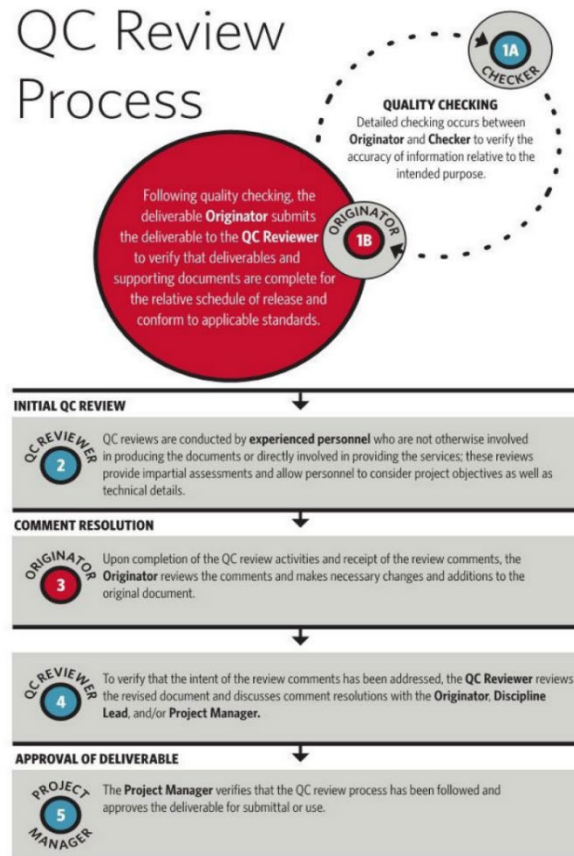
Our Quality process at HDR is similar to the requirements in the LADOTD BDEM. We **understand the QA/QC concepts that are needed for bridge preservation/rehab design** in depth and employ them daily on our projects. Ours is a two-step process of checking and independent QC Review. Our design engineers will serve as "Originators" of the particular calculations or plans/details and will be submitted to design checkers as the initial step in the quality process prior to the package going to the independent reviewers. For any design component, we will confirm that the design engineer and the QC Check Engineer are Licensed in LA as Professional Engineers. The comments and markups on the calculations and drawings will be developed and resolved between the two for each discipline. This process will be completed prior to each submittal. The design and detail checkers will verify, at a minimum, the accuracy of the following:

- Calculations
- Pay items

- Quantities
- Special provisions
- Cost estimate
- Plans and details
- CAD standards adherence

Once the checking process is complete, the package will then be sent to the independent QC Reviewers. These reviewers will be experienced, licensed engineers and will be independent of the actual design to promote objectivity and a “fresh set of eyes” approach. Two methods we typically employ to capture comments/responses is use of a comment log denoting type of comment, location, and the referenced document or the use of Bluebeam Studio Sessions (efficient tool to capture comments/responses/closeout directly within the pdfs). The design engineer will be required to resolve each comment with a final backcheck/closeout (including revised design documents) by each QA reviewer. The overall QA/QC information package **checklist** will serve as the main items to be reviewed and is located in *Appendix C*. Each QA reviewer will be required to sign off that the review is complete, and comments were closed and resolutions verified. Our internal HDR QC Review Form will be used in conjunction with the LADOTD QA/QC Certification document, both located in *Appendix D*. **This process defines the roles and responsibilities of the Designer, Checker, and Reviewers.** Within HDR, we have as part of our Quality Management System (QMS), **best practices, guidelines and checklists** that will be used to supplement the documents provided by LADOTD within the appendices. These best practices not only include checklists and describe how checking/reviews are to be conducted, but they provide guidance on developing review comments:

