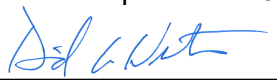
DOTD FORM: 24-102

(Revised June 1, 2021)

PROPOSAL TO PROVIDE CONSULTANT SERVICES

1. Contract title as shown in the advertisement	**US 190: UPRR OVERPASS NEAR OPELOUSAS**
2. Contract number(s) as shown in the advertisement	**4400023434**
3. State Project Number(s), if shown in the advertisement	**H.000445**
4. Prime consultant name (as registered with the Louisiana Secretary of State where such registration is required by law)	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	5750 Johnston Street, Suite 105 Lafayette, LA 70503-5334
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	5750 Johnston Street, Suite 105 Lafayette, LA 70503-5334
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Wesley Jacobs, PE – Hydraulic Structures Program Lead (225) 465-6361, wesley.jacobs@hdrinc.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	David C. Weston, Vice President, Gulf Coast Area Manager (713) 622-9264, david.weston@hdrinc.com
10. This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified,	

potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.	Signature (shall be the same person as #9):  Date: 2/10/2022
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): Firm(s)' %: This advertisement's DBE goal is 0%.

12. **Past Performance Evaluation Discipline Table:**

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

The past performance evaluation disciplines to be used are: Road, Bridge, Traffic, CE&I/OV, Geotech, Survey, Environmental, Data Collection, Planning, Right-of-Way, CPM, ITS, Appraiser and Other. The crosswalk from the old categories to the new categories can be found at the link below:
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/CCS/General%20Information/CPPR%20Crosswalk%20to%20New%20Evaluation%20Disciplines.pdf. (same link as in the advertisement)

Sub-consultants are allowed to be used for this proposal. Fill in the table by identifying only those evaluation disciplines consistent with the approach and methodology proposed in Section 19 of the DOTD Form 24-102*, the name of each firm that is part of the proposal, and the percentage of work in each past performance evaluation discipline to be performed by that firm. The percentage estimated for each evaluation discipline is for evaluation purposes only and will not control the actual performance or payment of the work. The percentages for the prime and sub-consultants must total 100% for each past performance evaluation discipline, as well as the overall total percent of the contract.						
Evaluation Discipline(s)	% of Overall Contract	HDR Engineering, Inc.	C. H. Fenstermaker & Associates, L.L.C			
Bridge	70.0%	100.0%				
Survey	5.0%		100.0%			
Road	15.0%		100.0%			
Right of Way	5.0%		100.0%			
Environmental	5.0%	100.0%				
Identify the percentage of work for the overall contract to be performed by the prime consultant and each sub-consultant.						
Percent of Contract	100.0%	75.0%	25.0%			

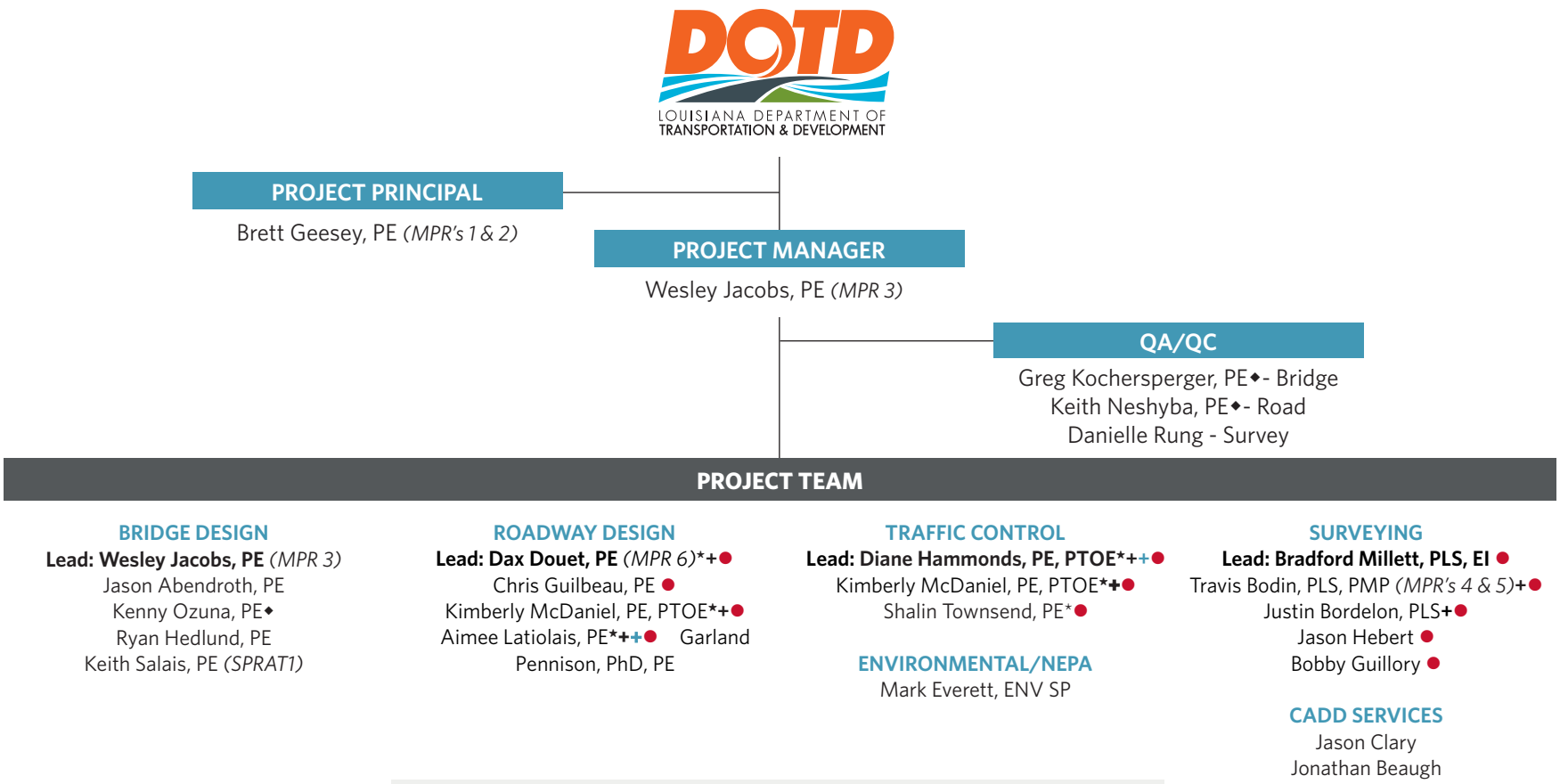
13. **Firm Size:**

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 (xxxx)" and include the classification title inside the parentheses. The DOTD Job Classification(s) to be used can be found at the following link: http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/CCS/Job_Qualification/Job%20Classifications%20with%20Descriptions.pdf

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.	Principal	1	10
	Supervisor-Engineer	3	46
	Supervisor-Other	3	6
	Engineer	2	15
	Environmental Manager	1	6
	Designer	2	11
	Senior Technician	1	1
C. H. Fenstermaker & Associates, L.L.C.	CAD-Operator	1	4
	Engineer	5	31
	Inspector	1	8
	Party Chief	1	23
	Engineer Intern	0	21
	Principal	1	6
	Surveyor	3	9

(Add rows as needed)

14. Organizational Chart:



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.

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 / certification & number	State of license	License / certification expiration date
1	Brett Geesey, PE	HDR Engineering, Inc.	Professional Engineer PE.0035172	LA	03/31/2022
2	Brett Geesey, PE	HDR Engineering, Inc.	Professional Engineer PE.0035172	LA	03/31/2022
3	Wesley Jacobs, PE	HDR Engineering, Inc.	Professional Engineer PE.0030774	LA	09/30/2022
4	Travis Bodin, PLS, PMP	C. H. Fenstermaker & Associates, L.L.C.	Professional Land Surveyor / License No. PLS.0005067	LA	03/31/2022
5	Travis Bodin, PLS, PMP	C. H. Fenstermaker & Associates, L.L.C.	Professional Land Surveyor / License No. PLS.0005067	LA	03/31/2022
6	Dax Douet, PE	C. H. Fenstermaker & Associates, L.L.C.	Professional Engineer PE.0030170	LA	09/30/2022

(Add rows as needed)

Firm employed by	**HDR Engineering, Inc.**		
Name	**Wesley Jacobs, PE**	Years of relevant experience with this employer	6
Title	Hydraulic Structures Program Lead	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 Louisiana, Exp. 9/30/2022		
Year registered: 2003	Discipline: Civil Engineering		
Contract role(s) / brief description of responsibilities	Project Manager and Bridge Design Lead. **Meets MPR3.**		

Wes has over 23 years of demonstrated expertise in several aspects of civil and structural design/ inspection, including bridges (high-level river crossings, movable bridges, RR/Rdwy 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, floodwalls, sector gates, miter gates, and closure gates (hwy/rail). Through this experience, he has gained a solid foundation of expertise pertaining to civil and structural design due to the complexity of the projects completed estimated construction cost totaling more than $10 billion.
Training: Maintenance and Rehabilitation of Historic Bridges - completed on 4/12/2016

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).
01/11-05/15	**Texas Department of Transportation (TxDOT)/Louisiana Department of Transportation and Development (LADOTD) – US 84 Sabine River Bridge | Logansport, LA** – *Structural Lead and Engineer of Record.* Wes developed the final design, plans and specifications for two bridge structures (eastbound and westbound) using AASHTO-LRFD specifications. The bridges were comprised of the new Tx shapes (Tx62's and Tx70's). The span lengths ranged from 120 ft to 160 ft. The substructure was comprised of multi-column reinforced concrete bents with strutted columns at the main channel locations. The bents were 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 in addition to superelevation rotation on the eastbound structure.
06/03-05/05	**LADOTD - US 171 South Railroad Overpass | Mansfield, LA** - *Engineer of Record*. Wes was responsible for the final design that included twin bridge structures in concentric curves with bobtail and skewed spans crossing the KCS railroad main line for the TIMED program. Each bridge was approximately 700 ft long. The spans were comprised of precast prestressed concrete girders supported by precast prestressed concrete pile bent substructure.
03/08-05/09	**TxDOT Laredo - Calton Road Union Pacific RR Overpass | Laredo, TX** - *Engineer of Record*. Wes was responsible for the development of the final designs, plans and specifications for this railroad overpass project using AASHTO-LRFD specifications. The bridge spans Union Pacific RR main lines and spur tracks. The bridge is comprised of steel welded-composite plate girders for a total length of 866 ft, reinforced concrete column bents and drilled shafts and provides the necessary horizontal and vertical clearance required by UPRR.
06/08-12/09	**TxDOT Waco – US 84 at Mexia – Union Pacific RR Overpass | Waco, TX** – *Engineer of Record*. Wes was responsible for 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 accompany the required horizontal and vertical clearances for Union Pacific Railroad. The overall bridge length was 715 feet and 81 feet wide to accommodate four lanes of traffic using split-phased construction. He designed the PPC Girders, concrete column bents and drilled shaft foundations.
10/03-12/04	**TxDOT Waco - US 59 Nueces River Bridges | Waco, TX** - *Engineer of Record.* Wes was responsible for the final design of six bridges totaling more than 3,000 feet – Nueces River, Nueces River Relief, Gamble Creek Northbound, Gamble Creek Southbound and Papalote. The project included US 59 and US 181 and involved reconstruction and widening of existing two-lane highways to

	four-lane divided highways in rural areas. He prepared bridge layouts and bridge design on four new bridges and one bridge replacement. These bridges were comprised Type C prestressed concrete girders and concrete column bents supported by drilled shafts. He specifically designed (AASHTO LRFD) the decks, girders, column bents and drilled shaft foundations.
2/04-9/05	**TxDOT Waco – IH-35 SB Frontage Road | Waco, TX** - *Engineer of Record.* Wes was responsible for the final design of this curved steel plate girder roadway overpass. The bridge was comprised of two continuous steel plate girder units, 360 feet and 420 feet, respectively. The spans were designed using AASHTO Standard Bridge specifications for Curved Girders as well as a straight girder case using AASHTO-LRFD specifications. Reinforced concrete hammer-head bents founded on drilled shaft foundations were used for the substructure. His responsibilities included design of the curved steel girder units, the concrete hammer-head bents and drilled shaft foundations.
1/06-10/07	**TxDOT Waco – SH 31 EB and WB FM 339 Overpasses | Waco, TX** - *Engineer of Record*. The two replacement bridges were comprised of prestressed concrete U40 box beam girders and concrete column bents supported by drilled shafts. The bridges were approximately 240 feet in length and 40 feet wide to accommodate two lanes of traffic. Wes specifically designed (AASHTO LRFD) the decks, girders, column bents and drilled shaft foundations.
01/10-08/11	**LADOTD - Chef Menteur Bridge Replacement EA, S.P. No. 700-36-0125 | Orleans Parish, LA** – *Structural Lead*. Wes was responsible for the development of high level (75 feet vertical clearance) fixed bridge alternatives for the replacement of a historical swing span bridge in Orleans Parish. The span arrangements were comprised of PPC AASHTO Type 3 (80 feet), BT 78 (130 feet) approach spans with steel composite girders for the main span (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.
02/05–01/06	**TxDOT Houston – SH 35 Bridge Widening | Houston, TX** - *Engineer of Record.* Wes was responsible for the design modifications of three bridge widenings totaling more than 700 feet – Oyster Creek, Jamison Slough and Drainage Ditch Bridges (skewed spans). The design plans called for cast-in-place slab spans. Specifically, he designed and sealed the prestressed concrete slab panels, the continuity joints, bent modifications/drilled shaft foundations and developed the corresponding structural details.
01/10–02/11	**TxDOT Austin – FM 112 East and West Brushy Creek Relief Bridges | Austin, TX** - *Engineer of Record.* Wes was responsible for the development of the final designs and plans for this bridge replacement project. The east and west creek bridges are 213 feet and 163 feet in length respectively. Each bridge is comprised of 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. The bridge was designed using split phased construction due to the existing structure location. The bridge was designed using TxDOT standard and LRFD specifications. He designed the PPC girders, column bents and drilled shaft foundations.
03/09 – 02/10	**TxDOT Austin – SH 195 – CR 228 Overpass | Austin, TX** - *Engineer of Record.* Wes was responsible for the final design of this roadway overpass. His responsibilities included design of twin bridge structures with skewed spans set in a horizontal curve. He designed the three-span continuous units comprised of Type C prestressed concrete girders and reinforced concrete column bents and drilled shaft foundations.
01/02-05-03	**City of Shreveport - Benton Road Railroad Overpass | Shreveport, LA** – *Project Engineer.* The project consisted of preliminary and final design of this RR Overpass project. Wes designed a 12-span prestressed concrete girder/pile bent structure with bobtail and skewed spans crossing the railroad main line. The total bridge length was approximately 800 feet across KCS Railroad. His responsibilities also included project management for final portion of project.
06/00-07/02	**LADOTD – State Route in Winnfield Railroad Overpass and Approaches | Winnfield, LA** – *Project Engineer.* The project consisted of preliminary and final design including twin bridges (prestressed girder spans and multi-column bents), three-barrel box culvert extension, steel sheet pile and retaining wall design, three miles of urban/rural roadway and subsurface drainage. Wes was responsible for designing the PPC girders and concrete column bents and drilled shaft foundations.

16. Staff Experience

Firm employed by	**HDR Engineering, Inc.**			
Name	**Jason Abendroth, PE**		Years of relevant experience with this employer	4
Title	Senior Engineer		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 Louisiana, Exp. 03/31/2022	
Year registered	2013	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			Bridge design services	

Jason has experience in engineering and design of structures ranging from flood control (sector, lift, sluice, and vehicular gates; pump stations, T-Walls, L-Walls, I-walls), bridges (concrete, steel, movable), and municipal sewage lift stations. Experience in other engineering disciplines includes geotechnical analysis and design for earthen levees and retaining walls.

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).
05/20-08/21	**Louisiana Department of Transportation and Development (LADOTD) - Statewide Bridge Inspections | Statewide LA** – *QA/QC Reviewer*. 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.
03/08-05/09	**Texas Department of Transportation (TxDOT) Laredo - Calton Road Union Pacific RR Overpass | Laredo, TX** – *Jr. Engineer*. Jason assisted in the development of the final designs, plans and specifications (designed the PPC girders and foundations) for this railroad overpass project using AASHTO-LRFD specifications. The bridge spans Union Pacific RR main lines and spur tracks. The bridge is comprised of steel welded-composite plate girders for a total length of 866 ft, reinforced concrete column bents and drilled shafts and provides the necessary horizontal and vertical clearance required by UPRR.
01/10-08/11	**LADOTD - Chef Menteur Bridge Replacement EA, S.P. No. 700-36-0125 | Orleans Parish, LA** – *Jr. Engineer*. Jason assisted in the development of high level (75 feet vertical clearance) fixed bridge alternatives for the replacement of a historical swing span bridge in Orleans Parish. The span arrangements were comprised of PPC AASHTO Type 3 (80 feet), BT 78 (130 feet) approach spans with steel composite girders for the main span (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 the development of the final design, plans and specifications for two bridge structures (EB and WB) spanning the Sabine River in Logansport, LA using AASHTO-LRFD specifications. He designed the new TX PPC girder shapes (Tx62's and Tx70's). The span lengths ranged from 120 ft to 160 ft. The substructure was comprised of multi-column reinforced concrete bents with strutted columns at the main channel locations. The bents were supported by drilled shaft foundations.
01/10-02/11	**TxDOT Austin – FM 112 East and West Brushy Creek Relief Bridges | Austin, TX** – *Jr. Engineer.* Jason assisted in the development of the final designs and plans for this bridge replacement project. The east and west creek bridges are 213 feet and 163 feet in length

	respectively. Each bridge is comprised of 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. The bridge was designed using split phased construction due to the existing structure location. The bridge was designed using TxDOT standard and LRFD specifications. Jason designed the PPC girders, column bents and drilled shaft foundations for the Westbound bridge.
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 accompany the required horizontal and vertical clearances for Union Pacific Railroad. The overall bridge length was 715 feet and 81 feet wide to accommodate four lanes of traffic using 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. His responsibilities included design of twin bridge structures with skewed spans set in a horizontal curve. He checked the design 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 – Env Assessment | Orleans Parish** – *Jr. Engineer*. Jason assisted in the development of alternatives including a high level fixed span bridge on multiple alignments. 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 was responsible for the design of the steel girder superstructure, 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 which is 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 using LADOTD Bridge Design Manual and AASHTO-LRFD specifications.

Firm employed by	**HDR Engineering, Inc.**			
Name	**Jonathan Beaugh**		Years of relevant experience with this employer	8
Title	CADD Technician		Years of relevant experience with other employer(s)	27
Degree(s) / Years / Specialization		N/A		
Active registration number / state / expiration date		N/A		
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities		CADD services		

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).
09/20-03/21	**Port Freeport – General Re-Evaluation Report Civil Engineering | Brazoria, TX** – *CADD Technician*. Provided AutoCAD drafting and design, and volume calculations for ship channel widening.
10/20-current	**USACE Galveston District, Freeport SATOC Hurricane Flood Control | Freeport, TX** – *CADD Technician.* Provided OpenRoads Designer drafting and design, and calculations.
04/18-04/20	**USACE New York District - PH USACE Green Book Design Seg C3-C4 | Middlesex County, NJ** – *CADD Technician*. Provided AutoCAD drafting and design. The project entailed production of plans and specifications for levees, floodwalls, interior drainage features and a road closure gate.
10/20-10/20	**Alaska Dept. of Transportation & Public Facilities – St. George FEMA Breakwater | St. George, AK** – *CADD Technician.* Provided AutoCAD drafting for as-built post construction documentation.
07/17-12/19	**Santa Clara Valley Water District - Calero Dam Seismic Retrofit Project Design Consultant Service | Santa Clara, CA** – *CADD Drafting*. Provided 3D AutoCAD drafting and design, and volume calculations. HDR prepared designs, specifications, construction documents, and cost estimates for the District's Calero Dam Seismic Retrofit Project.
06/18-07/18	**Canadian National Railway - Wetland Delineation and Bridge Assessment | St. Charles Parish, LA –** *CADD Technician*. Created permit exhibits via AutoCAD and prepared volume calculations.
03/17-10/19	**King County - Lower Russell Road Levee Setback Project Kent | King, WA** – *CADD Technician.* Provided 3D AutoCAD design and volume calculations for floodwall.
2019-2020	**USACE - Cedar Rapids, IA, 16th Avenue Floodgate Closure, Cedar Rapids, IA** – *CADD Technician*. Provided AutoCAD drafting and design services.

Firm employed by	**HDR Engineering, Inc.**		
Name	**Jason Clary**	Years of relevant experience with this employer	2
Title	Structural CADD Technician	Years of relevant experience with other employer(s)	26
Degree(s) / Years / Specialization	NA		
Active registration number / state / expiration date	NA		
Year registered	NA	Discipline	NA
Contract role(s) / brief description of responsibilities	CADD services		

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).
01/20-Ongoing	**City of Cedar Rapids - East Side Flood Risk Reduction Reach 2 | Cedar Rapids, IA** – *Structural CADD Technician.* Jason developed structural details for multiple segments of pile supported concrete floodwalls and creating surfaces for civil layout using Power InRoads V8I and Microstation. Jason developed a 3D model with renderings to present to the client. Jason created a new alignment for the floodwall and gates that stretch along the river in downtown Cedar Rapids. He worked with civil closely to create profiles and cross sections along the alignment. Jason created structural plan views, sections, details, and compiled a complete package.
01/20-Ongoing	**USACE St. Paul District - UPRR Flood Gate Design | Cedar Rapids, IA** – *Structural CADD Technician.* Jason worked on the final design of four rail closure gates (ranging from 28 ft – 69 ft openings) including concrete T-walls tie-ins. The steel roller floodgates and T-walls sections were supported by steel H-pile foundations driven to bedrock and include sheet pile seepage cutoff walls. Close coordination was required with Union Pacific and CRANDIC Railroad entities. Project features were designed incorporating USACE HSDRRS Design. Jason created surfaces from survey information for floodwall profiles on existing grade for the design of new flood gate systems using Microstation and InRoads. He created a 3D model, with renderings, of the flood wall and gates. Jason created plans, sections, elevations, details, and title sheets for a completed package.
01/21-Ongoing	**Pacificorp – Swift Hydroelectric Project | Skamania County, WA** – *Structural CADD Technician.* The project consists of the Swift Dam Spillway Gates Structural Retrofit. This was an as-built project that was designed using original hand drawn drawings. Jason created an overall plan, demolition plan, end frame sections and details, trunnion sections and details, and a lifting device sections and details. Jason utilized Autocad 2018 during this design.
04/21-Ongoing	**USACE Santa Clara County - San Francisco Bay Shoreline Gate Closure Structure | Santa Clara County, CA –** *Structural CADD Technician.* The project consists of final design of one rail closure gates (40 ft opening) including concrete T-walls tie-ins. The swing gate floodgates and T-walls sections are supported by steel H-pile foundations with a sheet pile seepage cutoff. Project features were designed incorporating USACE HSDRRS Design Guidelines. Jason created floodwall profiles on existing grade for the design of new flood gate systems using Autocad 2018. Jason also created gate monolith plan, gate monolith elevations and sections, structural steel swing gate plan, elevations and details, hinge details, foundation details, foundation location plan, and pile schedule.
04/1/20–04/30/20	**Port of Freeport – Channel Development Reach 2 | Freeport TX –** *Structural CADD Technician.* The Jason developed structural details for multiple areas of pile supported concrete flood walls, created surfaces for the civil layout using OpenRoads 2020. Jason worked closely with the civil group to create profiles and cross sections along the alignment. He created structural plans, sections, details, and compiled a complete package. Using OpenRoads Jason was able to collect data from a trimble handheld and bring in the program to create a surface.

Firm employed by **HDR Engineering, Inc.**				
Name	**Mark Everett, ENV SP**		Years of relevant experience with this employer	<1
Title	Environmental Project Manager		Years of relevant experience with other employer(s)	23
Degree(s) / Years / Specialization			MS / 1996 / Soil Science BS / 1993 / Biological Sciences	
Active registration number / state / expiration date			Envision Sustainability Professional No. 29662, Exp. 10/09/2022	
Year registered	n/a	Discipline	n/a	
Contract role(s) / brief description of responsibilities			Environmental/NEPA	

Experience Summary: Mark has over 20 years of experience in the environmental and planning fields. His experience includes a large variety of projects within the public and private sectors, with an emphasis in NEPA and regulatory permitting. Mark has served as Project Manager, Environmental Task Leader, or Environmental Planner/Scientist on projects involving National Environmental Policy Act (NEPA) documentation (EISs, EAs, Categorical Exclusions, Reevaluations), regulatory permitting and compliance at federal, state, and local levels, feasibility studies, Planning and Environmental Linkage (PEL) studies, wetland/ WOUS assessments (Section 10/404 delineation, permitting, mitigation), sustainability/resilience initiatives, environmental due diligence for acquisitions, Phase I and II environmental site assessments, environmental management systems (ISO 14001), and stormwater permitting (SWP3/erosion/sediment control).

