# LADOTD

 $\mathbf{\Gamma}$ 

Contract for US 190: UPRR Overpass Near Opelousas Contract Number 4400023434 State Project Number H.000445 February 10, 2022



#### **Genuine Ingenuity**

10000 Perkins Rowe Suite 280 Baton Rouge, LA 70810

225.757.5849 GreshamSmith.com

#### February 10, 2022

Ms. Darhlene Major Consultant Contract Services Administrator Department of Transportation and Development 1201 Capitol Access Road, Room 405-E Baton Rouge, LA 70802

RE: Contract for US 190: UPRR Overpass Near Opelousas Contract No.4400023434

Dear Ms. Major,

At Gresham Smith, we have been honored to partner with LADOTD on a variety of projects. From our Baton Rouge office, and also at the corporate level, we share in the stake that the LADOTD holds in carrying out its responsibilities in the most effective manner possible. Our key local staff all have experience successfully completing road, bridge, complete street, and traffic projects individually for LADOTD and we look forward to the opportunity to partner with LADOTD on this Contract for the Union Pacific Railroad Overpass bridges on US 190 near Opelousas Louisiana.

Building upon the successful we have shown on the numerous task orders we have completed under our existing In-Depth Bridge Inspection Contract along with the bridge design we have performed throughout the southeastern US, specifically our experience in Accelerated Bridge Construction (ABC) work, Gresham Smith is excited to offer these services to LADOTD. Gresham Smith will manage all aspects of the program and our overriding goal is to Focus on the Success of Our Client. To make this project a success for LADOTD, we have assembled an extremely strong team that includes Gresham Smith's local staff who have extensive experience and knowledge of the department's policies, processes and procedures. Our local staff gained this experience and knowledge by working as employees and delivered projects for LADOTD. Our local team will be supported by key subject matter experts located in regional offices. Gresham Smith will perform the Bridge Design for the Little Teche Bayou bridges, the Roadway Design and the Traffic Engineering (TTC Plans and TMP) required for this project. Gresham Smith staff will be supported by Mott MacDonald (MM) and Civil Design & Construction (CDC), both of who we have worked closely with in the past. Mott MacDonald will support Gresham Smith with the bridge design for the railroad bridges. CDC will perform any surveying for this project that is required. Our team brings added value over and above your vision for the contract, and offers the DOTD a winning formula based on the following:

- Herbert "Bert" Moore II, P.E., PLS, PTOE, Project Executive and Gresham Smith's Louisiana Transportation Leader, is an experienced traffic engineer who has developed many Transportation Management Plans (TMP) and Temporary Traffic Control (TTC) plans for LADOTD. In his 24 years of experience as both as a consultant and as LADOTD's District Traffic Operations Engineer for District 61. As the Project Executive, Bert will ensure the team has the expertise and resources necessary for LADOTD's successful completion of this project on-time and on-budget.
- John Weres, PE, Project Manager, has over 40 years of experience with a focus on bridge inspection, bridge design, and construction management. He leads our Louisiana bridge practice and will supervise the day to day operations for this contract. John has been serving as our Project Manager for the In-Depth Bridge Inspection Contract, which has included 11 bridge inspections as well as 1 emergency bridge inspection and design repair for the Spring Street bridge in Shreveport.
- Emery Sayre, P.E. will serve as lead design for the hydraulic bridge crossings. Emery is currently leading our Jackson Mississippi office's bridge team. Gresham Smith has completed approximately 20 bridge replacements for MDOT in the past 4 years. MDOT faces similar challenges to LADOTD, with a multitude of timber supported and concrete slab structures on collectors and arterials, many approaching the end of their service life. Emery has been involved in the LADOTD Complex Bridge Inspection program and he is very familiar with the DOTD's policies and procedures.
- Brennon Hughes, P.E., will lead the roadway design effort and be responsible for compiling and preparing the bridge contract final bid packages. Brennon is a former DOTD engineer who is knowledgeable of the final plan requirements and has led the effort for preparing 12 bid packages in the past 3 years for our LADOTD Retainer Contract for Safe Routes to Schools and Local Road Safety Program.

The Gresham Smith team is eager, enthusiastic and available to start work immediately on this project. We respectfully ask for your consideration and appreciate the opportunity to present this proposal. Please feel free to contact me with any questions at 225.282.2101 or by email at bert.moore@greshamsmith.com or our proposed project manager, John Weres at 225.960.5480 or by email at john.weres@greshamsmith.com.

Sincerely,

Herbert "Bert" Moore, II, P.E., PLS, PTOE State Transportation Leader - Louisiana

# **DOTD FORM: 24-102** PROPOSAL TO PROVIDE CONSULTANT SERVICES

Prime consultant shall complete the DOTD Form 24-102 without altering the Form's text; however, the instruction and/or guidance for Sections 12 through 23 can be removed but do not remove Section title and number. ANY CONSULTANT FAILING TO SUBMIT ANY OF THE INFORMATION REQUIRED ON THE DOTD FORM 24-102, OR PROVIDING INACCURATE INFORMATION ON THE DOTD FORM 24-102, MAY BE CONSIDERED NON-RESPONSIVE. Prime consultant should enter the firm name in the footer at the bottom of this page. (It will carry over to subsequent pages.)

1. Contract title as shown in the advertisement	Contract for 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
<b>4.</b> Prime consultant name (as registered with the Louisiana Secretary of State where such registration is required by law)	Gresham Smith
<b>5.</b> Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	EF.0003429 DUNS number: 059153676
6. Prime consultant mailing address	10000 Perkins Rowe, Suite 280, Baton Rouge, LA 70810
<b>7.</b> Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	10000 Perkins Rowe, Suite 280, Baton Rouge, LA 70810
<b>8.</b> Name, title, phone number, and email address of prime consultant's contract point of contact	John Weres, P.E., Senior Bridge Engineer 225.960.5480, john.weres@greshamsmith.com
<b>9.</b> Name, title, phone number, and email address of the official with signing authority for this proposal	Herbert "Bert" Moore, II, P.E., PLS, PTOE State Transportation Leader - Louisiana 225.757.5849 / bert.moore@greshamsmith.com

<b>10.</b> 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): When the same person as #9): Date: February 10, 2022
<b>11.</b> 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): Civil Design and Construction* Firm(s)' %: 5% *DBE Goal is 0% DBE Chosen for Qualifications

# 12. Past Performance Evaluation Discipline Table:

Past Performance Rating Categories	% of Overall Contract	Gresham Smith (Prime)	Mott MacDonald (Sub)	Civil Design & Construction, Inc. (DBE) (Sub)		
Bridge	50%	50%	50%	0%		
Traffic	25%	100%	0%	0%		
Road	20%	100%	0%	0%		
Survey	5%	0%	0%	100%		
Identify the percentage of work for the <u>overall contract</u> to be performed by the prime consultant and each sub-consultant.						
Percent of Contract	100%	70%	25%	5%		

### 13. Firm Size:

Firm Name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
Gresham Smith	Principal	1	2
Gresham Smith	Supervisor-Engineer	4	8
Gresham Smith	Supervisor-Other	0	5
Gresham Smith	Engineer	3	11
Gresham Smith	Engineer-Other	0	4
Gresham Smith	Planner	0	3
Gresham Smith	Engineer Intern	4	8
Gresham Smith	Senior Technician	2	3
Gresham Smith	GIS Analyst	0	1
Gresham Smith	CADD-Operator	0	2
Gresham Smith	Clerical	1	1
Mott MacDonald	Supervisor-Engineer	2	32
Mott MacDonald	Engineer	2	47
Mott MacDonald	Engineer Intern	0	2
Civil Design & Construction, Inc. (CD&C)	Surveyor	2	2
Civil Design & Construction, Inc. (CD&C)	Party Chief	2	4
Civil Design & Construction, Inc. (CD&C)	Instrument Man	2	2
Civil Design & Construction, Inc. (CD&C)	Rodman	2	2
Civil Design & Construction, Inc. (CD&C)	CADD Operator	2	2
Civil Design & Construction, Inc. (CD&C)	Senior Technician	2	3

#### 14. Organizational Chart:



# **15. Minimum Personnel Requirements:**

MPR (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 required	State of license	License / certification expiration date
1.	Herbert "Bert" Moore, II, P.E., PLS, PTOE	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 31065 Exp. 9/30/2022
			PLS	Louisiana	PLS LA 5043
			PTOE	International	Exp. 9/30/2022 PTOE 2728 Exp. 9/30/2024
2.	Herbert "Bert" Moore, II, P.E., PLS, PTOE	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 31065 Exp. 9/30/2022
			PLS	Louisiana	PLS LA 5043
			PTOE	International	Exp. 9/30/2022 PTOE 2728 Exp. 9/30/2024
3.	John Weres, P.E.	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 36429
	Emery Sayre, P.E.	Gresham Smith	P.E. (Civil)	Louisiana	Exp. 9/30/2022 P.E., LA 34414 Exp. 9/30/2023
	Tom Tran, P.E.	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 32072 Exp. 3/31/2022
4.	Ralph Burgess	CDC	PLS	Louisiana	PLS, LA 5040
	Chris Ballard	CDC	PLS	Louisiana	Exp. 9/30/2022 P.E., LA 5033 Exp. 9/30/2022
5.	Ralph Burgess	CDC	PLS	Louisiana	PLS, LA 5040
	Chris Ballard	CDC	PLS	Louisiana	Exp. 9/30/2022 P.E., LA 5033 Exp. 9/30/2022
6.	Richard Savoie, P.E.	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 20936
	Brennon Hughes, P.E.	Gresham Smith	P.E. (Civil)	Louisiana	Exp. 9/30/2022 P.E., LA 39985 Exp. 3/31/2022
	Matt Williams, P.E.	Gresham Smith	P.E. (Civil)	Louisiana	P.E. LA 38683 Exp. 9/30/2022

(Add rows as needed)

Her PTC Proje	bert "Bert" Mo DE	oore, II, P.E.	., PLS,	Years of experience with this firm/employer	6	
					10	
Degree(s) / Ye	ears / Specialization	Bachelor of Scie	nce / 1999 / Civil Er	ngineering, Louisiana State University		
Active re sta	gistration number / ate / expiration date	P.E.0031065 / L	A / Exp. 9/30/22   P	TOE 2728 / Exp. 9/30/24   PLS 5043 / LA / Exp. 9/30/22		
	Year registered	2004(PE); 2009(PTOE); 2010(PLS)	Discipline	P.E./Civil, PLS, PTOE		
Contract role(s) / bri	ef description of res	ponsibilities	Project Executive tasks for this contr	/ Bert will support the traffic, design, and analysis / engineeri act.	ng	
Experience dates (mm/yy–mm/yy)	Experience and qu "designed intersec	alifications relev tion", etc. Exper	ant to the propose ience dates should	ed contract; <i>i.e.</i> , "designed drainage", "designed girders d cover the time specified in the applicable MPR(s).	",	
10/17 – 04/18 <mark>Key Project #9</mark>	LADOTD, US 90 Bridge Maintenance over I-10 Ramps, Transportation Management Plan (TMP), Lake Charles, LA   <i>Project Executive.</i> Gresham Smith was selected to develop a TMP for the replacement of the bridge deck of the US 90 overpass over I-10 in Lake Charles, LA. The project included working with the design engineers to determine the required lane closures for the construction, data collection and queue and safety analyses. Bert was responsible for the overall study including overseeing the data collection review, conducting the queue and safety analysis, implementing the proper traffic control place and doublement of the TMP.					
04/18 – 05/19 <mark>Key Project #10</mark>	LADOTD, I-10 TMP West of LA 108 to I-210 Interchange TMP, Lake Charles, LA   <i>Project Executive</i> . Gresham Smith developed a TMP for the Rubbelization and Overlay on I-10 between I-210 and the LA 108 Interchange in Lake Charles, LA. This project included the mill and overlay of I-10, widening two flat deck bridges on I-10 to add a lane, and replacing all of the concrete panels on I-10 through the LA 108 interchange. In order to replace the concrete panels on I-10, traffic was moved to a C/D road within the interchange and cloverleaf ramps were closed during construction. Two temporary traffic signals were designed to facilitate traffic at this interchange. This project included data collection and queue and safety analyses and traffic signal study including overseeing the data collection review, conducting the queue and safety analysis, implementing the proper traffic control plans, development of the TMP report, the design of two temporary traffic signals and OA/OC					
04/20 – 09/20 <mark>Key Project #1</mark>	<ul> <li>and satety analysis, implementing the proper traffic control plans, development of the TMP report, the design of two temporary traffic signals and QA/QC.</li> <li>LADOTD, Complex Bridge Inspections, Statewide, LA   Task Order 2 - Emergency Bridge Repairs, US 71 in Downtown Shreveport, LA   Project Executive. In April 2020, a train derailment damaged Bent 3 of the Spring Street Bridge forcing the roadway closure. Gresham Smith was selected to perform the bridge repairs to open the bridge. Working with the selected contractor, helical piles were designed to support the new column foundations and crash wall. John served as the design coordinator and facilitated the repairs. Bert served as Project Executive (Principal) and assisted with DOTD coordination.</li> </ul>					

	LADOTD, SRTS/LRSP Task Order 6: Endom Bridge Preliminary and Final Design, West Monroe, LA   Project
02/17 – 12/20	<i>Executive.</i> Bert was responsible for overseeing the data collection, analyzing the traffic counts to determine appropriate lane
Key Project #8	configuration and geometry, and support and coordination of overall design.
05/17 – 03/19	<b>LADOTD, I-210 at LA 1138-2 (Nelson Road) Interchange Modification Re-Evaluation Study, Lake Charles, LA  </b> <i>Project Executive.</i> Gresham Smith was selected to develop a calibrated VISSIM model to model existing conditions and the future proposed diverging diamond interchange at I-210 at Nelson Road in order to evaluate the proposed interchange design. The project included data collection, development of growth rates, conduct a road safety audit, developing and calibrating an existing VISSIM model and evaluation of the proposed alternative. Bert was responsible for the overall study, overseeing data collection, conducting safety analysis, development of VISSIM models, development of alternatives and the report.
11/08 – 11/14	LADOTD, Baton Rouge, LA   <i>District Traffic Operations Engineer</i> . While at LADOTD Bert and his staff developed many projects to improve the safety and reduce conflict points on the highway system. Some of these projects were initiated by request from internally, the public or an elected official, as result of an RSA, or from the review of crashes or the abnormal crash list by Bert and his staff. These projects were implemented with a number of different funding sources such as Access Management, TSM, and funds from the safety section. Bert and his staff were responsible for writing the stage zero forms to implement these projects. Some of these stage zeros include LA 75 Roundabouts in Plaquemine, LA, Access Management Improvements at LA 42 at US 61, RSA improvements to LA 427 (Acadian), and TSM Turn Lane Installation on LA 30 at LA 74.
02/16 — 10/19	<ul> <li>LADOTD, Retainer contract for Safe Routes to Schools (SRTS) and Local Road Safety Program (LRSP), Statewide (with the majority of work in Districts 05 &amp; 58), Contract 4400005894, Statewide   <i>Project Executive</i>. Bert served as Project Executive (Principal) for Gresham Smith's implementation of the entire contract, including that all task orders are completed on-time and under budget. He ensured that Quality Assurance was properly implemented and documented on all projects. Bert's technical expertise was utilized on the following Task Orders:</li> <li>T.O. 1 – Vidalia Traffic Study, Vidalia, LA   <i>Project Manager</i>. Bert worked closely with the local municipality and all stake holders to determine all critical project issues and to develop solutions that could be implemented in a cost-effective project to improve safety and traffic flow.</li> <li>LADOTD, SRTS/LRSP Task Order 2: McMillan Road Intersection Traffic Study, West Monroe, LA   <i>Project Manager</i>. Bert utilized his knowledge of LADOTD's traffic signal program to identify areas for improvement in the local roadway network and to work with local officials and LADOTD Maintenance staff to identify the most appropriate intersection improvements.</li> <li>LADOTD, SRTS/LRSP Task Order 12: Constitution Drive Traffic Study, West Monroe, LA   <i>Project Executive</i>. Bert was responsible for leading the traffic study. Bert oversaw the data collection and peak hour field observations, analyzed the traffic data, reviewed crash reports, development of recommended improvements and the report. Also lead meetings with the mayor to discuss recommendations out lined within the traffic study.</li> </ul>
Certifications (See section 20)	<ul> <li>DOTD Traffic Engineering Analysis Process &amp; Report – Modules 1, 2 and 3</li> <li>U.S. Department of Transportation Federal Highway Administration – DPFA Certification</li> <li>LADOTD – Highway Safety Manual Workshop NCHRP 17-38</li> <li>Louisiana Local Technical Assistance Program – Regional Crash Data Workshop</li> <li>American Traffic Safety Services Association – Traffic Control Supervisor. LA State Specific</li> </ul>