QC Review Process



POOR COMMENTS 	GOOD COMMENTS 
Have no basis in requirements Attempt to start a discussion (e.g., requests for meetings) Ask open-ended questions Have you thought about ...? Why not...? Consider... It might be better to... Although what you show is fine, maybe... I do not understand... Please explain... Repeat earlier comments each time they apply	Cite a specific applicable project requirement Are detailed about what is non-compliant in the design Are clear about the parameters of the fix needed Are made once with references to other places in the document where they apply Can be understood by 3rd party Auditors based on the documents alone Are easily closed if preferential
<i>Example: "As per the suggestions I emailed, have you considered increasing the doodad angle? Let's discuss."</i>	<i>Example: "The doodad angle of 35 degrees shown on Detail A is below the TP 1.2.3 requirement of 45 degrees (min). Revise details to meet TP 1.2.3 requirements."</i>

3.5 Quality Assurance (QA) of Designs and Plan Details by the Reviewer

Our reviewers will execute the final step in the quality process and conduct the QA review of the QC and Checking documentation to verify that each area has been completed, applicable processes were followed and every comment was closed out with the appropriate sign-offs. Our reviewers will conduct a final overall cursory review which will focus on constructability of the design/details and look for any "big picture" items which could cause issues during bidding and construction. Certification/review forms will be signed and included with the final package as noted in the requirements. John Danielsen (structural), Mitchel Wisniewski (electrical) and Stephen Grabowski (mechanical) will serve as our reviewers.

3.6 Peer Review

HDR will work with LADOTD should a peer review be requested by the Bridge Design Administrator. Our team understands that an independent engineering entity will conduct this review and develop a separate set of calculations based on the drawings or perform a review of the provided designs per a set scope of work. Our team will work with LADOTD and peer review to close out any comments that arise out of the process and will use the Peer Review Resolution Agreement form included in *Appendix E*.

3.7 Sealing of Design Calculation Book and Plans by the Engineer of Record (EOR) and Responsibilities

Each project will be assigned one LA PE as the Engineer of Record (**EOR**), who will be **responsible** to supervise the design, and sign/seal the general notes in the plan set. The EOR will verify that the names of the designer, design checker, detailer, detail checker and reviewer are correctly shown on the title block of each plan sheets. The EOR will also stamp the plan sheets or designate a designer, design checker, or reviewer who shall be licensed in LA to stamp the sheets developed under their supervision. A seal sheet will be added as a sub-cover sheet to the calculation book which will also be signed by the EOR and the designated LA PE's for their areas of purview/discipline. Finally, the EOR will confirm that special provisions are stamped and accurately shown on the construction proposal.

3.8 QA/QC for Design Activities after Final Plans are Signed by Chief Engineer

Our team understands that the same QA/QC process, as noted herein, will be followed for any plan revisions, change orders or modifications that arise after the Chief Engineer signs the final plans.

3.9 Archiving Bridge Design Files

Our PM / EOR will work with LADOTD to properly archive the bridge design files within 30 days after the final stamped plans are submitted (calculation books, plans, special provisions, cost estimate and other pertinent documents such as plan revisions/modifications) in accordance with Bridge Design Section records retention policy. This policy document is shown in *Appendix F*.

3.10 Construction Related Engineering Services

If needed - Our approach during Construction Related Engineering Services (CRES) will mirror our quality process during design. Per the scope of services, we anticipate that CRES will encompass:

- Pre-construction Meeting
 - PM to coordinate with team members for attendance
- On-call Support/Coordination Meetings
 - PM to coordinate with team members for attendance
 - Minor plan revisions or design changes may be necessary. Any revisions will follow the same checking and reviewing process noted herein.
- Requests for Information (RFI) review and response
 - RFI's will be routed to each design lead as applicable for timely response back to LADOTD. RFI responses will be QC-checked and verified by a discipline-appropriate engineer and reviewed by the PM prior to sending to LADOTD.
- Shop Drawings Reviews
 - PM will route shop drawings to respective design leads for timely review and comment development. We will use a Bluebeam to develop pdf markups or employ the use of a comment log if necessary. Shop drawing comments will be routed to QC checking reviews prior to submitting back to LADOTD.
- Change Order / Plan Modifications
 - Any change orders/plan modifications will be coordinated by the PM to the design leads and will follow the same quality review/checking process noted herein prior to submittal.
- Mechanical/Electrical Shop Inspections and Testing/Reports
 - PM will coordinate with design leads to perform shop inspections.
 - Testing reports will be routed to QC reviews prior to submitting to LADOTD
- Periodic Site Inspections
 - PM will coordinate with the respective discipline/design leads to attend as needed by the construction process.
 - For each site inspection, a trip report will be developed using a clear and concise template to capture any observations with photos, description of equipment, assemblies