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).
10/21–ongoing	**Harris County Toll Road Authority – Beltway 8 – Houston Ship Channel Bridge | Harris County, TX.** *Environmental Scientist*. Mark serves as local environmental lead for the Program Management team working with HCTRA to construct the new Sam Houston Tollway bridges over the Houston Ship Channel. His responsibilities include review of permits and environmental documentation, assisting with permit updates and time extensions, and environmental documentation updates as needed.
08/18–04/21	**Texas Department of Transportation (TxDOT) Bryan - SH 6 Central BCS Expansion Project | Bryan, TX.** *Environmental Task Leader*. The project consisted of schematic design and environmental (NEPA) clearance (CatEx) for SH 6 from SH 21 to SH 40, a distance of 12.5 miles. The proposed project through Bryan and College Station will include improvements to SH 6 such as widening the existing roadway from 4 to 6 lanes; interchange improvements; collector-distributor roads and auxiliary lanes; bridge upgrades and replacements as necessary; continuous bicycle/pedestrian facilities; and upgrades to drainage, illumination, signals, and ITS facilities. Mark was responsible for environmental task management, quality control, hazardous materials ISA, water resources report, traffic noise analysis public involvement.
08/13–10/14	**Harris County Improvement District 1 (Uptown Houston) - Post Oak Boulevard Reconstruction with Dedicated Bus Lanes | Houston, TX.** *Deputy Project Manager*. The project scope included a NEPA Categorical Exclusion submittal for the Federal Transit Administration. The project consisted of a four-mile dedicated-lane bus facility along Post Oak Boulevard. The project will provide significant transit connectivity and service enhancements to the Uptown District, as well as connecting to the proposed Bellaire Uptown Transit Center and serving as a collector/distributor system for a wider regional area. Complex issues addressed included ROW acquisitions in adjacent greenspace/parkland with a complicated ownership history, as well as public and stakeholder concerns related to previous transit studies in the area. Mark's responsibilities included project management, quality control, and technical analysis and documentation related to scoping, public and stakeholder involvement, water resources, hazardous materials, and community impacts.

04/17–10/19	**TxDOT San Antonio - FM 1535 Expansion Project | San Antonio, TX.** *Environmental Task Leader.* The project consisted of schematic design, PS&E, and environmental (NEPA) clearance (CatEx) for FM 1535 from Loop 1604 to Shavano Ranch Road. The project expanded the roadway from two to four lanes with center turn lanes, raised medians, and sidewalk and bicycle accommodations. Mark was responsible for environmental task management, quality control, water resources report, hazardous materials ISA and public involvement.
04/17–10/19	**TxDOT San Antonio - NW Military Highway Improvement Project | San Antonio, TX.** *Environmental Task Leader.* The project consisted of schematic design, PS&E, and environmental (NEPA) clearance (CatEx) for NW Military Highway from Loop 1604 to Huebner Road through Shavano Park. The project added a continuous center turn lane and sidewalk and bicycle accommodations. Mark was responsible for environmental task management, quality control, water resources report, hazardous materials ISA and public involvement.
06/13–12/14	**TxDOT Transportation Planning and Programming (TP&P) Division - Texas Transportation Plan 2040 (TTP 2040) | Austin, TX.** *Bicycle/Pedestrian Modal Lead.* This project was the 5-year update to TxDOT's statewide long-range plan. The project included a multi-modal review of existing conditions and utilized data and modeling to forecast future conditions and needs to assist TxDOT with high-level priorities to meet the future transportation needs of Texas. Mark's tasks involved bicycle/pedestrian existing conditions assessment, needs assessment, coordination with TxDOT and bicycle/pedestrian advocacy groups, and technical report writing.
04/13–09/13	**TxDOT Austin - I-35/SH 130 Connector Feasibility Study | Austin, TX.** *Environmental Scientist*. The project consisted of planning and preliminary engineering to evaluate the feasibility of multiple roadway alternatives to serve as a connector facility between I-35 and SH 130 south of Austin. Mark was responsible for GIS environmental constraints analysis and mapping.
08/13–02/16	**Harris County Improvement District 1 (Uptown Houston) - Bellaire Uptown Transit Center | Houston and Bellaire, TX.** *Project Manager, Deputy Project Manager.* The project entailed the NEPA Categorical Exclusion submittal for the Federal Transit Administration. The project involved a new-location transit center in a major commercial and residential district. The project involved multiple NEPA categories, with particular focus on historic resources. Mark subsequently assisted Uptown Houston with FTA comments related to design changes for the new Transit Center. The NEPA Categorical Exclusion submittal received positive FTA finding on February 11, 2016. Mark's tasks included project management, QC, and technical analysis and documentation related to scoping, public and stakeholder involvement, water resources, hazardous materials, and community impacts. .
04/17–04/21	**TxDOT Houston - I-10 Planning and Environmental Linkage Study | Houston, TX.** *Environmental Planner.* The corridor is a 30-mile segment of I-10 East from downtown Houston at I-69 to 30 miles east at SH 99. The project consisted of conducting analysis and planning activities to produce a planning product that effectively serves the community's transportation needs. The results of the study may be used to inform a subsequent project-specific NEPA process. Mark was responsible for review and documentation of previous studies, environmental and demographic data collection and analysis, fatal flaw evaluation, and public involvement.
01/13–09/14	**TxDOT Austin - I-35 Corridor Improvements | Round Rock, TX.** *Environmental Scientist*. The project consisted of schematic design layout and environmental studies for a section of I-35 from RM 1431 to SH 45 N, a length of approximately 5.5 miles. Mark was responsible for project scoping and QA/QC of environmental reports such as hazardous materials, water resources, community impacts, biological resources, and others.

Firm employed by	**HDR Engineering, Inc.**		
Name	**Brett Geesey, PE**	Years of relevant experience with this employer	15
Title	Associate Vice President	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 Louisiana, Exp. 3/31/2022	
Year registered	2009	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities		Project Principal. **Meets MPR No. 1 & 2.**	

Brett manages a team of engineers and scientists and has experience in project management and design of various engineering projects. He has experience in the analysis of complex coastal processes, applied design, and preparation of detailed plans and specifications. His project experience includes dredging, marsh restoration, shoreline protection, numerical wave and circulation modeling, and the evaluation of coastal processes and their interaction with structures.

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).
2008–2020	**Louisiana Coastal Protection and Restoration Authority - Rockefeller Refuge Gulf Shoreline Stabilization | Cameron Parish, LA** – *Project Manager/Coastal Engineer*. Brett has been involved in a variety of roles for the ME-18 project since 2008. He provided coastal engineering design and construction administration for the demonstration portion of the project. He led the post-construction monitoring efforts for the demonstration project which led to the selection of the current project design. After the demonstration project, Brett was the Project Manager and Lead Project Engineer for the design of the four-mile shoreline protection project that is currently under construction.
2017-Ongoing	**Louisiana Coastal Protection and Restoration Authority – Bayou Terrebonne Ridge and Marsh Creation Project (TE-0139) | Terrebonne Parish, LA** – *Project Manager.* The project includes design of 126 acres of earthen ridge and 1,370 acres of marsh creation along 8 to 10 miles of existing ridge. Brett is providing project management for the current design phase including data gap analysis, data collection, numerical modeling, borrow area identification and design, engineering and design, stakeholder engagement and regulatory permitting assistance.
2015 - 2018	**Port Freeport - Freeport Harbor Channel Improvement General Reevaluation Report | Freeport, TX** – *Design Engineer.* Brett provided oversight for the H&H analysis for the General Reevaluation Report of the Freeport Harbor Channel Improvement Project in support of Port Freeport's cost share agreement with the USACE. Brett led an assessment of the proposed modifications with regards to sedimentation, sea level rise, wave impacts, overtopping and resiliency, and hydrodynamics. He also provided assistance with overall civil engineering tasks for the proposed modifications, assessed dredged material quantities and options for placement areas.
2009-2014	**Louisiana Department of Wildlife and Fisheries - Rockefeller Wildlife Refuge Marsh Creation | Cameron Parish, LA** – *Project Manager/Coastal Engineer*. Brett designed and provided construction administration for the creation of over 170 acres of intertidal marsh complex through placement of material hydraulically dredged from nearby oil field canals. He performed conceptual design through final design. The newly created marshes were part of a mitigation bank agreement that will allow the refuge to sell mitigation credits for impacts to wetlands within the refuge.

Firm employed by **HDR Engineering, Inc.**			
Name	**Ryan Hedlund, PE**	Years of relevant experience with this employer	8
Title	Bridge Engineer	Years of relevant experience with other employer(s)	4
Degree(s) / Years / Specialization		MS / 2009 / Civil Engineering BS / 2006 / Civil Engineering	
Active registration number / state / expiration date		PE.0037794 Louisiana, Exp. 09-30-2023	
Year registered	2013	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities		Bridge Design/Checker	

Ryan has been involved with multiple bridge design projects around the Gulf Coast. He has experience with project management, the design of prestressed concrete girder bridge superstructures, slab span bridges and bridge substructures and the inspection of and rating analysis of bridge structures in addition to other project specific structural needs, including retaining walls and highway signage.

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).
01/2022-ongoing	**Mississippi Department of Transportation (MDOT) - I-55 from Church Road to SR 302 | Desoto County, MS** - *Project Manager.* HDR is currently working with MDOT to produce Phase B design and plans for two bridges on I-55. The project includes one bridge replacement, one bridge widening and seismic retrofit, six retaining walls, two culvert extensions and foundation design for high-mast lighting. Ryan serves as both the project manager for the structures-focused contract for this project as well as the lead structures designer.
2021	**MDOT - SR 25 between SR4 and CR 23 (Bridge No. 189.3) | Tishomingo County, MS** - *Bridge Design Lead.* HDR developed Phase A ROW Plans for the replacement of an existing bridge over railroad tracks. Critical design considerations included the large skew required at the crossing over the tracks and the extensive vertical and horizontal clearances required to accommodate the railway. Ryan developed preliminary plans for the three-span crossing which utilized prestressed concrete Florida-I Beams.
2017	**Pennsylvania Department of Transportation (PennDOT) - Rapid Bridge Replacement Program | Various Locations, PA** - *Design Engineer.* This multi-year public-private partnership initiated by the PennDOT aims to upgrade and replace 558 aging, structurally deficient bridges throughout Pennsylvania. Replacing the bridges will provide motorists with new, modern structures and allow PennDOT to remove them from their structurally deficient list. The bridges are primarily crossings on smaller state highways, many in rural areas, rather than interstate bridges or large river crossings. HDR served as the lead design firm on this project. Ryan reviewed shop drawings for spread and adjacent prestressed box beams, MSE walls and precast concrete panel walls.
2019	**MDOT - SR 395 Widening | Neshoba County, MS** - *Project Manager.* HDR prepared Phase A ROW Plans for the replacement of two bridges on SR 395 between SR 19 and the Winston County Line. Ryan performed the office project management task and provided project oversight.
2015-2018	**Florida Department of Transportation (FDOT) Bartow District 1 - I-75 at Bee Ridge Road Interchange | Sarasota, FL** - *Design Engineer.* HDR was responsible for the reconstruction design of the existing I-75 at Bee Ridge Road Partial Cloverleaf Interchange to provide for an ultimate interchange that provides for the ultimate I-75 typical section. The ultimate typical section provides for a ten-lane facility with two express lanes and three general use lanes in each direction. The Interchange improvements will also require extension of a double box culvert four bridge widenings two bridge replacements and a new SB diversion ramp. Ryan designed the substructure for a two-span, 280ft long, Acrow temporary bridge over Bee Ridge Road to be utilized for maintenance

	of traffic during construction. He performed a preliminary design of the superstructure and substructure for four prestressed concrete girder bridge locations, and he performed a rating analysis of existing structures to be widened.
2015	**FDOT District 5 - I-4 Ultimate | Orlando, FL** - *Design Engineer.* This project will reconstruct 21 miles of mainline Interstate 4 in Orange and Seminole counties. Variable priced express lanes will be constructed in the median of the existing facility, and the general use lanes will be completely reconstructed. The express lanes will be operated with variable tolls, which are adjusted throughout the day to improve traffic flow. The project also includes reconstructing 15 major interchanges and constructing more than 145 bridges. Ryan assisted in preliminary design and checked the substructure pile loads.
2014	**Louisiana Department of Transportation and Development (LADOTD) - LA 89: Bayou Parc Perdu Bridge and Creek Bridges | New Iberia, LA** - *Design Engineer.* Ryan designed two new bridge structures according to AASHTO LRFD requirements: one in a vertical and horizontal curve using LADOTD Quadbeam prestressed concrete girders and the other utilizing existing LADOTD slab span standards. Work also included the design of deck and overhang system and the new substructure bent caps.
2014	**LADOTD - LA 4: Deer Creek Bridge | Winnsboro, LA** - *Design Engineer.* Ryan performed an LRFD design of a new bridge using LADOTD Quadbeam prestressed concrete girders. He also designed the deck and overhang system and substructure bent caps.
2013	**LADOTD - Saline Bayou Bridge | Natchitoches Parish, LA** - *Design Engineer.* Ryan designed a new bridge structure including the deck system and using AASHTO Type IV prestressed concrete girder beams. He also calculated the required guardrail length and the superelevation transition for the bridge.

Firm employed by **HDR Engineering, Inc.**				
Name	**Greg Kochersperger, PE**		Years of relevant experience with this employer	17
Title	Central Region Principal Bridge Engineer		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 Texas, Exp. 9/30/22	
Year registered	2005	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities			QA/QC for Bridge Design	

Experience Summary: Greg'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 comprised of steel and concrete and is fluent in the design of pre-cast and post-tensioned concrete structures, long-span steel bridge including truss bridges, as well as curved steel I-girders and box girders. In his current role as Principal Bridge Engineer, he provides technical oversight and quality control review of bridge designs across the entire Central US.

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).
05/17-04/21	**TxDOT Atlanta – SH43 over KCS Railroad | Karnack, TX**. *Project Manager.* Greg performed overall project management, led development of railroad exhibits, managed each of the discipline leads including oversight of the bridge design, performed construction phase oversight. The existing bridge was a three-span continuous steel girder which was widened with low-profile box beams to maintain vertical clearance over the RR.
12/18-10/19	**Oklahoma DOT – I-235/I-44 Interchange | Oklahoma City, OK**. *Lead Designer and Engineer of Record.* Greg served as the lead designer and engineer of record for six trapezoidal steel box girder units within a multi-level interchange. He was responsible for the design including Finite Element Analysis, AASHTO LRFD Specification checks and development of the design plans.
01/13–02/15	**TxDOT Dallas – IH35E over BNSF and Beltline Road | Carrolton, TX**. *Bridge Preliminary Design Lead and Final Design QC Lead.* Greg led the preliminary layout of the structure including development of the Exhibit A. He coordinated placement of the substructures and coordinated the construction phasing to avoid lower roadways, railways, multiple utilities, and the existing foundations. This challenging crossing of the RR resulted in a highly skewed, long-span steel I-girder span across the RR ROW. He performed QC review of the final bridge design including the steel span details.
06/09-10/10	**TxDOT Waco – US 190 Reliever Route | Copperas Cove, TX.** *Bridge Task Lead.* Greg led the design of nine bridges on the corridor including several overpass structures, one "valley bridge" nearly 70-feet in the air and one fly-over structure. He designed continuous steel plate girder bridge with 330-foot main span over Business 190. Greg developed complete PS&E on an accelerated schedule.
01/08–12/08	**City of San Marcos – LP82 over UPRR | San Marcos, TX**. *Project Engineer.* Greg developed preliminary layout of a new overpass bridge to replace at-grade crossing in tight urban area. The design utilized curved steel spans across the RR ROW. He developed bridge layouts and Exhibit A for RR coordination.

Firm employed by **HDR Engineering, Inc.**				
Name	**Keith Neshyba, PE**		Years of relevant experience with this employer	8
Title	Transportation Business Group Director		Years of relevant experience with other employer(s)	30
Degree(s) / Years / Specialization			BS / 1983 / Civil Engineering	
Active registration number / state / expiration date			PE 65434 Texas, Exp. 12/31/2022	
Year registered	1989	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities			QA/QC for Road Design	

Keith has over 35 years of TxDOT Statewide PS&E experience including bridge replacements. He is a former TxDOT Houston District senior engineer, which provided him extensive knowledge of TxDOT PS&E requirements. Keith has hands-on experience, starting in construction, and serving as Design Leader and Project Manager for numerous roadway projects. His extensive, diverse experience based on a solid construction foundation is a benefit to his QA/QC role for this project.

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).
03/18–Ongoing	**City of Alvin - FM 528/BNSF Overpass | Alvin, TX** - *Project Manager.* Keith was responsible for the quality deliverable of this project, and he provided a detailed quality review of plans prior to submittal. This project included the design of the roadway on new location from Business SH 35 to SH 6. This project included new bridge over the BNSF railroad, a Shared Use Path (SUP), lighting, signalization, retaining walls and sound barrier walls that we designed slightly elevated above ground level to eliminate impact to drainage. The project included extensive drainage analysis using ATLAS 14 criteria for the 10 and 100 year storm event and detention analysis for both the two-lane and future four-lane facility.
09/21-Ongoing	**Harris County Toll Road Authority (HCTRA) - Beltway 8 - Houston Ship Channel Bridge | Harris County, TX** – *Senior Technical Advisor.* Keith provided an independent quality review for the roadway and traffic control plans for the design of the northbound facility, as well as the design of the Shared Use Path (SUP) for this proposed bridge structure.
02/20-10/21	**Texas Department of Transportation (TxDOT) Beaumont, IH 10 Reconstruction - Cardinal Interchange | Beaumont, TX** - *Senior Technical Advisor.* Keith provided design review, coordination for the geotechnical and drainage design and overall quality review of deliverables. The project included design of Direct Connectors to IH 69, mainlanes, frontage road, retaining walls, Illumination, signalization, extensive utility coordination with major above ground and underground transmission lines.
03/17-05/19	**TxDOT Houston, IH 69 Schematic | Houston, TX** - *Project Manager.* Keith was responsible for the schematic design of the mainlanes, HOV, Frontage Road design, grade separated over the BNSF railroad. He provided traffic analysis for the revised ramping configuration and Interstate Access Justification Report. Keith provided local stakeholder coordination and public Involvement for final approval through FHWA.
01/16-05/17	**TxDOT El Paso, IH 10 Operational Improvements - Airway Blvd to Viscount Blvd | El Paso, TX** - *Project Manager.* HDR provided PS&E for the widening and ramp improvements of IH 10. The project included braided ramp design in front of The Fountains shopping mall, utilizing box beams to minimize structure depth and avoid a design exception for vertical clearance and soil nail and cantilever retaining walls modified to match existing aesthetic treatment. Keith provided innovative intersection design at the Airway Blvd. diamond interchange to avoid the costly relocation of ATT line and major CTMS vault, while eliminating the need for additional ROW.

Firm employed by **HDR Engineering, Inc.**					
Name	**Kenny Ozuna, PE**			Years of relevant experience with this employer	9
Title	Bridge Program Manager			Years of relevant experience with other employer(s)	28
Degree(s) / Years / Specialization			BS/ 1984 / Civil Engineering		
Active registration number / state / expiration date			PE 65754 Texas, Exp. 03/31/2022		
Year registered	1989	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Bridge Design		

Kenny is the former (retired) TxDOT Houston District Bridge Engineer. Kenny has over 37 years of experience in bridge project development and design for various bridge types including railroad overpasses. He has experience in railroad coordination, developing railroad exhibits, requests for right of entry and safety training while on Railroad ROW. He has experience in the technical requirements for survey and geotechnical data collection to achieve project success. Kenny has expert skill and knowledge of the design criteria within the UPRR Guideline for Rail Grade Separation Projects and incorporates the criteria into his designs resulting in railroad approval.

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).
09/13–ongoing	**Harris County Toll Road Authority (HCTRA) - Beltway 8 - Houston Ship Channel Bridge | Harris County, TX** – *Project Manager.* Kenny oversaw the engineering design for the south approach spans of the Ship Channel Bridge Replacement project, including associated schematic validation, roadway design and project management. The job metrics are 5,900 LF of twin structure at 71-feet wide each or 831,000 SF of deck area. The substructure design was affected by difficult site constraints including nine railroad tracks, multiple access roads, existing foundation elements, poor soil, contaminated soils, highly skewed box culverts, an operating petcoke facility with a raised conveyor system and approximately 90 utilities. Railroad coordination performed included meetings, exhibits, design for excavation shoring near UPRR ROW and estimates of construction duration. Despite the large number of obstacles, the new bridge was designed such that only one buried water line and a few overhead power lines required relocation.
05/14–04/16	**Metropolitan Transit Authority of Harris County (METRO) - Harrisburg/UPRR Overpass | Harris County, TX** – *Project Manager.* Kenny oversaw the design for this nine span bridge consisting of two light rail tracks operated by METRO, two highway lanes and two sidewalks over Union Pacific railroad tracks. The bridge design included pre-stressed concrete TX54 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 and straddle footing to avoid a surprise utility. Railroad coordination included meetings, development of exhibits and validation of clearances. METRO design criteria as well as TxDOT and AASHTO Standard Specifications were used.
04/18–Ongoing	**City of Alvin/TxDOT Houston - FM 528/BNSF Overpass | Alvin, TX** – *Bridge Task Lead.* The project consisted of engineering design for the proposed FM 528 extension over BNSF tracks. Kenny led and directed the bridge design for the 9-span overpass structure (1,000 feet long and 40.42 feet wide). The bridge provides two lanes of traffic and a sidewalk. Site constraints include soft soils, nearby neighborhoods, relocation of a high voltage power line and railroad permitting. The design is 80% completed and is currently ongoing. The design is a local letting using TxDOT design processes and criteria.

Firm employed by **HDR Engineering, Inc.**			
Name	**Garland Pennison, PhD, PE**	Years of relevant experience with this employer	8.5
Title	Senior Project Engineer / Professional Associate	Years of relevant experience with other employer(s)	33.5
Degree(s) / Years / Specialization		BSCE / 1979 / Civil Engineering | MSCE / 1993 / Environmental and Water Resources Engineering | PhD / 2020 / Systems Engineering	
Active registration number / state / expiration date		PE.0020931 Louisiana / Exp. 09/30/2022	
Year registered	1983	Discipline	Civil / Environmental
Contract role(s) / brief description of responsibilities		Roadway Design Support	

Garland is Senior Civil and Environmental Engineer with over 40 years of experience in project planning, engineering and management. He has diverse experience in various types of civil engineering projects; water resources, environmental, road, rail, airports, ports and site development.

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).
12/21 – ongoing	**Louisiana Department of Transportation and Development - Louisiana Watershed Initiative Modeling Region 5 | South Central Parishes, LA** - *Project Manager.* Garland is managing the hydrologic and hydraulic modeling services for Region 5, including the Atchafalaya, Bayou Teche, Vermilion, Mermentau, and Mermentau Headwaters HUC-8 watersheds. He is evaluating existing drainage conditions within 10,000 square miles using HEC software suite. Modeled watersheds include proposed bridge locations in this project proposal.
04/15 – 02/20	**Union Pacific Railroad - Program Bridge Replacement Projects | Statewide, AR, LA** – *Civil Engineer.* Garland provided hydrologic analysis QC reviews for programmed bridge replacements associated with UPRR rail bridges in the states of Louisiana and Arkansas.
07/15 - 01/17	**Bayou Lafourche Freshwater District - Union Pacific Railroad Bridge | Donaldsonville, LA** - *Project Manager.* Garland managed the replacement of existing culvert crossings with a new railroad bridge in a fast-track project to remove existing flow restriction and increase freshwater supply capacity from the Mississippi River to Bayou Lafourche. He completed data acquisition, engineering report and RAS 1-D analysis for alternative bridge designs. Garland coordinated the design with the HDR bridge design team through the UPRR IDIQ contract to expedite permitting and construction. Demolition and bridge construction executed within 72-hour track stoppage on mainline track with siding.
01/15 – 11/16	**Pennsylvania Department of Transportation - Rapid Bridge Replacement Program | Statewide, PA** - *Hydrologic and Hydraulics Design Squad Lead.* The design-build project involved 500+ state road bridge replacements in Pennsylvania. Garland coordinated with the bridge and road design teams for bridge/culvert plan development. He provided utility coordination and relocation QC review for bridges.
05/14 – 10/15	**Florida Department of Transportation - Ultimate I-4 | Orlando, FL** - *Civil Engineer.* Garland provided drainage design support for the fast-track highway and bridge deck drainage for major design-build reconstruction and expansion of Interstate 4. He conducted design analysis for drainage features including stormwater detention and infiltration features and drainage conflict analysis for temporary wall systems.
01/14 – 09/14	**Louisiana Department of Transportation and Development - US 90 Rail Overpass/Underpass Evaluation | New Iberia, *LA*** - *Civil Engineer.* Garland completed conceptual engineering and cost-estimating for utility tunnel highway modifications to accommodate Patout molasses production facility. Proposed modifications would include a new rail loadout facility on the east side of US 90.
10/11 – 09/12	**Louisiana Department of Transportation and Development - I-55 Kentwood Visitors Center | Tangipahoa Parish, LA** - *Project Engineer.* The project consisted of redesign of rest area with major civil infrastructure and architectural improvements. Responsibilities included design of grading, drainage, pavement, access ramps, utility, and ancillary improvements.
07/08 – 03/10	**East Baton Rouge Consolidated Government - S Harrells Ferry Road Ph II, Millerville to O'Neal Lane | East Baton Rouge Parish, LA** - *Project Engineer.* The project consisted of for 1.2 miles of 5 lane urban roadway project associated with EBR Green Light Program. Responsibilities included design of Knox Branch crossing, roadway, grading and drainage.

Firm employed by **HDR Engineering, Inc.**			
Name	**Danielle Rung**	Years of relevant experience with this employer	<1
Title	Geomatics Project Manager	Years of relevant experience with other employer(s)	11
Degree(s) / Years / Specialization		BS / 2008 / Geography (Land Surveying)	
Active registration number / state / expiration date		n/a	
Year registered	n/a	Discipline	n/a
Contract role(s) / brief description of responsibilities		QA/QC for Survey Data	

Danielle has experience working on a range of survey types, including lidar, conventional topographic and bathymetric surveys. She has been involved with projects from planning through to delivery, and she has regularly assisted in documenting and enforcing standard procedures to ensure **quality and consistency**.