Jol Sen	hn Weres, P.E. ior Bridge Engineer			Years of experience with this employer	4		
				Years of experience with other employer(s)	37		
Degree(s) /	Years / Specialization	Bachelor of Science /	1980 / Civil Er	ngineering, University of Pittsburgh			
Active	registration number / state / expiration date	PE.0036429 / LA / Exp	o. 9/30/2023				
	Year registered	2011 (LA) 1985 (PA)	Discipline	P.E./Civil			
Contract role(s) / bri	ef description of respo	onsibilities	Project Man project team	ager / Lead Bridge Engineer. John will manage the overall and lead the coordination of the bridge design teams.	]		
Experience dates (mm/yy–mm/yy)	Experience and qual "designed intersection	ifications relevant to t on", etc. Experience d	he proposed ates should o	contract; <i>i.e.</i> , "designed drainage", "designed girders cover the time specified in the applicable MPR(s).	",		
06/19 – 03/20 <mark>Key Project #5</mark>	LADOTD, Complex Bridge Inspections, Statewide, LA   <i>Project Manager</i> . Task Order 1 - Retainer project for various bridge inspections of major river crossings. Completed hands-on inspection of fracture critical elements on several structures including the LA1 Truss over Atchafalaya River at Simmesport, LA8 Segmental Bridge over Red River at Boyce and the US165 Vertical Lift Bridge over Red River. Gresham Smith was able to complete the inspection of Bridge 005860, in Jeanerette, a steel swing truss, and Bridge 009130, in Characteria, a steel swing truss, within the original budget.						
04/20 – 09/20 <mark>Key Project #1</mark>	LADOTD, Complex E Downtown Shrevepo Bridge forcing the road Working with the selec John served as the de	LADOTD, Complex Bridge Inspections, Statewide, LA   Task Order 2 - Emergency Bridge Repairs, US 71 in Downtown Shreveport, LA   <i>Project Manager</i> . In April 2020, a train derailment damaged Bent 3 of the Spring Street Bridge forcing the roadway closure. Gresham Smith was selected to perform the bridge repairs to open the bridge. Working with the selected contractor, helical piles were designed to support the new column foundations and crash wall.					
07/15 – 12/18 - Design <mark>Key Project #2</mark>	GDOT - SR 15/Sandersville Truck Route GRIP Rural Widening and New Bridge Over Railroad Spur Line, Sandersville, GA   <i>Project Engineer.</i> Gresham Smith developed preliminary and final plans for a truck bypass project, including a combination of new alignment and existing roadway widening to create a four-lane section, as well as a new bridge over a railroad spur line. We developed a value engineering design utilizing a reduced median width and MSE walls to reduce the bridge length to reduce costs, including mitigation costs. We also developed the hydraulic analysis and design of a new triple 6-foot by 6-foot culvert at Sisters Church Creek.						
07/13 – 12/17 Key Project #3	Metro Nashville Publ final design and perfor	ic Works, Division Street med shop drawing revie	eet Extension ew and constr	n, Nashville, TN   QA/QC. John provided quality control fo uction consultation.	or the		
10/15 – 09/18 Key Project #4	TDOT, I-14 Superstru control for the final des	icture Replacements – sign and performed sho	- Spring & Ol p drawing revi	dham Street, Nashville, TN   QA/QC. John provided qual ew and construction consultation.	ity		
11/17 – 09/21 Key Project #6	MDOT, MS-178 Bento Design Engineer for th Mississippi. These wa details such as jointles	on County Bridges, Be ne final design of a 2-cel ter crossings improved t ss bridges.	nton County I box culvert a the hydraulic o	, <b>MS   Lead Structure Engineer.</b> John served as the Lead and two prestressed concrete girder structures in northern conditions at the sites and incorporated low-maintenance	Ŀ		

01/17 – 08/21 Key Project #7	<b>MDOT, Marshall County Bridges Replacements, MS   Lead Structure Engineer</b> . John provided construction services for the new 3-span Byahalia Bridge and served as Engineer of Record (EOR) for replacement of 5 multi-span stream crossing structures in north Mississippi.
07/20 – Ongoing	LADOTD, Complex Bridge Inspections, Statewide, LA   <i>Project Manager</i> . Task Order 3 - Retainer project for various movable bridge inspections. Completed hands-on inspection of fracture critical elements on several structures and coordinated the efforts of mechanical and electrical staff and served as EOR for the reports including the Bridge 006210 Vertical Lift Bridge at Loreauville, LA, Bridge 054360 Gross Tete Steel Swing Bridge and Bridge 054472 Indian Village Steel Swing Bridge in Iberville Parish. Due to cost savings on the initial 3 bridges in Task Order 2, Gresham Smith was able to complete the inspection of Bridge 006306, Bayside Bridge in Jeanerette, a steel swing bridge – within the original budget for the initial three bridges.
06/14 – 03/17 With another firm	<b>LADOTD, Complex Bridge Inspections, Statewide, LA   Deputy Project Manager/Project Manager.</b> Retainer project for various bridge inspections of major river crossings. Completed hands-on inspection of fracture critical elements on several structures including the Louisa Bascule Bridge in St. Mary's Parish. John served on the field inspection teams for the I-20 Mississippi River Bridge in Vicksburg and the LA 47 Bridge over the Mississippi River Gulf Outlet.
04/15 – 03/17 With another firm	<b>LADOTD, I-49 Lafayette Connector, Lafayette, LA   Deputy Lead Structural Design Engineer.</b> Served as Deputy Lead Structural Design Engineer for the concept design for a 4-mile long elevated structure through an urban area. Structure concepts included post-tensioned concrete U-girders, span-by-span segmental boxes, and steel trapezoidal boxes. John coordinated the efforts of the individual design teams for each structure type and served as the public coordination lead for the structures as part of an overall community involvement plan on developing the proposed structure type for this \$800M project.
01/02 – 03/06	Allegheny Ludium Truss Renovation, Westmoreland County, PA   <i>Project Manager</i> . John served as lead construction manager responsible for the administration and inspection of the project. John reviewed all contractor submittals including demo and erection procedures, falsework design, change orders, material testing reports, and construction activity. This was a \$2.3 million rehabilitation of a 700' steel truss. The project included redecking, steel repairs, and full repainting. Maintaining traffic on the two-lane through truss structure at all times was a critical component as the bridge served as the only vehicular access for a specialty steel mill, and the finished rolled galvanized steel plates had to be driven across the bridge on a daily basis.
Certifications (See section 20)	<ul> <li>American Traffic Safety Services Association –Traffic Control Supervisor, LA State</li> <li>Specific NHI 130055 Bridge Inspection Team Leader and NHI 130078 Fracture Critical Steel Inspection</li> <li>FAA Part 107 USAS (Drone) Pilot.</li> </ul>
Career	John's 40+-year career includes diverse structure related activities including inspection, alternatives analysis, final design and construction management and program management. John served as Team Leader on several LA DOTD complex bridge inspections and as Project Manager for underwater bridge inspections for TDOT.

To Stru	m Tran, P.E. uctures QA/QC			Years of experience with this employer	9	
ALL				Years of experience with other employer(s)	22	
Degree(s) /	Years / Specialization	Bachelor of Scie University of Ce	ence / 1991 / Civil Er ntral Florida	ngineering,		
Active	e registration number / state / expiration date	PE.0032072 / L/	A / Exp. 3/31/22			
	Year registered	2005 (LA)	Discipline	P.E./Civil		
Contract role(s) / br	ief description of respo	onsibilities	Technical Resource structural design.	e / Structures QAQC. Tom will provide quality control for	the	
Experience dates (mm/yy–mm/yy)	Experience and qualit "designed intersection	fications relevan n", etc. Experier	it to the proposed once dates should c	contract; <i>i.e.</i> , "designed drainage", "designed girders" over the time specified in the applicable MPR(s).	",	
11/14 – 10/17 Key Project #7	MDOT, MS-309 Bridge this project. The design or pipe piles. Span lengt	<b>Replacements, N</b> included replacing hs ranged from 41	farshall County MS full timber structures I' to 140'. Structure a	Lead Bridge Engineer. Tom served as the design engineer with AASHTO beam structures supported by either concrete rrangements varied from 3-span to 6-span structures.	er for e piles	
07/15 – 12/18 - Design <mark>Key Project #2</mark>	GDOT, SR 15/Sandersville Truck Route GRIP Rural Widening and New Bridge Over Railroad Spur Line, Sandersville, GA   Engineer of Record. Gresham Smith developed preliminary and final plans for a truck bypass project, including a combination of new alignment and existing roadway widening to create a four-lane section, as well as a new bridge over a railroad spur line. We developed a value engineering design utilizing a reduced median width and MSE walls to reduce the bridge length to reduce costs, including mitigation costs. We also developed the hydraulic analysis and design of a new triple 6- foot by 6-foot culvert at Sisters Church Creek					
10/19 – Ongoing	MDOT, I-55 West Frontage Road Bridge Preservation (Bridge No.16.9C), Madison County, MS   <i>Lead Bridge Engineer.</i> Gresham is performing Phase A & B Roadway Drainage analysis and design and bridge repair conceptual and final design for a bridge site with poor drainage and an embankment slide leading to damage to the end wall at the south end of the bridge. Tom is the lead structural design engineer for the phase "A" preliminary design of this fourspan prestressed concrete beam bridge over Old Highway 27 and KCS railroad. The bridge is 330 feet long and 80 feet wide and designed for AASHTO LRFD specification					
11/13 – 10/14	<b>MDOT, Roadway WA #4: US 82 Underpass Bridge Removal at Leland, Leland, MS   Senior Bridge Engineer.</b> Gresham Smith was tasked with the US 82 Underpass Bridge Removal projects to provide a feasibility study and engineering design services as required to prepare Phase A (preliminary design) plans for removal of an abandoned railroad under-pass bridge and reconstruction of approximately 1,000 linear feet of US 82 near the Old Hwy. intersection in Leland.					
01/13 – 06/14	LADOTD, ITS Design a Statewide, LA   Senior poles could be installed cantilever design to sup	nd Implementation Bridge Engineer on the existing four port the new front	on Services, WO#4: Tom led the detailed Indations within the b access LED DMS en	I-10 Twin Span ITS-Orleans & St. Tammany Parishes, I structural analyses of new camera poles camera and the D ridge structure. The DMS pole required the design of a butte closure.	)MS erfly	

Ma Qua	atthew Williams, ality Assurance Manag	<b>P.E.</b> er		Years of experience with this employer	11
				Years of experience with other employer(s)	14
Degree(s) /	Years / Specialization	Bachelor of Scie	nce / 1996 / Civil Er	ngineering	
Active	e registration number / state / expiration date	PE.38683 / LA /	Exp. 9/30/2022   PE	E. 24120 / AL / Exp. 12/31/2021	
	Year registered	2014 (LA) 2001 (AL)	Discipline	P.E./Civil	
Contract role(s) / br	rief description of respo	onsibilities	Quality Assurance design.	Manager / Matthew will provide quality control for roadwa	зy
Experience dates (mm/yy–mm/yy)	Experience and qualit "designed intersectio	fications relevan n", etc. Experien	t to the proposed on the proposed of the second s	contract; <i>i.e.</i> , "designed drainage", "designed girders <sup>:</sup> over the time specified in the applicable MPR(s).	",
11/14 – 09/21 Key Project #7	MDOT, 2014 RWD WA responsible for the road	<b>#1: SR 309 Byh</b> dway design and I	alia Creek BR, Mar eading the develop	<b>shall County, MS   <i>Transportation Engineer</i>.</b> Matt was ment of the bid package.	
11/17 – 09/21 Key Project #6	MDOT, MS-178 Bento roadway design and de as a cost-savings initia	n County Bridge evelopment of the tive.	<b>s, Benton County,</b> bid package. An off	<b>MS   <i>Transportation Engineer</i></b> . Matt was responsible for -line concept alignment was revised to on-line reconstruct	r the tion
01/14 – 06/17	MDOT, I-55 from County Line Road to Old Agency Road (Phase A), Madison County, MS   <i>Project Manager</i> . Responsibilities included the preparation of conceptual plans for the realignment of the I-55 and I-220 interchange as well as various side ramp connections in Jackson, Mississippi. Matt was responsible for ensuring design met required criteria, and ensuring ramp adjustments and urban drainage design along County Line Road were constructible.				
04/10 – 08/15	MDOT, I-55 Interchange design of roadway geo and quantities; determi	ge at Gluckstadt, metrics, rural and nation of right-of-v	Madison County, urban drainage, cro vay limits; and cost	<b>MS</b>   <i>Transportation Engineer</i> . Matt was responsible for oss-sections, erosion control, and miscellaneous plan deta estimating.	ails
04/11 – 03/13	MDOT, SR 15 from Union County Line to One Mile North of SR 4, Tippah County, MS   <i>Transportation Engineer</i> . Matt was responsible for design of roadway geometrics, rural and urban drainage design, cross-sections, traffic control, erosion control, and miscellaneous plan details and quantities; and cost estimating.				
01/16 - 06/20	MDOT, SR 2 from Exist responsible for develop owners, ability to meet location. Matt is respon efforts are all coordinat	sting SR 15 to SF bing alternatives a design criteria, ar sible for ensuring ed.	R 15 Bypass, Tippa long existing East P id constructability. T the project meets d	ah County, MS   <i>Project Engineer/Project Manager</i> . Ma Palmer Street which compared impacts to adjacent proper This project was subsequently changed to include SR2 on lesign criteria and that roadway, bridge and bridge hydrau	tt was ty new Ilic

Courtney Rome, P.E. Bridge Engineer		Years of experience with this employer	4			
T S A				Years of experience with other employer(s)	7	
Degree(s) /	Years / Specialization	Bachelor of Scie	ence / 2009 / Civil Er	ngineering, Southern University and A&M College		
Active	registration number / state / expiration date	PE.0043355 / LA	A / Exp. 9/30/23			
	Year registered	2019 (LA)	Discipline	P.E./Civil		
Contract role(s) / br	ief description of respo	onsibilities	Bridge Engineer / structures and sup	Courtney will perform bridge design for the water crossing port the hydraulics evaluation.	1	
Experience dates (mm/yy–mm/yy)	Experience and qualif "designed intersectio	ications relevan n", etc. Experier	t to the proposed once dates should c	contract; <i>i.e.</i> , "designed drainage", "designed girders' over the time specified in the applicable MPR(s).	",	
06/19 – Ongoing Key Projects #1 & #5	<b>LADOTD, Complex Bridge Inspections, Statewide, LA   Engineer.</b> As an NHI Certified Bridge Inspector, Courtney is performing bridge inspections for various complex bridge structures throughout Louisiana, including steel trusses, concrete structures and moveable bridges. Courtney performed the foundation designs for the railroad crashwall and bridge repairs for the US 71 Spring Street Bridge Emergency Bridge Repairs.					
11/17 – Ongoing Key Project #6	<b>MDOT, SR 178 Benton County Bridge Replacements, MS  </b> <i>Engineer.</i> Gresham Smith is providing final design (Phase B) services for the replacement of two water crossings on parallel alignment. Both bridges include utilization of prestressed Florida I-Beams (FIB) to maximize span lengths while minimizing structure depths. Courtney performed the deck design and beam design services for a one-span (135-foot) and three-span (80- x 100- x 80-foot) structure and also completed the design of pipe piles for the pier bents.					
01/18 – Ongoing	<b>City of Alcoa, Tesla Road Greenway Project, TN  </b> <i>Engineer.</i> Gresham Smith is providing final design services on several structures in order to convert an abandoned railroad corridor to a multipurpose trail and improve vehicular access to Alcoa High School. Courtney is designing a redecking plan to convert an existing railroad trestle to a multi-use trail facility over an existing stream. He is also designing foundations and a retaining wall for a precast concrete arch structure to carry the new trail over a proposed local street, with steel pile foundations.					
07/18 – Ongoing	<b>MDOT, SR 149 Simpson County Bridge Replacements, MS   <i>Engineer.</i></b> Gresham Smith is partnering with MDOT for Phase B (Final Design) for the reconstruction of S.R. 149 near D'Lo, Simpson County, Mississippi. Gresham Smith is designing the two longer structures (Bridge 128.2 and Bridge 128.6). This is the first instance of partial depth deck panels utilized for MDOT as a pilot to verify the ease of construction and as an accelerated (ABC) time condition. Courtney provided the structural design and plan development in coordination with MDOT.					
Certifications (See section 20)	<ul> <li>NHI 130055 – Brid</li> <li>SPRAT Level 1 Ro</li> </ul>	ge Inspection Tea pe Access Techn	am Leader and NHI nician.	130078 Fracture Critical Insp. Techniques		

Er Ser	nery Sayre, P.E.			Years of experience with this employer	3
X				Years of experience with other employer(s)	17
Degree(s) /	Years / Specialization	Bachelor of Scie	ence / 2001 / Civil Er	ngineering, University of Mississippi	
Active	e registration number / state / expiration date	PE. 0034414 / L	A / Exp. 9/30/2023		
	Year registered	2009 (LA)	Discipline	P.E./Civil	
Contract role(s) / bi	rief description of respo	onsibilities	Senior Bridge Eng designs.	ineer / Emery will lead the structural analysis for the LG g	irder
Experience dates (mm/yy–mm/yy)	Experience and qualit "designed intersectio	fications relevan n", etc. Experier	t to the proposed once dates should c	contract; <i>i.e.</i> , "designed drainage", "designed girders over the time specified in the applicable MPR(s).	",
06/19 – Ongoing Key Project #5	LADOTD, Complex Br NHI certified Team Lea Inspection Program wit Bridge Inspection vehic has completed Task Or LA 1 Simmespor Jackson Street	ridge Inspections Ider, Emery serve In LADOTD's Sector Ider (UBI) and he a Inder #1 in-depth b Int Truss over Atch Vertical Lift Bridge	s, Statewide, LA   E d as a structural brid tion 21. Emery provi lso performed qualit ridge inspections in nafalaya River. e over Red River in	<b>Bridge Inspector.</b> As an NHI Certified Bridge Inspector, A dge inspector for the recently selected Complex Bridge ided inspection services, including operator for the Under ty control reviews for the inspection reports. Gresham Sm cluding the following bridges: Alexandria.	ւs an ith
	LA 8 Concrete 3	Segmental Bridge	over Red River at E	Boyce, LA.	
07/18 – Ongoing Key Project #6	MDOT, SR 178 Benton (Phase B) services for prestressed Florida I-B During Construction for overhang designs, pile	<b>MDOT, SR 178 Benton County Bridge Replacements, MS  </b> <i>Bridge Engineer.</i> Gresham Smith is providing final design (Phase B) services for the replacement of two water crossings on parallel alignment. Both bridges include utilization of prestressed Florida I-Beams (FIB) to maximize span lengths while minimizing structure depths. Emery is providing Services During Construction for the replacement of 2 rural bridges including review of all contractor submittals, including deck overhang designs, pile driving submittals, and shop drawings.			
06/18 – Ongoing Key Project #7	MDOT, MS-309 Bridge services for the constru- replacing full timber stru- ranged from 41' to 140 Construction, schedule	e Replacements, action services pha uctures with AASI . Structure arrang d for completion F	Marshall County Mase of five hydraulic HTO beam structure gements varied from Fall 2021.	<b>AS   Design Engineer.</b> Emery provided structural consult crossing bridges in Marshall County, MS. The design inc es supported by either concrete piles or pipe piles. Span le 3-span to 6-span structures. Work included Services Dur	ation luded engths ring