inspected and a list of any items not in compliance with the plans and specs. Trip reports will be reviewed by the PM at a minimum prior to submittal to LADOTD.

- Final Inspection/Testing/Report
 - PM will coordinate with the respective design leads to conduct final inspections and testing. The reports will contain observations with photos, descriptions of equipment, assemblies inspected, list of any items not in compliance with the contract documents and a description of testing performed on the mechanical and electrical systems. A summary of any adjustments made along with the performance results will be included. Final reports will be developed and routed to QC review with revisions made prior to submittal to LADOTD.

4 Project Team

The HDR team consists of highly qualified and experienced staff for this Project. Our team offers highly qualified professional personnel with a depth of experience combined with strong managerial skills.

Also as prime, we are responsible for the quality of each of our sub-consultants work and will require them to adhere to the framework of this QA/QC plan as a guide. They will be expected to conduct their own internal QC reviews, with appropriate sign-offs, prior to submitting their work to us as prime for review.

Our sub-consultants are as follows:

- **APS Engineering and Testing, LLC – Geotechnical Drilling/Testing and Design**
- **Bridge Diagnostics, Inc. – NDT, Sampling, Instrumentation and Structural Inspection**
- **C.H. Fenstermaker & Associates, Inc. – Surveying, Roadway/Traffic Control**
- **Civil Design and Construction, Inc. – Surveying**
- **Thompson Engineering, Inc., of Louisiana (formerly Meyer Engineers) – Architectural Design Support**
- **Moffatt and Nichol Inc. – Underwater Inspection**

We have presented, in our organizational chart, depth such that multiple rehab designs can be done simultaneously if required. However, the primary structure of our team will be such that the “Leads” will serve as the main engineering designers, with the other senior engineers serving as checkers. Should simultaneous projects be required, the teams will check and review each other’s work throughout the design process with our additional engineers to support in reserve as needed. The reviewers are also noted in the org chart and will serve to review each project during the contract period. Our team is **clearly identified in specific roles for design and QA/QC** in Table 2 below. As evidenced by the resumes in our 24-102 form, **our team is highly qualified to perform this work** for LADOTD.

Table 1. LADOTD

Team Members	Address	Contact Information
Contract Manager – Brian Allen	LADOTD Bridge Design	Brian.Allen@la.gov

Table 2. HDR’s Project Team

Name	Role	Telephone	Email
Wesley Jacobs	PM / Primary Engineer of Record	225-465-6361	Wesley.Jacobs@hdrinc.com
John Danielsen	Quality Lead / Structural Reviewer	954-270-9765	John.Danielsen@hdrinc.com
Stephen Grabowski	Mechanical Reviewer	914-438-1447	Stephen.Grabowski@hdrinc.com
Mitchell Wisniewski	Electrical Reviewer	973-454-4428	Mitchell.Wisniewski@hdrinc.com
Raphael Costa	Lead Electrical Designer	813-282-5388	Raphael.Costa@hdrinc.com