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).
01/22-Ongoing	**Louisiana Department of Transportation and Development – Louisiana Watershed Initiative, Task Order 2 | South Central Louisiana.** *Survey Manager.* Danielle is responsible for managing the survey efforts for this project.
2019-2021	**Port Houston – Project 11 Expansion Channel Improvement Project | Harris County, TX.** *Survey Manager.* Danielle maintained oversight for project surveys including aerial lidar, aerial magnetometer, boundary, utility, hydrographic, and geophysical hazard surveys. Her responsibilities included planning and estimating, scheduling, field and office coordination, budget tracking and invoicing, quality control of deliverables and reporting.
05/19–12/19	**Coastal Protection and Restoration Authority – Mid-Breton Land Bridge Marsh Creation and Terracing | Plaquemines Parish and St. Bernard Parish, LA.** *Project Manager.* Danielle was responsible for field and office aspects of this project. She oversaw scheduling, monitored progress, reviewed deliverables as part of quality control, and maintained ongoing communication with the client.
04/19–11/19	**Sabine-Neches Navigation District – Sabine-Neches Channel Improvement | Gulf of Mexico & Sabine-Neches Channel, LA & TX.** *Project Manager.* Danielle assisted in the survey planning, data management, and post-processing and quality control of survey data for this project. She was also responsible for communicating with outside agencies regarding potential site hazards.
2014–2021	**Moffatt & Nichol – Increase Atchafalaya Flow into Terrebonne Basin | Terrebonne Parish, LA.** *Survey Manager.* Danielle was responsible for scheduling, budget management and adherence to scope. She oversaw various project components including drone lidar, topographic, bathymetric, geophysical, and ADCP surveys.
03/17–11/19	**Coastal Engineering Consultants, Inc. – West Grand Terre Beach Nourishment and Stabilization | Jefferson Parish, LA.** *Survey Manager.* Danielle maintained communication with the client, verified adherence to scope, prepared project documents including field instructions for the survey crew, and prepared survey data for delivery to the client.
12/18–09/19	**Moffatt & Nichol – Alabama Connecting Coastal Waters | Mobile Bay, AL.** *Survey Manager.* Danielle was responsible for survey work, including hydrographic and topographic surveys. She maintained ongoing communication with the client, assessed data for quality control, and produced deliverables including the survey methodology reports.

05/18–05/19	**Moffatt & Nichol – Upper Barataria Marsh Creation | Jefferson Parish, LA.** *Survey Manager.* Danielle was responsible for coordination of field and office tasks for this project. She detailed field instructions for survey crews, performed QA/QC on data, and prepared survey deliverables for the client.
05/18–05/19	**Coastal Protection and Restoration Authority – Bayou Dupont Marsh and Ridge Creation| Jefferson Parish, LA.** *Project Manager.* Danielle was responsible for the scheduling, execution, and delivery of the 2019 iteration of this topographic survey project. Through the duration of the project, she reviewed data and deliverables, and assembled the survey report.
05/19–05/21	**Coastal Protection and Restoration Authority – St. Catherine Island Marsh Creation and Shoreline Protection | Orleans Parish, LA.** *Project Manager.* Danielle managed various surveys for this project, which included topographic, bathymetric, magnetometer, and sub-bottom profiler surveys. She oversaw scheduling, monitored progress, reviewed deliverables, and maintained ongoing communication with the client.
2009-2011	**Norfolk Southern – Positive Train Control Lidar Surveys | Eastern United States.** *CAD Specialist* As a team lead for this survey project that spanned over 17,000 miles of rail assets, Danielle's main role was reviewing datasets to verify quality control of processed lidar and orthomosaic imagery data. She documented standard processing and QC procedures for the project and trained other team members to verify consistency among the QC team. She also prepared and transmitted final deliverables to the client.

Firm employed by	**HDR Engineering, Inc.**		
Name	**Keith Salais, PE**	Years of relevant experience with this employer	2.5
Title	Project Engineer	Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization	MS / 2018 / Civil Engineering | BS / 2017 / Civil Engineering		
Active registration number / state / expiration date	PE.0046204 Louisiana, Exp. 03-31-2022		
Year registered: 2021	Discipline: Civil Engineering		
Contract role(s) / brief description of responsibilities	Bridge Design		

Keith has an academic background in structures and geotechnics and a professional background in bridge inspection.
Training Certs: Bridge Inspector Certified, FHWA 130053 (2021), FHWA 130078 (2021); SPRAT Level 1 Rope Access Technician (2019); ANSI/CSA MEWP Operator Certified: 1A, 2B, 3A, and 3B (2020); OSHA Certified in Construction Safety and Health – 30 hours (2016)

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).
02/20-01/21	**Louisiana Department of Transportation and Development (LADOTD) – LADOTD Statewide Bridge Inspections | Statewide, LA** – *Structural EIT*. Keith performed an in-depth (fracture critical and routine) inspection of complex bridges, Alexandria Lift Bridge and Teche Bayou Lift Bridge. As a SPRAT technician, Keith assisted in anchor rigging and rope management, and performed ascend/descend and rope-to-rope techniques to access the structure. Keith documented defection location/severity through in-field note-taking and photography. He assisted in the development of the in-depth inspection report.
04/21-07/21	**North Dakota Department of Transportation - Off System Bridge Inspections | Statewide, ND** - *Bridge Inspector.* Keith performed routine inspections of various types of bridges, from reinforced or prestressed concrete to steel, to timber, or to sometimes a combination of the types. Keith performed routine inspections visually as well as other bridge inspection techniques when needed, e.g. sounding concrete or timber. Keith documented field measurements and defect location/severity through in-field note-taking and photography. Notes were documented per National Bridge Inventory (NBI) and via condition state/element method per National Bridge Inspection Standards (NBIS). Keith used a state-sponsored application called InspectX to take in-field notes and photos, and also to develop or quality-control bridge inspection reports in coordination with other inspectors.
04/21-04/21	**Wilson T Ballard Company and Maryland Department of Transportation - Inspection of Bridge No. 1513700 | Silver Spring, MD** - *Bridge Inspector, SPRAT Technician.* Keith performed rope access inspections of bridge bearings, fracture critical floorbeams, and concrete piers of bridge no. 1513700, the Capital Beltway Outer and Inner Loop carrying I-495 over the Northwest Branch Anacostia River. Keith documented defect location/severity through in-field note-taking and photography. Fracture critical members were inspected and documented as required by the Federal Highway Administration (FHWA). After the inspection, Keith organized his notes and photo-log for the inspection report and coordinated with the inspection report-writers.
02/20-02/20	**Texas Department of Transportation - Houston Ship Channel Bridge Inspection | Houston, TX** - *Bridge Inspector.* Keith assisted in fracture critical inspection of five-span steel plate girder and pin and hanger bridge (1,230 ft) carrying IH 610 over the Houston Ship Channel. Inspection was completed via snooper and available catwalk.
08/19-08/19	**Texas Department of Transportation - Steel Truss Fracture Critical Inspections | Waco, TX** - *Structural EIT*. Keith performed fracture critical inspection of two steel truss bridges (SH 147 over Brazos River and FM 817 over Leon River). He utilized "snooper" and bucket trucks to perform hands on/detailed inspection of steel members of the superstructure.

Firm employed by	**C. H. Fenstermaker & Associates, L.L.C.**			
Name	**Travis Bodin, PLS, MBA, PMP**		Years of relevant experience with this employer	16
Title	Vice President, Survey and Mapping		Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization			B.S. / 2004 / Industrial Technology	
Active registration number / state / expiration date			PLS.0005067 / LA / 3.31.2022	
Year registered	2011	Discipline	Professional Land Surveyor	
Contract role(s) / brief description of responsibilities			Survey Principal | Professional Land Surveyor managing and directing the topographic and property surveys and preparation of right of way maps	

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).

Travis Bodin, PLS, MBA, PMP currently serves as Vice President of Survey at Fenstermaker and has over 17 years of surveying, management, and coordination experience. He is currently responsible for directing and overseeing the daily activities within the Survey Division for all offices and 33 survey crews working across multiple states. He has served as the Lead Surveyor for projects across Louisiana and Texas. His responsibilities have included the management of surveying/ROW services, utility relocation coordination, coordinating with parish, state, and federal agencies and sub-consultants, cost estimating, scoping, scheduling and planning, resource management, and construction management services. With his background in surveying and project management, Mr. Bodin has performed and participated in multi-million-dollar projects consisting of large scale topographic and boundary surveys, right-of-way maps, development of high accuracy GPS networks, setting DOTD monumentation, process and procedural development. With his wide range of managerial and technical experiences, Mr. Bodin was able to obtain his Project Management Professional (PMP) Certification which is acknowledged by agencies around the world as the leading certification for project managers. Mr. Bodin is experienced in the use of the newest versions of MicroStation, AutoCAD, and Trimble Business Center, Office 365, and Primavera 6. Additionally, Mr. Bodin has obtained the following certifications:

Meets MPR Requirements No. 4 and 5

- ATSSA Traffic Control Technician/Supervisor
- Project Management Professional PMP #2269869
- ATSSA Registered Flagger
- Transportation Worker Identification Credential (TWIC)

11/18-05/19	**Farm Road Multi-Bridge Replacement (Calcasieu Parish, LA):** Fenstermaker was contracted by Calcasieu Parish Police Jury to provide professional engineering services for the replacement of two (2) bridges located on Farm Road. Mr. Bodin assisted with survey crew coordination, the review of data collection and boundary surveys.
05/13-02/20	**S.P. No. H.010620: US 90 (I-49 South) Albertson Pkwy to Ambassador Caffery Design-Build (Lafayette):** Mr. Bodin was the Surveyor responsible for managing all topo surveying provided by the sub-consultant on the improvements to the roadway. Some of the main elements of the six-lane mainline roadway project include an overpass at the Burlington Northern Santa Fe Railway, a grade separation at Albertson's Pkwy and improved connectivity between US 90 and LA 182.
04/15-02/19	**Coach Williams Blvd. Extension (Calcasieu Parish):** Mr. Bodin served as Project Manager and was also the Lead Surveyor responsible for coordinating abstracting, topographic survey, and the generation of all ROW and servitude plats. This project includes the design of an $18.4 million, 3-mile roadway. The new roadway includes

	a 2-lane open ditch typical section with a roundabout, railroad crossing, Sabine River Authority Canal crossing, and will traverse through multiple wetland areas.
12/08-07/18	**LADOTD Permit No. 03030387: Kaliste Saloom Rd Widening, Intersection Improvements, Bridge, and CE&I (LA 3073 to LA 733) (Lafayette):** Mr. Bodin served as the Surveyor PM. Fenstermaker performed the topographic survey of all cross street and road tie-ins, cross sections for the purpose of an existing elevation DTM and parcel boundaries effected by the ROW. Mr. Bodin was responsible for field crew coordination, topo/boundary surveys, ROW plats, monuments, data processing, plats, and legal descriptions.
01/17-01/19	**LADOTD Permit No. 153198, 153357, 153587: Sasol LCCP-Heavy Haul Road Engineering and Construction (LA378 & LA379) (Westlake):** Mr. Bodin served as Lead Surveyor in providing topographic, boundary, and route surveying to aid in the coordination with public and state agencies for the construction of a 2.4-mile roadway. Services include mapping for acquisition of agreements between Sasol and third-party utilities, platting for acquisition and dedication of property needed for various construction activities and state agencies, and Quality Control services of construction activities that were conducted, including monument review and location mapping. Mr. Bodin was responsible for field coordination, data processing, ROW generation, servitude and ROW mapping and topo surveys.
04/12-03/16	**East Pont des Mouton, Phase II – Water and Sewer Improvement and Roadway Widening (Lafayette):** This project included the widening of approximately 1.4 miles of urban roadway reconstruction resulting in utility relocation and design of potable water distribution system and sanitary sewer collection system (gravity and force main). The sanitary sewer portion of this project entailed the design and installation of over 8,000’ cumulative feet of 15”,18”, 21”, and 24” gravity sewer main. Mr. Bodin was the Lead Surveyor on this project and led a full survey that was conducted to capture elevations and dimensions.
09/12-ongoing	**Acadiana Regional Airport Access Road (Iberia Parish):** This project included the design of a new roadway beginning at the intersection of LA 3212 (Prairie Rd) and Grand Prairie Rd with an approximate 1,300-feet extension that intersects with LA 675 (Jefferson Island Rd). Significant features of this project include a 5-legged roundabout, a boulevard extension, and outfall channel regrading. Mr. Bodin served as Project Surveyor.
08/14-Ongoing	**Ham Reid Road Roundabout & Extension (Calcasieu Parish):** This project involves professional engineering design and planning services related to the improvement of intersection on Nelson Road at Ham Reid Road. Mr. Bodin, Project Surveyor is responsible for the Topographic Surveying and ROW Plats.
05/12–09/20	**Apollo Rd (LA 93) Extension to Dulles Drive (Lafayette Parish):** Fenstermaker is performing all topographic survey of cross streets and road tie-ins, cross sections for the purpose of an existing elevation DTM and location of all parcel boundaries affected by the proposed right of way. Additionally, surveying services include ASFD survey of all drainage laterals and drainage structures for hydraulic analysis and location of all utilities and topographic features within an identified area. Mr. Bodin is serving as Survey Project Manager.
04/10-09/18	**Lebesque Road Bridge Replacement and Road Reconstruction (Lafayette):** Fenstermaker was contracted by Lafayette Consolidated Government to provide the design of the replacement of Lebesque Bridge and Lebesque Road Reconstruction. Mr. Bodin served as survey principal and provided oversight of survey crew coordination, right-way and boundary surveys, title research, utility coordination, topographic and bathymetric surveys, and the processing of survey data.

Firm employed by	**C. H. Fenstermaker & Associates, L.L.C.**				
Name	**Justin Bordelon, PLS, LSI**		Years of relevant experience with this employer	15	
Title	Advanced Technology Manager		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			B.S. / 2009 / Business Administration		
Active registration number / state / expiration date			PLS.0005271 / LA / 12.31.2022 LSI.0000719 / LA / 09.30.2022		
Year registered	2021	Discipline	Professional Land Surveyor		
Contract role(s) / brief description of responsibilities			Survey Quality Assurance/Quality Control | Survey field coordinator, underwater acoustic imaging and surveying services		

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).
	Justin Bordelon, PLS, LSI is the Advanced Technology Manger in Fenstermaker's Advanced Technology Group. He started performing underwater acoustic investigations and hydrographic surveys at Fenstermaker in 2006. While working at Fenstermaker, Mr. Bordelon attended the University of Louisiana at Lafayette and earned a degree in Business Administration in 2009. As the Advanced Technology Group grew, Mr. Bordelon became the underwater acoustic investigation manager and worked on many projects including an inspection of over 100 bridges for the Louisiana Department of Transportation and Development. In 2015, he became a Survey Crew Manager and managed crews in Lafayette, Shreveport, and Midland, TX.
09/17-01/19	**LADOTD Permit No. 153198, 153357, 153587: Sasol Chemicals (USA) LLC Road Traffic Improvements (Calcasieu Parish):** Fenstermaker provided topographic, boundary, and route surveying to aid in the coordination with public and state agencies. Services include mapping for the coordination and acquisition of agreements between Sasol and third-party utility companies, platting for acquisition and dedication of property needed for construction activities and state agencies, QC services of construction activities, monument review, HDS laser scanning for anchor bolt and module placement, location mapping, dimensional control, and UAV aerial photogrammetry. Mr. Bordelon was responsible for field coordination for this project.
03/11-ongoing	**Apollo Rd (LA 93) Extension to Dulles Drive (Lafayette Parish):** Fenstermaker is performing all topographic survey of cross streets and road tie-ins, cross sections for the purpose of an existing elevation DTM and location of all parcel boundaries affected by the proposed right of way. Additionally, surveying services include ASFD survey of all drainage laterals and drainage structures for hydraulic analysis and location of all utilities and topographic features within an identified area. Mr. Bordelon was responsible for the field coordination for this project.
03/10	**Almonaster St. Bridge Damage Inspection (New Orleans):** Fenstermaker was contracted to perform and Underwater Acoustic Imaging investigation of the Almonaster Avenue Bridge and the fendering system for the bridge. This entailed scanning the bridge abutments as well as the fendering system and Dolphin Cells as well as documenting the disposition of debris on the water bottom.
06/13-07/13	**SPN. 700-29-0112: Leeville Pier #1 Acoustic Imaging (Lafourche Parish):** Fenstermaker was contracted to perform and Underwater Acoustic Imaging Investigation of the partially removed Pier 1 remnant from the old

	Leeville Bridge over Bayou Lafourche. The intention was to document the disposition of the pier remnant, providing information for planning of further removal of the pier remnant.
6/10-01/17	**SPN. 426-31-0015: Sunshine Bridge Underwater Acoustic Survey (St. James Parish):** Fenstermaker was contracted to perform and Underwater Acoustic Imaging Investigation of the pier protection systems on Piers 3, 4, and 5 of the Sunshine Bridge near Donaldsonville, Louisiana.
12/08-05/09	**Horace Wilkenson Bridge Mississippi River Bridge Inspection (West Baton Rouge Parish):** Fenstermaker provided an Underwater Acoustic Imaging inspection of a damaged bridge pier fender system for LA DOTD after a ship collided with the bridge, to assist in damage assessment and debris disposition mapping. Mr. Bordelon served as the Field Team Crew Leader and lead acoustic technician on this project.
08/14-12/14	**LBBLD – Video Culvert Inspections – 40 Arpent Levee Non-Federal Back Levee (St. Bernard Parish):** Fenstermaker was contracted to perform internal video and acoustic imaging inspections of six culverts of varying diameter, corrugated pipe conduits that transit through the 40 – Arpent Non-Federal Back Levee in St. Bernard Parish, Louisiana. This inspection was performed using Fenstermaker's specialized robotic sled and a high-resolution underwater video camera and high intensity lighting. Deliverables included a project synopsis report with a summary of findings and observations and detail exhibits of video and acoustic imagery at 10' station intervals with observations down pipe for each of the culvert conduits. Mr. Bordelon was the lead Surv360 Technician responsible for all data collection activities as well as acoustic data processing.
04/18-05/19	**Calcasieu Parish (HUC 8) Watershed Modeling & Planning (Calcasieu Parish):** Fenstermaker provided surveying services within the project area in support of the modeling efforts for the project. The survey task consisted of the collection of roadside ditch inverts, cross drains, high and low cords on existing bridge decks, and documentation of the existing conditions of the crossings. Mr. Bordelon oversaw field coordination, project management, and data processing for all the bathymetric surveys required for the Calcasieu Parish (HUC) 8 Watershed Modeling & Planning Project.
03/11-01/17	**H009112.5: Mississippi River Bridge (1-20) Underwater Acoustic Imaging (Madison Parish-Warrant County, MS):** Fenstermaker was contracted by DOTD to provide Underwater Acoustic Imaging visualization of the E-1 and E-2 Bridge piers after the piers were struck by a wayward barge which then sunk lodged against the north nose of pier E-1. The project consists of an Underwater Acoustic Investigation of the piers with specific emphasis on any disturbance or damage that could have resulted from the barge collision. The investigation encompasses the bridge piers and support caissons as well as the instrumentation caissons. Mr. Bordelon served as lead survey tech for this project.

Firm employed by	**C. H. Fenstermaker & Associates, L.L.C.**				
Name	**Dax Douet, P.E.**		Years of relevant experience with this employer	24	
Title	Director, Engineer		Years of relevant experience with other employer(s)	1	
Degree(s) / Years / Specialization			B.S. / 1997 / Civil Engineering		
Active registration number / state / expiration date			PE.0030170 / LA / 9.30.2022		
Year registered	2002	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Lead Roadway Design		

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).

Dax Douet, P.E. is an Engineering Director with over 24 years of professional civil engineering experience in design, planning, construction oversight, and project management. His core experience is in roadway design, transportation corridor studies, line and grade studies, design of roundabouts, environmental assessments, both open channel and subsurface drainage systems, large one and two-dimensional hydrologic numerical modeling, municipal engineering, and project managing large complex, multi-disciplinary projects. He has served as the lead design engineer and project manager on many transportation projects ranging from both urban and rural local, collector, and arterial roadways, to large interchange projects on the interstate system. He is proficient in Bentley Software project such as Microstation, Storm and Sanitary, and InRoads; HEC-RAS, LADOTD's HYDRWIN, and DHI MIKE 11/MIKE 21/MIKE FLOOD. In addition to his work experience, Mr. Douet has obtained the following certifications:

- NHI Course No. 142005, "NEPA & the Transportation Decision Making Process"
- ATSSA Traffic Control Supervisor/Technician
- LADOTD Highway Safety Manual Workshop
- LADOTD Traffic Engineering Process and Reports (TEPR) Module 1, 2, 3
- Two-Dimensional Modeling Using HEC-RAS

Meets MPR Requirement No. 6

11/08- ongoing	**LADOTD Permit No. 03030387: Kaliste Saloom Rd Widening, Intersection Improvements, Bridge and CE&I (LA3073 to LA733) (Lafayette Parish):** Mr. Douet is managing this $34 million project, which includes fast-tracking all real estate appraisals, plats, and construction plans. He is also the Lead Design Engineer for the widening of approximately 1.7 miles. The roadway is an over-capacity major arterial roadway located in the center of Lafayette. He was directly responsible for the development of a line and grade study that allowed the LCG to choose between alternatives and determine the optimal locations for widening based upon impacts to businesses, cost of ROW, and minimizing impacts to utilities. He was the lead presenter at several public meetings, performed constructability reviews of all components of the plans, assessed sequencing of construction, critical path management, and making recommendations to the staff to adjust design elements to make construction efforts more efficient with live traffic loading. Mr. Douet continues to manage the construction effort.

05/13-02/20	**SP No. H.010620: US 90 (I-49 South) Albertson Parkway to Ambassador Caffery Design-Build (Design Build) (Broussard):** Under the Design-Build Contractor, James Construction Group, Mr. Douet currently is the Design Manager for the preparation of all engineering design components of the proposed upgrading of a portion of US 90 in Lafayette Parish to a six-lane controlled access facility to also include improvements to the existing east and westbound frontage road system, construction of a new six-lane US 90 overpass structure over both Albertson Parkway and the existing BNSF railroad facility, and construction of all associated US 90 mainline ramps needed to connect these overpass structures and frontage roads. In this role, he was required by contract to be involved directly in every aspect of the design to include roadway, drainage, traffic, and bridge design as well as the design of Mechanically Stabilized Earth Walls (MSEW) needed to construct the US 90 mainline improvements within existing right of way. In this capacity, he was required to also review all construction related Request for Information (RFI's) to ensure that all responses meet the expectations of LADOTD. Mr. Douet reviewed all design packages to quality control check the constructability of the designs being proposed. Mr. Douet was also directly responsible for the management of four engineering sub-consultants on the design-build team to ensure that all design components meet the overall goals and expectations of the project.
04/17-04/20	**Cane River Bridge Church Street Route LA 1-X (Natchitoches Parish):** LADOTD in conjunction with the FHWA prepared a NEPA environmental assessment for the proposed replacement of Cane River Bridge on Church Street Route LA 1-X. Mr. Douet served as the project manager and lead engineer for preparation of the environmental document. He was responsible for all public outreach, agency coordination, preparation of the project line and grade study, coordination of the project's traffic study, development of project alternatives, development of cost estimates, coordination of the noise and air analysis, coordination of historical and archeological investigations, and coordination of various other environmental analysis
03/16-ongoing	**Apollo Road Extension (LA 93) Extension to Dulles Drive (Lafayette Parish):** Fenstermaker provided engineering services to the City of Scott to extend Apollo Road to Dulles Drive. This $14 million dollar construction project included two miles of a four-lane boulevard and eight foot sidewalks to accommodate bicyclist and pedestrians. Mr. Douet served as the transportation engineer and developed roadway plans and project review.
03/15-11/16	**Coach Williams Blvd. Extension (Calcasieu Parish):** This project consists of the design of a $20 million – 3-mile roadway extension of Coach Williams Boulevard to connect to Houston River Road (LA 379). The new roadway includes a two-lane open ditch typical section with a roundabout, railroad crossing, Sabine River Authority Canal crossing, and will traverse through multiple wetland areas and will likely traverse over abandoned borrow pits. Fenstermaker is the Prime on this project and is responsible for the environmental assessments prior to design, drainage design, pavement design, and the geometrics of the road. In addition, Fenstermaker is conducting the surveying needed to design this road. Mr. Douet assisted with project management items and QC'd final plans.

Firm employed by	**C. H. Fenstermaker & Associates, L.L.C.**				
Name	**Chris Guilbeau, P.E.**		Years of relevant experience with this employer	1	
Title	Engineer		Years of relevant experience with other employer(s)	23	
Degree(s) / Years / Specialization			B.S. / 1998 / Civil Engineering		
Active registration number / state / expiration date			PE.30534 / LA 03.31.2023		
Year registered	2003	Discipline	Civil Engineer		
Contract role(s) / brief description of responsibilities			Roadway Design		

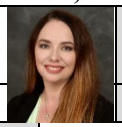
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
Chris Guilbeau, P.E. is a professional engineer with over 24 years of experience in residential and commercial site development. He has extensive experience performing site layouts, designing grading and drainage, modeling and reporting storm water detention, laying out and designing water and sewer mains, estimating costs, preparing construction plans, specifications, and bid documents, and securing permits from various government agencies. His software skill set includes Terramodel, La DOTD Hydrwin, Hydraflow Hydographs Software, and SWMM.	
12/21-ongoing	**E. Broussard Road at Robley Drive Roundabout Design & Construction (Lafayette):** Mr. Guilbeau will be the lead Design Engineer responsible for the design of a modern multi-lane roundabout at the intersection of E. Broussard Road and Robley Drive. The design will include geometric design, typical section development, sub-surface drainage design, sequencing of construction, striping layout and permanent traffic sign layout. Mr. Guilbeau is serving as Project Manager in directing roadway design plans and project personnel.
09/15-06/16	***Olde Town at Millcreek Phase 3 (Lafayette Parish, LA):** Mr. Guilbeau was the engineer in charge for the design 61 lot residential subdivision. Work included asphalt surface / soil cement base streets, concrete alleys, curb and gutter drainage, drainage impact analysis, water system, and a gravity sewer system. Mr. Guilbeau's management responsibilities included construction plan and specification preparation, bidding, construction administration, and obtaining the required Louisiana Department of Health permit. He also obtained approval from LCG Public Works and Lafayette Utilities System.
11/05-03/07	***Eloi Plantation (Lafayette, LA):** Mr. Guilbeau was in responsible charge for the 57 lot residential subdivision which included asphalt surface/soil cement base streets, curb and gutter drainage, drainage impact report, water system, gravity sewer system, lift station, and sewer treatment plant. He oversaw plan and specification preparation, bidding, construction administration, and LA DOTD, LA DHH and LA DEQ permits, as well as assisted in boundary survey and subdivision platting on project.