07/18 – Ongoing	<b>MDOT, SR 149 Simpson County Bridge Replacements, MS   <i>Engineer.</i></b> Gresham Smith is partnering with MDOT for Phase B (Final Design) for the reconstruction of S.R. 149 near D'Lo, Simpson County, Mississippi. Gresham Smith is designing the two longer structures (Bridge 128.2 and Bridge 128.6). This is the first instance of partial depth deck panels utilized for MDOT as a pilot to verify the ease of construction and as an accelerated (ABC) time condition. Emery performed checking for all beam design calculations and all bridge plan sheets, including geometry checks and verifying standards. Emery is providing coordination for the design elements between two bridges being designed by Gresham Smith and two bridges being designed in-house by MDOT.
10/19 – 11/20	<b>MDOT, MS-493 Bridge Replacements, Lauderdale County, MS   Design Engineer.</b> Emery is serving as Engineer-of-Record (EOR) for the project and is responsible for the overall structural design and coordination with MDOT and the roadway designer for the final design of two stream crossing bridges in Lauderdale County, MS. The design includes a curved structure alignment and a sharply skewed bridge alignment. Modified FIB concrete beams, similar to DOTD's LG-25 girders, were utilized to minimize the structure depth in order to meet hydraulic requirements.
07/19 – 12/20	<b>TDOT, Complex Bridge Load Ratings, Statewide, TN  </b> <i>Project Engineer.</i> Gresham Smith load rated 23 continuous and curved steel tub girders and two steel arch bridges with the roadway suspended from the arches by steel cables supporting a floor beam-stringer deck support system for WO#5. Based on our performance on WO #5, we were entrusted with a second work order, WO11-System Bridges and WO12-Off System Bridges, to load rate a total of 41 complex bridges within a 2-3-month time frame to help the State meet a critical FHWA Deadline. Emery performed Quality Control on the models and load ratings for a majority of these bridges.
03/21 – Ongoing	<b>TDOT, Complex and Standard Bridge Load Ratings, Statewide, TN  </b> <i>Project Engineer.</i> Following the successful completion of 2019/2020 Task Orders for load rating of 90 complex structures, TDOT issued a 2021 task order to Gresham Smith for additional bridge load ratings. TO26 Included 21 complex bridges including Reinforced Concrete Hollow (Multi-cell) Box bridges, Reinforced Concrete Hollow (Multi-cell) Box spliced with Prestress-Precast Concrete Box Beam bridges, Rigid Frame (K-Frame) Reinforced Concrete Hollow (Multi-cell) Box spliced with Prestress-Precast Concrete Box Beam bridges, Steel Stringer-Floorbeam-Girder systems, Steel Rigid Frame (K-Frame) Bridges, Steel Curved Bridges with multiple ramp spurs (fingers), Integral bent caps and 35 standard bridges to be rated using AASHTOWare BrR software. In order to complete the load ratings of 56 bridges in 4 months.
09/18 – 11/18	<b>MDOT, SR 15 over Potterchitto Creek Bridge Repairs, Newton County, MS   Jacking Engineer.</b> On behalf of the repair contractor, Emery designed and detailed temporary shoring and bridge jacking plans to allow for bearing replacements and the resetting of slab spans to correct horizontal position to align the bridge railing and perform other repairs to the 17-span slab span bridge while maintaining traffic throughout the work.
06/16 – 11/20	<b>MDOT, US-78/I-22 over Tallahatchie River Bridge Repairs, Union County, MS   Shoring Engineer.</b> On behalf of the repair contractor, Emery designed and detailed temporary top-down shoring to allow for partial demolition and reconstruction of the 3-span continuous box girder bridge.
08/13 – 08/14	<b>MDOT, US 84 WB</b> over Mississippi River Pin & Link Replacements, Adams County, MS   Assistant Project Manager. On behalf of the MDOT Bridge Division, Emery managed the preliminary engineering phase including assisting in the development of RFQ and RFP documents for a \$4 million pin & link replacement project for the cantilevered through truss constructed in 1940.

Jackson Hartley, El Bridge Engineer Intern			Years of experience with this employer	<1		
AS .				Years of experience with other employer(s)	1	
Degree(s) /	Years / Specialization	B.S. Civil Engine	eering, Louisiana St	ate University, 2021		
Active	e registration number / state / expiration date	El. 35058 9/30/2	EI. 35058 9/30/2022			
	Year registered	N/A	Discipline	N/A		
Contract role(s) / bi	rief description of respo	onsibilities	Bridge Engineer Ir	ntern / Jackson will support the bridge design tasks.		
Experience dates (mm/yy–mm/yy)	Experience and qualit "designed intersectio	fications relevan n", etc. Experien	t to the proposed on the proposed of the second s	contract; <i>i.e.</i> , "designed drainage", "designed girders over the time specified in the applicable MPR(s).	",	
06/21 – Ongoing	LADOTD, Complex Bi various movable bridge Bridge 009130, Charing Following graduation fr Canal Bridge. Jackson progressed.	<b>LADOTD, Complex Bridge Inspections, Statewide, LA  </b> <i>Bridge Engineer Intern.</i> Task Order 3 - Retainer project for various movable bridge inspections. Jackson began his career assisting with site inspections of movable bridges including Bridge 009130, Charington Swing Bridge, Bridge 005860 Jeanerette Swing Bridge, and Bridge 003450 Boudreaux Canal. Following graduation from LSU, Jackson has performed photo log preparation and stream bed analysis for the Boudreaux Canal Bridge. Jackson participated in the site inspections and photo documentation as a summer intern and has progressed				
09/21 – 11/21	<b>MDOT, MS-493 Bridge</b> revisions and reinforce The design includes a d similar to DOTD's LG-2	e <b>Replacements,</b> ment bar develop curved structure a 25 girders, were ut	Lauderdale Count ment for the final de lignment and a sha tilized to minimize th	<b>y, MS   Bridge Engineer Intern</b> . Jackson is assisting with sign of two stream crossing bridges in Lauderdale County rply skewed bridge alignment. Modified FIB concrete bear he structure depth in order to meet hydraulic requirements	ו plan /, MS. ms, ג.	

Ba Brid	arrett Germond, dge Engineer Intern	EI		Years of experience with this employer	1	
No.				Years of experience with other employer(s)	1	
Degree(s) /	Years / Specialization	Bachelor of Scie	nce / 2019 / Civil Er	ngineering, Mississippi State University		
Active	e registration number / state / expiration date	EI, (Passed PE <sup>-</sup>	Test / Awaiting expe	rience for license)		
	Year registered	N/A	Discipline	EI./Civil		
Contract role(s) / bi	rief description of respo	onsibilities	Bridge Engineer In	tern / Barrett will support the bridge design tasks.		
Experience dates (mm/yy–mm/yy)	Experience and qualit "designed intersection	fications relevan n", etc. Experien	t to the proposed on the proposed of the second s	contract; <i>i.e.</i> , "designed drainage", "designed girders over the time specified in the applicable MPR(s).	",	
Career	Barrett is a Civil Engineer graduate of Mississippi State University and joined Gresham Smith as a structural/bridge Engineer-in-Training. Barrett's emphasis is on structural design and load rating, and his recent experience includes working with the MDOT Bridge Division on prestressed concrete FIB girders.					
03/21 – Ongoing	LADOTD, Complex Bri Task Order 3 bridges that quantities and assisted to	<b>LADOTD, Complex Bridge Inspections, Statewide  </b> <i>Bridge Inspection.</i> Barrett has been assisting the bridge inspection for Task Order 3 bridges that have included movable structures in Districts 03 and 61. Barrett has developed Element Level quantities and assisted with the reports.				
07/20 – Ongoing	<b>MDOT, I-55 West From</b> Gresham is performing design for a bridge site the south end of the brid disciplines including roa	<b>MDOT, I-55 West Frontage Road Bridge Preservation (Bridge No.16.9C), Madison County, MS   Engineer Intern.</b> Gresham is performing Phase A & B Roadway Drainage analysis and design as well as bridge repair conceptual and final design for a bridge site that has experienced poor drainage and an embankment slide leading to damage to the end wall at the south end of the bridge. Barrett is providing engineering support on this project, which includes coordination with other disciplines including roadway and geotechnical.				
07/20 – Ongoing	<b>MDOT, MDOT 2018 HY WA #3 I-55 Scour Evaluations, Statewide, MS   <i>Engineer Intern.</i> Gresham is providing Phase I and II Bridge Scour Evaluations for Beaver Creek (Bridge Nos. 22.6A and B), Dickerson Creek (Bridge Nos. 24.8A and B), Dye Branch (Bridge Nos. 49.2A and B), and West Ditch (Bridge Nos. 264.1A and B) at I-55 in Pike, Lincoln, Copiah, and Tate Counties, respectively. Barrett is serving as engineering support for these evaluations.</b>					
07/20 – 11/20	MDOT, MS-493 Bridge for the bridges which in structure alignment and girders, were utilized to	e Replacements, include the use of M d a sharply skewe o minimize the stru	Lauderdale Count Modified FIB girders d bridge alignment. Icture depth in order	<b>y, MS   <i>Engineer Intern.</i></b> Barrett served as engineering s and special link slab joint details The design includes a c Modified FIB concrete beams, similar to DOTD's LG-25 to meet hydraulic requirements.	upport urved	

Brennon Hughes, P.E. Lead Roadway Design Engineer			Years of experience with this firm/employer	4	
				Years of experience with other firm(s)/employer(s)	6.5
Degree(s) / Years	/ Specialization	Bachelor of Sci	ence / 2011 / Civil E	Engineering, Louisiana State University	
Active regist state /	ration number / expiration date	P.E.0039985 / I	_A / 3/31/22		
·	Year registered	2015	Discipline	P.E./Civil	
Contract role(s) / brief	description of resp	oonsibilities	Lead Roadway/ De roadway design pl	esign Engineer / Brennon will lead the development of the ans and development of bid packages.	
Experience dates (mm/yy–mm/yy)	Experience and c "designed interse	ualifications rele action", etc. Expe	vant to the propose rience dates should	ed contract; <i>i.e.</i> , "designed drainage", "designed girders", d cover the time specified in the applicable MPR(s).	
08/17 – 12/20 Key Project #8	LADOTD, SRTS/LRSP Task Order 6 and 21: Endom Bridge Preliminary and Final Design, West Monroe, LA   <i>Lead</i> <i>Roadway Design Engineer.</i> Brennon led the design and the preparation of preliminary and final plans and cost estimates. This project involved safety and operations improvements for the intersection realignment, curb and gutter drainage design, sidewalks, truck islands and turnouts				
09/11 – 07/17	<b>LADOTD Roadway Group.</b>   <i>Project Engineer.</i> Prior to joining Gresham Smith, Brennon served with the LADOT Roadway Group as a designer and squad leader on various roadway projects including a new roundabout, overlay projects, and intersection improvements.				
09/17 – 06/19	LADOTD, SRTS/L Monroe, LA   Lea LA. Brennon's role included the desig	<b>RSP Task Order</b> <i>d Roadway Desig</i> was to lead the de n and installation c	7: McMillan Street a In Engineer. This wa esign and the prepar of an ADA ramp and	at Blanchard Street Intersection Improvements Design, West as a striping and intersection improvement project in West Moni- ation of preliminary and final plans and cost estimates. The sco a new crosswalk.	st roe, pe
04/20 – Ongoing	<ul> <li>City of Central (LA), Hooper Road (LA 408) at Sullivan Road (LA 3034) Roundabout Design   Lead</li> <li>Roadway/Roundabout Design Engineer. Gresham Smith is tasked with the full roundabout design which will be in accordance with LADOTD's Roadway Design Manual geometric requirements and LADOTD's Complete Streets Policy to accommodate both pedestrians and bicycles through this intersection. Brennon is leading the design and the preparation of preliminary and final plans and cost estimates.</li> </ul>				
10/18 – Ongoing	LADOTD, SRTS/L was responsible for and the preparation officials for the pre- currently under co	<b>RSP Task Order</b> or planning and coo n of preliminary an liminary design rev nstruction.	<b>16: Tangipahoa Des</b> ordinating staffing, so id final plans and cos view and served as e	sign, Tangipahoa Parish, LA   <i>Lead Roadway Design</i> . Brenn cheduling, and budgeting for this project. He also led the design at estimates. Brennon led the plan-in-hand meeting with local engineer-of-record for the design development. This project is	ION
Certifications (See section 20)	DOTD FHWA-I     American Traff	NHI-380096V Mod ic Safety Services	ern Roundabouts: In Association –Traffic	tersections Designed for Safety Control Supervisor, LA State Specific	

Richard Savoie, P.E. Roadway Design Engineer				Years of experience with this firm/employer	3.5		
				Years of experience with other firm(s)/employer(s)	40		
Degree(s) / Ye	ars / Specialization	Bachelor c	of Science / 1978 / Civil Ei	ngineering, McNeese State University			
Active re sta	gistration number / ate / expiration date	P.E.00209	36 / LA / 9/30/22				
	Year registered	1983 (LA)	Discipline	P.E./Civil			
Contract role(s) / bri responsibilities	ef description of		Roadway Design Engine construction support ser	eer. Richard will provide roadway design and roadway-related vices and mentoring guidance for the entire team.	d		
09/18 – 12/20 <mark>Key Project #8</mark>	LADOTD, SRTS/LR Senior Engineer. The and safety. Right-of- coordination betwee on the final prelimina	SP Task O he project c way is being n the right-o ary design s	rder 6 and 21: Endom B onsisted of roadway realig g acquired at one quadra of-way plans and the road ubmission and was respo	ridge Preliminary and Final Design, West Monroe, LA   gnment at the bridge approach to improve roadway geometry nt of the intersection and Richard is assisting with the way requirements. Richard performed Quality Control review nsible for Quality Control on the final design process.	/ /S		
09/18 – 12/19	LADOTD, SRTS/LR Richard provided qu review was to ensure included installation utility relocation avoi	SP Task O ality control e that the pl of sidewalks dance.	rder 14: Farmerville Des review for the Final Plan ans were developed in ac s along various local road	ign, Union Parish, Farmerville, LA   Senior Engineer. submission for this Safe Routes to Public Places Project. The cordance with standard LADOTD policy and procedure. Plar ways, driveway adjustments to ensure ADA compliance and	e าร		
04/20 – Ongoing	City of Central (LA) Gresham Smith is ta Manual geometric re through this intersec staff on the field eva preliminary and final	City of Central (LA), Hooper Road (LA 408) at Sullivan Road (LA 3034) Roundabout Design   Senior Engineer. Gresham Smith is tasked with the full roundabout design which will be in accordance with LADOTD's Roadway Design Manual geometric requirements and LADOTD's Complete Streets Policy to accommodate both pedestrians and bicycles through this intersection. Richard is responsible for overall Quality Control on the project. He is mentoring the engineering staff on the field evaluation requirements, reviewing all potential improvements, and will perform QC reviews on the					
02/90 – 03/14	LADOTD, Project a project in Caddo Par progressed to the Er project delivery for th the Engineering Divi	nd Program rish, from I-2 nvironmenta nis \$670 mil sion and ap	n Delivery   Project Man 220 to the Arkansas State Il Impact Study. Once the lion project. As the Deput proved and recommende	<b>ager.</b> Richard was the Project Manager for the I-49 North Line. The project started with the Corridor Selection Study a alignment was selected plan development began and thence y Chief and Chief Engineer, he met with program managers i d changes to their budget partitions and project schedules.	and e in		
Career	Richard's 40+-year of Engineer. As Chief E budgets, expenditure preservation of all tra	career incluc Engineer, Ri es, program ansportatior	des 34 years with LADOT chard was responsible fo s and procedures that gu n-related projects and sys	D in increasing roles culminating as the LADOTD Chief r establishing engineering directives and standards, policies, ided project and program delivery, construction, and tems.			

Ronnie Robinson, P.E. Senior Transportation Engineer			Years of experience with this firm/employer	6		
				Years of experience with other firm(s)/employer(s)	33	
Degree(s) / Years	/ Specialization	Bachelor of Scie	nce / 1982 / Civil Er	ngineering, Louisiana State University		
Active regist state /	ration number / expiration date	P.E.0024040 / L	A / 3/31/22			
	Year registered	1988	Discipline	P.E./Civil		
Contract role(s) / brief	description of resp	oonsibilities	Senior Transportation design efforts include and reviewing plans	on Engineer / Ronnie will assist with all aspects of the roadway ling establishing design requirements, construction cost estima s for constructability.	ites	
Experience dates (mm/yy–mm/yy)	Experience and c "designed inters	qualifications rele ection", etc. Expe	vant to the propose rience dates should	ed contract; <i>i.e.</i> , "designed drainage", "designed girders", d cover the time specified in the applicable MPR(s).		
02/17 – 12/20 <mark>Key Project #8</mark>	LADOTD, SRTS/LRSP Task Order 6 and 21: Endom Bridge Preliminary and Final Design, West Monroe, LA   Senior Transportation Engineer. Ronnie's responsibilities included developing preliminary and final plans and construction cost estimates. His efforts included coordination of the contaminated waste investigation, drainage layout and quality control for the preliminary design.					
03/16 – 10/17	LADOTD, Farme was selected to p both state and loc of existing and pr and was response	<b>LADOTD, Farmerville State and Local Road Traffic Study, Farmerville, LA   Senior Engineer.</b> Gresham Smith was selected to perform a formal traffic study of all the intersections (57) within and around the City of Farmerville on both state and local routes. The project included data collection, safety/crash review, developing alternatives, analysis of existing and proposed conditions and benefit/cost analysis. Ronnie assisted with the development of alternatives and was responsible for developing construction cost estimates for various alternatives.				
07/17 – 06/19	LADOTD, SRTS/ LA   Senior Engli for the study porti and final plans ar	LADOTD, SRTS/LRSP Task Order 7: McMillan at Blanchard Intersection Improvements Design, West Monroe, LA   Senior Engineer. Ronnie's responsibilities included conducting field traffic observations and collecting field data for the study portion. For the design portion, his responsibilities included developing conceptual designs, preliminary and final plans and construction cost estimates.				
04/20 – Ongoing	City of Central (LA), Hooper Road (LA 408) at Sullivan Road (LA 3034) Roundabout Design   Senior Transportation Engineer. Gresham Smith is tasked with the full roundabout design which will be in accordance with LADOTD's Roadway Design Manual geometric requirements and LADOTD's Complete Streets Policy to accommodate both pedestrians and bicycles through this intersection. Ronnie will provide quality control for the preliminary design phase, participate in the plan-in-hand meeting, and provide design assistance for the development of the final design plans				∕ith odate n gn	
Career	Ronnie has 33 ye of his 16 years in nine years as adr	ears of experience construction as a ministrator for the	with the Louisiana project engineer, e design, water resou	Department of Transportation and Development. He worked ight years as manager of the design and permit sections and rces, permit and materials testing sections.	11 1	