Table 2. HDR's Project Team

Name	Role	Telephone	Email
Jonathan Kohler	Electrical Checker	763-278-5967	Jonathan.Kohler@hdrinc.com
Matt McGuire	Lead Mechanical Designer	813-282-2484	Matthew.McGuire@hdrinc.com
Mike Carlton	Mechanical Checker	503-727-3934	Mike.Carlton@hdrinc.com
Ronald Sanchez	Lead Structural Designer	954-661-2032	Ronald.Sanchez@hdrinc.com
David Knickerbocker	Structural Checker	980-337-5061	David.Knickerbocker@hdrinc.com
Jason Clary	CADD/Detailer	225-465-6363	Jason.Clary@hdrinc.com
Jonathan Beaugh	CADD/Detail Checker	337-347-5608	Jonathan.Beaugh@hdrinc.com

Appendix A

Design Criteria Worksheet

Appendix A Design Criteria Checklist

Design criteria for each project shall include, but not be 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 Supervisor or Team Leader'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.

___ As-Designed Bridge 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 B

Final Calculation Book Index Checklist

Appendix B

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

__ QC/QA 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

The final calculation book for in-house projects shall include the same files listed above for consultant projects. The final calculation book and other final design documents for all projects including in-house and consultant projects shall be uploaded to the archiving location designated in the record retention policy within 30 calendar days after the stamped final plans are delivered.

Appendix C

QA Information Package Checklist

Appendix C
QA Information Package Checklist

Project No.:

Project Description:

_____ Calculation Book

_____ Plans

_____ Special Provisions

_____ Cost Estimate

_____ Other Documents _____

Appendix D

QC-QA Certification and HDR QC Review Form

Appendix D
QC/QA Certification

Project No.:

Project Name:

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 LADOTD Bridge Design Section policy on QC/QA.

Team Members	Name	PE Registration No.	Responsible Plan Sheet	Responsible Special Provisions	Construction Cost Estimate	Signature
Designers						
Design Checkers						
Detailers						
Detail Checkers						
Reviewers						
Peer Reviewer						
Geotechnical Engineer						
Hydraulic Engineer						
EOR						

QUALITY CONTROL REVIEW FORM

Client: _____	Date Transmitted: _____
Project: _____	Review Deadline: _____
Project No: _____	Actual Review Date: _____
Project Mgr: _____	
QC Reviewers: _____	Allocated Hours: _____
Deliverable Reviewed: Change Order A – Change of guardrail base material – requested by District _____	Actual Hours: _____

Scope of QC Review:

Project Type/Phase:	Discipline/Area of Review:	Best Practice/Technical Procedure/QC Checklists:
Study:	☐ Architectural	☒
☐ Concept/Schematic	☐ Structural	☐
☐ Draft	☐ Mechanical	☐
☐ Final	☐ Electrical	☐
☐ _____	☐ Civil	☐
Design:	☐ Process	☐
☐ Conceptual Design	☐ Instrumentation & Control	☐
☐ Design Development	☐ Geotechnical	☐
☐ _____ % Complete	☐ Environmental	☐
☐ Specifications	☐ _____	☐
☐ Bid Documents	☐ _____	☐
☐ _____	☐ _____	☐
Construction:	☐ _____	☐
☐ Progress Review _____ %	☐ _____	☐
☐ Site Visit	☐ _____	☐
☐ Close Out Review	☐ _____	☐
☐ _____	☐ _____	☐
Other:	Denote Comment Method	☐
☐ _____	☐ Comments and responses provided on a red-lined document	☐
☐ _____	☐ Comments and responses provided on a log sheet	☐
☐ _____	☐ Provided as "track changes" on report document	☐
☐ _____	☐ Other	☐
☐ _____		☐

Signatures:

QC Reviewer	Date
QC Reviewer Acknowledgment of Comment Resolution	Date
Project Manager	Date

Instructions:

1. Project Manager (or designee) or document originator completes project information and Scope of Review portions of QC Review Form and transmits to QC Reviewer together with deliverable and supporting documentation.
2. QC Reviewer returns reviewed deliverable with comments and signed and dated QC Review Form to document originator.
3. Document originator is responsible for resolving comments with QC Reviewer. Document originator shall provide QC Reviewer with evidence that comments have been reviewed (e.g., reviewed and revised deliverables for verification, memorandum discussing comment resolution, verbal discussion or other form acceptable to QC Reviewer).
4. QC Reviewer signs and dates QC Review Form to acknowledge comment resolution.
5. Project Manager signs and dates QC Review Form acknowledging completion of QC review.
6. QC Review Form is maintained in project files.