**Denotes work done at another firm*

Firm employed by	**C. H. Fenstermaker & Associates, L.L.C.**				
Name	**Bobby Guillory**		Years of relevant experience with this employer	14	
Title	Surveying Services Party Chief		Years of relevant experience with other employer(s)	5	
Degree(s) / Years / Specialization			n/a		
Active registration number / state / expiration date			ATSSA Registered Flagger / 9.28.2026		
Year registered	2018	Discipline	n/a		
Contract role(s) / brief description of responsibilities			Lead Party Chief | Directing and managing survey crews		

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).
Bobby Guillory has over 19 years of experience and is proficient in the use of the DOTD Location and Survey field code procedures and precisions. As a Survey Party Chief III, Mr. Guillory has successfully prepared transportation field surveys for establishing control, topography, utility location, and digital terrain models in a Microstation electronic format. He is well-versed in performing traverse surveys and control surveys for the control network coordinate verification. Mr. Guillory also has experience in the use of metrology grade 1" robotic total stations and is versed in performing highly accurate surveys in support of boundary and right of way mapping.	
03/11-ongoing	**Apollo Road (LA 93) Extension to Dulles Drive (Lafayette Parish):** Fenstermaker is performing all topographic survey of cross streets and road tie-ins, cross sections for the purpose of an existing elevation DTM, location of all parcel boundaries affected by the proposed right of way. Mr. Guillory serves as lead party chief.
12/08-ongoing	**Kaliste Saloom Road Widening, Intersection Improvements, Bridge and CE&I (LA 3076 to LA733) (Lafayette Parish):** Fenstermaker performed the topographic survey of all cross street and road tie-ins, cross sections for the purpose of an existing elevation DTM and parcel boundaries effected by the ROW. Mr. Guillory served as lead party chief.
09/12-ongoing	**Acadiana Regional Airport Access Road (Iberia Parish):** This project includes the design of a new roadway beginning at the intersection of LA 3212 (Prairie Rd) and Grand Prairie Rd with an approximate 1,300-feet extension that intersects with LA 675 (Jefferson Island Rd). Significant features of this project include a five-legged roundabout, a boulevard extension, and outfall channel regrading. Mr. Guillory served as lead party chief.
09/17-01/19	**Sasol Chemicals (USA) LLC Road Traffic Improvements (Calcasieu Parish):** This is a $13 million contract with Fluor for engineering and consulting services which include the design of a 1.5-mile heavy haul route that will be utilized to transport oversized modules from the Calcasieu River to the proposed plant site in Westlake. Fenstermaker services include mapping for the coordination and acquisition of agreements between Sasol and third-party utility companies, platting for acquisition and dedication of property needed for various construction activities and state agencies, quality control services of construction activities, monument review, HDS laser scanning for anchor bolt and module placement, location mapping, dimensional control, and UAV aerial photogrammetry. Mr. Guillory served as party chief.

04/15-02/19	**Coach Williams Blvd. Extension (Calcasieu Parish):** This project includes the design of a $20 million – 3-mile roadway. The new roadway includes a 2-lane open ditch typical sections with a roundabout, railroad crossing, Sabine River Authority Canal crossing, and will traverse through multiple wetland areas. Mr. Guillory served as Party Chief as part of the field survey crew. Data collected included topo surveys, and the data needed to generate all ROW and servitude plats.
08/14-ongoing	**Ham Reid Road Roundabout & Extension (Calcasieu Parish):** This project involves professional engineering design and planning services related to the improvement of intersection on Nelson Rd at Ham Reid Rd and at Gauthier Road. Fenstermaker is responsible for the Topographical Surveying, Right of Way Plats. Fenstermaker manages Preliminary through Final Plans, Bidding and Contract Phase, and Engineering Services during construction. Mr. Guillory served as Party Chief of the survey crew responsible for collecting field survey data.
06/12-ongoing	**Churchpoint Road at Roddy Road Roundabout Study, Design, and Redesign (Ascension Parish):** Fenstermaker completed a roundabout study at Churchpoint Road and Roddy Rd. The study was completed in compliance with "EDSM VI.1.1.5, Roundabout Study and Approval." Following LADOTD's approval, Fenstermaker began final design of the roundabout. Mr. Guillory served as lead party chief.
05/14-11/17	**LADOTD Permit No. 153351,153352,153353: Lake Charles LNG Traffic Impact Analysis and Road Improvements (Calcasieu Parish):** Fenstermaker was contracted by Trunkline LNG for their plant expansion, drainage analysis and channel relocation project. Fenstermaker completed a detailed HEC-RAS model to determine the impacts of rerouting a major drainage channel that traversed the proposed expansion site. Mr. Guillory served as lead party chief and assisted with the collection of topographic survey data in support of this effort.

Firm employed by	**C. H. Fenstermaker & Associates, L.L.C.**				
Name	**Diane Hammonds, P.E., PTOE**		Years of relevant experience with this employer	2	
Title	Senior Engineer		Years of relevant experience with other employer(s)	17	
Degree(s) / Years / Specialization			B.S. / 2002 / Civil Engineering		
Active registration number / state / expiration date			PE.0040749 / LA / 9.30.2022; PTOE No. 7113/ 12.19.2022		
Year registered	2016	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Lead Traffic Control		

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).

Diane Hammonds, P.E., PTOE is a Professional Engineer and Professional Traffic Operations Engineer (PTOE) with 19 years of experience specializing in Traffic/Transportation Engineering and Transportation Planning projects including traffic impact assessments, traffic signal design systems, traffic simulation modeling, access management reviews, safety studies, roundabout analysis and design as well as permit reviews and coordination. Ms. Hammonds has successfully completed hundreds of successful traffic & transportation projects. Her unique skills to bring both the client and reviewing agency to agreement on the final product is an asset to the projects she is involved in. She has completed training in HCS, Synchro, Roundabouts and the HSM and is proficient in Synchro, SimTraffic, HCS, VISTRO, SIDRA, CRASH 1, CRASH 3 and Microstation. Additionally, Ms. Hammonds has obtained the following certifications:

- LADOTD Traffic Engineering Process and Reports, Modules I, II, and III
- LADOTD Highway Safety Manual Workshop
- Collecting and Using Automated Pedestrian and Bicycle Counts for Planning and Feasibility Analysis-RPC Course No. A122A-0105
- ATSSA Traffic Control Technician
- ATSSA Traffic Control Supervisor

08/19-ongoing	**S.P. No. H.009932 US 80 Widening: Vancil Rd to Well Rd EA (Ouachita Parish):** Ms. Hammonds is serving as a traffic engineer for this **Environmental Assessment** to improve the corridor by widening the existing roadway and implementing intersection improvement principles along a 1.4-mile portion of US 80. She has assisted in the existing/no-build, safety, and alternatives capacity analysis reports, which have been approved by LADOTD. She analyzed project impacts by coordinating and assisting in developing the line and grade study, cost estimates, and conceptual plans.
03/16-ongoing	**Apollo Rd (LA 93) Extension to Dulles Drive (Scott):** Fenstermaker was selected to provide engineering services to the City of Scott to extend Apollo Road to Dulles Drive. This $14 million dollar construction project included two miles of four-lane boulevard and eight-foot sidewalks to accommodate both bicyclists and pedestrians. The new roadway intersected LA 90 and LA 93, which were designed for a bow-tie intersection and a roundabout,

	respectively. Ms. Hammonds assisted with the development of the roundabout design, median opening review, signage and striping plans.
02/19-08/22	**Farm Road Multi-Bridge Replacement Project (Calcasieu Parish):** Fenstermaker was contracted by Calcasieu Parish Police Jury to provide professional engineering services related to the replacement of two (2) bridges located on Farm Road. Ms. Hammonds is providing traffic engineering services, including the preparation of temporary traffic control plans.
08/19-ongoing	**S.P. No. H.002297 LA 37 (Sullivan Road to Liberty Road) (East Baton Rouge Parish):** Ms. Hammonds is currently serving as the **Lead Traffic Engineer** and is responsible for managing and reviewing all submittals by the traffic sub-consultant, Gresham Smith. Fenstermaker is serving as the prime consultant for this Stage 0 feasibility study and environmental inventory. Ms. Hammonds ensures quality control and is assisting in the development of the Stage 0 Feasibility Study, Environmental Inventory, and conceptual plans.
08/19-ongoing	**Stage 0 Feasibility Study of Modern Roundabouts (Lafayette):** Fenstermaker is responsible for the Stage 0 Feasibility Studies being performed on many conceptual roundabout locations throughout Lafayette Parish for the Acadiana Metropolitan Planning Organization. Ms. Hammonds is serving as the Transportation Engineer and she is responsible for developing the roundabout reports and analyses.
05/20-ongoing	**S.P. No. H.014274 Hanks Dr./Landis Dr. Pedestrian Improvements Phase 2 & 3 (East Baton Rouge Parish):** Ms. Hammonds is serving as the Project Manager and Transportation Engineer for the preliminary and final design plans of for the pedestrian improvements to Hanks Drive and Landis Drive Phase 2 & 3 in accordance with MovEBR and LADOTD design standards for both the pedestrian facilities and drainage system.
05/20-ongoing	**Perrin Ferry Road Improvements (Livingston Parish):** Ms. Hammonds is serving as the Project Manager and Technical Lead for the design of approximately 850-feet of roadway. The project will raise the elevation along the segment of Perrin Ferry Road to provide ingress and egress for the residents along the roadway during large rain events. Ms. Hammonds is coordinating the survey, environmental study and permitting, as well as the Hydraulics & Hydrology Study for this project and associated roadway design.
08/19-03/20	**LA-93 (Westgate Road) at Eraste Landry Road (Scott):** Ms. Hammonds served as the Technical Lead, Analyst and Design Engineer for the modification of the intersection to add a traffic signal. The temporary traffic signal at the intersection was needed to accommodate traffic during construction which resulted in an adjacent roadway closure. Diane prepared the technical analysis as well as report documentation, and signal design. The approval coordination included the LADOTD District 03 staff as well as Headquarters and the Lafayette Consolidated Government.

Firm employed by	**C. H. Fenstermaker & Associates, L.L.C.**				
Name	**Jason Hebert**		Years of relevant experience with this employer	15	
Title	Senior Engineering Technician		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			A.S. / 1993 / Engineering Technology		
Active registration number / state / expiration date			n/a		
Year registered	n/a	Discipline	n/a		
Contract role(s) / brief description of responsibilities			CAD Lead | CAD technology direction and performance		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
Jason Hebert is currently a CAD Operator at Fenstermaker. His main areas of responsibility include preparing survey plats, subdivision plats, topographic plats, roadway plans and profiles, drainage plans, right of way plats, and numerous other plats needed by the division. Prior to his work at Fenstermaker, Mr. Hebert was employed by Southern Structures. While there, he gained experience in detailing drawings for buildings: including beams, columns, and foundation drawings. He is also a specialist in the use of the newest versions of MicroStation, InRoads, and AutoCAD.	
07/11-06/13	**Apollo Road (LA 93) Extension to Dulles Drive (Lafayette Parish):** Fenstermaker performed all topographic survey of cross streets and road tie-ins, cross sections for the purpose of an existing elevation DTM, and locations of all parcel boundaries effected by the proposed right of way. Fenstermaker is responsible for the Additional surveying services include: ASFD survey of all drainage laterals and drainage structures for hydraulic analysis, locating of all utilities and topographic features within an identified area (trees, fences, houses, parking lots, etc.) in order to set permanent control along the project area, and using OPUS solutions to acquire real world coordinates for survey use. Mr. Hebert provided CADD services in support of the submittal of these documents.
06/08-ongoing	**Kaliste Saloom Road Widening, Intersection Improvements, Bridge and CE&I (LA 3076 to LA733) (Lafayette Parish):** The Kaliste Saloom Road Widening project is from Ambassador Caffery Pkwy (LA 3073) to E. Broussard Rd (LA 733). The project commences approximately 1,500' southwest of E. Broussard Rd (LA Hwy 733) and terminates near Ambassador Caffery Pkwy (LA 3073). Fenstermaker is in direct responsible charge of all design components and construction management for improvements. Fenstermaker is responsible for topographic and boundary surveying, ROW plats and the coordination of field survey crews. Mr. Hebert provided CADD services for the production of topographic, boundary, and ROW plats.
09/12-ongoing	**Acadiana Regional Airport Access Road (Iberia Parish):** This project included the design of a new roadway beginning at the intersection of LA 3212 (Prairie Rd) and Grand Prairie Rd with an approximate 1,300-feet extension that intersects with LA 675 (Jefferson Island Rd). Significant features of this project include a 5-legged roundabout, a boulevard extension, and outfall channel regrading. Mr. Hebert was responsible for creating plan and profiles for the project, as well as completing edits to the three-dimensional surface of the proposal roadway.

09/13-10/19	**Sasol Chemicals (USA) LLC Road Traffic Improvements (Calcasieu Parish):** This is a $10 million contract with Fluor for engineering and consulting services which include the design of a 1.5-mile heavy haul route that will be utilized to transport oversized modules from the Calcasieu River to the proposed plant site. Fenstermaker provided topographic, boundary, and route surveying. Services include mapping for the coordination and acquisition of agreements between utility companies, platting for acquisition and dedication of property, and QC services of construction activities that were being conducted on site which included monument review and location mapping. Mr. Hebert provided CADD services for this project.
04/15-02/19	**Coach Williams Extension (Calcasieu Parish):** This project includes the design of a $20 million – 3-mile roadway located in Calcasieu Parish. The new roadway includes a 2 lane open ditch typical section with a roundabout, railroad crossing, Sabine River Authority Canal crossing, and will traverse through multiple wetland areas. Fenstermaker was responsible for coordinating abstracting, topographic survey, and the generation of all right of way and servitude plats. Mr. Hebert provided CADD services to prepare the submittal of these documents to the client.
01/13-ongoing	**Roundabout Improvements: Nelson Road / Ham Reid Road (Calcasieu Parish):** This project involves professional engineering design and planning services related to the improvement of intersection on Nelson Rd at Ham Reid Rd and at Gauthier Road. Fenstermaker is responsible for the Topographical Surveying, Right of Way Plats. Fenstermaker manages Preliminary through Final Plans, Bidding and Contract Phase, and Engineering Services during construction. Mr. Hebert provided CADD services for the preparation of the submittal documents for this project.
04/12-09/13	**S.P. No. H.000698: Baker Canal Bridge (US HWY 61):** As a subconsultant to Huval and Assoc., Inc, Fenstermaker's responsibilities were to survey the existing project extents for the creation of an accurate DTM of the project area, create construction plans for the bridge, demo of the existing bridge, and construction of a detour bridge. Mr. Hebert provided CADD services for this project.

Firm employed by	**C. H. Fenstermaker & Associates, L.L.C.**				
Name	**Aimee Latiolais, P.E.**		Years of relevant experience with this employer	6	
Title	Engineer		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			B.S. / 2001 / Civil Engineering		
Active registration number / state / expiration date			PE.42932 / LA / 03.31.2023		
Year registered	2018	Discipline	Civil Engineer		
Contract role(s) / brief description of responsibilities			Roadway Design		

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).

Ms. Latiolais is a Professional Engineer with six years of experience in design, planning, and construction oversight. Aimee's core experience is in roadway design, both open channel and subsurface drainage systems, traffic studies, line and grade studies, commercial site design, and design of roundabouts. She has served as a design engineer for a multitude of transportation projects ranging from urban local to collector and arterial roadways. Ms. Latiolais is proficient in Bentley Software such as Microstation, Storm and Sanitary, and InRoads; Transoft Solution's AutoTURN; LADOTD's HYDRWIN; and SIDRA INTERSECTION. In addition to her work experience, Ms. Doucet has obtained the following certifications:

- ATSSA Traffic Control Technician
- ATSSA Traffic Control Supervisor
- ATSSA Registered Flagger
- LADOTD Traffic Engineering Process and Reports (TEPR) Module 1, 2, 3

09/15-ongoing	**LADOTD Permit No. 03030387: Kaliste Saloom Road Widening, Intersection Improvements, Bridge and CE&I (LA3073 to LA733) (Amb. Caffery to E. Broussard Rd) (Lafayette):** Latiolais is a Design Engineer for the widening of approximately 1.7 miles of Kaliste Saloom Road, an over-capacity major arterial roadway located in the center of Lafayette, Louisiana. Aimee was responsible for the subsurface drainage design for the entire project and utility relocations at the roundabout intersection, as well as, creating the official Opinion of Probable Cost and necessary construction documents. She also assisted in permitting and agency coordination with LCG, LADOTD, and DHH. She continues to aid in managing the construction effort on this project.
03/16-ongoing	**Apollo Rd (LA 93) Extension to Dulles Drive (Scott):** Ms. Latiolais is the Lead Design Engineer and Engineer of Record for Phase 3 of the new 2.2-mile, 4-lane boulevard roadway in Scott, Louisiana. She is responsible for the design of approximately 0.75 miles of the urban arterial roadway and open channel hydraulics. At the request of the project owners, Ms. Latiolais also produced an informal line and grade study for a multi-lane roundabout intersection with Apollo Road and the future Eraste Landry Road extension.
04/16-10/16	**Sasol LCCP-Heavy Haul Road Engineering and Construction (LA378 & LA379) (Westlake):** This contract includes engineering and consulting services for the completion of various aspects of the Sasol Chemicals (USA) LLC–Lake Charles Chemicals Project (LCCP). Fenstermaker is responsible for the engineering design of the 1.5-mile heavy haul route that will be utilized to transport the oversized modules from the Calcasieu River to the proposed plant site in Westlake, Louisiana. Ms.Latiolais utilized AutoTURN to ensure driveway designs were adequate as part of an access permit application, as well as, determined a cost estimate to realign necessary driveways.

02/17-ongoing	**S.P. No. H.011235.5: I-49 South at Verot School Road (LA 339) (Lafayette):** Ms. Latiolais is a Design Engineer responsible for the widening of existing Verot School Road from Pinhook Road (LA 182) to existing US 90 from a 2-lane roadway to a median separated 4-lane roadway facility. She is designing horizontal and vertical roadway elements, intersection improvements to include a multi-lane roundabout, and open channel and subsurface drainage along Verot School Road, South College Road, Hugh Wallis Road, and the Service Road. Aimee also aided in the project line and grade study and hosting the public meeting which followed the procedures set forth by LADOTD.
06/17-06/20	**S.P. No. H.009932 US 80 Widening: Vancil Rd to Well Rd EA (Ouachita Parish):** Ms. Latiolais is an engineer for the line and grade study portion of the Environmental Assessment. She assisted in the layout of three alternatives to the existing 2-lane roadway, which include combinations of 3-lane, 4-lane median-divided boulevard, and intersection improvements for the 1.4-mile corridor. Intersection improvements include two proposed roundabouts at Vancil Road and Avant Road, which were both designed by Ms. Latiolais. Aimee is also assisting in the preparation of the line and grade study report and cost estimating.
04/17-ongoing	**S.P. No. H.001271 Cane River Bridge Church Street EA (Natchitoches):** Ms. Latiolais served as assisting engineer for the line and grade study portion of the Environmental Assessment. Aimee completed intersection line and grades for the various alternatives proposed and assisted in preparing the line and grade report. She also assisted with the public outreach by hosting public meetings which followed the procedures set forth by LADOTD.
2020-ongoing	**LCG 2020 Drainage Master Plan, Phase 1: Drainage Maintenance Program (Lafayette Parish):** Fenstermaker has been contracted to develop proactive drainage maintenance program. The project includes completing an inventory of the City's drainage staffing levels, equipment, and funding requirements; holding workshops with Parish Staff from maintenance, public works, finance, and civil service to review process and procedures; developing crew, equipment, and contracting options to reduce Requests for Services from an 18-month backlog to four months; prioritizing proactive drainage maintenance for roadside ditches, subsurface drainage, and laterals to reduce service request response time; creating a Story Map for all drainage information in which this webpage will include informative information as well as the capability to track ongoing and future project status. Ms. Latiolais hosted workshops and assisted with the development of reports on current maintenance challenges and recommendations.

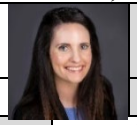
Firm employed by	**C. H. Fenstermaker & Associates, L.L.C.**			
Name	**Kimberly D. McDaniel, P.E., M.S. PTOE**		Years of relevant experience with this employer	2.5
Title	Operation Leader, Engineer		Years of relevant experience with other employer(s)	15
Degree(s) / Years / Specialization			B.S. / 2003 / Civil Engineering M.S. / 2005 / Civil Engineering	
Active registration number / state / expiration date			PE.0032973 / LA / 9.30.2023; PTOE No. 2072/ 8.31.2022	
Year registered	2007	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			Roadway Design and Traffic Control	
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).			

Kimberly McDaniel, P.E., M.S., PTOE currently manages the firm's engineering operations in Baton Rouge, Jennings and Mandeville. She will serve as Roadway Design and Traffic Controlon this project. She has over 18 years of experience in **transportation design, traffic engineering, and project management**. She spent 6 years in state service at LADOTD in Traffic Engineering Management where she developed policies and programs related to Complete Streets, Access Management, and Traffic Impacts and served as the **subject-matter expert on access management and traffic impacts**. The remainder of her career has been spent as a consultant performing a wide variety of traffic engineering and transportation design projects throughout the states of Louisiana, Texas, and Michigan. She is very knowledgeable in the areas of roadway design, sub-surface and open drainage systems, geometric design, innovative intersection design and operation, geometric design, feasibility study requirements, access connection safety and design, corridor studies, interchange modification and justification studies, traffic impact studies, crash analyses, safety studies, low-cost safety improvements, and traffic impact analyses. She has proven successes as a team leader and possesses unique abilities to bring people together to accomplish common goals. She routinely sees projects to completion which are **on-time**, finish within set budgetary constraints, and exceed the project goals. In addition to her work experience, Ms. McDaniel has obtained the following certifications:

Ms. McDaniel developed and managed the **LADOTD Access Management Program**. The policy was adopted as a Louisiana Administrative Code Title 70, Part I, Chapter 15. She wrote the *Access Connections Policy*, expanding the criteria of the code. She developed training courses for LADOTD employees, consultants, contractors, real estate professionals, and elected officials and conducted these trainings throughout the State of Louisiana.

- ATSSA Traffic Control Supervisor/Technician/Flagger
- LADOTD Traffic Engineering Process and Reports, Modules I, II, and III
- NHI Course No. 142005, "NEPA & the Transportation Decision Making Process"
- NHI Course No. 380109, Alternative Intersection and Interchanges
- LADOTD Highway Safety Manual Workshop
- Northwestern University Center for Public Safety, Traffic & Transportation Engineering Seminar; Traffic Impact Analysis Workshop; and Crash Reconstruction for Traffic Engineers
- Northeast Roundabouts, Roundabout Design Workshop

• Local Technical Assistance Program, Regional Crash Data Workshop	
02/19-ongoing	**Farm Road Multi-Bridge Replacement Project (Calcasieu Parish):** Fenstermaker was contracted by Calcasieu Parish Police Jury to provide professional engineering services related to the replacement of two (2) bridges located on Farm Road. Ms. McDaniel serves as Lead Traffic Engineer and is providing traffic engineering services, including the preparation of temporary traffic control plans.
08/19-ongoing	**Apollo Rd (LA 93) Extension to Dulles Drive (Scott):** Fenstermaker was selected to provide engineering services to the City of Scott to extend Apollo Road to Dulled Drive. This $14 million dollar construction project included two miles of four-lane boulevard and eight-foot sidewalks to accommodate both bicyclists and pedestrians. Ms. McDaniel assisted with the development of the roundabout design, median opening review, signage and striping.
01/19-04/20	**S.P. No. H.001271 Cane River Bridge Church Street EA (Natchitoches Parish):** Ms. McDaniel served as the Lead Traffic Engineer for this Environmental Assessment for the replacement of the Cane River Bridge. She was responsible for the analysis of multiple future traffic scenario alternatives as well as three different complex detour scenarios for the replacement of the Cane River Bridge. She assisted with the development of the final EA document which received approval on the first known LADOTD and FHWA "net benefit determination" for Section 4(f) properties in Louisiana. She assisted in the development a Finding of No Significant Impact (FONSI) document, which was approved by FHWA and LADOTD. Ms. McDaniel also assisted in coordinating public and agency outreach activities. The Cane River Project received a LADOTD Environmental rating score of 4.8/5.0.
01/19-ongoing	**S.P. No. H.009932: US 80 Widening-Vancil Rd to Well Rd (Ouachita Parish):** Ms. McDaniel serves as traffic and safety project engineer for the **Environmental Assessment study** for capacity/safety improvement of a 1.4-mile portion of US 80. She developed traffic models for a variety of alternatives, identified safety improvements, and determined geometric configurations to increase traffic capacity. Alternatives included roundabouts.
1/19-ongoing	**S.P. No. H.002297 LA 37 (Sullivan Road to Liberty Road), (East Baton Rouge Parish):** Ms. McDaniel is currently serving as Project Principal and is responsible for directing all engineering, environmental, and planning services required to determine necessary improvements along the LA 37 corridor from Sullivan Road to Liberty Road. Upon completion of all analyses, a final Stage 0 Feasibility Report including the Stage 0 Checklist, Environmental Checklist, roadway engineering plans, and the opinion of probable cost will be developed.
04/15-12/18	**LADOTD Traffic Engineering Retainer Contract (Statewide–LA):** Ms. McDaniel served as project manager and lead traffic engineer for a three-year IDIQ-type contract. She managed this **$3 million contract** with various associated task orders for a variety of traffic engineering studies and evaluations throughout Louisiana. Services included traffic engineering studies, corridor studies, safety and crash analyses, traffic signal design, traffic data collection, signing and pavement marking designs, traffic signal timing studies, and intersection design.