R Le	ebecca Murray, I ead Traffic Engineer	P.E., PTOE,	RSP1	Years of experience with this employer	6	
				Years of experience with other employer(s)	0	
Degree(s)	/ Years / Specialization	Bachelor of Scie	nce / 2015 / Civil Er	ngineering, Louisiana State University	1	
Activ	ve registration number / state / expiration date	P.E.0043788 / L	A / Exp. 3/31/22   P	TOE 4861 / Exp. 3/26/23   RSP1 611 / Exp. 4/5/24		
	Year registered	2019 (LA) 2020 (PTOE) 2021 (RSP1)	Discipline	P.E./Civil; PTOE; RSP1		
Contract role(s) / b	prief description of resp	onsibilities	Lead Traffic Engin development for th	eer / Rebecca will lead the traffic tasks and the TMP his project.		
Experience dates (mm/yy–mm/yy)	Experience and qualifi "designed intersection	cations relevant n", etc. Experienc	to the proposed c ce dates should co	ontract; <i>i.e.</i> , "designed drainage", "designed girders", over the time specified in the applicable MPR(s).		
04/18 – 04/19 <mark>Key Project #10</mark>	LADOTD, I-10 Transportation Management Plan (TMP) West of 108 to I-210 Interchange, H.009620.5, Calcasieu Parish, LA   <i>Pre-Professional</i> . LADOTD developed design plans for the Rubblization and Overlay of I-10 from just west of the LA 108 interchange to the I-210 interchange. This project includes a full closure on I-10 diverting traffic to the ramps. This diversion required 2 cloverleaf ramps to be closed and temporary traffic signals to be installed at the ramps. Rebecca assisted with the traffic and crash analysis, and the development of the TMP documentation for this project and revision of the TMP that was performed the I-210 redecking project as well as traffic signal design plans for the traffic signals.					
10/17 – 04/18 <mark>Key Project #9</mark>	<b>LADOTD, I-10 at US 90 Lockmoor Bridge Transportation Management Plan (TMP), H.013076.5-1, Lake Charles, LA   Pre-</b> <b>Professional.</b> LADOTD oversaw the design of planned bridge maintenance of the US 90 bridge that operates as an on ramp to I- 10 Eastbound. This bridge crosses over mainline I-10 for both the Eastbound and Westbound directions as well as the Westbound Off Ramp and Eastbound On Ramp to/from PPG drive. Gresham Smith was selected to develop the TMP to identify the challenges and strategies to address these challenges in order to minimize the traffic delays associated with the lane closures, demand volumes and incidents within the construction limits. Rebecca assisted with the traffic and crash analysis and the TMP desumentation					
07/18 – Ongoing	documentation. LADOTD, LA 37: Sullivan Road to Liberty Road Stage 0 Feasibility Study, Baton Rouge, LA   Engineer. Gresham Smith collected and reviewed over 580 crash reports over a span of three years from the state highway crash database and collected ADT data on 21 segments of LA 37 and intersecting streets, peak hour turning movement counts at 12 significant intersections and 15-minute counts along 38 driveways and insignificant side streets. Crash reports were reviewed and evaluated using the LADOTD safety triage and the safety tool box. Traffic analysis will be performed using mainly HCS and Synchro and other software tools as needed. We reviewed historic traffic volumes counts and Trans CAD models and performed an extensive count analyses to develop regional growth rates for the study area. Rebecca assisted with review of the count data, development of growth rates, crash data analysis and performed the existing and future traffic analysis.					
Certifications (See section 20)	<ul> <li>Traffic Engineering Ar</li> <li>American Traffic Safe Supervisor, LA State</li> </ul>	nalysis Process & I ty Services Associ Specific	Report – Modules 1, ation – Traffic Contro	2 and 3 ol Technician, LA State Specific; Certified Flagger; Traffic Cor	ntrol	
Page 21 of 83	Prime consultant firm:	Gresham Smith				

Tait Karlson, P.E., PTOE           Senior Traffic Engineer			Years of experience with this employer	10	
				Years of experience with other employer(s)	6
Degree(s) /	Years / Specialization	Master of Engine Bachelor of Scie	eering / 2005 / Trans ence / 2001 / Univers	sportation Engineering, University of Florida sity of Florida	
Active	e registration number / state / expiration date	PE.0040438 / LA	A / Exp. 9/30/22   P1	TOE 2213 / Exp. 7/30/23	
	Year registered	2016 (LA) 2011 (PTOE)	Discipline	P.E./Civil; PTOE	
Contract role(s) / b	rief description of respo	onsibilities	Senior Transporta and the traffic con	tion Engineer / Tait will support the traffic and safety analys ceptual design.	sis
Experience dates (mm/yy–mm/yy)	Experience and qualit "designed intersectio	fications relevan n", etc. Experier	t to the proposed once dates should c	contract; <i>i.e.</i> , "designed drainage", "designed girders" over the time specified in the applicable MPR(s).	7
10/17 – 04/18 <mark>Key Project #9</mark>	LADOTD, US 90 Bridge Maintenance over I-10 Ramps, Transportation Management Plan (TMP), Lake Charles, LA   QA/QC. Gresham Smith was selected to develop a TMP for the replacement of the bridge deck of the US 90 overpass over I-10 in Lake Charles, LA. The project included working with the design engineers to determine the required lane closures for the construction, data collection and queue and safety analyses. Tait assisted with the development of the final report and performed				
04/18 – 05/19 <mark>Key Project #10</mark>	<b>LADOTD, I-10 TMP West of LA 108 to I-210 Interchange TMP, Lake Charles, LA   QA/QC.</b> Gresham Smith developed a TMP for the rubbelization and overlay on I-10 between I-210 and the LA 108 Interchange in Lake Charles, LA. This project included the mill and overlay of I-10, widening two flat deck bridges on I-10 to add a lane, and replacing all of the concrete panels on I-10 through the LA 108 interchange. In order to replace the concrete panels on I-10, traffic was moved to a C/D road within the interchange and cloverleaf ramps were closed during construction. Two temporary traffic signals were designed to facilitate traffic at this interchange. This project included data collection and queue and safety analyses and traffic signal design. Tait assisted with the development of the final report and performed OA/OC raview.				
03/16 — 10/17	<b>LADOTD, Farmerville State and Local Road Traffic Study, Farmerville, LA   Engineer.</b> Gresham Smith was selected to perform a formal traffic study of all the intersections (57) within and around the City of Farmerville on both state and local routes. The project included data collection, safety/crash review, development of growth rates, developing alternatives, analysis of existing and proposed conditions and benefit/cost analysis. Gresham Smith held a public meeting with local elected officials and met with many local agencies during the process to discuss the scope of the study, the results and possible alternatives. Tait assisted with the development of the final report and performed QA/QC review.				
05/17 – 03/19	LADOTD, US 171 MLK calibrated VISSIM mode improvements were reco data collection, develop development of alternati no-build and the alternat	Boulevard Traffic of for existing condi- ommended and mo- ment of growth rate ves. Tait assisted tives, calibrating th	<b>Study, Lake Charl</b> itions and the future r odeled to determine t es, developing and ca with performing peak e models, developing	es, LA   <i>Engineer.</i> Gresham Smith was selected to develop a no-build conditions along US 171 in Lake Charles, LA. Alterna he best solutions to improve the corridor. The project included alibrating an existing VISSIM model and evaluation and thour field observations, developing VISSIM models for existi g the final report, and performing QA/QC review.	a ative d ing,

Pay Engin	ton Nickles leering Aide			Years of experience with this employer	<1	
1 100				Years of experience with other employer(s)	0	
Degree(s) /	Years / Specialization	Bachelor of Scie	ence / 2021 / Civil Er	ngineering, Louisiana State University		
Active	e registration number / state / expiration date	N/A				
	Year registered	N/A	Discipline	Civil		
Contract role(s) / br	ief description of respo	onsibilities	Professional / Pay	ton will support the roadway design and traffic teams.		
Experience dates (mm/yy–mm/yy)	Experience and qualit "designed intersectio	fications relevan n", etc. Experier	t to the proposed on the proposed of the second s	contract; <i>i.e.</i> , "designed drainage", "designed girders", over the time specified in the applicable MPR(s).	,	
03/21 – Present	<b>LADOTD, Complex Bridge Inspections Task Order 3, Statewide, LA  </b> <i>Professional.</i> Payton assisted in the development of the traffic control plans for various bridge inspection projects. The traffic control plans included single lane closures with alternating traffic with flaggers for projects in urbanized areas. Projects included the Charenton Truss Swing Bridge in St. Mary's Parish and the Jeanerette Truss Swing Bridge in Iberia Parish. Peyton worked closely with the bridge inspection team to develop the parameters for the lane closures to ensure that adequate protection was provided to the field inspection team while meeting requirements for the lane closures to ensure that adequate protection was provided to the field inspection.					
03/21 – 04/21	Edinburg Regional Me development of the traf roadway expansion ass lead traffic engineer to proposed roadway build	Edinburg Regional Medical Center, Traffic Impact Analysis, Edinburg, TX   <i>Professional</i> . Payton assisted in the development of the traffic impact letter by performing analysis and preparing figures to support the traffic impact analysis for roadway expansion associated with the buildout of a regional medical center. Payton worked under the supervision of the lead traffic engineer to develop roadway capacity analysis and documentation of existing conditions to support the proposed roadway build outs				
06/21 – Present	<b>LADOTD, Present LADOTD, LRSP Task Order #1: Vernon and Sabine Signing &amp; Striping, LA   Professional.</b> This project includes preliminary and final design for proposed signing and striping improvements throughout several routes within Sabine and Vernon Parish. Payton is responsible for preparing the line diagrams for each of the routes. She is also responsible for importing aerial images and developing intersection detail sheets.					
06/21 – Present	<b>Present East Baton R</b> along a portion of the P assisting the design en- responsible for address	ouge Parish, MO Plank Road corrido gineer with the de sing general mark	VEBR Plank Road or between Dawson evelopment of Typica ups in MicroStation.	<b>Segment 2, LA   <i>Professional.</i></b> This project is a design st Drive and Harding Blvd. Payton's responsibilities include al Sections and Plan and Profile Sheets. She is also	iudy	

Rachel Westerfield, P.E., CFM Lead Hydraulic Engineer			Years of experience with this employer	1.5	
				Years of experience with other employer(s)	18
Degree(s)	/ Years / Specialization	Bachelor of Scie	ence / 2002 / Biologi	cal Engineering, Mississippi State University	
Activ	e registration number / state / expiration date	0044018 / LA / C	)3/31/2022		
	Year registered	2019 (LA) 2017 (MS)	Discipline	P.E./Civil	
Contract role(s) / b	rief description of respo	onsibilities	Lead Hydraulic En bridge replacemer	gineer / Rachel will lead the hydraulics evaluation for the d its over Little Bayou Teche.	lual
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).				
2003 – 2017	MDOT, Jackson, MS   Division, Rachel was re engineering support for ensure the successful of and bridges in accorda completed, including or detailed scour analyses	<b>MDOT, Jackson, MS   Hydraulics Division Director -</b> <i>State Hydraulics Engineer</i> . As the Administrator of the Hydraulics Division, Rachel was responsible for management and oversight of the Hydraulics Division which provides hydraulic engineering support for all MDOT Districts statewide. She performed project management and administration duties to ensure the successful completion of hydraulic design for every drop of water that comes in contact with MDOT roadways and bridges in accordance with state and federal regulations. Rachel ensured that proper design and analysis were completed, including one dimensional and two dimensional hydraulic modeling of riverine and bridge systems as well as			
09/18 – Ongoing	MDOT, SR407 Bridge Smith will produce Pha manager for this projec	Replacements C se A and B (final <sub> </sub> .t.	hoctaw County Wa plans) for the recons	A #5, Choctaw County, MS   <i>Project Manager</i> . Gresham struction of six bridges. Rachel is serving as the project	
05/20 – Ongoing	MDOT, 2018 HY WA # and II Bridge Scour Eva Copiah and Tate Count	<b>3 I-55 Scour Eva</b> aluations for Beav ties, respectively.	luations, Statewide er Creek, Dickersor Rachel is serving as	e, <b>MS   <i>Project Manager</i>.</b> Gresham Smith is providing Pha n Creek, Dye Branch, and West Ditch at I-55 in Pike, Lincol s the project manager for these evaluations.	ise I In,
06/21 – Ongoing	MDOT, Phase A Roadway, Bridge and Bridge Hydraulic Services for the Reconstruction of SR 2 from Existing SR 15 to the SR 15 Bypass, Tippah County, MS   <i>Bridge Hydraulics Engineer</i> . Gresham Smith is currently completing Phase A design services to determine the required right-of-way limits for the reconstruction of SR 2 from existing SR 15 to the SR 15 Bypass near Blue Mountain in Tippah County. Mississippi				
Career	Rachel's project expert backwater analysis for and scour analysis.	ise includes hydro major and minor s	blogic analysis and l structures, bridge hy	nydraulic design associated with channel improvements, /draulic design, risk and impact assessments, stream stabi	lity

Justin Robinso	n, P.E.			Years of experience with this employer	2	
Bridge Engineer				Years of experience with other employer(s)	19	
Degree(s) / Years	s / Specialization	Master of Science	e/2001/Civil Engine	eering   Bachelor of Science/1999/Civil Engineering		
Active registration	n number / state / expiration date	P.E.44673 / Lou	isiana / 09/30/22			
	Year registered	2005	Discipline	P.E./Civil		
Contract role(s) / brief	description of res	ponsibilities	Bridge Engineer /	Justin will lead the design of the railroad crossing structures.		
Experience dates (mm/yy–mm/yy)	Experience and girders", "design MPR(s).	qualifications re ned intersection	evant to the prope ', etc. Experience	osed contract; <i>i.e.</i> , "designed drainage", "designed dates should cover the time specified in the applicable		
03/05 — 6/05	LADOTD, US 190 components of the Mississippi River be travel lanes of vehi	LADOTD, US 190 over Mississippi River Bridge, Baton Rouge, LA: Assisted with the in-depth field inspection of all components of the structure above the water line. Cantilever-style steel through truss bridge carrying US 190 above the Mississippi River between Port Allen and Baton Rouge. Totaling 12,211 feet in length, this combination bridge carries four narrow travel lanes of vehicular traffic, captilevered on the outside of the truss, and a single track of railroad centered in the truss.				
11/21 – Present	Helms Road Grade Separation in Waxhaw (P-5748B), NCDOT Rail Division, Union County, NC: Bridge lead for preliminary and final design to construct a bridge over NC 75 and CSX Railroad. The bridge will be a two-span concrete girder bridge on a horizontally curved alignment. Substructure units consist of integral end bents behind MSE walls and an interior substructure unit consisting of a three-column bent with reinforced concrete cap. The project consists of closing the existing at-grade crossing at Helms Road and building a new grade separation over NC 75 and CSX Railroad. Stakeholders include the Town of Waxhaw, CSX, and NCDOT (Rail Division and Division 10). Preliminary design and bridge layout is complete. The schedule has been					
04/20 – Present	<b>Condensed to complete project on an accelerated schedule.</b> <b>Transforming Rail in Virginia Program, Virginia Passenger Rail Authority (VPRA), Washington DC to Arlington, VA:</b> Project Manager in a Subconsultant role assisting with program-wide functions for the delivery of a multi-year, multi-billion-dollar program. Tasks performed include bridge plan review, bridge system condition screening and development of the project Quality Management Plan (QMP). Oversight and plan review of bridge projects along the corridor include Long Bridge, which will carry additional tracks over the Potomac River south of Washington DC. The screening process triaged over sixty existing bridges on the I-95 corridor between DC and Petersburg, VA, with respect to their proposed use to carry expanded passenger rail. The screening identified the extent of needed inspection, detailed assessment, and load ratings. The QMP will apply to all design projects for the program. The program is led by the VPRA, in coordination with the District Department of Transportation (DDOT) and the Federal Railroad Administration (FRA); and will provide additional long-term passenger rail capacity and improve service					
09/21 – Present	Forum Parkway C County, NC: Bridg project is to improv North Carolina. A tr and maintained offs approximately 56-fe	e for preliminary an e system linkage be wo-span prestresse sets from the rail lin eet, 6-inches wide a	tum Parkway to NC d final design of a two etween N.C. 65 (Beth d concrete girder brid e. The proposed grad and improve vehicular	<b>56 in Rural Hall over Norfolk Southern (U-5899), NCDOT, Forsy</b> o-span concrete girder bridge. The primary purpose of the proposed ania-Rural Hall Road) and N.C. 66 (University Parkway) in Rural Ha ge was designed for this crossing which satisfied FEMA requireme e separated bridge over Norfolk Southern Railroad will be mobility and safety at the railroad crossing.	t <b>he</b> d all, nts	

01/21 – 02/22	<b>Great Marsh Church Road over I-95 in Saint Paul (I-5987B), NCDOT, Robeson County NC:</b> Bridge lead for preliminary and final design of a two-span concrete girder bridge. This structure is part of a larger project to widen a 19-mile length of I-95 in Robeson and Cumberland Counties. This bridge will replace an existing structure which carries Great Marsh Church Road over I-95. It will be a two-span concrete girder bridge with integral end bents and an interior bent supported on drilled shafts. The bridge is located in Seismic Zone 2. Due to constraints by the client, project was delivered on an accelerated schedule.
08/20 – 01/21	<ul> <li>Chatham Park, Bridge on new location on proposed Grant Drive, Preston Development Corporation, Chatham County,</li> <li>NC: Task Lead and EOR of preliminary and final design plans for single span cored slab bridge on pile supported end bents. Lead effort in determining preliminary bridge types and mechanically stabilized earth (MSE) wall layout as well as preliminary and final design of the prestressed concrete cored slabs, and cast-in-place end bents.</li> </ul>
04/20 – 11/21	<b>Replacement of Dual Bridges on US-29/US-70/I-85 Bus. in High Point (B-5353), NCDOT, Guilford County, NC:</b> Project manager for delivery of construction documents for single span dual bridges and one reinforced concrete box culvert extension. The project consisted of preparation of preliminary and final design plans for replacing the existing structures with phased constructed dual bridges. New dual bridges consist single span (117') prestressed concrete girders on pile supported integral end bents behind MSE walls.
12/18 – 4/20	Winston-Salem Northern Beltway (U-2579AB), NCDOT, Forsyth County, NC: Technical and Bridge Team Lead responsible for final design and RFC plan development of two multi-span steel superstructure overpasses, and a two-span concrete superstructure bridge. The substructure units are concrete end bents with turn back wing walls and concrete frame piers, all founded on steel piers.
07/16 – 01/19	Wellsburg Bridge Design-Build, Flatiron Contractors (WVDOH), Wellsburg, WV: Approach Bridge Design Lead for the new Ohio River Crossing near Wellsburg, WV. This project included construction of a new arch span with approach spans to connect West Virginia and Ohio. The scope of work involved long-span and approach bridge design and construction for a waterway crossing, design and construction for a bridge traversing OH 7, as well as challenging roadway and geotechnical designs, which required extensive coordination with the West Virginia Division of Highways (WVDOH), Ohio Department of Transportation (ODOT), and two railway entities. The approach spans consisted of continuous steel girder spans supported by river piers and founded on large diameter drilled shafts. Approach spans on the Ohio side crosses two rail alignments, with construction of foundations coordinated closely with each rail agency.
01/16 – 12/16	<b>US 74 Shelby Bypass (R-2707C), NCDOT, Cleveland County NC:</b> Technical Lead and Engineer of Record for final design and RFC plan development of dual three span 410-foot prestressed concrete girder bridges and two span 200-foot prestressed concrete girder overpass bridge. The superstructure consists of modified bulb-tee prestressed concrete girders. The substructure units are concrete end bents with turn back wing walls and concrete frame piers, all founded on steel piles.
01/15 – 12/15	<b>US 220 Bypass over US 74 (R-3421A), NCDOT, Richmond County NC</b> : Responsible for final design and RFC plan development of dual 240-foot prestressed concrete girder bridges, as part of the US 220 Bypass in Rockingham NC. Each bridge consists of a two-span unit that will be continuous for live load. The superstructure will consist of 72" modified bulb-tee prestressed concrete girders. The substructure units will be concrete end bents with turn back wing walls and concrete frame piers, all founded on steel piles. The bridges are located in Seismic Zone 2 per NCDOT Structures Design Manual, thus finite element modeling was performed for a multi-modal response spectra analysis.
Career	Justin is a bridge engineer and project manager with over two decades of experience with conventional and complex design. His background includes construction of prestressed concrete and steel girder superstructures and concrete substructure with a variety of foundation types. His experience includes bridges over multiple railroad agencies. Throughout his career, he has shown a willingness to broaden his experience by providing services for different agencies and working in different geographical locations. His experience includes bridge design lead services on design-bid-build and design-build projects for various State DOTs. As such, he has gained diverse experiences that help him become an experienced engineer and leader. Justin is experienced in AutoCAD, MicroStation, general finite element analysis tools including STAAD, LARSA and ABAQUS, and bridge design software including Leap Bridge Steel, Leap Bridge Concrete, PCA Column, BSDI, MDX, FB-Pier, and XTract.