NOTE: Signatures can be obtained via actual signatures, electronic confirmation, fax or verbal confirmation. In lieu of actual signatures, the date of verbal or electronic confirmation shall be recorded together with the initial of the recording individual.

Appendix E

Peer Review Resolution Agreement

Appendix E
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 QC/QA

Team Members	Name	Signature
Peer Reviewer		
Supervisor or Team Leader		
LADOTD Representative		

Appendix F

Bridge Design Section Records and Retention Policy

APPENDIX F—BRIDGE DESIGN SECTION RECORDS RETENTION POLICY

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	ACT* + 1 CY**	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	ACT* + 1 CY**	Life of the Agency	Archive electronically in Project-wise under <u>Documents\ Standard Drawings</u>	Bridge Design Standards Manager
003	Final Plans, Revisions, and Change Orders (CAD files)	ACT* + 1 CY**	Life of the Agency	Archive electronically in Project-wise under <u>Project folder\Bridge-Facilities\Discipline\Plans</u> (Subfolders for each revision and change order should be created under Plans)	Bridge Task Managers
004	Final Plans, Revisions, and Change Orders (Original signed hard copies)	ACT* + 1 CY**	Final Project Acceptance Date + 5 Years	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)	ACT* + 1 CY**	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 , Erection Drawings, RFIs, and Other Construction Submittals (Final Distribution Copy in pdf format)	ACT* + 1 CY**	Life of the Agency	Archive electronically in Project-wise under <u>Project folder\ _Published Submittals\Project Drawings\Construction Submittals\Shop Drawings</u> or Erection Drawings or RFIs or Other Construction Submittals (See BDTM.49 for instructions)	Bridge Task Managers

*ACT = End of activity or final project acceptance date for project related items

**CY = Calendar Year

APPENDIX F—BRIDGE DESIGN SECTION RECORDS RETENTION POLICY (CONTINUED)

Item No.	Record Title	In Office Retention Period (by Bridge Design Section)	DOTD Total Retention (by General Files)	Archiving Instruction	Responsible Party
007	Shop Drawings (Final distribution hard copies and pdf files)	ACT* + 1 CY**	Life of the Agency	Transmit to General Files and archive electronically in DOTD Network Plan Room by General Files (See BDTM.49 for instructions)	Bridge Task Managers
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)	ACT* + 1 CY**	Life of the Agency	Archive electronically in Project-wise under Project Folder\ _Published Submittals\Project Documents\Final Design Calculations & Reports	Bridge Task Managers
009	Bridge Rating Reports	ACT* + 1 CY**	Life of the Agency	Archive electronically in Content Manager under <u>Load Rating</u> .	Bridge Rating Engineer
010	Truck Permits Calculations	ACT* + 1 CY**	Life of the Agency	Archive electronically in a designated folder on the Bridge Design server.	Bridge Rating Engineer
011	Chief Engineer Orders (Bridge Posting)	ACT* + 1 CY**	Life of the Agency	Archive electronically in Content Manager under <u>Chief Engineer Orders</u> .	Bridge Rating Engineer
012	Project Related Correspondences (Original Hard Copies)	ACT* + 1 CY**	Final Project Acceptance Date + 5 Years	Archive electronically in Content Manager under Design Projects. 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

*ACT = End of activity or final project acceptance date for project related items.