Firm employed by	**C. H. Fenstermaker & Associates, L.L.C.**			
Name	**Bradford Habetz Millett, PLS, EI** 		Years of relevant experience with this employer	8
Title	Surveyor I		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			B.S. / 2014 / Civil Engineering	
Active registration number / state / expiration date			PLS.5245 / LA / 3.31.2023 | EI.32848 / LA / 9.30.22	
Year registered	2020	Discipline	Professional Land Surveyor	
Contract role(s) / brief description of responsibilities			Lead Surveyor | Professional Land Surveyor leading/directing topographic and property surveys and preparing right of way maps	

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).
Bradford Habetz Millett, PLS, EI is an Engineer Intern and Professional Land Surveyor in Fenstermaker's Advanced Technology Group, and has 8 years of surveying, management, and coordination experience. While working at Fenstermaker, Ms. Millett attended the University of Louisiana at Lafayette and earned a degree in Civil Engineering in 2014. Her current responsibilities consist of field crew coordination, data collection and processing, layout and design of boundary and right of way maps, ALTA surveys and Development and Planning subdivision platting process, client relations, utility coordination, cost estimating, scoping, scheduling, planning and other components associated with surveying services. She also currently holds a Transportation Worker Identification Credential (TWIC).	
10/18-05/19	**Farm Road Multi-Bridge Replacement (Calcasieu Parish):** Fenstermaker was contracted by Calcasieu Parish Police Jury to provide professional engineering services related to the replacement of two (2) bridges located on Farm Road. Ms. Millett is the lead surveyor, providing survey crew coordination, boundary and right-of-way surveys, parcel revisions, construction surveys, utility coordination, reviewing survey data, and coordinating with the abstractor.
04/15-02/19	**Coach Williams Blvd. Extension (Calcasieu Parish):** This project consisted of engineering design services for the construction of the extension of Coach Williams Drive to connect to Houston River Road (LA 379). Fenstermaker is the prime on this project and is responsible for the environmental assessments prior to design, drainage design, pavement design, and the geometrics of the road. In addition, Fenstermaker conducted the surveying required to design the road. Ms. Millett's responsibilities included coordinating and reviewing appraisal reports and plats, coordinating all the topographic and boundary surveys, processing data and coordinating with utility companies within the proposed route.
05/13-02/20	**S.P. No. H.010620: US 90 (I-49 South) Albertson Pkwy to Ambassador Caffery Design-Build:** This project was a proposed upgrading of a portion of US 90 in Lafayette Parish to a six-lane controlled access facility to also include improvements to the existing east and westbound frontage road system, construction of a new six-lane US 90 overpass structure over both Albertson Parkway and the existing Burlington Northern Santa Fe Railway facility,

	and construction of all associated US 90 mainline ramps needed to connect these overpass structures and frontage roads. Ms. Millett was responsible for reviewing all LADOTD right-of-way maps.
11/08-ongoing	**LADOTD Permit No. 03030387: Kaliste Saloom Road Widening, Intersection Improvements, Bridge, and CE&I (LA 3073 to LA 733) (Amb. Caffery to E. Broussard Rd) (Lafayette):** Fenstermaker was responsible for the widening of approximately two miles of Kaliste Saloom Road, a highly congested major arterial roadway located in the center of the City of Lafayette. The project was then split into three phases to include drainage outfall construction, utility relocations, and roadway construction. Fenstermaker is the direct responsible charge of all design components and construction management for improvements. Ms. Millett assisted with topographic and boundary surveying, utility relocation, right of way plats, drainage design, as-built surveys, drainage design, sign and striping layout, and coordination of survey crews in the field for Phases 3A and 3B.
09/13-10/19	**Fluor – Sasol LCCP-Heavy Haul Road (LA378 & LA739) (Calcasieu Parish):** This is a $12.9 million contract with Fluor for engineering and consulting services which include the design of a 1.5-mile heavy haul route that will be utilized to transport oversized modules from the Calcasieu River to the proposed plant site in Westlake, Louisiana. Ms. Millett was responsible for topographic and boundary data collection and data processing, as well as the generation of Louisiana DOTD Right of Way Maps for the 1.5-mile corridor to acquire servitudes and right of ways. She was also in charge of utility coordination for the relocation of AT&T lines throughout the route.
09/12-ongoing	**Acadiana Regional Airport Access Road (Iberia Parish):** This project includes the design of a new roundabout at the intersection of LA 675, US 90 Frontage Road, and the Acadiana Regional Airport Access Road (currently under construction). Ms. Mille is responsible for the topographic and boundary surveys, as well as the development and review of right of way maps.
08/14-ongoing	**Roundabout Improvements: Nelson Road / Ham Reid Road (Calcasieu Parish):** This project involves professional engineering design and planning services related to the improvement of the intersection on Nelson Road at Ham Reid Road and at Gauthier Road. Ms. Millett worked on the engineering design and utility coordination with all utility companies within conflict.
05/12-ongoing	**Apollo Road (LA 93) Extension to Dulles Drive – (Lafayette Parish):** Fenstermaker performed all topographic surveying of cross streets and road tie-ins, cross sections for the purpose of an existing elevation DTM, and locations of all parcel boundaries effected by the proposed right of way. Ms. Millett created the plats for the acquisition of servitudes and right of ways.
04/16-09/18	**Lebesque Road Bridge Replacement and Road Reconstruction (Lafayette):** Fenstermaker was contracted by Lafayette Consolidated Government to provide the design of the replacement of Lebesque Bridge and Lebesque Road Reconstruction. Ms. Millett served as the lead surveyor, providing survey crew coordination, utility coordination, boundary surveys and right-of-way plats.

Firm employed by	**C. H. Fenstermaker & Associates, L.L.C.**				
Name	**Shalin Townsend, P.E.**		Years of relevant experience with this employer	<1	
Title	Engineer		Years of relevant experience with other employer(s)	5.5	
Degree(s) / Years / Specialization			B.S. / 2015 / Civil Engineering		
Active registration number / state / expiration date			PE.44629 / LA / 09.30.2022		
Year registered	2020	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Traffic Control		

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).
Shalin Townsend, P.E. is a Professional Engineer and has managed various capital improvement projects such as intersection improvements and disaster recovery projects. She has also recommended and implemented safety countermeasures and improved traffic engineering processes and has provided traffic operation support. Ms. Townsend is well versed in team leading and serves on various regional and local transportation safety and planning committees. Additionally, Ms. Townsend has obtained the following certifications: LADOTD Traffic Engineering Process and Reports, Modules I, II, and III.	
05/20-08/21	**Traffic Engineer, PE 1 – Calcasieu Parish Police Jury** As a traffic engineer for the Calcasieu Parish Police Jury, Ms. Townsend served as a project manager and developed and managed contracts. She performed subdivision planning, permitting reviews. and small-scale safety studies. She also generated developer agreements. Ms. Townsend worked on various transportation and traffic projects and conducted crash data analyses, recommended traffic mitigations, and developed temporary traffic control plans. Her notable projects include the Parish's Annual Striping Project, Hurricane Recovery Projects, the Red Davis McCollister Road Roundabout, and the Calcasieu Parish-wide Traffic Count Database.
01/16-05/20	**Engineering Intern – Calcasieu Parish Police Jury** During her experience as an engineer intern with Calcasieu Parish, Ms. Townsend analyzed crash data, performed stopping sight distance, ball bank, speed, and other safety studies, performed development reviews, and coordinated permits and road closures.
09/21-ongoing	**Canfor Sawmill Cypress Site (Deridder):** Ms. Townsend is serving as the engineer developing the traffic impact study for the new sawmill development. The study is required to meet all requirements of the LADOTD Traffic Engineering Process and Report. Analysis includes two unsignalized intersections and three proposed access points utilizing the HCS Software package.
08/21-ongoing	**Honeybee Residential Subdivision (Lacombe):** Ms. Townsend is serving as the engineer developing the traffic impact study for a new 1,000 lot residential development. The study is required to meet all requirements of the LADOTD Traffic Engineering Process and Report. Analysis includes two proposed access connections on US-190, and 5 existing intersections utilizing the HCS Software package.

17. **Firm Experience:** Project 1

Firm name	**HDR Engineering, Inc.**		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	Harrisburg/UPRR Overpass		Firm responsibility (prime or sub?)	Sub	
Project number	Ct 1400050	Owner's name	Metropolitan Transit Authority of Harris County (METRO)		
Project location	Harris County, TX		Owner's Project Manager	Mike Tegethoff, METRO PM (Retired)	
Owner's address, phone, email	1900 Main St., Houston, Texas 77002 | (713) 635-4000				
Services commenced by this firm	2014		Total consultant contract cost ($1,000's)	N/A	
Services completed by this firm	2015		Cost of consultant services provided by this firm ($1,000's)	$750	

HDR designed the Harrisburg overpass crossing over Union Pacific Railroad tracks UPRR tracks in East Houston. The nine-span bridge has a typical section consisting of two light rail tracks (operated by METRO), two highway lanes and two sidewalks. HDR acting as a subconsultant was responsible for the Bridge design. The first task performed was a full schematic review, evaluation, and refinement. HDR designed and supervised the design of bridge components including pre-stressed concrete TX54 I-girders, deck design, substructure design, special railing details, track plinth design, rail structure interaction model, approach slab design, surface cased drilled shafts due to contaminated soil, OCS pedestal details and OCS/light pole anchorage design. During construction a surprise utility was in conflict of the planned foundation and HDR designed a straddle footing to avoid the conflict and preserve the contractor's schedule. Beneath the structure there are access roads to nearby businesses. HDR performed geometric studies to make sure that the required horizontal clearance to face of columns was achieved.

The railroad coordination included meetings, development of exhibits and validation of clearances. Houston METRO design criteria as well as TxDOT and AASHTO Standard Specifications were used. The additional roadway items included the roadway approaches, railroad crossing gates, drainage, public hardscape aesthetics, and lighting.

HIGHLIGHTS OF THIS PROJECT INCLUDE:

- Working in a difficult site with contaminated soil and located in a historic neighborhood with a cultural stakeholder perspective.
- Stakeholder input led to bridge aesthetics to enhance the neighborhood.

HDR MEMBERS INVOLVED: Kenny Ozuna

17. **Firm Experience:** Project 2

Firm name	**HDR Engineering, Inc.**		Past Performance Evaluation Discipline(s)*	Roadway, Bridge	
Project name	FM 528/BNSF Overpass		Firm responsibility (prime or sub?)	Prime	
Project number	N/A	Owner's name	City of Alvin		
Project location	Alvin, TX		Owner's Project Manager	Michelle Segovia, City Engineer	
Owner's address, phone, email	216 W Sealy St, Alvin, TX 77511 | (281) 388-4341 | msegovia@cityofalvin.com				
Services commenced by this firm	2018	Total consultant contract cost ($1,000's)	$1,450		
Services completed by this firm	ongoing	Cost of consultant services provided by this firm ($1,000's)	$1,450		

The purpose of the proposed project is to increase safety, improve traffic operations, increase emergency access and reduce traffic delay along a congested and developing FM 528 corridor. HDR developed a geometric schematic of the project showing the project to be built in 2 phases. The Ultimate build out will include two lanes in each direction (4 lanes total) and a sidewalk along the south side of the road. Our project is for the design of phase 1 that provides two lanes (one lane in each direction) and the sidewalk. Phase 2 is planned to be designed & constructed in the future.

HDR performed designs for building a new two-lane curbed roadway, Drainage design, and a new grade separation (overpass) over the existing Burlington Northern Santa Fe (BNSF) railroad tracks. HDR completed designs according to TxDOT design criteria along with the UPRR/BNSF railroad criteria for grade separation structures.

HDR completed the planning, design and details for a 1,000-ft long bridge overpass crossing over the existing BNSF Railroad Tracks with Mechanically Stabilized Earth (MSE) retaining walls at each end of the bridge. HDR designed and detailed- sound walls between the road and adjacent residential neighborhoods, aesthetic treatments to bridge columns, embankments, fill slopes, drainage, safety lighting and new pavement. Additional design features performed by HDR are new signalized intersections at SH 35B (Gordon Street) and modified signal timing at SH 6.

Summary- HDR provided PS&E for design of roadway, retaining walls, sound walls, storm sewer, bridge over RR crossing, detention ponds, illumination, traffic control plans, signing & pavement marking, utilities, SWPPP. HDR also prepared the traffic analysis report, geotechnical and drainage reports.

HIGHLIGHTS OF THIS PROJECT INCLUDE:

- Principal arterial bridge over BNSF railroad crossing
- Project in special flood hazard area
- Retaining walls, Sound walls, foundation improvements
- Increased emergency access &alternative route for hurricane evacuation

HDR TEAM MEMBERS: Kenny Ozuna, Keith Neshyba

17. **Firm Experience:** Project 3

Firm name	**HDR Engineering, Inc.**		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	Beltway 8 - Houston Ship Channel Bridge		Firm responsibility (prime or sub?)	Prime	
Project number	Contract 345 & 347	Owner's name	Harris County Toll Road Authority (HCTRA)		
Project location	Harris County, TX		Owner's Project Manager	Mike Perez PE, HCTRA PM	
Owner's address, phone, email	7701 Wilshire Place Drive, Houston TX 77040 | (281) 875-3279 | mikeperez@shipchannelbridge.org				
Services commenced by this firm	2013	Total consultant contract cost ($1,000's)	$450,000		
Services completed by this firm	2017	Cost of consultant services provided by this firm ($1,000's)	$450,000		

HDR designed the south approach structures for new twin bridges to replace the existing Houston Ship Channel Bridge, which carries Sam Houston Tollway-East over the Houston Ship Channel. Each bridge is over a mile long with four traffic lanes and two full shoulders for approximately 800,000 square feet of bridge deck. The approach structures interface with the main bridge to the north and the SH 225 interchange to the south and incorporate corridor wide aesthetic treatments. The new bridges also provide an interface to allow for future direct connectors at the SH 225 interchange.

The project required the design of 42 prestressed concrete girder spans per bridge and a wide variety of substructure and foundation elements. The substructure design was affected by difficult site constraints including nine railroad tracks, multiple access roads, existing foundation elements, poor soil, highly skewed box culverts, an operating petcoke facility with a raised conveyor system, and approximately 90 utilities. Despite the large number of obstacles, the new bridge was designed such that only one buried water line and a few overhead power lines required relocation. Railroad coordination included survey of existing tracks, determining proposed vertical and horizontal clearances and preparation of the Exhibit A or the submittal package for the railroad to review and approval. Utility coordination included developing exhibits showing clearances, meetings and development of plan notes to keep nearby operations from damaging old and critical utilities feeding into ship channel facilities.

HIGHLIGHTS OF THIS PROJECT INCLUDE:

- Railroad exhibits and coordination.
- Challenging site constraints including nine railroad tracks and foundation design in soft soils
- Delivery of common design details with a consistent appearance across multiple firms.
- Multiple public and private stakeholder coordination.

HDR TEAM MEMBER: Keith Neshyba, Kenny Ozuna

17. **Firm Experience:** Project 4

Firm name	**HDR Engineering, Inc.**	Past Performance Evaluation Discipline(s)*	Bridge
Project name	I80WB over Iowa Railroad & BNSF	Firm responsibility (prime or sub?)	Prime
Project number		Owner's name	Iowa Department of Transportation (Iowa DOT)
Project location	Council Bluffs, Iowa	Owner's Project Manager	Ronald Meyer, PE – Iowa DOT Consultant Coordinator
Owner's address, phone, email	800 Lincoln Way, Ames, IA 50010 – 515-239-1737 – Ronald.Meyer@iowadot.us		
Services commenced by this firm	05/2006	Total consultant contract cost ($1,000's)	$2,049
Services completed by this firm	01/2012	Cost of consultant services provided by this firm ($1,000's)	$1,921

The HDR design team was responsible for final design of the I-80 Westbound, Ramp G and Ramp A bridges of the CBIS East System Interchange. The three connected bridges are part of the reconstruction of a multilevel interchange accommodating Interstates 80 and 29. Additionally the HDR team designed the bridges for the I-80 Westbound and I-29 Northbound bridges over South Expressway/IA 92.

The HDR team developed design criteria, standardized column and cap dimensions, and provided foundation coordination, constructability and erection reviews, girder depth studies, Iowa Interstate Railroad drainage system conflict resolution, Load Factor Operating Ratings, framing plan layouts, bearing fixity/force and thermal analyses, and pour sequence analyses. In addition, the team updated structures (.str) files, incorporated local aesthetic bridge components, and provided project management, coordination, and quality control, including attendance at project coordination meetings and web conferences.

HDR also developed the Aesthetics Master Plan for the entire CBIS corridor to establish a consistent, attractive corridor theme that complements the character of the existing landscape and incorporates locale-specific details. In order to develop an aesthetics plan that is fully integrated into ongoing community planning initiatives and incorporates varying community interests, an Aesthetic Subcommittee (ASC) was formed. Representing key stakeholder groups in Council Bluffs and Iowa, this group met several times over the course of the project to assist in formulating recommendations for aesthetic improvements.

Through positive and proactive public involvement, the plan's goal is to establish an attractive and distinctive corridor. In addition to improving the appearance of the corridor, the plan also considers the safety, ease of maintenance, and economy of all aesthetic recommendations.

HDR MEMBERS INVOLVED: This project was not led by our Louisiana-based or proposed project staff, however the project is part of HDR's extensive national expertise (which can be called upon if needed) and is a representative of the capabilities of the proposed staff in our organization.

17. **Firm Experience:** Project 5

Firm name	**HDR Engineering, Inc.**	Past Performance Evaluation Discipline(s)*	Bridge, Environmental
Project name	Columbus Viaducts	Firm responsibility (prime or sub?)	Prime
Project number		Owner's name	City of Columbus
Project location	Columbus, Nebraska	Owner's Project Manager	Rick Bogus, City Engineer
Owner's address, phone, email	2124 14th St, PO Box 1677, Columbus NE 68202-1677 | (402) 562-4235 | rick.bogus@columbusne.us		
Services commenced by this firm	06/2007	Total consultant contract cost ($1,000's)	$5,194
Services completed by this firm	12/2020	Cost of consultant services provided by this firm ($1,000's)	$4,785

The City of Columbus has an average of 80 trains traveling through the city per day, a rate that is anticipated to increase over time. The City, in coordination with Union Pacific Railroad (UP) and Nebraska Department of Transportation (NDOT), executed an agreement that outlines a comprehensive multi-year viaduct plan for Columbus. The plan calls for the overall grade separation of the UP rail corridor through Columbus, which, if fully implemented, will consist of three vehicular viaducts and two pedestrian viaducts, along with the closure of seven at-grade vehicular and one at-grade pedestrian crossings.

HDR evaluated viaduct concepts, finding solutions that would resolve critical issues while minimizing impacts to residents and fit within the allocated budget. HDR's analysis included preliminary environmental investigations, traffic analysis and alternative evaluations for the proposed alignments.

Upon selection of the preferred alternative, HDR prepared a draft Environmental Assessment in compliance with NEPA requirements and prepared final bridge and roadway design plans for the first phase of viaducts including vehicular bridges at 3rd and 12th Avenues and a pedestrian overpass at 18th Avenue.

HDR provided construction engineering and inspection services for the 3rd Avenue and 18th Avenue Bridges, which are both open to the public. Under a separate contract, HDR also provided construction engineering services for the 12th Avenue Bridge, which is also now open and under final project closeout. Both projects followed the NDOT LPA process and documentation procedures and standards. The inspection and materials testing followed NDOT procedures, including the use of Site Manager, On Base and RUG software.

HIGHLIGHTS OF THIS PROJECT INCLUDE: On the 18th Avenue Bridge, the Nebraska Department of Environment and Energy (NDEE) monitoring wells presented conflicts that put the schedule and relocation of the wells at risk, due to the environmental commitments. HDR worked with NDEQ, EPA and FHWA to resolve the conflict with a solution that allowed construction to continue. The contractor proceeded with erecting the girders during daytime hours, which provided improved safety for the contractor and the traveling public, while safeguarding the NDEE monitoring wells.

HDR MEMBER INVOLVED: This project was not led by our Louisiana-based or proposed project staff, however the project is part of HDR's extensive national expertise (which can be called upon if needed) and is a representative of the capabilities of the proposed staff in our organization.

17. **Firm Experience:** Project 6

Firm name	**HDR Engineering, Inc.**		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	SH 43 Bridge over KCS in Karnack		Firm responsibility (prime or sub?)	Prime	
Project number	10059956	Owner's name	Texas Department of Transportation - Atlanta District		
Project location	Karnack, TX		Owner's Project Manager	Glenn Yowell, District Design Engineer	
Owner's address, phone, email	701E. Main St, Atlanta, TX 75551 | (903) 799-1204 | Glenn.Yowell@txdot.gov				
Services commenced by this firm	05/2017	Total consultant contract cost ($1,000's)	$288		
Services completed by this firm	04/2021	Cost of consultant services provided by this firm ($1,000's)	$219		

HDR developed the plans, specifications and estimates for the widening of SH43 over the KCS Railroad in Karnack, Texas. The existing three-span continuous steel girder bridge was widened utilizing low profile concrete box beams to preserve the existing vertical clearance. The widening also incorporated extensive rehabilitation of the existing bridge, including replacement of the existing bridge deck with a new concrete deck made composite with the existing steel girders. Minor repairs to concrete substructures, and bearings as well as painting the existing steel beams were also incorporated. The existing bents within the railroad right of way were retrofitted with pier protection walls to improve the overall safety of the bridge. HDR prepared Exhibit A documents to facilitate railroad coordination through TxDOT's District Office. Special attention was given in the plans towards maintaining existing drainage within the RR ROW during construction.

HIGHLIGHTS OF THIS PROJECT INCLUDE:
Bridge designed for widening and rehabilitation of an existing bridge in rural area which improved overall safety and coordination towards maintaining existing drainage within RR ROW. Innovative use of low profile PPC box beams to maintain vertical clearance and minimize geometric/grade increases.

HDR TEAM MEMBERS: Greg Kochersperger

17. **Firm Experience:** Project 7

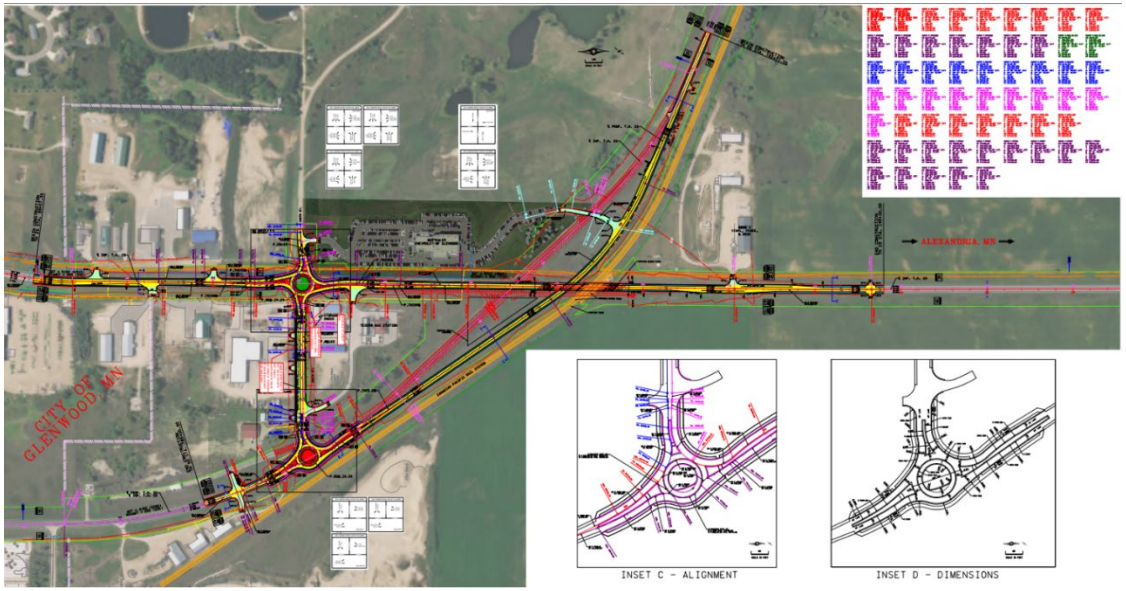
Firm name	**HDR Engineering, Inc.**		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	Glenwood Bridge at TH 29 over TH 55/CP		Firm responsibility (prime or sub?)	Prime	
Project number	10196900	Owner's name	Minnesota Department of Transportation (MnDOT)		
Project location	Glenwood, Minnesota		Owner's Project Manager	Karl Johnson	
Owner's address, phone, email	3485 Hadley Avenue North, Oakdale, MN 55128, 651-366-4521, karl.johnson@state.mn.us				
Services commenced by this firm	10/2019	Total consultant contract cost ($1,000's)	$396.7		
Services completed by this firm	10/2020	Cost of consultant services provided by this firm ($1,000's)	$396.7		

Located north of the City of Glenwood at the intersection of Trunk Highway (TH) 29 and TH 55, the project will construct a new bridge over the Canadian Pacific (CP) railroad and TH 55 on TH 29. The overpass will eliminate the at-grade crossing of the railroad and skewed intersection with TH 55. The original contract Scope of Work included preparation of preliminary bridge plans and was later amended to include the final bridge design. The bridge was designed on a 45° skew to accommodate the CP Railway tracks and relocated TH 55 through the bridge opening. The 156′ center spans crossing TH 55 and the railroad was set to clear the 100′ CP Railway right-of-way utilizing 63″ prestress concrete beams. Each pier was designed with a crash strut as pier protection from both the railroad and Highway 55. Due to the skewed pier stiffness, a single fixed pier option was chosen to reduce the loads on the substructures and minimize the number of piles.