Bart Hendricks,	P.E.			Years of experience with this employer 22		
Bridge Engineer				Years of experience with other employer(s) 0		
Degree(s) / Years / Specialization		Master of Science Science/1989/M	Master of Science/1996/Civil Engineering   Bachelor of Science/1992/Civil Engineering   Bachelor of Science/1989/Mathematics			
Active registration	number / state / expiration date	P.E.40374 / Lou	P.E.40374 / Louisiana / 03/31/22			
	Year registered	1997	Discipline	P.E./Civil		
Contract role(s) / brief	description of res	ponsibilities	Bridge Engineer /	Bart will support the design of the railroad crossing structures.		
Experience dates (mm/yy–mm/yy) Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , "designed drainage", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).				osed contract; <i>i.e.</i> , "designed drainage", "designed dates should cover the time specified in the applicable		
08/18 – 09/19	South Old Corry F review of the bridge Jones Creek with a to the sidewalk from improvements to th	<b>Field Road Bridge</b> and drainage struct precast bridge. Ad n the Jackson Cree e area.	Replacement, Pensa cture plans and speci ditionally, the existing k bridge to the Warrir	<b>Icola, FL:</b> Structural Engineer. Provided technical advisory services in fications for the replacement of the existing bridge culvert over East drainage ditch will be replaced with a closed pipe system. Upgrades igton Middle School will provide much-needed pedestrian safety		
06/14 – 09/16	Rocky Branch Roa wide, 3 span preca connections to con	ad Bridge, Escaml st concrete bridge u crete wrapped steel	<b>bia County, FL:</b> Engi utilizing a precast cha I H-piles.	neer of Record for bridge design and load rating of a 102' long x 27' nnel beam superstructure and precast concrete caps with moment		
07/16 – 05/19	<b>SR 87 All Segments, Santa Rosa County, FL:</b> Structural Engineer. Led the design and limited construction support services for multiple bridges and structures for multiple segments associated with the widening of SR 87. This work included BDR development, load rating, final design, design peer review, post design services, and plans updates and involved working within environmentally sensitive rivers and wetlands, which required design and construction to comply with numerous FDOT environmental commitments.					
09/2017 – 07/19	<b>Bob Sikes Bridge Inspections and Repairs, Pensacola Beach, FL:</b> Structural Engineer. Performed multiple inspections and designed emergency repairs for the bridge's fender system and fishing pier, including providing emergency response services, field inspections, structural lateral and vertical analysis, engineering design, and quality control for construction documents and plans related to damaged concrete piles, pedestrian railing, abutment slope protection, cathodic protection, and concrete crack and spall in beams, caps, and piles.					
02/20 – 08/21	SR 87 Bridge over and design of a 5,8 path to connect to t precast piles. An ex construction under	r <b>Blackwater River</b> 79' long bridge exte he Blackwater Heri ktended section of t neath electrical tran	, FDOT District 3, Sa ending SR 87 across tage Trail. The bridge he bridge will utilize s smission lines.	<b>Inta Rosa County, FL:</b> Engineer of Record and Deputy PM for BDR Blackwater River. The project includes a 12' wide multi-use pedestrian will utilize precast FIB beams supported by conventional pile caps and horter spans and low-headroom construction methods to allow		
Career	Bart serves as a pr structural design, lo culverts for vehicles non-standard head bridge inspections	incipal engineer in I bad rating and inspe s and pedestrians a walls, energy dissi and has performed	Mott MacDonald's Str ection of transportatio s well as the design o pation structures, wei emergency inspection	uctural Engineering Department. His professional experience includes in structures including concrete, steel and timber bridges and box of miscellaneous structures associated with drainage projects such as rs, and retaining walls. Mr. Hendricks is a qualified team leader for NBI in and repair design services following major flood events.		

Elizabeth Guiza	, P.E., NCTI			Years of experience with this employer	12	
Bridge Engineer				Years of experience with other employer(s)	0	
Degree(s) / Years	s / Specialization	Bachelor of Scie	Bachelor of Science/2010/Civil Engineering			
Active registration	number / state /	P.E.39531 / Loui	P.E.39531 / Louisiana / 09/30/21			
	expiration date	National Certified	d Tunnel Inspector			
	Year registered	2015	Discipline	Civil		
Contract role(s) / brief	description of res	ponsibilities	Civil Engineer / Eli between the railro	zabeth will utilize her local DOTD expertise and coordinate ad bridge team and the roadway team.		
Experience dates (mm/yy–mm/yy) Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicab				osed contract; <i>i.e.</i> , "designed drainage", "designed dates should cover the time specified in the applicable		
07/19 – Present	<b>LADOTD 4400017006, H.011670; Loyola Drive at I-10 Interchange Improvements, Kenner, LA:</b> Project Director, providing utility plan reviews for the Design Build project that will widen a portion of I-10 between Loyola Drive and Williams Boulevard, elevated ramps to and from Loyola Drive, and improvements to Loyola Drive to enhance operational conditions and increase the capacity of this interchange accommodating future traffic demand in the area and ingress and egress for airline passenger traffic to the new Louis Armstrong New Orleans International Airport terminal.					
01/13 – 06/15	LADOTD - 742-26-0079; Veterans Boulevard Overlay and Bridge Replacement (Phase I & II) (Salem St. to Belleview Blvd.), New Orleans, LA: Project Manager and Engineer of Record responsible for providing Design Services and Review for improvements to Veterans Boulevard from Salem Street to the St. Charles Parish Line. The project includes water line relocation, new shoulders and new turnouts. The following design elements were included for this \$3 million construction project: design of utility relocation; analysis of existing condition of the street; defined and recommended widening and improvements where applicable required to bring the street to established quality levels; milling and overlay of the existing two lanes; and a new bridge over Canal No. 17					
12/18 – Present	LADOTD H.010673.5-1; Harvey Tunnel Rehab and Design, Harvey, LA: Our team was responsible from inspection and design to construction. Careful evaluation focused on key components including structural/leakage assessments, lighting, fans/louvers, sump pump systems, lighting, signage and tiles. Non-destructive testing techniques were used to evaluate structural and geotechnical components and any potential defects. Our design incorporates rehabilitation or replacement systems for roadway lighting, communications, traffic control, and monitoring, as well as fresh air flues and exhaust ducts, wall finishes, fire-hardening evaluations, and other systems within the ventilation buildings.					
12/18 – Present	LADOTD H.336090; Tunnel Inspection and Repair/Rehabilitation, LADOTD, New Orleans, LA: Project Engineer for the repair/rehabilitation plan preparation for the Houma, Harvey, and Belle Chasse Tunnels. These tunnels were originally constructed in the late 1950's. Mott MacDonald performed a visual inspection of the structural, geotechnical, mechanical, and electrical components of the tunnels. Additionally, Mott MacDonald was responsible for non-destructive testing of the structural and geotechnical components, evaluating the defects during testing, as well as preparing plans and specifications for each tunnel repairs and rehabilitation.					

02/20 - Present	Belle Chasse Bridge and Tunnel (HBI) Replacement, Alternative Delivery, LDOTD, Belle Chasse, Louisiana: Project Manager responsible for providing review of the concessionaires plans for Operation, Maintenance and Decommissioning of the existing Belle Chasse Tunnel. The project provides for the replacement of the Belle Chasse Tunnel and Judge Perez Lift Bridge with a new toll bridge though a Public Private Partnership with the LADOTD. Mott MacDonald will be providing Construction Engineering and Inspection services on the new construction task of the project.
03/15 – 04/17	<b>Belle Chasse, Harvey, and Houma Tunnel Inspections, LADOTD, Statewide, Louisiana:</b> Project Engineer, responsible that the tunnel assessment, existing drawings and current repairs were interpreted and examined to understand the full condition of the tunnels. Inspection activities included assessing the tunnel walls, ceilings, air ducts, walkways, hatches, air ducts, manways, niches and passage doors for defects, leaks, cracks, spalls, and delamination. Also, responsible for developing the inspection report and compiling all the deficiencies recorded during the site investigation. The inspection report also consisted of classifying and developing routine, priority, and critical repairs.
Career	Elizabeth provides Project Management and engineering support for a numerous LaDOTD projects. She is the Project Manager on the projects that involve the three tunnels located in Louisiana, Harvey, Houma, and Belle Chasse. Elizabeth has overseen the structural, electrical, and mechanical inspections of the tunnels, culminating in the rehabilitation design for the \$25,000,000,00 plus Harvey Tunnel project. Elizabeth is experienced in the development of cost estimates, quantity calculations, drainage design, retention pond design, stormwater management plans, geometric design, erosion control, canal bank stabilization, maintenance-of-traffic, preparation of specifications, and construction management for transportation projects. Elizabeth is a National Certified Tunnel Inspector.

Rachel Dicke, P	Р.Е.			Years of experience with this employer	}	
Bridge Engineer				Years of experience with other employer(s) 5	5	
Degree(s) / Years / Specialization		Master of Science	Master of Science/2017/Structural Engineering   Bachelor of Science/2009/Civil Engineering			
Active registration	n number / state / expiration date	P.E. 040689 / G	eorgia / 12.31.2022	046512 /NC / 12.31.2022   78429 /OH / 12.31.2023		
	Year registered	2013	Discipline	Civil		
Contract role(s) / brief	description of res	ponsibilities	Bridge Engineer / railroad crossing b	Rachel will utilize her railroad crossing expertise to support the oridge design.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).					
01/17 – Present	<b>Rome-Cartersville Development Concept &amp; Preliminary Design, Rome, GA:</b> Project engineer, bridge design and structures task lead. Preparation of concept and preliminary design plans for a total of 13 bridges along the project corridor. Bridge types include ramps at multiple interchange locations, interstate & CSX railroad crossings, and structures spanning various environmentally sensitive resources. Structure types include multi-span steel and prestressed concrete with special considerations for staging and constructability. Prepared MSE wall plan and elevation layouts at several locations. Coordinated with GDOT on agency reviews and bridge-related submittal items. The goal of this project is to connect US 411 and I-75 in Bartow County and provide improved access to support economic development, improved truck route to accommodate freight movement, and provide better local access.					
11/20 – Present	<b>2019 Bridge Bundle No. 1, Contract 2, PI Nos. 0016524, 0016525, 0016530, 0016532, 0016533, GDOT, Elbert, Wilkes and Lincoln Counties, GA:</b> Bridge Design Lead. This contract consists of five bridge replacement projects located in GDOT Districts 1 and 2 under GDOT's bridge replacement program. Rachel serves as the Bridge Design Lead on PI 0016525, which consists of the replacement of the bridge on SR 220 over Soap Creek (Strom Thurmond Lake) in Lincoln County. During early detour coordination, Lincoln County stated that the existing 9-feet of vertical clearance over full pool was insufficient for larger boats to navigate under the bridge and requested 20-feet of vertical clearance for the new bridge. Rachel developed the conceptual bridge layout and technical documentation for the 20-foot vertical clearance and supported coordination efforts with the Office of Bridge Design and USACOE, who both supported the concept. On this project, Rachel leads the bridge design activities, including the development of conceptual bridge structure layouts, conceptual bridge construction staging plans, the preparation of bridge bydraulics studies, preliminary bridge layouts, and final bridge design plans.					
01/20 – 04/20	I-85 Widening From North of SR 53 to North of SR 11/US 129 Design-Build, Jackson Co., GA: Project engineer, bridge design. Preparation of preliminary design plans for 3 mainline bridges and 1 overpass bridge. Mainline bridges spanned CSX railroad and two hydraulic crossings. Prepared MSE wall plan and elevation layouts for overpass bridge. Structure types consisted of multi-span prestressed concrete with special considerations for staging, constructability, and cost-effectiveness. Developed structures alternative evaluation matrix early in the tender phase to aid in the selection of preferred alternatives to carry forward into bid and final design. The project will widen and reconstruct approximately 6.7 miles of I-85 from just north of SR 53 to just north of SR 11/US 129. The typical section will expand from the existing two lanes to three lanes in each direction within the existing right-of-way width. The project is in Jackson County. The work also includes the replacement of six mainline bridges and one overpass bridge.					

02/16 – 02/17	<b>Contract Public Improvements Engineering, Norfolk Southern Railway, Atlanta, GA:</b> For GDOT construction by contractors on or over NS right-of-way, review submittals, and monitor that means and methods are as submitted and that work site follows safety procedures.
Career	Rachel is a Senior Structural Engineer in the Transportation Division of Mott MacDonald. With over 13 years of experience, her professional experience includes structural design, load rating, and inspection of transportation structures including concrete and steel bridges. Her structural design expertise spans the spectrum from small box culverts, bridge replacements over waterways, bridge crossings over railroad facilities, bridge structures at interchanges, bridges over navigable waterways, MSE retaining walls, and lighting structures. She has worked on various types of highway and bridge design projects for numerous Departments of Transportation across the United States. Her experience includes close, multi-disciplinary collaboration on large multi-faceted projects.

Civil Design & Construction, Inc. (CD&C)

Karla E. Weston, P.E.				Years of experience with this employer	15
Topographic Survey				Years of experience with other employer(s)	6
Degree(s) / Years	s / Specialization	Bachelor of Scie	nce-Louisiana Tech	University/1999/Civil Engineering	
Active registration	number / state / expiration date	P.E.31010 / Louisiana / 03/31/22			
	Year registered	2004	Discipline	P.E./Civil	
Contract role(s) / brief	description of res	ponsibilities	Mrs. Weston will o work is completed	versee the firms' role as a sub-consultant and make sure the to DOTD standards.	;
Experience dates (mm/yy–mm/yy)	ence dates y-mm/yy) Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s)				
02/16 – 09/19	<b>H.003047 Pecue Lane/I-10 Interchange, Baton Rouge, LA</b> : Mrs. Weston's served as Principal-in-Charge for the firm's role as a sub-consult for the engineering design services of the West Bound on Ramp to I-10, the West Bound Off Ramp from I-10, the extension to Rieger Road and Pecue Lane Extension. She has worked to oversee the firms design, coordinate with the prime consultant and government agencies.				
12/13 – 10/19	<b>H.02960 Gramercy Bridge, St. James Parish, LA</b> : Mrs. Weston served as Principal-in-Charge for the firm's role as a subconsultant for the engineering design elements of the plans including Hydraulic Analysis and Design, Typical Sections, and Graphical Grades for the project				
02/14 – 02/15	H.010620 I-49 De this Design-Build	esign Build, Lafa Project.	<b>yette, LA</b> : Mrs. We	ston provided QA/QC review for the Roadway Design Plans of	on
05/13 – 05/14	<b>H.009288.5 LA 1 Railroad Bridge at DOW, WBR Parish, LA</b> : Mrs. Weston served as Principal-in-Charge for the firm's role as a sub-consult for the engineering design elements of the plans including Hydraulic Analysis and Design, Typical Sections, and Graphical Grades for the project. She has worked to oversee the firms design, coordinate with the prime consultant and government agencies.				
06/12 – 10/12	<b>H.009288.5 LA 1 Railroad Bridge at DOW, WBR Parish, LA</b> : Mrs. Weston served as Principal-in-Charge for the firm's role as a sub-consult for the engineering design elements of the plans including Hydraulic Analysis and Design, Typical Sections, and Graphical Grades for the project. She has worked to oversee the firms design, coordinate with the prime consultant and government agencies.				
01/06 – 12/12	<b>EBR City/parish Project No. 06-CS-HC-0018, Fairchild-Badley Roadway, EBR Parish, LA</b> : Mrs. Weston served as Principal in Charge for this project that was approx. 1.25 miles in length along Fairchild-Badley Road and also included approximately 600 linear feet of Elm Grove Garden Dr. CD&C designed the upgrade to the existing narrow roadway to a typical section of 2-11' lands with a 2' barrier curb and gutter, and a 6' adjacent sidewalk. This included the design of a new sub-surface drainage system throughout the length of the project as well.				