**CY = Calendar Year

APPENDIX F—BRIDGE DESIGN SECTION RECORDS RETENTION POLICY (CONTINUED)

Item No.	Record Title	In Office Retention Period (by Bridge Design Section)	DOTD Total Retention (by General Files)	Archiving Instruction	Responsible Party
013	Project Related Correspondences (Emails) <i>(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.)</i>	ACT* + 1 CY**	Final Project Acceptance Date + 5 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	ACT* + 1 CY**	Life of the Agency	Archive electronically in Content Manager under <u>Bridge Design Subject Files</u>	Everyone

*ACT = End of activity or final project acceptance date for project related items

**CY = Calendar Year

Appendix G

Evaluation Instructions For Consultants QA/QC Plan Document

G.1 - Instructions for Grading the QA/QC Plan

G.2 - QA/QC Plan Document Rating Matrix

G.3 - QA/QC Plan Document Grading Sheet

APPENDIX G—EVALUATION INSTRUCTIONS FOR CONSULTANT’S QC/QA PLAN DOCUMENT

G.1—Instructions for Grading the QC/QA Plan Document

The Bridge Task Manager for the project is responsible for evaluating the QC/QA plan document in accordance with the QC/QA plan document rating matrix (G.2) and completing the grading sheet (G.3). A score shall be given for each of the six evaluation criteria (A-F). 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 QC/QA 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 QC/QA 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 QC/QA in Bridge Design In Response to NTSB Recommendations (H-08-17)” and LADOTD Bridge Design Section QC/QA policies, which are the references for the Consultant to develop their QC/QA plan document. These documents can be downloaded from the DOTD Bridge Design website.

G.2—QC-QA Plan Document Rating Matrix (Continued)

Evaluation Criteria	QC/QA Plan Document Rating Matrix			
	4 - Excellent	3 - Good	2 -Acceptable	1- Not Acceptable
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 QC/QA 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			
Consultant 5	A			
	B			
	C			
	D			
	E			
	F			
	Average			

Prepared by: _____
 Name Signature Date

Approved by: _____
 Name Signature Date

Appendix H

Consultant Project Kick-Off Meeting Agenda Checklist

Appendix H
Consultant Project Bridge Design 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 QC/QA 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 I

Consultant Submittal QC-QA Certification

Appendix I
Consultant Submittal QC/QA Certification

Project No.:

Project Name:

I, the undersigned Supervisor or Team Leader for this project, certify that the information included in this submittal has been prepared in accordance with the QC/QA plan documents and LADOTD Bridge Design Section policy on QC/QA and the information presented is accurate and meets the requirements of this submittal. All CAD drawings meet LADOTD CAD standards.

Submittal Description

Supervisor or Team Leader Name

Signature

Date

Appendix J

Project Log Sheet Template

[illegible]

Appendix K

Consultant Submittal Review Checklist

APPENDIX K—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								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.

22. Sub-consultant information:

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

Firm Name (Name must match <u>exactly</u> as registered with Louisiana's Secretary of State (SOS): <u>including punctuation, include screenshot(s) from SOS at the end of Section 20</u>)	Address	Point of Contact and email address	Phone Number
APS Engineering and Testing, LLC	5261 Highland Road, PMB 320 Baton Rouge, LA 70808	Sergio Aviles, PE sergio@aps-testing.com	225.281.1917
Bridge Diagnostics, Inc.	4300 S I-10 Service Rd W, Suite 210 Metairie, LA 70001	Steven Fall, PE stevenf@bdttest.com	504.874.1042
C.H. Fenstermaker & Associates, L.L.C.	135 Regency Square Lafayette, LA 70508	Dax Douet, PE dax@fenstermaker.com	337.237.2200
Civil Design & Construction, Inc.	PO Box 857 Port Allen, LA 70767	Karla E. Weston, PE Kweston@cdcbr.com	225.765.1802
Moffatt & Nichol Inc.	301 Main Street, Suite 800 Baton Rouge, LA 70801	Chace Hulon, PE chulon@moffattnichol.com	225.610.1932
Thompson Engineering, Inc., of Louisiana	4937 Hearst Street, Suite 1B Metairie, LA 70001	Donovan P. Duffy, PE dduffy@thompsonengineering.com	504.885.9892

23. Location:

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