HDR assisted MnDOT with railroad coordination activities, providing supporting documentation and design acceptable to the CP for the railroad agreements.

Under a separate contract, HDR prepared the adjacent roadway design in coordination with the bridge project for MnDOT District 4.

Construction of the bridge is anticipated to start Spring 2022.



HIGHLIGHTS OF THIS PROJECT INCLUDE:

- New bridge design to eliminate at-grade crossing of railroad and skewed intersection with highway

HDR MEMBERS INVOLVED: This project was not led by our Louisiana-based or proposed project staff, however the project is part of HDR's extensive national expertise (which can be called upon if needed) and is a representative of the capabilities of the proposed staff in our organization.

17. **Firm Experience:** **Project 8**

Firm name	**HDR Engineering, Inc.**		Past Performance Evaluation Discipline(s)*	Bridge, Other	
Project name	US 90 RR Overpass/Underpass Southeast of LA 85		Firm responsibility (prime or sub?)	Sub	
Project number	400003362	Owner's name	Louisiana Department of Transportation and Development		
Project location	Iberia Parish, LA		Owner's Project Manager	Connie Porter Betts	
Owner's address, phone, email	1201 Capitol Access Rd, Baton Rouge, LA 70802 | (225) 379-1297 | connnie.porter@la.gov				
Services commenced by this firm	01/2014	Total consultant contract cost ($1,000's)		N/A	
Services completed by this firm	07/2014	Cost of consultant services provided by this firm ($1,000's)		$75	

HDR conducted a comprehensive Stage 0 Feasibility Study in accordance with the Louisiana Department of Transportation and Development (LADOTD) Stage 0 Manual of Standard Practice to identify improvements at the existing U.S. Route 90 (US 90) rail crossing located between Louisiana Highway 85 (LA 85) and Louisiana Highway 668 (LA 668) in Iberia Parish. The purpose of this study was to identify alternatives that provide safer traffic flow along US 90 at the M.A. Patout & Son, Ltd. (Enterprise Factory) rail crossing, meeting criteria for the future upgrade of US 90 to Interstate-49 (I-49) South. Crash reports indicate an abnormal pattern of crashes at this location.

LADOTD coordinated with the Enterprise Factory on two alternatives for the US 90 rail crossing. Alternative 1 would decommission and remove the existing at-grade rail crossing at US 90 and construct a utility tunnel under the roadway to transport molasses and raw sugar to a loading site on the west side of US 90. Alternative 2 proposes to construct an overpass at the US 90 rail crossing to allow for Enterprise Factory facilities to be maintained without disturbing daily operations of the factory. Working as a sub-consultant, HDR analyzed alternatives to determine their feasibility with respect to existing safety concerns, corridor cohesion between proposed roadway improvements and existing conditions.

HDR developed Alternative 1, the pipeline alternative. HDR's tasks included developing a schematic flow diagram of loadout facility alternative; modeling to define size/capacity of tanks and pumps; evaluating structural (tank foundations) and mechanical requirements (piping & valves); preparing a conceptual track layout; preparing civil, mechanical, structural, and electrical infrastructure layouts; refining loadout facility alternative bid items, quantities, and cost estimate; identifying potential environmental impacts; assisting in developing and reviewing the Stage 0 report.

HIGHLIGHTS OF THIS PROJECT INCLUDE:

- Comprehensive Stage 0 Feasibility Study
- Alternatives Analysis for a US 90 Rail Crossing
- Improve Traffic Flow, Safety, and Transportation of Sugar Products
- Infrastructure Layouts and Cost Estimates

HDR MEMBERS INVOLVED: Garland Pennison

18. **Firm Experience:** Project 9

Firm name	**HDR Engineering, Inc.**		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	Union Pacific Railroad Bridge over Bayou Lafourche		Firm responsibility (prime or sub?)	Prime	
Project number		Owner's name	Bayou Lafourche Freshwater District (BLFWD)		
Project location	Donaldsonville, Louisiana		Owner's Project Manager	Benjamin J. Malbrough, P.E.	
Owner's address, phone, email	1016 St. Mary Street, Thibodaux, LA 70301 | (985) 447-7155 | ben.malbrough@blfwd.org				
Services commenced by this firm	07/2015		Total consultant contract cost ($1,000's)	$330	
Services completed by this firm	12/2016		Cost of consultant services provided by this firm ($1,000's)	$315	

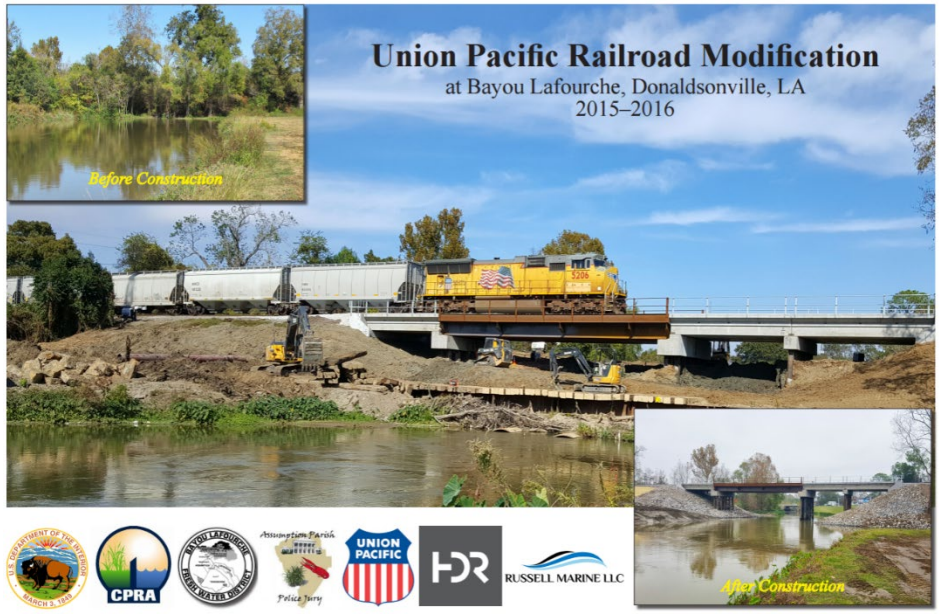
Problems with existing drainage crossing structures at Union Pacific Railroad (UP) across Bayou Lafourche were identified in previous studies assessing potential of increasing freshwater flow from the Mississippi River into Bayou Lafourche for public water utilities and wetlands restoration. Existing drainage structures include two 10-foot diameter structural plate culverts and one 4-foot square reinforced concrete box. Abandoned center pier foundation for an earlier swing bridge crossing required subsurface investigation to determine approximate limits and avoid conflict with proposed bridge foundations.

HDR expedited coordinating site investigatory services including surveying, SUE, geotechnical, and wetland delineations. We evaluated bridge hydraulics and secured wetlands permitting. HDR coordinated closely with the permitting agencies to obtain a permit within the project scheduling constraints. HDR coordinated closely with UP's project team and prepared preliminary and final design drawings on an expedited basis. Final design and approval was expedited utilizing HDR's master services agreement with UP. BLFWD reimbursed UP for HDR's design cost which is included in total consultant contract cost. The proposed multi-span bridge extends 165 feet across Bayou Lafourche's reopened channel, increasing conveyance capacity from the Mississippi River and reducing flooding risk in Donaldsonville from higher pumping rates. Bridge and track design includes phased construction, providing for continuous rail service on this key UP route. Construction was completed in 2016.

HIGHLIGHTS OF THIS PROJECT INCLUDE:

- Concept design to structural final plans on a fast-track basis.
- Coordination with and design approval by UP on an expedited schedule.
- Expedited environmental permitting and coordination with LaDOTD.

HDR MEMBERS INVOLVED: Garland Pennison



17. **Firm Experience:** Project 10

Firm name	**HDR Engineering, Inc.**		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	LADOTD Statewide Bridge Inspections (Task Orders 1 & 3)		Firm responsibility (prime or sub?)	Sub	
Project number	4400013322	Owner's name	Louisiana Department of Transportation and Development		
Project location	Statewide – Alexandria and Teche Bayou, LA		Owner's Project Manager	Hayle Brown, PE	
Owner's address, phone, email	1201 Capitol Access Rd, Baton Rouge, LA 70802, 225-379-1500, hayle.brown@la.gov				
Services commenced by this firm	11/19	Total consultant contract cost ($1,000's)		$275	
Services completed by this firm	Ongoing	Cost of consultant services provided by this firm ($1,000's)		$275	

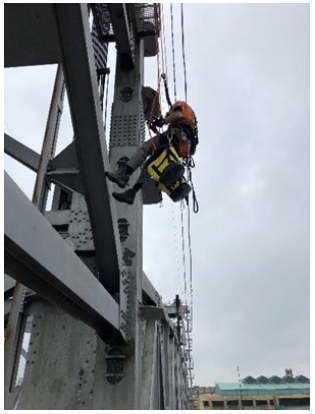
HDR performed in-depth inspections of the main span features of the Jackson Street Vertical Lift Bridge over the Red River in Alexandria, LA in February 2020 and the main span of Teche Bayou Vertical Lift Bridge in December 2020. The Red River main span is a 300 ft vertical lift span supported by two steel truss towers over 100 feet in height. The main truss span accommodates two lanes of traffic with shoulders. The two-lane Teche Bayou Vertical Lift is a 65 ft long deck girder span with two – 60-ft-plus – steel braced column towers framed together

HDR performed the mechanical and electrical systems in depth inspections including: machinery, open gearing, speed reducers, shafts/bearings, brakes, emergency drives, live load shoes, strike plates, counterweights, lift cables, sheaves, span locks, transformers, thyristors, conduit, junction boxes, programmable logic controllers (PLC), control console, warning lights/gates, traffic signals, and navigation lights. The bridge control system is comprised of drum controlled switch motor controls, relays and motor starters. The lift span is operated by one 40hp wound rotor main span motor per tower, and the lift span skew control system relies on a synchro-tie motor system with motors similar to the main span motors. HDR prepared reports outlining the inspection findings and remediation/improvement recommendations.

The typically two-lane roadways were reduced to single-lane operation when required, using traffic control devices and flagmen to allow for use of hydraulic lifts and snooper trucks for inspection of the underside and substructure of the bridge. Rope access techniques were employed for inspection of towers, and portions of the (Jackson Street Bridge) main span truss.

While this project is not design related it is an example of successful bridge work HDR is currently executing with LADOTD.

HDR MEMBERS INVOLVED: Wesley Jacobs, Jason Abendroth, Keith Salais



17. Firm Experience: Project 11

Identify the team's project experience most relevant to the scope in the advertisement. The projects should be limited to a total of 30, with no more than 10 projects being represented by a single firm on the team. If more than 30 projects are identified, all projects identified after the first 30 will not be evaluated. If more than 10 projects are identified for a single firm, all projects identified after the first 10 from that firm will not be evaluated. Include no more than one page per project. Projects identified shall only include work performed by firms on the team. The projects identified do not necessarily need to have been DOTD projects.

Firm name	**C. H. Fenstermaker & Associates, L.L.C.**		Past Performance Evaluation Disciplines(s)*	Road, Survey, ROW	
Project name	**US 90 (I-49 South) Albertson Parkway to Ambassador Caffery**		Firm responsibility (prime or sub?)	Sub	
Project number	H.010620	Owner's name	Louisiana Department of Transportation and Development		
Project location	Lafayette Parish, LA		Owner's Project Manager	Peggy Jo Paine, PE	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802-4438, (337) 475-4287, Peggy.Paine@la.gov				
Services commenced by this firm (mm/yy)	02/13	Total consultant contract cost ($1,000's)		$4,939	
Services completed by this firm (mm/yy)	01/20	Cost of consultant services provided by this firm ($1,000's)		$3,082	

US 90 (I-49 SOUTH) was a **$69.4 million award-winning construction project** to **widen** U.S. Highway 90 from four lanes to a six-lane, control-of-access facility designed to interstate standards. Fenstermaker was the lead design firm through a joint venture with James Construction Group (Primoris) for this **high-profile design-build project**. The design included **geometric improvements** to several miles of frontage roads; construction of a grade separated, six-lane overpass structure over the existing BNSF railroad facility; a grade separated, six-lane overpass **interchange** over Albertson Parkway; associated mainline entry/exit ramps to connect overpass structures and frontage roads; new **signalized intersections**; intersection design; Mechanically Stabilized Earth Retaining Walls (MSEW); and drainage structures.

FENSTERMAKER PROJECT PERSONNEL

Travis Bodin, PLS, PMP
Dax Douet, P.E.
Luke Hebert, P.E.
Bradford Millett, PLS, EI

KEY FEATURES

ROADWAY

-9,307-ft. of new 6-lane interstate mainline roadway
-18,300-ft. of both arterial and collector roadway
-3,100-ft. of new interstate entry/exit ramps

BRIDGE STRUCTURES

-1,233-ft of new girder span bridge structures

INTERSECTIONS

-2- multilane signalized intersections

SURVEYING/ROW ACQUISITION

-Topographic Survey

To see more footage of the final roadway, watch this short video:
https://youtu.be/3aENMIuB87M

17. Firm Experience: Project 12

Firm name	**C. H. Fenstermaker & Associates, L.L.C.**	Past Performance Evaluation Discipline(s)*	Road, Survey, Traffic
Project name	**Kaliste Saloom Road Widening, Intersection Improvements, Bridge & CE&I (LA 3073 to LA 733)**	Firm responsibility (prime or sub?)	Prime
Project number	LADOTD Permit No. 03030387	Owner's name	Lafayette Consolidated Government
Project location	Lafayette, LA	Owner's Project Manager	Mark Lavergne, P.E.
Owner's address, phone, email	1515 E University Avenue, (337) 291-5642, mlavergne@lafayettela.gov		
Services commenced by this firm (mm/yy)	11/08	Total consultant contract cost ($1,000's)	$2,086.22
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)	$1,683.87

Kaliste Saloom Road Widening Project is a **$34 million construction project** designed to be a **walkable urban thoroughfare** with shared bicycle lanes and 8-ft wide sidewalks in accordance with Complete Streets and Context Sensitive Solutions guidelines. Fenstermaker is responsible for the engineering design, construction plan development, and CE&I to widen Kaliste Saloom Road, an over-capacity major arterial roadway, from a 2-lane asphalt roadway to a **5-lane with a continuous center turn-lane concrete roadway** for approximately 1.7 miles. Fenstermaker both recommended and developed **a line and grade** study to the client to analyze **optimal alignment and widening options** based upon minimizing impacts and costs. In addition, Fenstermaker was responsible for the design of all water and sewer utility relocations as well as drainage outfalls presented as stand-alone construction plans and construction efforts.

KEY FEATURES

ROADWAY
-1,500-ft. of new 2-lane roadway
-Widening from 2-lanes to 5-lanes, continuous center turn-lane, shared bicycle, and vehicle travel lanes
-350-ft., 5-girder span bridge

INTERSECTIONS / TRAFFIC
-New multi-lane roundabout with continuous sidewalks
-Temporary traffic control plans
-Sequence of construction

DRAINAGE
-2,600-ft. of subsurface drainage

SURVEYING/ROW ACQUISITION
-Topographic Survey
-Boundary surveys, plat generation for 60+ plats, landowner coordination acquired prior to construction

UTILITIES
-Identified, designed, and relocated utilities
-5,588-ft. of 21" gravity sewer main
-Relocation of 1,200-ft. water lines
-Crossed over multiple high-pressure pipelines, designed pipeline protection slabs

FENSTERMAKER PROJECT PERSONNEL

Dax Douet, P.E.
Travis Bodin, PLS, PMP
Luke Hebert, P.E., CFM
Bradford Millett, PLS, EI

17. Firm Experience: Project 13

Firm name	**C. H. Fenstermaker & Associates, L.L.C.**	Past Performance Evaluation Discipline(s)*	Road, Survey
Project name	**Coach Williams Drive Extension & Roundabout**	Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	Calcasieu Parish Police Jury
Project location	Calcasieu Parish, Louisiana	Owner's Project Manager	John Bruce, P.E.
Owner's address, phone, email	P.O. Drawer 3287, Lake Charles, LA 70602, 337-721-3700, jbruce@cppj.net		
Services commenced by this firm (mm/yy)	04/15	Total consultant contract cost ($1,000's)	$3,030
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)	$2,396

Coach Williams Drive Extension & Roundabout is an **$18.4 million construction project** currently under construction. Fenstermaker was responsible for **surveying, engineering, and construction services** to complete the new roadway extension of Coach Williams Drive to connect to Houston River Road (LA 379). This roadway design project was complex in nature as it is being constructed through primarily wet terrain (approximately 5.7 acres of jurisdictional wetlands are being impacted), over abandoned borrow pits, and crossing the Sabine River Irrigation Canal as well as an operating railroad spur. This project includes **3-miles of new 2-lane roadway** with **sidewalks** and **intersection improvements** including a **roundabout and turning lanes**.

FENSTERMAKER PROJECT PERSONNEL

Dax Douet, P.E.
Travis Bodin, PLS, PMP
Luke Hebert, P.E., CFM
Bradford Millett, PLS, EI

KEY FEATURES

ROADWAY

-3 Miles of new 2-lane Roadway

INTERSECTIONS

-New roundabout with sidewalks

-Addition of Turning Lanes along State Highway

DRAINAGE

-Combination of Subsurface and Open Ditch

-Roadway Elevated above 100-year BFE

SURVEYING/ROW ACQUISITION

-Topographic Survey, Boundary Surveys, plat generation of 60+ plats, landowner coordination

UTILITIES

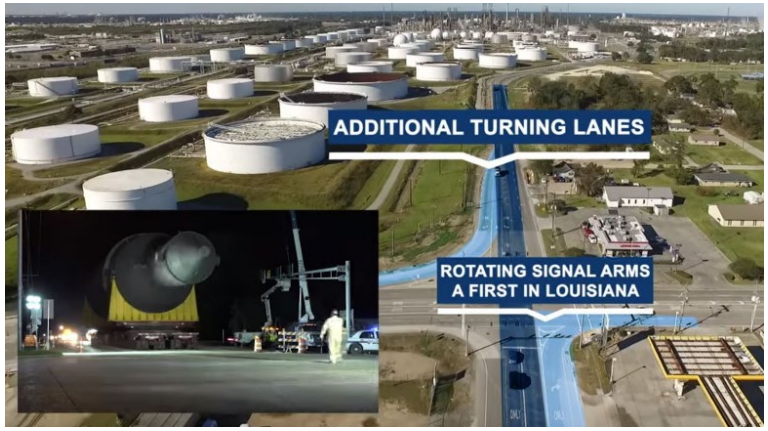
-Identified, designed, and relocated utilities

-Crossed over multiple high-pressure pipelines, designed pipeline protection slabs

17. Firm Experience: Project 14

Firm name	**C. H. Fenstermaker & Associates, L.L.C.**	Past Performance Evaluation Discipline(s)*		Road, Survey, ROW	
Project name	**Fluor – Sasol LCCP-Heavy Haul Road (LA 378 & LA 739)**		Firm responsibility (prime or sub?)	Prime	
Project number	153198, 153357, 153587, 153280, 153303, 153304, 153305, 153306, 153307, 07012578	Owner's name	Fluor Enterprises, Inc.		
Project location	Calcasieu Parish, Louisiana		Owner's Project Manager	Sean Anderson	
Owner's address, phone, email	One Fluor Daniel Drive, Sugar Land, TX 77478, (281) 263-6805, Sean.M.Anderson@fluor.com				
Services commenced by this firm (mm/yy)		09/13	Total consultant contract cost ($1,000's)		$13,342
Services completed by this firm (mm/yy)		01/19	Cost of consultant services provided by this firm ($1,000's)		$11,413

The Heavy Haul Route was a **$60 million multi-award-winning** construction project to **widen a 2.4-mile long from a 2-lane state highway (no shoulders) to a 3-lane (continuous TWLTL) with shoulders**. Fenstermaker designed the road, increased capacity, designed turn lanes, dual turn lanes and dedicated right turn lanes, coordinated utility relocation, completed property acquisition, acquired LADOTD permits, and traffic was in-place within 24 months, which met the expedited schedule for plant heavy haul shipments. Adaptive Traffic Signalization (first of its kind in LA) was designed for use on 7 signals, which provides a system that adjusts signal timing and sequencing at multiple intersections simultaneously. The Fenstermaker surveying team completed a Topographic Survey, ROW Acquisition & Mapping, Parcel Generation; Acquired 100+ parcels, including multiple churches & schools; SUE, utilizing laser sc anning of manholes and ground penetrating radar.



AWARDS RECEIVED

2020 National ACEC Engineering Excellence Award- Industrial & Manufacturing Process
2019 ACEC/L Engineering Excellence Grand Award- Industrial & Manufacturing Process
2018 LA Transportation Excellence Award- Use of Innovative Product or Technology
2018 LA Transportation Excellence Award- Roadway/Bridge Construction >$10 million
2017 ABC National Excellence in Construction Pyramid Award
2018 ABC Bayou's Excellence in Construction Award
2018 ABC Pelican's Excellence in Construction Award

FOOTAGE OF FINAL ROADWAY

https://www.youtube.com/watch?v=jHM2_xA62fA

FENSTERMAKER PROJECT PERSONNEL

Travis Bodin, PLS, PMP
Bradford Millett, PLS, EI
Dax Douet, P.E.
Luke Hebert, P.E., CFM
Justin Bordelon, PLS

17. Firm Experience: Project 15

Firm name	C.H. Fenstermaker & Associates L.L.C.			Past Performance Evaluation Discipline(s)*	Road, Survey
Project name	**East Pont des Mouton Roadway Widening: I-49 to Louisiana Avenue**			Firm responsibility (prime or sub?)	Prime
Project number	n/a	Owner's name	Lafayette Consolidated Government		
Project location	Lafayette Parish, Louisiana		Owner's Project Manager	Tom Carroll	
Owner's address, phone, email	1515 E University Avenue, Lafayette, LA 70501, 337-291-8547, TCarroll@lafayettela.gov				
Services commenced by this firm (mm/yy)		01/03	Total consultant contract cost ($1,000's)		$1,620
Services completed by this firm (mm/yy)		Ongoing	Cost of consultant services provided by this firm ($1,000's)		$1,620

East Pont des Mouton is a 1.4-mile, four-lane divided curb and gutter roadway with raised median (boulevard section), sidewalks, subsurface drainage, and street lighting that Fenstermaker was responsible for designing. The project is a conversion of a two-lane asphalt road to a four-lane concrete road and the installation of approximately 14,300 feet of subsurface drainage including 1,400 feet of 84" RCP, over 8,000 feet of water distribution, 7,000 feet of wastewater line, a wastewater lift station, as well as coordination with numerous utility companies.

Coordination of all sewer and water services for the densely populated area within the corridor was included in the plans and a full survey was conducted to capture elevations and dimensions.

KEY FEATURES

SURVEY
Topographic Survey
Boundary Survey
Rights-of-Way Plats
Acquisition Coordination

DESIGN
Preliminary and Final Plans
Specifications
Drainage Design

CONSTRUCTION ADMINISTRATION & INSPECTION
Construction Cost Estimates

Fenstermaker Project Personnel
Dax Douet, P.E.
Luke Hebert, P.E., CFM
Travis Bodin, MBA, PLS, PMP
Bradford Millett, PLS, EI

17. **Firm Experience:** Project 16

Firm name	**C. H. Fenstermaker & Associates, L.L.C.**		Past Performance Evaluation Discipline(s)*		Survey, Traffic, Road, Bridge
Project name	**Farm Road Multi-Bridge Replacement Project**			Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	Calcasieu Parish Police Jury		
Project location	Calcasieu Parish, LA		Owner's Project Manager	Cliff Vanicor, P.E.	
Owner's address, phone, email	1114 Ryan St., Lake Charles, LA 70601, (337) 721-4100, cvanicor@cppj.net				
Services commenced by this firm (mm/yy)	10/18	Total consultant contract cost ($1,000's)			$187.12
Services completed by this firm (mm/yy)	08/22	Cost of consultant services provided by this firm ($1,000's)			$139.94

Fenstermaker was contracted by Calcasieu Parish Police Jury to provide professional engineering services related to the replacement of two (2) bridges located on Farm Road approximately 0.70 miles and 0.91 miles east of the intersection of LA Hwy 397. The scope of the projects includes surveying, wetland delineation and US Army Corps of Engineers (USACE) permitting, geotechnical engineering, load rating determination of the new structure, dynamic pile monitoring and vibration monitoring, utility coordination, right-of-way surveying, title work, right-of-way plat preparation, temporary traffic control plans and sequence of construction, and construction administration.