Civil Design & Construction, Inc. (CD&C)

Ralph Burgess, PLS			Years of experience with this employer	11	
Topographic Survey				Years of experience with other employer(s)	12
Degree(s) / Years	s / Specialization	BS Industrial De	sign & Supervision	2004 / Southeastern LA University	
Active registration	n number / state / expiration date	PLS 5040 / Louis	siana / 09/30/22		
	Year registered	2010	Discipline	Professional Land Surveyor	
Contract role(s) / brief description of res		<b>ponsibilities</b> Mr. Burgess will be the Survey Manager and will work to oversee the project progress stays on schedule, aide in both crew coordination and office produ- and provide final QC on the firms' deliverable to the Prime Consultant. Mr. Burgess also has extensive background in providing topographic surveys for LADOTD including the use of 3D Terrestrial Scanning. Mr. Burgess meets #4 and #5.		e the Survey Manager and will work to oversee the project schedule, aide in both crew coordination and office productio QC on the firms' deliverable to the Prime Consultant. Mr. extensive background in providing topographic surveys for g the use of 3D Terrestrial Scanning. Mr. Burgess meets MP	on, R
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).				
07/20 – 04/21	<b>H.013955, H.013956, H.013957, H.013958, H.013959, &amp; H.013989 Rural Bridge Initiative:</b> Mr. Burgess served as the firm's surveying Manager on these projects. He coordinated field effort and office data processing for all sites to ensure that the project followed the procedures and standards of LADOTD Location and Survey. CD&C as a subconsultant on this project is responsible for topographic surveying for 6 bridge sites across South Louisiana.				
01/18 – 01/20	<b>H.004100 I-10: LA 415 to Essen Lane on I-10 and I-12, West and East Baton Rouge, LA</b> :Mr. Burgess is the surveying Manager for this project. CD&C as a sub-consultant on this project is responsible for topographic surveying the portion of I-10 in West Baton Rouge Parish beginning at the start of the project limits to a point just before the approach of the I-10 Bridge and the limits of the project along LA 415 including work on Tributaries of the Intercoastal Canal. This work included using 3D Scanning for the bridge at I-10 bridge @ LA 415 as well as scanning every 500' for control verification and incorporation of the Mobile Lidar for the I-10 pavement.				
07/17 – 12/18	<b>H.010960.5-2, LA 30 Roundabout at Tanger I-10, Ascension Parish, LA</b> : Mr. Burgess served as Survey Manager for the project. Duties included meeting with LADOTD & Cardno, Inc for utility locations, coordination of crews and 3D terrestrial scanning crew along with office personnel, coordination. Special duties were merging of two state projects with project survey for final submittal to combine all projects together.				
01/16 – 08/16	<b>H.005733.5 US 190 Superstreet, St. Tammany Parish, LA</b> : Mr. Burgess served as Survey Manager for the project. Duties included complete topographic survey and drainage map for this project including all utility coordination. The survey began at the intersection of US 190 and Holiday Square Frontage Road. From this point, the survey proceeded in a northerly direction along US 190 for approximately 2.9 miles to a point that is 700 feet South of Intersection of US 190 and E. Boston St. in Covington, LA. This project also included work in the Abita River and utilized 3D Terrestrial Scanning for the main route.				
Manager for the project. Duties included meeting with LADOTD, exercitization of traditional group and 2D terrest	iol				
---	-------------				
10/15 – 12/18	lai				
scaling crew, coordination of utility companies on the project, review and vehication of drainage crossing rio,					
H 011225 L 40 South at Veret School Boad L efevente L A: Mr. Burgese served as the Survey Manager for the	<b>&gt;</b>				
<b>n.011235 1-49 South at verot School Road, Latayette, LA</b> . Mr. Burgess served as the Survey Manager for the	;				
project. Duties included meeting with LADOID, and all consultants on the team, coordination of both traditional	crews				
08/16 – 12/17 and 3D terrestrial scanning crew, coordination of survey crews with Cardno, Inc, utility locations on the project, r	net				
and review right of entry with landowners for project, review of drainage map, merging of existing topographic su	rvey				
of the I-49 Connector project from LADOID with current survey of project, review of apparent right of way mapp	ng for				
prime consultant, and final review of all survey data.					
H.011088.5 I-110 North Street to Plank Road, EBR Parish, LA: Mr. Burgess served as Survey Manager for th	е				
project. Duties included meeting with LADOTD, coordination of traditional crews and 3D terrestrial scanning crev	ν,				
07/14 – 10/15   review and verification of drainage map, merging and final review of all survey data for submittals. Other special	duties				
were coordinating with LADOTD District 61 for a rolling lane closure for location of drainage located in the interior	or of				
the project along the existing crash wall. Also, coordination with LADOTD Records and EBR City Parish regarding	ng the				
research of all drainage structures that enter and leave the project area.					
H.010006.5-3 LA 58 Petit Caillou Bridge Rehabilitation (Sarah Bridge), Terrebonne Parish, LA: Mr. Burges	S				
served as Survey Manager on this project which included a complete topographic survey, utility coordination, ch	annel				
04/17 – 07/17 cross-sections and the scanning of the existing vertical lift bridge for the design of its repairs/replacement. Proje	ct				
included data collection of the topography via traditional means and methods along with 3D terrestrial scanning	and				
hydrographic surveying.					
H.008369 Cleo Road Roundabout, St. Tammany Parish, LA: Mr. Burgess served as the project manager for	he				
project. CD&C was responsible for the topographic survey that began approximately 2400 ft. NW of intersection	of I-59				
and LA Hwy 1090 and ended approximately 1000 ft. NW of intersection of I-59 and LA Hwy 1090. The survey al	50				
included 500 ft. of Cleo Road and 175 ft. of Avenue D.					
H.009288 LA 1 Railroad Bridge at DOW, West Baton Rouge, LA: Survey Manager for this project located in \	Vest				
D5/13 07/13 Baton Rouge Parish. The intent is to create a grade separation at the intersection of LA 1 and the R/R spur for L	OW.				
CD&C is performing all of the topographic survey for this project including utility coordination and R/R coordinati	on and				
permits so that CD&C can survey the spur and parallel line.					
H.005693 LA 447, Walker, LA: Mr. Burgess was the Survey Manager for this project. CD&C's responsibilities in	cluded				
all field work, utility coordination, review of existing survey data provided by LADOTD and all office work to prod	ice the				
02/13 – 06/13 final product; this includes merging of supplied survey from LADOTD and survey by CD&C. CD&C also perform	ed the				
tie-in of the new survey to the existing survey provided by LADOTD to produce an overall deliverable to be utiliz	ed in				
this design.					
H.011088.5 West Prien Lake, Lake Charles, LA: Mr. Burgess served as the Survey Manager for this project. T	his				
10/14 – 12/14 project was to provide topographic survey for a new route to be constructed. Topographic survey and DTM was					
required along the proposed alignment including all utilities and all drainage with the survey limits.					
H.010620 I-49 Design Build: Mr. Burgess managed and supervised all field work, utility coordination, and review	v of				
existing survey data for final topographic survey submittal. CD&C also produced ROW maps for the project. Mr.					
Burgess's duties for this portion also included title reports, review of property surveys and final submittal of final					
existing right of way plans.					

# 16. Staff Experience:

Civil Design & Construction, Inc. (CD&C)

Chris Ballard, PLS				Years of experience with this employer	6		
Topographic Survey		1		Years of experience with other employer(s)	19		
Degree(s) / Years	s / Specialization	Bachelor of Sci	ience – Southeasterr	n University/2004/Biological Science			
Active registration	number / state / expiration date	PLS 5033 / Lou	uisiana / 09/30/22				
	Year registered	2010	Discipline	Professional Land Surveyor			
Contract role(s) / brief description of responsibilities wembers t schedule b #4 and #5.			Mr. Ballard will be to oversee processing members to ensure schedule backgrou #4 and #5.	the Survey Project Manager and will work to direct crews, g of field data, and aide with coordination with other team e that the project is completed in accordance with project and in providing topographic and ROW for LADOTD. Meets I	MPR		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).						
01/18 – 01/20	H.004100 I-10: LA 415 to Essen Lane on I-10 and I-12, West and East Baton Rouge, LA Mr. Ballard is the Surveying Project Manager for this project. CD&C as a sub-consultant on this project is responsible for topographic surveying the portion of I-10 in West Baton Rouge Parish beginning at the start of the project limits to a point just before the approach of the I-10 Bridge and the limits of the project along LA 415 including work on Tributaries of the Intercoastal Canal. This work included using 3D Scanning for the bridge at I-10 bridge @ LA 415 as well as scanning						
04/17 — 07/17	04/17 - 07/17 H.010006.5-3 LA 58 Petit Caillou Bridge Rehabilitation (Sarah Bridge), Terrebonne Parish, LA Mr. Ballard served as the firms Survey Project Manager on this project which included a complete topographic survey, utility coordination, channel cross sections, and the scanning of the existing vertical lift bridge for the design of its repairs/replacement. Project included data collection of the topography via traditional means and methods along with 3D terrestrial scanning and hydrographic surveying						
02/19 – 09/19	02/19 – 09/19 Bridge Replacements in East Feliciana Parish, Rural East Feliciana Parish, LA Mr. Ballard is serving Survey Project Manager for this project for East Feliciana Parish Police Jury. It includes the replacement of 2 bridges which were damaged from flooding and the repairs to many rural roadways throughout the parish. These projects are being funded thru FEMA and all documentation has to be in accordance with FEMA's policies and procedures						
01/17 – 12/17 East Baton Rouge Parish Bridges, East Baton Rouge Parish, LA In 2017, CD&C has performed top surveys for at least 4 Bridge Replacement Projects throughout East Baton Rouge Parish. Mr. Ballard se Survey Project Manager on each of these projects which included cross-sectioning and tracing the chan location. These included bridges over Dawson Creek, Claycut Bayou, Copper Mill Bayou, and Cypress I							

10/16 – 11/16	<b>H.012728.5 LA 443: Tangi River Bridge Replacement, Tangipahoa Parish, LA</b> Mr. Ballard served as the Project Manager for this Project. Among the duties performed for the project were review of the crew work conditions, review and processing of the survey data, verification and review of final submittal. CD&C completed a topographic survey which included all utilities with depths, all drainage, all building information including finish floor elevations, and all super/substructure of the bridge over the Tangipahoa River. Additional information regarding the river was located by traditional means upstream and downstream for the engineer's design of the new bridge. To utilize data collection of the failed bridge, <b>3D Terrestrial Scanning</b> was incorporated in conjunction with traditional means to complete the topographic survey. Due to the nature of the project being an Emergency Bridge replacement all staff worked on this project non-stop until field work was completed in less than 3 weeks.
09/17 – 12/17	H.012650.5-1 District62 Bridges, Livingston and Tangipahoa Parishes, LA Mr. Ballard served as a Survey Project Manager for this project which included 5 bridge sites in District 62. In addition to all of the existing data for the bridge and roadway at each site, each channel was cross-sectioned both upstream and downstream of the bridge. These included bridges over the US 190 Bridge over Gray's creek, 2 bridges on LA 442 both crossing East Hog Branch, LA 1063 over the Natalbany River, and US 51 over Ponchatoula Creek. Several of these bridges including the US190 one were surveyed utilizing <b>3D Terrestrial Scanning</b> .
10/15 – 12/18	<b>H.003184.5 I-10 Texas State Line – East of Coone Gully, Calcasieu Parish, LA</b> Mr. Ballard served as the Survey Project Manager on this project which is a 6-lane widening of I-10. Duties performed on this project included the review of the survey information from crew, verification of project delivery schedule, processing of data and final review of submittal of project. 3D Terrestrial Scanning was used in conjunction with traditional means and methods for the completion of this project.
01/16 – 08/16	<b>H.005733.5 US 190 Superstreet, St. Tammany Parish, LA</b> Mr. Ballard served as the Survey Project Manager on this project. CD&C provided a complete topo survey & drainage map along with utility coordination for the project. Project duties included <b>processing</b> of data, review of field notes and weeklies, & performing final punch list. This project also included work in the Abita River utilized <b>3D Terrestrial Scanning</b> for the main route.
10/15 – 01/16	<b>H.011773 Hanks Dr/Landis Drive Pedestrian Improvements, East Baton Rouge Parish, LA</b> Mr. Ballard served as the Survey Project Manager on this project that included a topographic survey and establishment of the ROW for Hanks Dr. for installation of new sidewalk.
06/11 – 09/13	<b>260-01-0028, H.002372 LA 42 Widening and Improvements, Ascension Parish, LA</b> Mr. Ballard worked as a PLS on this project which included boundary and topography, establishing the existing ROW and acquisition of additional ROW.
07/17 – 12/18	<b>H.010960.5-2, LA 30 Roundabout at Tanger I-10, Ascension Parish, LA</b> Mr. Ballard served as the Survey Project Manager on this project that includes a complete topo survey, utility coordination and drainage, along with finish floor elevations of all buildings that fall within the survey limits. Project included data collection of the topography via traditional means and methods along with <b>3D terrestrial scanning</b> .
08/16 – 12/17	<b>H.011235 I-49 South at Verot School Road, Lafayette, LA</b> Mr. Ballard served as the Survey Project Manager on this I-49 South project for LADOTD. This project is to continue the improvements to the US 90 corridor to upgrade the roadway to interstate standards for I-49 South. This project includes traditional topography, 3D Scanning, and ROW mapping as part of the full scope. Special task was to coordinate with the Railroad company and perform railroad permitting for access to the rails.

#### **17. Firm Experience:** Past Performance Evaluation Discipline(s)\* Bridge **Gresham Smith** Complex Bridge Inspections IDIQ – Task Order #2, US 71 Firm responsibility (prime or sub?) Prime Spring Street Emergency Bridge Repairs **Project number Owner's name** Louisiana Department of Transportation and Development Shreveport, Louisiana Haylye Brown, P.E. **Project location Owner's Project Manager** Owner's address, 1201 Capitol Access Road, Baton Rouge, LA / 225.379.1205 / haylye.brown@la.gov phone, email 04/20 Services commenced by this firm (mm/yy) \$142 Total consultant contract cost (\$1,000's) Cost of consultant services provided by this firm Services completed by this firm (mm/yy) 09/20 \$130 (\$1,000's)

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.) \*If there is more than one past performance evaluation category included in the advertisement, then indicate which past performance evaluation discipline(s) this project is being used to represent.

LADOTD selected Gresham Smith for a 5-year IDIQ Design contract to perform Complex Bridge Inspection and Design Repairs. Gresham Smith is currently in the second year of this contract; having completed three task orders and entering contract phase on the 4th task order.

In April 2020, a train derailment impacted the US 71 Bridge over KCS Railroad in downtown Shreveport, causing the emergency closure of the bridge. LADOTD assigned Gresham Smith under TO #2 to prepare design plans to replace bent three and to install a concrete crash wall for



future protection. Gresham Smith performed an emergency inspection of the bridge to perform measurements and evaluate potential repairs. Coordination with the railroad staff was performed to minimize impacts from on-going rail traffic. A contractor was selected to perform the construction, and Gresham Smith coordinated with the contractor and DOTD on potential repair details, similar to a formal Construction Management at Risk (CMAR) contract arrangement.

Repairs included the installation of helical piles to resist the railroad crash loads on the foundations and utilization of rolled shapes to expedite steel fabrication. A strongback system to support the structure during the removal of the damaged bent was designed by the contractor. Gresham Smith reviewed and approved the system, then performed a field review to verify installed compliance with the design. Geotechnical evaluations were completed and utilized for the design of the helical piles and concrete wall footer.

**Nature of firm's responsibility:** Prime Consultant; Overall responsibility for entire contract. **Firm members involved include:** Bert Moore, John Weres, Courtney Rome and Emery Sayre.

Page 37 of 83 Prime consultant firm: Gresham Smith

17. Firm Experie	nce:	1			1		
Gresham Smith Past Performance Evaluation Discipline(s)* Bridge, F					Road		
SR 15 Realignment & Sandersville Railroad Overpass Firm responsibility (prime or sub?						ibility (prime or sub?)	Prime
Project number	PI No. 245090	PI No. 245090 Owner's name Georgia Department of Transportation (GDOT)					
<b>Project location</b>	Sandersville, GA		Owner's Proje	ect Mar	ager	George Brewer, P.E.	
Owner's address, phone, email GDOT, 600 West Peachtree Street, Atlanta, GA 30308   706-832-0917   gbrewer@dot.ga.gov							
Services commenced by this firm (mm/yy) 07/2014 Total consultant contract cost (\$1,000's)					000's)	\$578.8	

Services completed by this firm (mm/vy)	12/2018 - Design	Cost of consultant services provided by this firm (\$1,000's)	\$1 700
	12/2010 - Dosigii		$\psi_{1,700}$

The project included the realignment and reconstruction of four miles of SR 15 in Washington County, GA, including turning lanes and intersection improvements. The project included construction of a new bridge structure to span the local spur line for the Sandersville Railroad a local shortline railroad.

The roadway alignment and the railroad alignment are both curved. The bridge profile and clearance were preliminarily detailed based on the future rail line, then adjusted during final design after completion of the new track. Gresham Smith worked closely with the railroad to establish required clearances and drainage requirements, including the current and future (additional) track alignment.

The bridge spans 93' along a curved alignment and the abutments are skewed 80-degrees to align with the railroad alignment for a uniform horizontal clearance to the existing and future 2<sup>nd</sup> track line. The bridge design utilized MSE abutments with prestressed concrete pile end bents to minimize inclusion into the railroad right-of-way. The bridge typical includes 4 lanes of traffic and a raised median, with a 4.2% crossslope. The bridge beams consist of 54" Bulb Tee girders at 8'-3" spacing and a draped strand prestressing pattern.



**Nature of firm's responsibility:** Prime Consultant; Overall responsibility for entire contract, including roadway and bridge. **Firm members involved include:** John Weres, Tom Tran, and Matt Williams

Gresham Smith	n Smith Past Performance Evaluation Disci			aluation Disciplin	ne(s)* Bridge, Road				
<b>Division Stre</b>	et Extension				Firm r	espons	ibility (prime or sub?)	Prime	
Project number	14SG0002; 14WG0002	Owner's name	Me	Metro Nashville Public Works					
Project location	Nashville, TN		Owner's Project				ager Mark Macy		
Owner's address, phone, email	720 South Fifth Street, Nashville, TN 37206   615.862.8764   mark.macy@nashville.gov								
Services commend	ced by this firm (mm/yy)	07/2013	To	tal consultant cor	ntract o	cost (\$1,	000's)	\$1,783	
Services completed by this firm (mm/yy)		12/2017	Co	st of consultant s	ervice	s provic	led by this firm (\$1,000's)	\$1,062	

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

Gresham Smith was awarded the design of the Division Street extension to cross the CSX Railroad, Ewing and Vine Streets as part of the SoBro (South of Broadway) Redevelopment. The project provided an additional route from the developing Gulch area of SoBro to major transportation routes including I-40 to the east and Murfreesboro Road and 4th Avenue to the south and east.