KEY FEATURES

Surveying
Right-of-Way
Wetland Delineation
Permitting
Load rating determination
Dynamic pile monitoring
Vibration monitoring
Utility Coordination
Construction Administration

FENSTERMAKER PROJECT PERSONNEL

Travis Bodin, PLS, PMP
Luke Hebert, P.E., CFM
Kimberly McDaniel, P.E., PTOE
Bradford Millett, PLS, EI

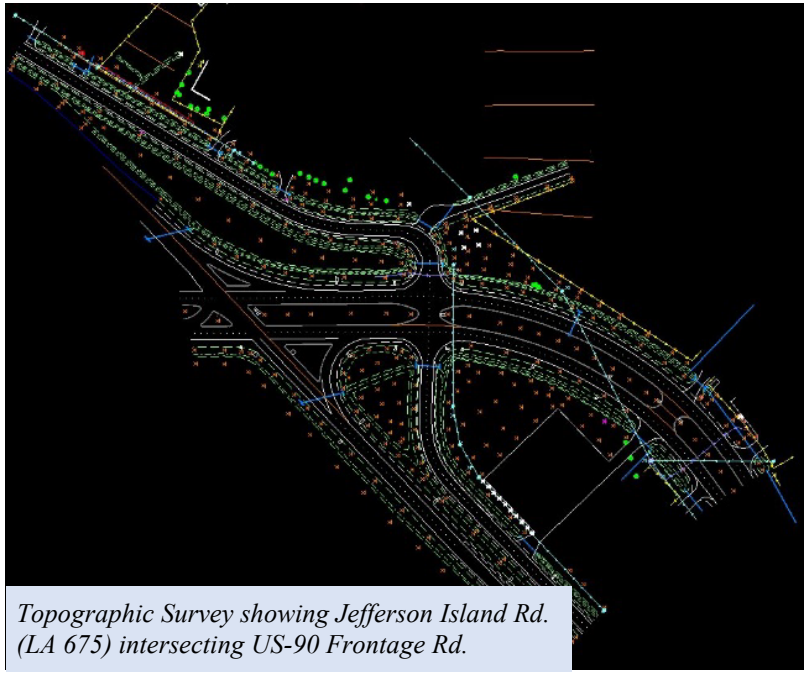
17. **Firm Experience:** Project 17

Firm name	**C. H. Fenstermaker & Associates, L.L.C.**		Past Performance Evaluation Discipline(s)*		Survey, Right-of-Way
Project name	**Acadiana Regional Airport Access Road**			Firm responsibility (prime or sub?)	Sub
Project number	N/A	Owner's name	Berard Habetz & Associates on behalf of Iberia Parish Government		
Project location	Iberia Parish, LA		Owner's Project Manager	Marc Berard, P.E.	
Owner's address, phone, email	3401 West Admiral Doyle Dr., New Iberia, LA, 70560, 337-367-1408, mberard@bhaengineering.com				
Services commenced by this firm (mm/yy)		09/12	Total consultant contract cost ($1,000's)		$359
Services completed by this firm (mm/yy)		Ongoing	Cost of consultant services provided by this firm ($1,000's)		$359

Fenstermaker was selected to design a two-lane roadway that will connect LA 3212 and LA 675 in New Iberia with room for a future four-lane roadway. The project's purpose is to create a more direct access path to the Acadiana Regional Airport. The design includes a main roadway, a single-lane roundabout, and a two-lane roadway that will connect the main road to US-90 Frontage Road. A design and construction of a second roundabout will be part of a future project. Fenstermaker is providing topographic and boundary survey services, roadway plan and profile design, roundabout design, drainage design, and environmental assessment services.

KEY FEATURES
Topographic Survey
Boundary Survey

FENSTERMAKER PROJECT PERSONNEL
Travis Bodin, MBA, PLS, PMP
Bradford Millett, PLS, EI
Bobby Guillory



Topographic Survey showing Jefferson Island Rd. (LA 675) intersecting US-90 Frontage Rd.

17. **Firm Experience:** Project 18

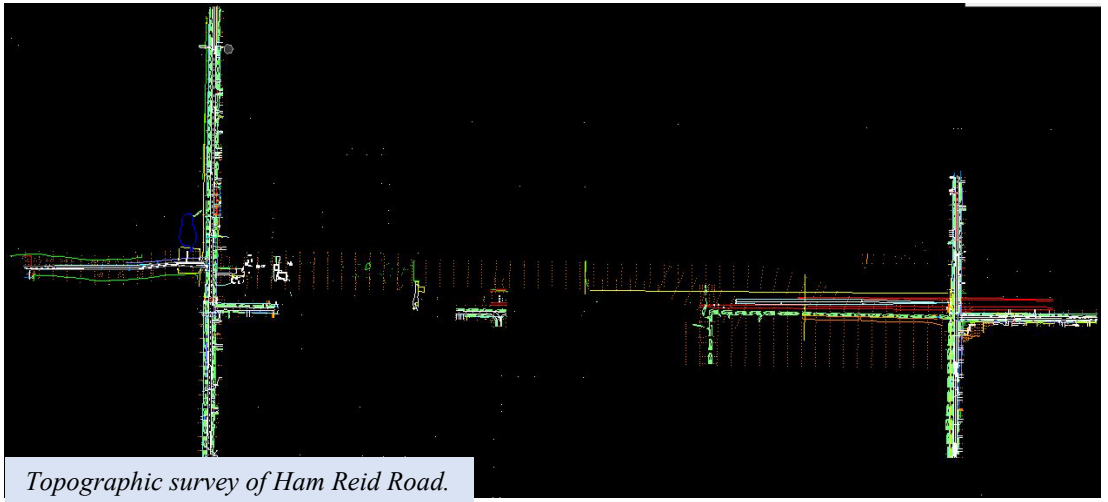
Firm name	**C. H. Fenstermaker & Associates, L.L.C.**		Past Performance Evaluation Discipline(s)*	Survey	
Project name	**Ham Reid Road Extension & Roundabouts**		Firm responsibility (prime or sub?)	Prime	
Project number	N/A	Owner's name	Calcasieu Parish Police Jury		
Project location	Calcasieu Parish, LA		Owner's Project Manager	John Bruce	
Owner's address, phone, email	1015 Pithon Street, 2nd Floor, Lake Charles, LA 70602, (337) 721-4100, jbruce@cppj.net				
Services commenced by this firm (mm/yy)	08/14	Total consultant contract cost ($1,000's)		$2,139.36	
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)		$1,236.39	

Ham Reid Road is a two-phase, $14.25 million construction project that includes a unique 1-mile asphalt roadway corridor, incorporating walkability and green infrastructure**.** The corridor includes a 2-lane (1-lane in each direction with a median) boulevard section with a roundabout located at the intersection of Ham Reid Road and LA 384/Nelson Road.

Fenstermaker was responsible for engineering design and **surveying services**. **Topographic survey** deliverables included survey data delivered in **Microstation** CAD format and control sketches showing ties to exiting landmarks. The control sketches followed the **LADOTD Location and Survey Manual** specifications.

KEY FEATURES
Topographic Survey
Boundary Survey
Processing
Plat Preparation

FENSTERMAKER PROJECT PERSONNEL
Travis Bodin, MBA, PLS, PMP
Bobby Guillory
Bradford Millett, PLS, EI



Topographic survey of Ham Reid Road.

17. Firm Experience: Project 19

Firm name	**C. H. Fenstermaker & Associates, L.L.C.**		Past Performance Evaluation Category(ies)*	Road, Survey	
Project name	**Red Davis McCollister Road at S. Park Drive Roundabout**		Firm responsibility (prime or sub?)	Prime	
Project number	Not Applicable	Owner's name	Calcasieu Parish Police Jury		
Project location	Calcasieu Parish, Louisiana		Owner's Project Manager	Gregory LaFleur	
Owner's address, phone, email	1114 Ryan Street, Lake Charles, LA 70601, (337) 721-3500, glafleur@calcasieuparish.gov				
Services commenced by this firm (mm/yy)	08/17	Total consultant contract cost ($1,000's)		$279.85	
Services completed by this firm (mm/yy)	02/22	Cost of consultant services provided by this firm ($1,000's)		$262.57	

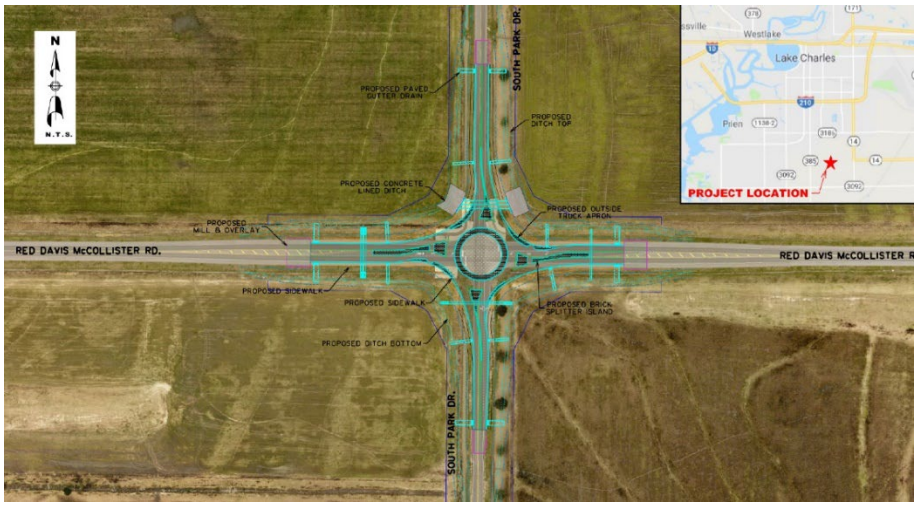
Red Davis McCollister Rd. and S. Park Dr. are classified as Urban Collectors. The intersection was stop sign controlled with stop signs on Red Davis McCollister. Based on crash reports, many drivers travelling through the intersection approach it as a four-way stop. Between 2009 and 2017, there was a total of 26 collisions at the intersection. Fenstermaker was contracted to provide professional engineering design and planning services for a roundabout at the intersection to reduce the number of collisions.

KEY FEATURES

Topographic Surveying
Geometric Alternatives
Preliminary Plans
Right of Way Plats

FENSTERMAKER PROJECT PERSONNEL

Luke Hebert, P.E.
Bradford Millett, PLS, EI
Jason Hebert
Travis Bodin, MBA, PLS, PMP



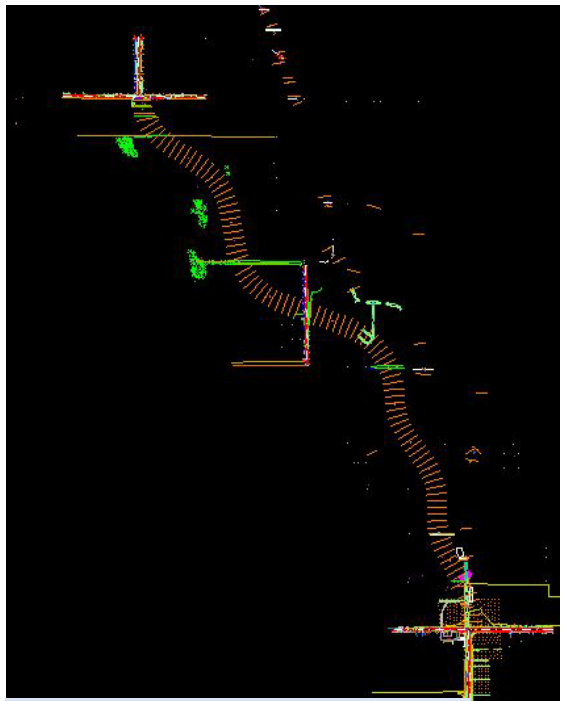
17. **Firm Experience:** Project 20

Firm name	**C. H. Fenstermaker & Associates, L.L.C.**	Past Performance Evaluation Discipline(s)*	Survey, Right-of-Way
Project name	**Apollo Road (LA 93) Extension to Dulles Drive**	Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	City of Scott
Project location	Scott, Louisiana	Owner's Project Manager	Jan-Scott Richard, Mayor
Owner's address, phone, email	PO Box 517, Scott, LA 70583, (337) 291-8534, jrichard@cityofscott.org		
Services commenced by this firm (mm/yy)	03/11	Total consultant contract cost ($1,000's)	$1,508
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)	$1,484

The Apollo Road Extension is expected to boost the region and the residents of the Scott Community. Fenstermaker is performing the **topographic survey** of cross streets, road tie-ins, and cross sections to update the existing elevation DTM and locations of all parcel boundaries affected by the proposed right of way. Fenstermaker's additional **surveying services include a survey of all drainage laterals and drainage structures for hydraulic analysis and of the location of all utilities and topographic features within the project's area.** This $15 million construction project includes a multi-lane median-divided roadway and 6-ft. sidewalks. Phase 1 has been constructed; Phases 2 & 3 design are 90% complete. Fenstermaker performed all planning, **surveying,** and engineering services.

KEY FEATURES
Topographic Survey
Boundary Surveys
Plat Generation
ROW Acquisition
Right of Entry (ROE) for ~50 acres

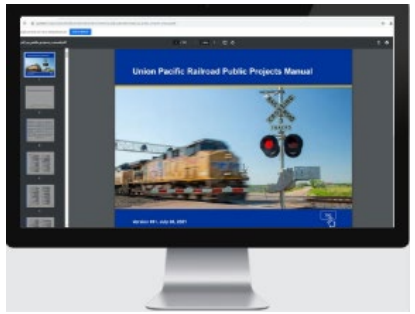
FENSTERMAKER PROJECT PERSONNEL
Travis Bodin, MBA, PLS, PMP
Bobby Guillory
Bradford Millett, PLS, EI



Existing topographic survey of the Apollo Road Extension

18. **Approach and Methodology:**

The HDR Team fully understands the Scope of Services and the quality engineering services sought by LADOTD for the replacement of the existing UPRR and Little Teche Bayou Bridges along US 190 listed in the advertisement for Contract No. 4400023434. The HDR team brings a strong local team with RR overpass experience in Louisiana and nationally. We have a deep bench of over 600 dedicated bridge engineers with direct experience in bridge replacement design and have successfully executed hundreds of bridge replacements for clients across the nation**. HDR is consistently ranked as a top design firm each year and was ranked No. 3 in nationally for bridge design by ENR in 2021.** We also bring to bear a long-standing relationship with Union Pacific Railroad (UP) that spans decades. We are their consultant of choice nationally and serve in many capacities from rail/facility planning and design to bridge design. UP has entrusted HDR to develop and update UP structural standards for the last 20 years and HDR averages more than 60 UP bridge design projects each year. We understand UP's needs and preferences and bring our experience to deliver effective designs on structures throughout the UP network. Over the past five years, HDR has completed more than 130 H&H projects under the UP Nationwide H&H On-Call. Our understanding of UP standards is paired with unmatched work on hundreds of UP bridge projects spanning the entire UP network on major river crossings, grade separation structures, flyovers, rehabilitation, repairs and movable bridges. We regularly interface with UP's engineering, planning, and construction groups, and understand the dynamic needs of railroad structural projects**. HDR has led the development of Public Project Manuals for UP and BNSF.** We worked with each Class I railroad to develop **first-ever** external resources that can be used by federal, state, and local public agencies seeking to develop projects that have the potential to impact railroad property. The manuals provide information on **how to properly engage the railroads in a collaborative working relationship** and is intended to assist communities, public agencies, and other entities with the coordination, planning, implementation, optimization, and construction of projects that fall within the purview of railroad property. HDR's leadership in the development of these tools demonstrated our unparalleled leadership in providing guidance on project delivery and expectations with multi-faceted projects that cross, intersect or parallel railroad property. This aspect of HDR's experience and relationship sets us apart from our competitors **and provides added value** for LADOTD to proficiently navigate the design and construction of these new bridges.



We are recognized industry wide **for our sustainable and resilient bridge design.** Sustainability starts with a conversation. Initiating that conversation early in the project expands options and opportunities to integrate sustainable attributes to help LADOTD: drive project innovation, reduce project costs by promoting design efficiencies, decrease long-term O&M costs, understand, and diminish negative environmental impacts, improve project performance, and enhance integration into the community. Balanced sustainable solutions result in sound choices that are resource-sensitive; provide private and public sector opportunities for economic growth and development; create quality and diverse places; are socially equitable; and consider the broad context of each decision. Some aspects or features that can be considered to make a bridge project sustainable and resilient **are project life cycle** (durability, flexibility of future expansion, and long-term maintenance**); improving safety; potential use of recycled materials and minimizing waste** (consideration of reuse of existing bridge elements as recycled materials, consider how the project might contribute to the circular economy); **reducing operational impacts** (reduce congestion/improve productivity, accessibility for inspection, and appropriate clearances/staging within the railroad envelope); **considering environmental impacts** (minimize/manage stormwater runoff, replace hardscape with permeable surfaces, minimizing erosion, minimize footing and/or pier impacts); **minimizing construction impacts** (potential use of Accelerated Bridge Construction, shorten construction time, careful consideration for UPRR operations, procurement of materials from local sources, and reduce disruptions to businesses and facilities).

US 90 UPRR Overpass – North Facing

Our team is built to deliver with a valuable teaming partner that has longstanding a relationship and a wealth of experience with LADOTD. C.H. Fenstermaker and Associates (CHF) will assist HDR with roadway design, hydraulic/drainage design, topographic surveying, ROW mapping and maintenance of traffic engineering. We have close working relationship with CHF and have successfully delivered several projects in the past across south Louisiana.

EXISTING BRIDGES DESCRIPTION

The HDR design team has visited the site and researched the existing US 190 bridge inspection reports to inform our overall design approach for the replacements. The existing UPRR Overpass bridges (constructed in the 1951 and 1961 respectively) are in a tangent section of US 190 just north of the interchange with I-49. The bridges are near a local cabinet/millwork business and a large communications tower with a new St. Landry Parish Sherriff's complex currently under construction just northeast of the overpass. The base of the existing tower is approximately 165 ft from the western face of the southbound bridge. Tractor Supply Co. is also adjacent to the eastern roadway approach. Careful consideration of the construction phasing and foundation types for the new bridges will need to be reviewed to minimize the potential for vibration and disruption of access/operations. The existing UP overpass bridges are comprised of eight 40-foot precast concrete T-beam approach spans (each bridge) with 80-foot steel girder main span across the railroad with non-skewed joints. The curb-to-curb distance is 28 ft with a 33.6 ft out to out dimension of the deck. The substructure is comprised of precast pile bents on the approach spans with a pile supported reinforced concrete pier section at the main span. Because the main span joints are not skewed, they are in relative proximity to the rail centerline (~15 ft at the nearest observed location). The approximate skew relationship from the roadway to the railroad is ~ 45 degrees with the existing bridges providing ~ 22.25 ft of vertical clearance to top of rail. The US 190 bridges at Little Teche Bayou are identical twin spans built in 1951 and 1961 respectively that are comprised of 40-foot precast concrete T-beam spans supported by precast concrete pile bents. The bridges are arranged with mild skews (~25 degrees) to the bayou with perpendicular joints with a curb-to-curb dimension of 27.8 ft and an out-to-out dimension of 33.2 feet. There are several residences and an intersecting access road (Hwy 743) near the bridge site.

US 190 UPRR Overpass - West Facing

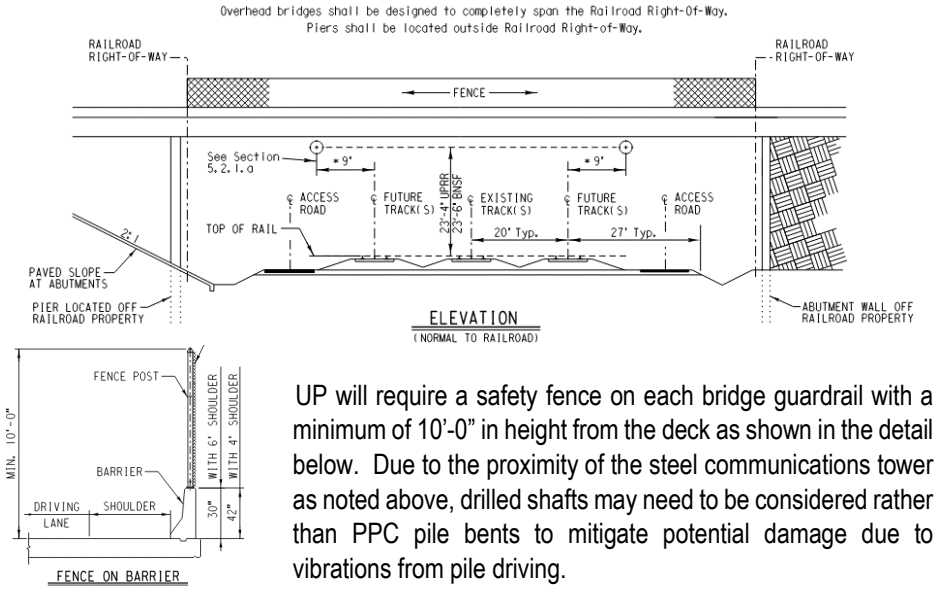
DESIGN APPROACH AND METHODOLOGY

HDR will begin design with execution of topographic survey and review of soil borings/testing provided by LADOTD. Existing geometry and span arrangements will be built into a base file by the survey team and compared with the as-built plans. Preliminary type, size, and location (TSL) of the new bridge features will commence with a focus on meeting the required vertical and horizontal clearances needed at the RR overpass location. Emphasis on preserving the geometry to minimize adjacent impacts will be key. The team will employ the use of Bentley GEOMATH and vertical curve spreadsheets/MathCAD files to develop the preliminary geometry and vertical curvature. Preliminary girder design will adhere to the guidance noted in the LADOTD Bridge Design and Evaluation Manual (BDEM) with respect to the girder tables as well as design runs using Bentley CONSPAN to confirm girder type and size. Initial substructure types including PPC pile bents and reinforced concrete column bents will be considered and sized using Bentley RCPier. HDR will work with LADOTD to develop pile capacity curves for consideration of foundation types. Demolition of the existing structure and construction phasing will also play a role in selection of span and substructure types. Care will be taken to minimize disruption to traffic and railroad operations. The twin bridge configuration lends itself to simplified phasing but will need to account for the appropriate construction clearance that UP will require. For the Little Teche Bayou bridges along US190, similar design approaches will be employed. Hydraulic analysis to preserve or improve the opening and low chord of the girders will be paramount. HDR is currently serving as the selected consultant for the Louisiana Watershed Initiative modeling projects for the Area 5 - Vermillion Basin – of which Little Teche Bayou is a part of. This will provide a **seamless input to inform the bridge design team** as to the latest models such that the bridge spans can be sized appropriately. Care will be taken to minimize disruption to traffic with construction phasing and adjacent residences.

DESIGN CONSIDERATIONS

For the new railroad overpass bridges, the geometry will be needed to consider the required minimum vertical clearance of 23'-4" (plus an additional 6 inches to account for future track adjustments per BDEM Chapter 2.3.3.4). UP requires a minimum construction clearance envelope of 15'-0" in their guidance. The span length across the tracks will incorporate the required horizontal clearance and any additional length for access. A clip from the UPRR-BNSF Joint Guidelines for RR Grade Separation projects is shown below. HDR will adhere to the guidelines in this publication in close coordination with LADOTD. A simple span with skewed ends/joints approximately 90 feet in length could provide adequate clearance from centerline of track with increased distance away from the bents. Crash walls may need to be employed for the main

span bents for increased safety. Considering a 90 foot span an LG-36 PPC Girder with 10.0 ksi concrete could be used to keep the superstructure depth relatively shallow with minor changes to the finished grade profile. This would also minimize the effects seen at the roadway approaches. If a shallower main span girder is needed to alleviate potential regrade of the approaches, a shallow, high strength steel girder could be a possible solution. Retaining walls may be required on the approaches and embankment to minimize effects of the grade raise considering the adjacent service road and businesses.



UP will require a safety fence on each bridge guardrail with a minimum of 10'-0" in height from the deck as shown in the detail below. Due to the proximity of the steel communications tower as noted above, drilled shafts may need to be considered rather than PPC pile bents to mitigate potential damage due to vibrations from pile driving.

ROADWAY DESIGN, TOPOGRAPHIC SURVEY AND RIGHT-OF-WAY MAPPING

Our sub, Fenstermaker, is very familiar with this project, as it is located just 25 miles from the company's headquarters in Lafayette. The roadway design will consist of the at-grade portions of the roadway associated with the replacement of the four named bridge structures over the Little Teche Bayou and Missouri Pacific Railroad. Fenstermaker has designed similar projects to this one. Additionally, the firm is currently part of two other similar projects for LADOTD which include the replacement of 16 bridges and 8 movable bridges. This project will require a Transportation Management Plan (TMP) – Level 2. Fenstermaker's traffic engineers have ample experience in the preparation of, and analyses require for, this work. The team will work through LADOTD's project development process. Once the topographic survey is complete, our roadway designers will begin coordinating with HDR on the proposed alignment of the new structures. We will be able to then determine the extent to which the existing roadways will be affected. The design process begins at this point, and would proceed through the standard 30%, 60%, and 90% preliminary and final plans for design development and reviews with LADOTD. Throughout the process, close coordination with HDR would be maintained such that the designs connect seamlessly. Appropriate drainage analysis will be conducted to verify runoff from the roadway is conveyed into the existing system. Our designers will develop plans and profiles for the roadway as well as cross-sections which allow us to verify constructability of the design and identify any utility conflicts. This prevents delays once the project goes to construction. Our goal is to develop designs that will lead to successful construction projects.

Having consulted with LADOTD for many years on various survey projects, Fenstermaker is well versed in the survey process and requirements for LADOTD projects. The topographic survey shall adhere to modern survey theory, practice, and procedures, and the Location and Survey Manual including typical surveying methods as applied by LADOTD. The LADOTD feature code list and symbols shall be utilized and shall follow the standards included in the latest edition of the Survey Feature Code Guidebook produced by the LADOTD Location and Survey Section. Existing topographic features will include but are not limited to trees, driveways, roadways, drainage features, utilities, fences, buildings, natural ground elevations, etc. **Hazardous Areas** - During field operations, should our field crew(s) identify any potential areas of suspected waste disposal within the proposed survey limits, LADOTD will be notified immediately by our team. We recognize that this information is essential to minimize any possible delays in construction. **Utility Identification** - Fenstermaker is very familiar with and has contacts with an abundance of utility providers throughout Louisiana. We are aware that it is prudent for us to notify LADOTD with the utility information identified, using Louisiana One Call, at the beginning of the survey to allow LADOTD the necessary time to inform utility providers about the planned survey. Fenstermaker will also provide an updated list to LADOTD as new utilities are identified once the topographic survey has commenced. Fenstermaker is conscious that potential utility conflicts may arise, and it is vital for us to work with the utility providers to develop an accurate subsurface utility survey. If Fenstermaker is required to perform the utility coordination, we will deliver any as-builts provided, as well as a detailed spreadsheet showing

US 190 UPRR Overpass – WB Pile Bents and Girders

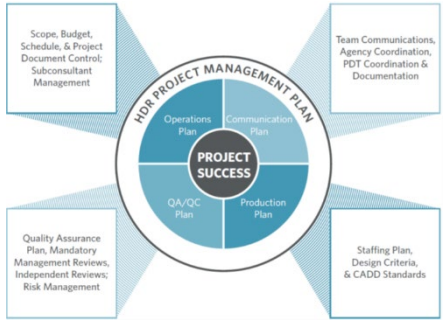
correspondence and contacts with each provider. Additionally, LADOTD will be notified immediately if a utility provider is unwilling to locate their facility and an underground locator is not successful in locating them.