The new bridge, along a new curved alignment, features a 10-beam section of continuous welded steel girders and multi-post bents. The bridge typical section accommodates four traffic lanes along with bicycle and pedestrian facilities. The structure is designed for low maintenance with weathering steel beams and a continuous concrete deck with only a single expansion joint at the western abutment. The bridge design was challenged by difficult geotechnical conditions resulting in a hybrid abutment design requiring partial support on a cast-in-place closed abutment and the balance on a typical stub type abutment.



The project includes four traffic lanes along with a new buffered cycle track and wide sidewalks for pedestrians. The curved alignment over the railroad minimized right-of-way requirements and impacts to local businesses.

Nature of firm's responsibility: Prime Consultant; Overall responsibility for entire contract, including roadway and bridge. Firm members involved include: John Weres



		1			1		
Gresham Smith Past Performance			Evaluation Disciplin	ie(s)*	Bridge	, Road	
I-24 Superstructure Replacements – Spring 8			& Oldham St.	Firm r	espons	ibility (prime or sub?)	Prime
Project number	BR-122-26 Owner's name Tennessee Department of Transportation						
Project location	Nashville, TN	Owner's Project Manager Ted Kniazewycz, P.E.					
Owner's address, phone, email	James K Polk Building, Suite 1100   505 Deaderick Street, Nashville TN 37243   615.741.3351   ted.kniazewycz@t						)tn.gov
Services commend	ced by this firm (mm/yy)	10/2015	Total consultant co	ntract o	cost (\$1,	000's)	\$800
Services complete	ervices completed by this firm (mm/yy) 09/2018 Cost of consultant services provided by this firm (\$1,000's)				\$800		
Describe the projec	t including the firm's role a	and members involv	ed. (Highlight memb	ers to b	be used	in this proposal.)	

As a follow-up project to the highly successful Fast Fix 8 project on I-24 in Nashville, TDOT selected Gresham Smith to complete the superstructure replacement designs for two structures on I-24, over Spring Street and Oldham Street in Nashville. Oldham Street is a 5-span, variable width structure with two sets of mainline CSX tracks under Span 3.

The superstructure was replaced utilizing concrete box beams and a precast concrete deck to incorporate Accelerated Bridge Construction (ABC) techniques. The fascias of the box beams were painted blue to resemble steel beams for aesthetic purposes. The existing substructure bents were repaired and coated with a protective coating for both durability and aesthetics.



17 Firm Experience

Fencing was incorporated into the bridge parapets to satisfy CSX requirements. The variable width

deck and skewed alignment contributed to the complexity of the detailing for the framing plan and the full-depth, precast deck panels.

**Nature of firm's responsibility:** Prime Consultant; Overall responsibility for entire contract, including roadway and bridge. **Firm members involved include:** John Weres



Gresham Smith Past Performance Evaluation Discipline			e(s)*	Bridge				
Complex Bridge Inspections IDIQ – Task Order #1			#1	Firm responsibility (prime or sub?)			Prime	
Project number	4400013322 <b>Owner's name</b> Louisiana Department			t of Tra	of Transportation and Development			
Project location	District 08, Louisiana			Owner's Project Manager			Haylye Brown, P.E.	
Owner's address, phone, email	1201 Capitol Access Roa	1201 Capitol Access Road, Baton Rouge, LA / 225.379.1205 / haylye.brown@la.gov						
Services commenced by this firm (mm/yy) 10/19 Total consultant co			ntract c	ost (\$1,	000's)	\$1,318		
Services completed by this firm (mm/yy) Ongoing			Co	st of consultant s	service	s provid	ed by this firm (\$1,000's)	\$ 387

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

#### Task Order #1

Gresham Smith was selected to provide services for a 5-year Complex Bridge Inspection IDIQ contract for DOTD's Bridge Maintenance Section, one of only two firms to provide these complex services on a statewide contract. The inspections are primarily in-depth bridge inspection for fracture critical bridges (primarily trusses) and for large, moveable bridges.

Task Order 1 began in late 2019 and includes three major structures:

- 1. Red River Lift Bridge in Alexandria
- 2. LA 1 Truss over Atchafalaya River
- 3. LA 8 Concrete Segmental Bridge in Boyce

# Based on cost savings from the initial inspections, two additional movable bridges were added to Task Order 1 including:

- 4. Bridge 005860 Jeanerette Steel Truss Swing Bridge
- 5. Bridge 009130 Charenton Steel Truss Swing Bridge

In addition to structural, electrical and mechanical inspections, the Gresham Smith team evaluated movement of the center pier during bridge operations using lasers and tilt meters.

**Nature of firm's responsibility:** Prime Consultant; Overall responsibility for entire contract. **Firm members involved include:** Bert Moore, John Weres, Emery Sayre, Courtney Rome. Brennon Hughes, Rebecca Murray and Payton Nickles.



### **Project Highlights**

- Inspection of a major steel truss, a concrete segmental box and three movable bridges.
- Variety of technical skills including structural analysis, maintenance knowledge, and structural integrity.
- Work closely with DOTD District and Operations staff.

Gresham Smith

				•			
SR 178 Benton County – Replacement of 2 E Twin-Cell Box Culvert				lges and a	Firm respons	ibility (prime or sub?)	Prime
Project number	N/A	Owner's name	Mis	ssissippi Departme	ent of Transport	ation	
Project location	Benton County, MS		Owner's Project Manager Scott Westerfield. P.E.		Scott Westerfield. P.E.		
Owner's address, phone, email	401 North West Street, Jackson, MS / 601.359.7200 / swesterfield@mdot.ms.gov						
Services commenced by this firm (mm/yy) 11/17 Total consultant contract cost (\$1,000's)			\$417k				
Services completed by this firm (mm/yy) Ongoing C			Cost of consultant services provided by this firm (\$1,000's) \$417k				
Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)							

Past Performance Evaluation Discipline(s)\*

Gresham Smith holds a 3-year IDIQ Bridge Retainer with MDOT. Under Work Assignment 1, Gresham Smith was tasked for completing Phase B (Final Design) for the reconstruction of two bridges and associated roadway. A third bridge was replaced with a twin-cell box culvert. To reduce the overall construction costs, Gresham Smith was requested to re-design the previously prepared (by others) Phase A roadway design for Bridge 47.1 to utilize the existing alignment, rather than an off-line alternative designed by others.

To reduce the total structure depth and improve the bridge hydraulics, the superstructures were designed with Florida I-Beam (FIB) shaped prestressed concrete girders. As one of the longer spans in Mississippi to utilize the FIB shapes, Gresham Smith also performed a haul analysis and constructability review to verify that the 135' long, 70-ton girders could be delivered and erected at this rural location. For the multi-span structure, the bridge spans were designed as simply supported beams with a "link-slab" detail utilized to eliminate the deck joints. The span arrangements are as follows:

- Bridge 51.3 (Bridge A) FIB-45; 3 spans = 80' 100' 80' = 260'
- Bridge 47.1 (Bridge B) FIB 54: 1 span = 135'

Nature of firm's responsibility: Prime Consultant; Overall responsibility for entire contract.

Firm members involved include: John Weres, Courtney Rome and **Emery Sayre** 



Bridge

New 3-Span Bridge with FIB Girders







New 2-Span Culvert

Gresham Smith		Past Performance Evaluation Discipline(s)*			Bridge		
SR 309 Marshall County Bridges & Byhalia Creek Bridg			Creek Bridge	Je			Drime
Replacement					eshous		
Project number	N/A	Owner's name Mississippi Department of Transportation				ation	
Project location	Marshall County, MS		Owner's Proj	Owner's Project Manager		Scott Westerfield. P.E.	
Owner's address, phone, email	401 North West Street, Jackson, MS / 601.359.7200 / swesterfield@mdot.ms.gov						
Services commenced by this firm (mm/yy) 11/14 Total		Total consultant contract cost (\$1,000's)		,000's)	\$225k & \$350		
Services completed by this firm (mm/yy) 10/17 & 8/21			Cost of consultant services provided by this firm (\$1,000's)			\$225k & \$350	

Т

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

MDOT contracted with Gresham Smith to provide Phase B engineering design services as required to prepare complete construction plans for two projects on SR 309 in Marshall County. The first was the replacement of SR 309 Bridge (No. 15.4) over Byhalia Creek in Marshall County. This project also consisted of the construction of approximately 2,500 linear feet of SR 309 and a local road on a new alignment. Gresham Smith designed a 3-span (95-foot–138-foot–95-foot) structure utilizing AASHTO BT-54 and BT-72 prestressed concrete girders. Draped strand patterns were utilized for the beam design. Interior bents consisted of 36" diameter open-end steel pipe piles and the end bents utilized HP 14x89

Т

#### **Project Highlights**

- Prestressed concrete beam design utilized LEAP Bridge software.
- Designed bridges, roadway and traffic control for 5 multi-span structures.
- Span arrangements established to improve hydraulic characteristics.

end bearing steel piles. MDOT also executed a contract with Gresham Smith to provide Phase C Services during the construction of this bridge.

In the next Task Order, Gresham Smith was tasked with designing five additional bridges on SR 309 in Marshall County, MS. These bridges were off-line construction to maintain traffic during construction and included a variety of AASHTO-type concrete

beams. The design included several multi-span concrete beam structures, three of which are shown in the adjacent photograph. project construction completed Fall 2021.

**Nature of firm's responsibility:** Prime Consultant; Overall responsibility for entire contract. **Firm members involved include:** John Weres, Courtney Rome, Tom Tran, Emery Sayre, and Barrett Germond

Marshall County SR 309 Bridge Construction



Byhalia Creek Bridge



SRTS/LRSP T	ask Order #6 and	#21: Endom E	Bridge	Firm respons	ibility (prime or sub?)	Prime		
Project number	H.012279; H.012279.5	Owner's name	<b>Owner's name</b> Louisiana Department of Transportation and Development					
Project location	West Monroe, Louisiana	Owner's Project	Owner's Project Manager Laura Riggs, P.E.					
Owner's address, phone, email	1201 Capitol Access Roa	1201 Capitol Access Road, Baton Rouge, LA / 225.379.1143 / laura.riggs@la.gov						
Services commence	ed by this firm (mm/yy)	Total consultant co	\$251					
Services completed by this firm (mm/yy) 12/20			Cost of consultant (\$1,000's)	\$222				
Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.) *If there is more than one past performance evaluation category included in the advertisement, then indicate which past performance evaluation discipline(s) this project is being used to represent.								
As part of LADOTD's	Safe Routes to Schools (SF	RTS) retainer	<ul><li>Project Highligh</li><li>Milling Aspha</li></ul>	<b>ts</b> alt				

Past Performance Evaluation Discipline(s)\*

Gresnam Smith was tasked to develop operational and safety improvements at the west approach to the Endom Bridge located in West Monroe, Ouachita Parish. After a technical review of this intersection, Gresham Smith was selected to perform engineering and related services to prepare preliminary and final plans for proposed safety and operational improvements to the intersection of Coleman Avenue with North and South Riverfront Streets at the Endom Bridge approach.

**17. Firm Experience:** 

**Gresham Smith** 

- Pavement
- **Traffic Maintenance**

Road

- Intersection Realignment
- Subsurface Drainage Design
- Truck Island Design

The purpose of the improvements is to realign the Coleman Avenue approach to the Endom Bridge to improve intersection sight distance and safety for pedestrians and vehicles. This project will include pedestrian facilities including walking paths long Endom Bridge and the Ouachita River.

Gresham Smith's responsibilities were to oversee the topographic survey, coordinate with the local municipality, develop preliminary and final design plans to realign the intersection, right-of-way maps, specifications and construction cost estimates. This project was let for construction on December 9, 2020 with the apparent low bid only 5.14% over the estimate.

Nature of firm's responsibility: Prime Consultant; Overall responsibility for entire contract. Firm members involved include: Bert Moore, Richard Savoie, Brennon Hughes, Ronnie Robinson and Rebecca Murray.



-		1		1			
Gresham Smith		Past Performance Evaluation Discipline(s)* Traffic					
US 90 TMP for Bridge Maintenance over I-10 at LockMoor Firm responsibility						ibility (prime or sub?)	Prime
Project number	H.013076.5-1	Owner's name	Louisiana Departmer	nt of Trai	nsportat	ion and Development	
<b>Project location</b>	Lake Charles, Louisiana		Owner's Proje	ect Man	ager	Hadi Shirazi, P.E.	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802 / 225.379.1929 / hadi.shirazi@la.gov						
Services commend	Services commenced by this firm (mm/yy) 10/17 Total consultant contract cost (\$1,000's)				\$126		
Services complete	d by this firm (mm/yy)	01/18	Cost of consultant	services	s provid	led by this firm (\$1,000's)	\$46
Describe the projec	t including the firm's role a	and members involv	ved. (Highlight memb	ers to b	e used	in this proposal.)	-4
LADOTD overseeing the design of planned bridge maintenance of the US 90 bridge that operates as an on ramp to I-10 Eastbound. This bridge crosses over mainline I-10 for both the Eastbound and Westbound directions as well as the Westbound Off Ramp and Eastbound On Ramp to/from PPG Drive. The maintenance work will include the removal and replacement of the concrete deck, coating and other minor							Interstate

- Queue Analysis and Allowable Lane Closure Recommendations
- Traffic Engineering Mitigation Strategies

The objective of the Transportation Management Plan (TMP) is to identify the challenges and strategies to address these challenges in order to minimize the traffic delays associated with the lane closures, demand volumes and incidents within the construction limits and primary detour roadways on US 90 and I-10 within the Lake Charles Metropolitan Area. The Consultant shall prepare and coordinate a formal TMP to determine

repairs. US 90 bridge will be closed for the duration of the project. Intermittent closures of the PPG On and

impacts from lane closures for the bridge maintenance project on US 90 from PPG Drive to I-10 entrance ramp and I-10 Service Road, a length of approximately 0.5 miles.

The TMP shall be prepared following the Level 4 checklist as outlined in Louisiana Department of Transportation and Development (DOTD) Engineering Directives and Standards Manual (EDSM) VI.I.I.8 (Transportation Management Plan (TMP)), dated March 13, 2012. As outlined in the EDSM, the necessary tasks shall include: traffic counts and queue analysis, safety analysis, alternate route/detour analysis, stakeholder involvement, temporary traffic control, and documentation.

**Nature of firm's responsibility:** Prime Consultant; Overall responsibility for entire contract. **Firm members involved include:** Bert Moore and Rebecca Murray.

Off Ramps and lane closures along I-10 through the work zone will be required.

Gresham Smith	sham Smith Past Performance Evaluation Discipline(s)*							
I-10 TMP Wes	st of LA 108 Interc	hange to I-210	0 In	terchange	Firm ı	respons	ibility (prime or sub?)	Prime
Project number	H.009620.5-1	H.009620.5-1 <b>Owner's name</b> Louisiana Department of Transportation and Development						
Project location	Lake Charles, Louisiana			Owner's Project Manager			Hadi Shirazi	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802 / 225.379.1929 / hadi.shirazi@la.gov							
Services commenced by this firm (mm/yy) 04/18 Total consulta			tal consultant co	ntract o	cost (\$1,	000's)	\$191	
Services completed by this firm (mm/yy) Ongoing			Cost of consultant services provided by this firm (\$1,000's)			\$110		

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

LADOTD is in the process of developing design plans for the Rubblization and Overlay of I-10 from just west of the LA 108 interchange to the I-210 interchange. This project will include: the mill and overlay the asphalt portions of I-10, the removal and replacement of the concrete panels on mainline I-10 through the LA 108 interchange, installation of an auxiliary lane in both directions between the LA 108 and I-210 interchanges, and the widening of the bridges over the Maple Fork Creek to include inside and outside shoulders

#### **Project Highlights**

- Data Collection on Interstate
- Queue Analysis and Allowable Lane Closure Recommendations
- Traffic Engineering **Mitigation Strategies**
- Special Traffic Control Details
- Traffic Signal Design

The objective of the Transportation Management Plan (TMP) is to identify the challenges and strategies to address these challenges in order to minimize the traffic delays associated with the lane closures, demand volumes and incidents within the construction limits and primary detour roadways on I-10 and I-210 within the Lake Charles Metropolitan Area. In addition, this project will also update the TMP that was performed for the I-210 Prien Lake Bridge Re-Decking and Safety Improvement Project (H.010916.5) dated January 2016.

The TMP shall be prepared following the Level 4 checklist as outlined in Louisiana Department of Transportation and Development (DOTD) Engineering Directives and Standards Manual (EDSM) VI.I.I.8 (Transportation Management Plan (TMP)), dated March 13, 2012. As outlined in the EDSM, the necessary tasks shall include: traffic counts and queue analysis, safety analysis, alternate route/detour analysis, stakeholder involvement, temporary traffic control, and documentation.

Nature of firm's responsibility: Prime Consultant; Overall responsibility for entire contract. Firm members involved include: Bert Moore, Rebecca Murray and Tait Karlson.

Mott MacDonald		Past Performance Evaluation Discipline(s)*			Bridge				
Harvey Tunnel Rehabilitation Plan Prep.				Firm responsibility (prime or sub?)			Prime		
Project number	H.010673.5 Owner's name Louisiana D			uisiana Departmen	siana Department of Transportation and Development				
Project location	Harvey, Louisiana			Owner's Project Manager Jacob Fusilier, P.E., PN			Jacob Fusilier, P.E., PMP		
Owner's address, phone, email	1201 Capitol Access Road	, Baton Rouge, LA / 2	225.3	379.1185 / jacob.fu	isilier@	la.gov			
Services commend	12/18	Total consultant contract cost (\$1,000's)			\$2,400				
Services complete	Present	Cost of consultant services provided by this firm (\$1,000's)			\$2,400				

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

The Harvey Tunnel near New Orleans is an essential tunnel to the city's transportation system. Harvey is a twin-tube bi-directional, dual-lane vehicular and pedestrian tunnel beneath the Harvey Canal.