Once each utility within the project site have been identified and surveyed, a Utility Location Form will be provided to LADOTD depicting distances from the centerline of the existing road to the utility (e.g. sewer manhole, water meter, fire hydrant, etc.) and will adhere to the guidelines as provided in the Location and Survey Manual. Horizontal and vertical measurements shall be to the nearest 0.10 foot.

Survey Deliverables - The Team has consulted with LADOTD for numerous years and understands the department's Location and Survey process. Fenstermaker has surveying resources that are exceptionally knowledgeable in the deliverables required for a topographic survey submittal (e.g. H.014274 Hanks Dr./Landis Dr. Ped Improvements Ph. 2 & 3). The deliverables to be included as part of each topographic survey will include the following: Location Survey Checking Form, Location Report Form, Control Sketch, Benchmark and Temporary Benchmark Tabulation Forms, Drainage Structure Forms, Centerline Closure Check, OPUS Solutions, Utility Letter Listing Companies Involved, Utility Form 10-006, Parish or City Map – Red Lined, Alignment Report & .alg file, Field Roll, Certified Field Notes, and a Property Map, if applicable. Deliverables will be submitted through the approved software and standards set by LADOTD. **Title Take-Off Reports** - Prior to the commencement of field work, "Title Take-Offs" will be performed at the courthouse by a certified LADOTD abstractor. Recent property transactions collected during this step are necessary to begin the initial boundary survey. Once the proposed right of way linework has been generated by the design team, Fenstermaker will obtain required "Full Title Research Reports" for the LADOTD Real Estate Section to support the right of way map and legal description generation. **Boundary Survey** - Fenstermaker will complete a boundary survey of the parcels along the proposed project route. Boundaries shall be delineated utilizing the "Title Take-Offs" and refined with the "Full Title Research Reports". Boundary survey features will 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. **Right of Way Maps** - Fenstermaker will establish the existing boundary/right of way and map encumbrances provided in the title research reports. This will be utilized to generate the Right of Way maps for submittal to LADOTD. There are three (3) phases of submittals which consist of the Property Survey Map, 60% Base Right of Way Maps, and Final Right of Way Maps. The maps shall follow the requirements set forth by the LADOTD "Location & Survey Manual Addendum A" and current standards set forth by the Louisiana Professional Engineering and Land Surveying Board (effective on the date of the certification).

QC-QA PROCESS

HDR bases its QA/QC Program on a philosophy of continual improvement; a focus on the way things get done, not just on what gets done; and an emphasis on teamwork. Our Project Manager and QC/QA Lead have the principal responsibility to verify compliance with HDR's structured QC/QA programs. Production staff and support staff are responsible for adherence to quality control procedures to satisfy HDR's requirements and quality expectations. Compliance with these procedures and programs is mandatory at HDR and is the basis for which high quality workmanship is achieved. Repeat business, low insurance rates, minimal scope or cost changes, and recognition by industry peers are testaments of our past performance and quality of work. We are well versed with LADOTD's quality requirements and have developed a QC-QA Plan (included with this proposal) to mirror our detailed internal processes while dovetailing it with LADOTD's nomenclature and requirements. The following elements are part of HDR's QC/QA program:



- Project Management Plan (PMP). HDR will develop a PMP that details how all tasks will be completed. Design standards and guidelines, schedule, budget, staffing, reporting procedures, quality control procedures, safety plan, and communication protocols are major components of the PMP.
- Data Management. HDR has a data management program, ProjectWise, that is adapted specifically for each project. This program allows the project team to electronically file, distribute and retrieve all project documents expeditiously.
- Quality Control – Quality Assurance Plan. A Quality Control – Quality Assurance Plan (QC-QA) will be developed for the project that will be applicable to the contract to promote technical quality from preliminary plans to the finished bid documents. The QC-QA will verify that appropriate project coordination and reviews are completed for each technical discipline. We will schedule each review to provide ample time for review comments and changes to be addressed prior to the scheduled submittal date of the specific deliverable. Technical reviews are documented and filed and will be made available for review. The PM will work with his quality team and design leads to resolve each comment and develop the appropriate revisions to the design and plans.

SUMMARY

The HDR team will bring the local LADOTD experience with its PM and design team coupled with our national/regional expertise to deliver high quality deliverables that you can trust. We understand the difficult challenges with funding, schedule, and rising material prices. Our team will work with you to develop efficient, sustainable designs with sensible phasing and close UPRR coordination. We can leverage our long-standing relationships, nationally, with Union Pacific Railroad to promote a smooth permitting and approval process – this sets us apart from our competitors. We look forward to working with you on this important project.

19. **Workload:**

Firm(s)	Past Performance Evaluation Discipline(s) *	State project number	Project name	Remaining Unpaid Balance**
HDR Engineering, Inc. (Prime)	Other (Hydraulic Modeling)	LWI Task Order 2: S.P. Contract No. 4400017091	Task Order No. 2 - Louisiana Watershed Initiative (LWI) Statewide Modeling, Region 5	$2,685,847
HDR Engineering, Inc. (Prime)	Other (Hydraulic Modeling)	LWI Task Order 3 S.P. Contract No. 4400017091	Task Order No. 3 - Louisiana Watershed Initiative (LWI) Statewide Modeling, Region 5	$1,069,574
HDR Engineering, Inc. (Prime)	Planning	H.972419.1	Task Order No. 1 - State Highway Safety Plan (SHSP) Update and Regional SHSP Strategic Marketing and Advertising Support	$395,132
HDR Engineering, Inc. (Sub)	Bridge	H.009730.5	In-Depth Bridge Inspection of Complex Structures (Task Order 4)	$128,269
C. H. Fenstermaker & Associates, L.L.C.	Data Collection, Planning, Survey	Contract No. 4417090	IDIQ Contract for Louisiana Watershed Initiative (LWI) Region 4 (Task Order No. 2) Acadia, Allen, Beauregard, Calcasieu, Cameron, Sabine, and Vernon Parishes, LA	$3,680,898
C. H. Fenstermaker & Associates, L.L.C.	Survey	Contract No. 4400017091	IDIQ Contract for Louisiana Watershed Initiative (LWI) Region 5 (Task Order No. 2)	$92,487
C. H. Fenstermaker & Associates, L.L.C.	Survey	Contract No. 4400017092	IDIQ Contract for Louisiana Watershed Initiative (LWI) Region 6 (Task Order No. 2)	$528,282
C. H. Fenstermaker & Associates, L.L.C.	Survey	Contract No. 4400017092	IDIQ Contract for Louisiana Watershed Initiative (LWI) Region 6 (Task Order No. 3)	$1,051,210
C. H. Fenstermaker & Associates, L.L.C.	Road	H.0011235	I-49 South @ Verot School Road Lafayette Parish, LA	$62,715
C. H. Fenstermaker & Associates, L.L.C.	Road	Contract No. 4400020016 S.P. No. H.011833.5	St. Mary Street Sidewalks Lafayette Parish, LA	$129,979
C. H. Fenstermaker & Associates, L.L.C.	Data Collection, Planning	Contract Nos. 4400020960 and 4400020961	IDIQ Contracts for National Flood Insurance Program (NFIP) and The Cooperating Technical Partnership (CTP) Program Statewide (Task Order No. 1)	$20,000

(Add rows as needed) DO NOT SUM

* The past performance evaluation disciplines to be used are: Road, Bridge, Traffic, CE&I/OV, Geotech, Survey, Environmental, Data Collection, Planning, Right-of-Way, CPM, ITS, Appraiser and Other. If a firm has more than one past performance evaluation discipline for any single project, the firm can use multiple rows to express the remaining unpaid balance per evaluation 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. LEAVING THE "REMAINING UNPAID BALANCE" COLUMN BLANK IS NOT ACCEPTABLE.

20. **Certifications/Licenses:**

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

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Kimberly McDaniel

has attended

Traffic Control Supervisor Refresher-LA State Specific

Training Course

5/1/2020 to 5/1/2020
Date

Baton Rouge, LA
Location

Vice President of Member Services

President, CEO

ATSSA American Traffic Safety Services Association ATSSA.com

Certificate of Completion

presented to

Kimberly McDaniel

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: June 4, 2018

Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 4

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Kimberly McDaniel

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: June 11, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 4

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Kimberly McDaniel

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: September 10, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

The American Traffic Safety Services Association

Hereby recognizes that

Aimee Latiolais

has attended

Traffic Control Technician-LA State Specific

Training Course

12/4/2018 to 12/4/2018
Date

Baton Rouge, LA
Location

ATSSA
SAFER ROADS SAVE LIVES

Jessica Shingler
Training & Products Dept. Director

Ryan A. Wentz
President, CEO

The American Traffic Safety Services Association

Hereby recognizes that

Aimee Latiolais

has attended

Traffic Control Supervisor-LA State Specific

Training Course

12/5/2018 to 12/6/2018
Date

Baton Rouge, LA
Location

ATSSA
SAFER ROADS SAVE LIVES

Jessica Klingler
Training & Products Dept. Director

Ryan A. Wentz
President, CEO

ATSSA
SAFER ROADS SAVE LIVES

Dear Certified Flagger:

Enclosed, please find your card signifying you as a Certified ATSSA Flagger. This card should be carried and presented to employers while performing work on our roadways. Please be aware that the card is not valid without a Photo I.D.

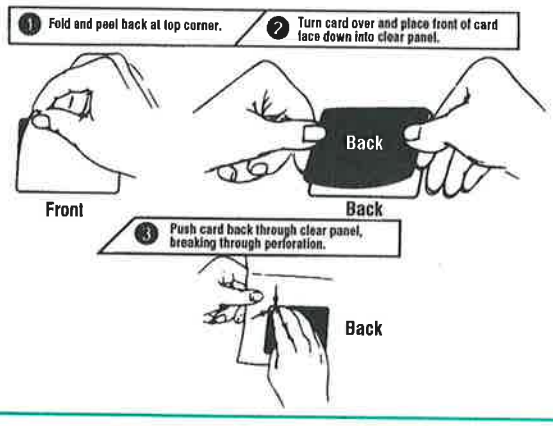
American Traffic Safety Services Association (ATSSA) commends you on your decision to become an ATSSA Certified Flagger. This distinction reflects that you have been trained by the "Leader in Roadway Safety" and also entitles you to be listed on our National Flagger Database. Please review your state requirements for expiration of your flagger card. Also, please inform us of any changes in name or address so we may keep our records up to date.

Once again, ATSSA thanks you for your dedication to ensuring that our work zones are safe and that lives will be saved with proper training. Please visit our website at www.atssa.com for additional training courses or for any of our products created for use in a work zone.

Sincerely,

Jessica Schnyder
Director of Training

Laminating the front of your card with Dual Laminate:



American Traffic Safety Services Association
15 Riverside Parkway, Suite 100 • Fredericksburg, VA 22406-1077
Office: 540-368-1701 • Toll-Free: 800-272-8772 • Fax: 540-368-1717
www.atssa.com

Certificate of Completion

presented to

Aimee Latiolais

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: October 7, 2020
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 2.5

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Aimee Latiolais

for completing the

Traffic Engineering Analysis Process & Report Module 2

Date: October 7, 2020
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3.5

Authorized Instructor

Authorized Instructor

Authorized instructor

Certificate of Completion

presented to

Aimee Latiolais

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: October 8, 2020
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3.5

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Dax Douet

has attended

Traffic Control Supervisor Refresher-LA State Specific

Training Course

4/5/2021 to 4/5/2025
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

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

ATSSA American Traffic Safety Services Association ATSSA.com

Certificate of Completion

presented to

Dax Douet

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: October 1, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 2.5

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Dax Douet

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: October 10, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3.5

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Dax Douet

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: January 15, 2019
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor

Authorized Instructor

Authorized instructor

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

The American Traffic Safety Services Association

Hereby recognizes that

Travis Bodin

has attended

Traffic Control Supervisor Refresher-LA State Specific

Training Course

09/28/2018 to 09/28/2018
Date

Lafayette, LA
Location

ATSSA
SAFER ROADS SAVE LIVES

Jessica Schnyder
Training & Products Dept. Director

Ryn A. Wentz
President, CEO

ATSSA
SAFER ROADS. SAVE LIVES

AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION

This is to affirm that

TRAVIS Bodin

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Expiration Date 9/28/22 *State Issued In* CA

Bodin

Instructor Signature

Verification available by calling 1-877-642-4637 or at http://www.flagger.com

Certificate of Completion

presented to

Diane Hammonds

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: June 4, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 4

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Diane Hammonds

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: June 11, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 4

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Diane Hammonds

for completing the

Traffic Engineering Analysis Process & Report Module 3

Date: October 15, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Diane Hammonds

has attended

Traffic Control Supervisor-LA State Specific

Training Course

4/29/2020 to 4/30/2020
Date

,
Location

Vice President of Member Services

President, CEO

ATSSA American Traffic Safety Services Association ATSSA.com

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Diane Hammonds

has attended

Traffic Control Technician-LA State Specific

Training Course

4/28/2020 to 4/28/2020
Date

Baton Rouge, LA
Location

Vice President of Member Services

President, CEO

ATSSA American Traffic Safety Services Association ATSSA.com

Certificate of Completion

presented to

Shalin Townsend

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: January 29, 2020
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 2.5

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Shalin Townsend

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: January 29, 2020
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3.5

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Shalin Townsend

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: January 30, 2020
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3.5

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

The American Traffic Safety Services Association

Hereby recognizes that

Justin Bordelon

has attended

Traffic Control Supervisor Refresher-LA State Specific Training Course

09/28/2018 to 09/28/2018
Date

Lafayette, LA
Location

ATSSA
SAFER ROADS SAVE LIVES

Training & Products Dept. Director

President, CEO

ATSSA
SAFER ROADS SAVE LIVES

AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION

SLOW

This is to affirm that

JUSTIN BORDELON

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Expiration Date 9/28/22 *State Issued in* LA

Instructor Signature

Verification available by calling 1-877-642-4637 or at http://www.flagger.com


ATSSA
SAFER ROADS SAVE LIVES
AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION
SLOW
This is to affirm that
Sally Swilley
has satisfied the requirements
to be designated as a
CERTIFIED FLAGGER
Expiration Date 9/28/22
State Issued in LA
Instructor Signature
Verification available by calling 1-877-642-4637 or at http://www.flagger.com

21. **QA/QC Plan and/or Work Plan:**

QC/QA Plan

LADOTD

US 190: UPRR Overpass Near Opelousas

Contract No. 4400023434

Baton Rouge, LA

February 3, 2022

Contents

Tables

Appendices

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/replacement of several movable bridge structures. Each structure is summarized below with further detail in the appendices.

Client	Louisiana Department of Transportation and Development (LADOTD)
Project Name	*US 190 UPRR Overpass Near Opelousas – SPN H.000445 – Contract No. 4400023434*
HDR Project Number	TBD

Rev No.	Description	Date
0	Initial - 4400023434	February 2022

2 Project Purpose and Objective

2.1 Project Background and Purpose

HDR will support the LADOTD in preliminary and final design for the US 190 UPRR Overpass Bridges and the US 190 Little Teche Bayou Bridges

US 190 Bridges

1. State Project Number: H.000445

Structure Name: UPRR Overpass and Little Teche Bayou Bridges

Recall Numbers: 007490, 007500, 007530 & 007540

From the Scope of Services noted in the advertisement:

The Consultant shall provide engineering and related services to facilitate the replacement of the following structures:

Project Number	Recall Number	Latitude	Longitude	Existing Structure Type	Route	Crossing	Historic Category
H.000445	007490	30.535320	-92.059300	CONIBM	US 190	MO PACIFIC RR	Non-Priority
	007500	30.536010	-92.058500	CONIBM	US 190	MO PACIFIC RR	Non-Priority
	007530	30.545740	-92.010700	CONIBM	US 190	LITTLE TECHE BAYOU	Non-Priority
	007540	30.545990	-92.010500	CONIBM	US 190	LITTLE TECH BAYOU	Non-Priority

HDR's scope will involve two project stages as noted in the advertisement:

Stage 3 – Design

- *Topographic Survey*
- *Site Visit and Document Review*
- *Hydraulic Analysis and Design*
- *Preliminary Plan Development*
- *Final Plan Development*

2.2 Document Objective

The QC/QA 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 layout

a framework that will follow the requirements for the LADOTD Quality Control and Quality Assurance policies and guidance. The **QC/QC processes will be clearly described to ensure 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 QC/QA 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. QC/QA for Design Activities after Final Plans are Signed by Chief Engineer
9. Archiving Bridge Design Files.

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

A. Understanding of our team's role and responsibility as part of the QC/QA process
B. Understanding of the QC/QA 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 QC/QA for the designs and plans

F. Illustrate use of QC/QA tools such as checklists, standard forms, training materials that HDR uses throughout the process

3 QC/QA 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 of experts 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 23-year career. He is currently serving as the HDR PM for our work on the In-Depth Complex Bridge Inspection contract (subconsultant). We have successfully executed two task orders for the inspection of vertical lift bridges – Red River Bridge in Alexandria, and the Teche Bayou Bridge in Loreauville. Greg Kochersperger, PE, has over 20 years of bridge design experience and will support Mr. Jacobs as the Bridge QC lead for executing this scope of services. Keith Neshyba, PE, has over 35 years' experience in the design of rural and urban roadways. Danielle Rung has over 14 years of surveying experience and will serve as our overall Survey QC reviewer. Our other team members are noted in our organizational chart within our 24-102 and shows the depth of experience and team resources that 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

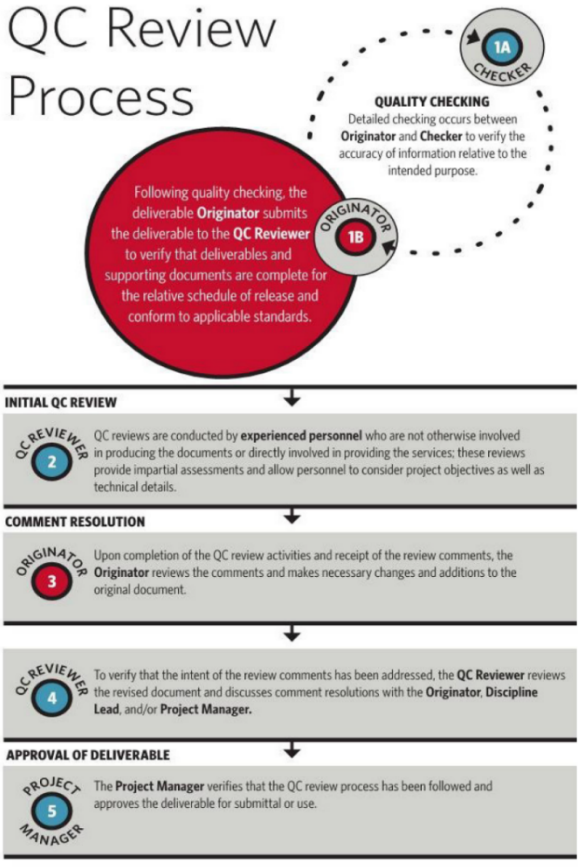
Our team has experience working cohesively to develop comprehensive design packages for multiple projects simultaneously if required. Our engineering leads will be directly responsible for the designs in their purview. They will direct their teams during the development of the design calculations, drawings, 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 QC/QA 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 QC/QA concepts that are needed for this project** 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 ensure 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 all disciplines. This process will be completed prior to each submittal. The 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 can then be sent to the independent QA 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 will be developed 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 QC/QA 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 QC/QA 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:

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
Example: "As per the suggestions I emailed, have you considered increasing the doodad angle? Let's discuss."	***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."***

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 such that all pertinent areas have been completed and all applicable processes were followed, and the comments were 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. The review forms will be signed and included with the final package as noted in the requirements. Greg Kochersperger, Keith Neshyba and Danielle Rung 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 check 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 check that all special provisions are stamped and accurately shown on the construction proposal.

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

Our team understands that the same QC/QA 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 asked to provide (by supplemental agreement) Construction Related Engineering Services (CRES), our approach 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.
- 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
  - PM will coordinate with the respective design leads to conduct final inspections. The report will contain observations with photos, , list of any items not in compliance with the contract documents. 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 all sub-consultants work and will require them to adhere to the framework of this**

QC/QA 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**.**

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 all projects during the contract period. Our team is **clearly identified in specific roles for design and QC/QA** 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
Project Manager - TBD	LADOTD	

Table 2. HDR's Project Team

Name	Role	Telephone	Email
Wesley Jacobs	PM / Bridge EOR	225-465-6361	Wesley.Jacobs@hdrinc.com
Greg Kochersperger	Structural Reviewer	972-960-4416	Gregory.Kochersperger@hdrinc.com
Keith Neshyba	Roadway Reviewer	713-622-9264	Keith.Neshyba@hdrinc.com
Danielle Rung	Survey Reviewer	337-347-5621	Danielle.Rung@hdrinc.com
Ryan Hedlund	Bridge/Structural Design Checker	813-282-2484	Ryan.Hedlund@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 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 Sheets	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: _____ Actual Hours: _____

Scope of QC Review:

Project Type/Phase:

Study:
- ☐ Concept/Schematic
- ☐ Draft
- ☐ Final
- ☐ _____

Design:
- ☐ Conceptual Design
- ☐ Design Development
- ☐ _____ % Complete
- ☐ Specifications
- ☐ Bid Documents
- ☐ _____

Construction:
- ☐ Progress Review_____ %
- ☐ Site Visit
- ☐ Close Out Review
- ☐ _____

Other:
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

Discipline/Area of Review:
- ☐ Architectural
- ☐ Structural
- ☐ Mechanical
- ☐ Electrical
- ☐ Civil
- ☐ Process
- ☐ Instrumentation & Control
- ☐ Geotechnical
- ☐ Environmental
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

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

Best Practice/Technical Procedure/QC Checklists:
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

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 Documents_Reference Materials\Bridge Design Section Archive\Design Manuals-Guidance	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 Documents_Standard Drawings	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 Project folder\Bridge-Facilities\Discipline\Plans *(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 Project folder_Published Submittals\Project Drawings_Final Plans	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 Project folder_Published Submittals\Project Drawings\Construction Submittals\Shop Drawings 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 Load Rating.	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 Chief Engineer Orders.	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) *(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.)*	ACT* + 1 CY**	Final Project Acceptance Date + 5 Years	Archive electronically in Project-wise under Project Folder\ _Published Submittals\Project Documents\Project Correspondence Emails	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 Bridge Design Subject Files	Everyone

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

**CY = Calendar Year

Appendix G

Evaluation Instructions For Consultants QC/QA Plan Document

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

G.2 - QC/QA Plan Document Rating Matrix

G.3 - QC/QA Plan Document Grading Sheet

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

A. 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

Evaluation Criteria	QC/QA Plan Document Rating Matrix			
	4 - Excellent	**3 - Good**	**2 -Acceptable**	**1- Not Acceptable**
A. Understanding of Consultant's and DOTD's role in QC/QA of Consultant's work	Demonstrate clear understanding that the Consultant is fully responsible for QC/QA of their work and DOTD is not responsible for performing QC/QA of consultant's work.	Demonstrate good understanding that the Consultant is fully responsible for QC/QA of their work and DOTD is not responsible for performing QC/QA of consultant's work.	Demonstrate basic understanding that the Consultant is fully responsible for QC/QA of their work and DOTD is not responsible for performing QC/QA of consultant's work.	Demonstrate poor understanding that the Consultant is fully responsible for QC/QA of their work and DOTD is not responsible for performing QC/QA of consultant's work.
B. Understanding of the QC/QA concepts in Bridge Design	Demonstrate clear understanding of QC/QA concepts in bridge design. Definitions of QC/QA are clearly defined.	Demonstrate good understanding of QC/QA concepts in bridge design. Definitions of QC/QA are clearly defined.	Demonstrate basic understanding of QC/QA concepts in bridge design. The definitions of QC/QA are defined.	Demonstrate poor understanding of QC/QA concepts in bridge design. The definitions of QC/QA are not clearly defined.
C. Responsibilities of Designer, Checker, Reviewer, and Engineer of Record	Responsibilities of Designer, Checkers, Reviewer, and Engineer of Record are clearly defined.	Responsibilities of Designer, Checker, Reviewer, and Engineer of Record are well defined.	Responsibilities of Designer, Checker, Reviewer, and Engineer of Record are defined.	Responsibilities of Designer, Checker, Reviewer, and Engineer of Record are not clearly defined.
D. Description of the QC and QA processes and its effectiveness to ensure the accuracy of the design and the plan details	QC/QA processes are clearly described and should be very effective to ensure the accuracy of the design and the plan details.	QC/QA processes are clearly described and should be effective to ensure the accuracy of the design and plan details.	QC/QA processes are described and should be effective to ensure the accuracy of the design and the construction plan details.	QC/QA processes are not clearly described and do not seems to be effective to ensure the accuracy of the design and the construction plan details.

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

Appendix J
Project Activity Log Sheet

Project No.:
Project Name:
Bridge Task Manager:

Date	Project Activity	Comments

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 (as registered with Louisiana's Secretary of State)	**Address**	**Point of Contact and email address**	**Phone Number**
C. H. Fenstermaker & Associates, L.L.C.	135 Regency Square Lafayette, LA 70508	Kimberly McDaniel, P.E., PTOE kimberlym@fenstermaker.com	(337) 237-2200

(Add rows as needed)

23. **Location:**

If location is an evaluation criterion for this advertisement and the prime consultant intends to establish a local presence, describe the plan for doing so. Otherwise, leave this section blank.