Having first opened in 1956, the Harvey Tunnel is beyond its design life, outdated, and needs to be upgraded to meet current design standards and codes. Given the current conditions, the Louisiana Department of Transportation and Development (LaDOTD) decided to prioritize rehabilitation of the electrical, lighting, mechanical, ventilation system, emergency systems, and structural components for this essential tunnel.

Our engineers expeditiously undertook the project from inspection and design to construction. Careful evaluation focused on key components including structural/leakage assessments, lighting, fans/louvers, sump pump systems, lighting, signage and tiles. Non-destructive testing techniques were used to evaluate structural and geotechnical components and any potential defects. A detailed inspection report, including our findings and assessments, was provided to LaDOTD to understand the needs and costs for repairs.



HARVEY

The Harvey Tunnel was then selected as a priority tunnel for rehabilitation. Our design incorporates rehabilitation or replacement systems for roadway lighting, communications, traffic control, and monitoring, as well as fresh air flues and exhaust ducts, wall finishes, fire-hardening evaluations, and other systems within the ventilation buildings. LED light systems were incorporated for energy-savings, and safety. New cameras allow for remote surveillance of vehicular and pedestrian traffic within the tunnels.

The rehabilitation of these tunnel will ensure a major transportation link will be viable for years to come. With our help, the LaDOTD can provide more resilient tunnel structures that will help protect against future flooding and fire threats. The project also will result in a connected surveillance system and safer and more reliable transportation asset. The new automatically adjusting LED lighting, upgraded fire detection and ventilation system, and increased pavement skid resistance allows the traveling public the safest possible experience through the rehabilitated Harvey Tunnel.

Nature of firm's responsibility: Prime Consultant Firm members involved include: Dave Juntunen, P.E.

Page 47 of 83 Prime consultant firm: Gresham Smith

Mott MacDonald

Past Performance Evaluation Discipline(s)\* Bridge

# LADOTD Bridge Management System Implementation

Firm responsibility (prime or sub?)

sibility (prime or sub?) (Formally the Kercher Group)

Prime

Project number	LADOTD Purchase Order Number 2000470239	Owner's name	Louisiana Department of Transportation and Development						
Project location	Statewide, Louisiana		Owner's Project Mana	ager	Dave Miller, P.E.				
Owner's address, phone, email	1201 Capitol Access Road	1201 Capitol Access Road, Baton Rouge, LA / 225.379.1795 / david.miller@la.gov							
Services commenced by this firm (mm/yy) 07/21 Total con			Total consultant contract cost (\$1,000's)\$469						
Services complete	d by this firm (mm/yy)	03/22	Cost of consultant services provided by this firm (\$1,000's)						

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

Louisiana has an expansive network of highway bridges with the fourth largest deck area in the nation (as per the FHWA national Bridge Inventory 2018 data) along with the distinction of owning over 150 movable bridges, the most in the nation. There are 12,899 highway bridges in Louisiana, of which 7819 are owned and maintained by the Louisiana Department of Transportation and Development (LaDOTD). The LaDOTD has expressed interest in enhancing their existing bridge management program by implementing an advanced bridge management system (BMS) capable of performing optimization, forecasting, and strategic investment planning. The Louisiana Division of Administration (DOA) and LaDOTD currently owns a license for the AgileAssets Structures Analyst software product and the intent of this scope of services is to implement this software.

Mott MacDonald, previously the Kercher Group, provided matter expert for the development and implementation of AgileAssets Structures Analyst software to meet



Louisiana DOTD bridge management needs. This project includes doing advanced NBI General Condition Rating and element deterioration modelling, treatment configuration, and decision tree development for optimization analysis, strategic investment planning, reporting, and performance measure dashboard development.

Nature of firm's responsibility: Prime Consultant Firm members involved include: Dave Juntunen, P.E.

**Mott MacDonald** 

Past Performance Evaluation Discipline(s)\* Bridge

I-95 from South of US 301 to North of SR 1723 (Parkton Firm responsibility (prime or sub?) Sub **Tobermory Rd.) Project number** North Carolina Department of Transportation (NCDOT) N/A **Owner's name** Robeson and Cumberland Counties, NC **Owner's Project Manager Project location** Scott Pridgen Owner's address. 558 Gillespie St, Fayetteville NC 28301 / 910.364.0603 / gspridgen@ncdot.gov phone, email 02/21 \$2,602 Services commenced by this firm (mm/yy) Total consultant contract cost (\$1,000's)

Services completed by this firm (mm/yy) Present Cost of consultant services provided by this firm (\$1,000's) \$2,602

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

This project proposes to widen I-95 from Mile Marker 21 just south of Exit 22 to Mile Marker 37 in Robeson County, for a total length of approximately 16 miles. Mott MacDonald is serving as a major subconsultant, assisting with project management and providing roadway design, structure design, hydraulic design, sediment and erosion control, traffic engineering, wet utility coordination and utility design.

Per the structure design scope of work, Mott MacDonald provided design services for the bridge which carries Great Marsh Church Road over I-95. The existing structure will be removed and replaced on a shifted alignment. The proposed bridge will be a two-span concrete girder bridge with integral end bents and an interior bent supported on drilled shafts. The bridge is located in Seismic Zone 2. Due to project constraints by the client, contract plans are being delivered on an accelerated schedule.

### **Project Highlights**

- Removal and replacement of existing bridge
- Determine type and size of structure.
- Prepare preliminary and final plan.
- Performed as designed bridge rating.
- Provided MSE wall envelopes, foundation demands, and coordinated with Geotechnical Engineer

Final design has been completed and contract documents are on schedule to be submitted by March 2022. Letting is scheduled for June 2022.

**Nature of firm's responsibility:** Subconsultant **Firm members involved include:** Justin Robinson, P.E. and Rachel Dicke, P.E.

17. Firm Experier	nce:	1						
Mott MacDonald		Past Performance	Past Performance Evaluation Discipline(s)*			Bridge		
US 29-70 and and Bridge R	I Main Street Inter eplacement	change Recor	struction	Firm re	espons	sibility (prime or sub?)	Prime	
Project number	N/A	Owner's name NCDOT Structures Management Unit						
Project location	High Point, NC		Owner's Project Manager David Stutts, P.E.					
Owner's address, phone, email	1000 Birch Ridge Drive, Raleigh, NC 27610 / 919.707.6442 / dstutts@ncdot.gov							
Services commenced by this firm (mm/yy) 02/18			Total consultant contract cost (\$1,000's)			\$1,350		
Services completed by this firm (mm/vv) 01/22			Cost of consultant services provided by this firm (\$1,000's)			\$1,105		

Mott MacDonald is providing a turnkey project with, among other disciplines, the structure design for the US 29-70 and Main St. interchange improvement project in High Point, which required final designs and plans for the replacement of Bridge #147 in Guilford Co. and the extension of a reinforced concrete box culvert on the adjacent interchange project. The existing single bridge is being replaced by phase constructed dual bridges. The new dual bridges are single span (117') utilizing 63" MBT prestressed concrete girders. The superstructure is integral with the end bents founded on steel piles and set behind MSE walls. Mott MacDonald has coordinated with NCDOT Construction and Geotechnical staff members to find the most economical phasing of construction for the bridges.

The primary purposes of the proposed project are to improve mobility in the interchange by limiting driveway access, alleviate existing congestion, and upgrade the interchange design to meet current design standards. Numerous driveways along and in proximity to the existing interchange ramps reduce mobility in the interchange, thus indicating a need to reduce the number of conflict points. Traffic congestion is also significant at several of the existing unsignalized ramp terminals, indicating the need for improving operations at the ramp terminals. Presently, the terminal ramps are not in compliance with current AASHTO and NCDOT standards for the length of acceleration and deceleration lanes, nor safety standards for control of access at the interchanges.

Nature of firm's responsibility: Prime Consultant Firm members involved include: Rachel Dicke, P.E.



### **Project Highlights**

- Project consists of removal and replacement of existing dual bridges on heavily travelled limited access highway
- Determine type and size of structure.
- Prepare preliminary and final plan. Performed as designed bridge rating.

• · · · ·		1			i				
Mott MacDonald		Past Performance	e Evaluation Disciplin	ie(s)*	Bridge				
Helms Road Grade Separation in Waxhaw over NC 75 and CSX (P-5748B)					Firm responsibility (prime or sub?) Prin				
Project number	N/A	Owner's name	wner's name NCDOT Rail Division						
Project location	Waxhaw, NC	Owner's Project Manager Brian Gackstetter							
Owner's address, phone, email	862 Capital Boulevard, Ra	862 Capital Boulevard, Raleigh NC 27699 / 919-707-4131 / begackstetter@ncdot.gov							
Services commenced by this firm (mm/yy) 11/21 T			Total consultant contract cost (\$1,000's)			\$564			
Services complete	Cost of consultant services provided by this firm (\$1,000's)				\$564				

NCDOT proposes rail and roadway improvements to close the existing at-grade crossing at Helms Road and construct a grade separation to eliminate highway-railroad conflicts and improve mobility and access to N.C. 75 (Waxhaw Highway) in Union County. The project consists of closing the existing at-grade crossing at SR 1300 (Helms Road), 0.65 miles of a 2-lane roadway facility on new alignment connecting NC 75 (Waxhaw Highway) to SR 1301 (Waxhaw-Marvin Road), a new grade separation over NC 75 and CSX Railroad, realignment of SR 1300 (Helms Road), and 0.4 to 0.9 miles of future 2-lane roadway facility on new alignment connecting SR 1300 (Helms Road), and NC 16. For the Planning Phase, Mott MacDonald's services included roadway functional designs, preliminary hydraulics, and Public Meeting Maps for (5) alternatives and project coordination for stakeholder meetings and a public involvement meeting with property owners, the Town of Waxhaw, CSX, and NCDOT (Rail Division and Division 10). For the Final Design Phase, Mott MacDonald's services to produce ROW and Final Plans will include Roadway and Hydraulic Design, Utility Coordination, Traffic Management Plans, Signing and Delineation Plans, and Erosion Control Plans.

Currently, preliminary bridge layout and plans have been submitted for approval with final design and plan development schedule to start in March 2022. The project is on an accelerated schedule with the letting date scheduled for January 2023, as requested by NCDOT Rail Division.

**Nature of firm's responsibility:** Prime Consultant **Firm members involved include:** Rachel Dicke, P.E.

17. Firm Experience:



### **Project Highlights**

- Bridge over highway and rail
- Determine type and size of structure.
- Prepare preliminary plan.
- Coordination with geotechnical engineer

Mott MacDonald		Past Performance Evaluation Discipline(s)*				Bridge			
Forum Parkway Connector from Forum Parkway to NC 6 in Rural Hall over Norfolk Southern (U-5899)					Firm responsibility (prime or sub?) Prime			Prime	
Project number	N/A	Owner's name	NCDOT Division 9						
Project location	Rural Hall, NC			Owner's Project Manager Connie James			Connie James		
Owner's address, phone, email	375 Silas Creek Parkway,	375 Silas Creek Parkway, Winston Salem NC 27106 / 336.747.7800 / ckjames1@ncdot.gov							
Services commenced by this firm (mm/yy) 04/18			Total consultant contract cost (\$1,000's)			\$494			
Services complete	Present	Cost of consultant services provided by this firm (\$1,000's)				\$454			

The primary purpose of the proposed project is to improve system linkage between N.C. 65 (Bethania-Rural Hall Road) and N.C. 66 (University Parkway) in Rural Hall, North Carolina. Without needed improvements, S.R. 3955 (Forum Parkway) is expected to experience increased congestion as development continues in the area. Mott MacDonald prepared the environmental document and is providing the roadway design, hydraulic/erosion control design, and project management for the proposed extension of Forum Parkway to University Parkway. Alternatives are being studied to establish Forum Parkway as a vital connection between N.C. 65 and N.C. 66. The proposed Forum Parkway connection is a half mile new location, open shoulder facility that crosses both Grassy Creek and the Norfolk Southern Railroad. The Preferred Alternative proposes a two-lane divided roadway typical section, including one 12-foot lane in each direction with a 17-foot, 6-inch raised median and

#### **Project Highlights**

- Bridge on new alignment over road, FEMA stream and Norfolk Southern Rail
- Determine type and size of structure.
- Prepare preliminary plans.

curb and gutter along the travel lanes. This project required a best fit alignment to minimize impacts to homes and businesses, including a property eligible for listing in the National Register of Historic Places. In addition, Grassy Creek is a FEMA Detailed Study (Zone AE) in this location which requires FEMA Coordination. A two-span prestressed concrete girder bridge was designed for this crossing which satisfied FEMA requirements and maintained offsets from the rail line. Roadway drainage and Erosion Control designs were completed, and plan sets were created as part of the project. Water quality impacts were tallied and reflected on Permit Impact Drawings to aid in obtaining a 401/404 Permit.

The proposed grade separated bridge over Norfolk Southern Railroad will be approximately 56-feet, 6-inches wide and improve vehicular mobility and safety at the railroad crossing. A two-span prestressed concrete girder bridge was designed for this crossing which satisfied FEMA requirements and maintained offsets from the rail line. Currently, preliminary layout and plans have been approved, with final design slated to start in early 2023. Letting is scheduled for June 2024.

Nature of firm's responsibility: Prime Consultant Firm members involved include: Justin Robinson, P.E.

17. Firm Experience:

Past Performance Evaluation Discipline(s)\* Bridge Mott MacDonald State Road 87 Over Yellow River Firm responsibility (prime or sub?) Prime **Project number** Florida Department of Transportation (FDOT) N/A **Owner's name** Santa Rosa County, FL **Owner's Project Manager** Sharon Hynes **Project location** Owner's address. 1074 Hwy 90 Chipley, FL 32428 / 850.415.9340 / sharon.hynes@dot.state.fl.us phone, email Services commenced by this firm (mm/yy) \$1,897 09/06 Total consultant contract cost (\$1,000's) Services completed by this firm (mm/yy) 03/17 Cost of consultant services provided by this firm (\$1,000's) \$95

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

This 20.3 miles of State Road 87 improvements in Santa Rosa County addressed existing deficiencies along SR 87 while providing capacity for future growth. State Road 87 serves primarily as a connecting route between SR 30 (US 98) to the south and SR 10 (US 90) to the north. For the community of Navarre, SR 87 and SR 30 (US 98), form the backbone of the local transportation network. In addition, SR 87 serves as a major north/south hurricane evacuation route for coastal areas in south Santa Rosa County. Prior to this project, SR 87 was highly congested during peak hours and was forecasted to continue to worsen with expected future growth. Numerous rear-end and left turn collisions occurred due to existing deficiencies at several intersections. For these reasons FDOT began developing solutions which would solve existing deficiencies and provide capacity for future growth. To permit the project, 24 separate stormwater ponds were part of the design process, along with significant agency coordination for wetland impacts.



Segment 1 included the design and construction of two additional lanes on SR 87; the construction of a new northbound bridge over East Bay River which required a concrete barrier wall, approach slabs and pedestrian walls; and the existing East Bay River Bridge underwent modifications/safety upgrades such as guardrails and fencing on the bridge, intersection realignment, drainage, and lighting. Mott MacDonald provided survey, design, permitting and CEI services for the project.

Segment 3 included widening to a four-lane divided highway with four-foot bicycle lanes, curb and gutter, six-foot sidewalks, and three offsite stormwater management facilities to treat and attenuate the stormwater runoff from the project area.

Segment 4 and 7 included a four-lane divided highway with five-foot paved shoulders, eight offsite stormwater management facilities to treat and attenuate the stormwater runoff from the project area, and a 0.9-mile bridge at Yellow River.

Segment 5 consisted of a combination of rural and urban typical sections with six stormwater management locations, access management, pedestrian facilities, intersection improvements including signalization at CR 184 and SR 10 intersections, and highway lighting.

Nature of firm's responsibility: Prime Consultant Firm members involved include: Bart Hendricks, P.E.

Page 53 of 83 Prime consultant firm: Gresham Smith

17. Firm Experie	nce:	1		I						
Mott MacDonald		Past Performance Evaluation Discipline(s)*			Bridge					
12TH Avenue	e Bridge Replacem	ent Over Bay	ou Texar	Firm respons	sibility (prime or sub?)	Prime				
Project number	N/A	Owner's name	Florida Department of Transportation (FDOT)							
Project location	Pensacola, FL	Pensacola, FL			Owner's Project Manager Bill Howell					
Owner's address, phone, email	1074 Hwy 90 Chipley, FL 3	074 Hwy 90 Chipley, FL 32428 / 850.638.2288 / bill.howell@atkinsglobal.com								
•		00/11				<b>*</b> ****				

Services completed by this firm (mm/yy)	05/17	Cost of consultant services provided by this firm (\$1,000's)	\$809
Services commenced by this firm (mm/yy)	09/11	Total consultant contract cost (\$1,000's)	\$809

The main purpose of this project was to replace the functionally obsolete bridge (No. 485005) on 12th Avenue over Bayou Texar in Escambia County, Florida. There are several issues that affected the alignment, height, and ultimate width of the new bridge replacement. These include utility conflicts, utilization of existing right of way, typical section elements, structure type and bridge hydraulics.

Since this project was located within the City of Pensacola right of way, and the City will own and maintain the bridge itself, the design features of the bridge and corresponding roadway will be set consistent with the Florida "Green Book" and AASHTO standards. In addition to the minimum lane and shoulder widths detailed in the Green Book, there were additional elements that the City of Pensacola would like on the bridge.

A full bridge hydraulics report was prepared for this project. The bridge crosses Bayou Texar which was designated by FEMA as Zone AE with a 100-year flood elevation of 6 feet. The proposed bridge is in the same location as the existing, but the new low member elevation will be approximately 3.2 feet higher than the existing due both to hydraulic requirements and roadway geometrics.

An ERP general permit was secured through FDEP and a nationwide wetland permit was secured through the US Army Corps of Engineers. This project also required detailed geotechnical and topographic surveys as well as wetland delineations.

Nature of firm's responsibility: Prime Consultant Firm members involved include: Bart Hendricks, P.E.





#### Owner's address. FDOT D3, 6025 Old Bagdad Hwy, Milton, FL 32583 / 850.981.3000, eric.benson@dot.state.fl.us phone, email

**Project number** 

**Project location** 

Services commenced by this firm (mm/yy)	01/00	Total consultant contract cost (\$1,000's)	Various
Services completed by this firm (mm/yy)	Present	Cost of consultant services provided by this firm (\$1,000's)	Various

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

**Owner's name** 

The Escambia County sought an engineering consultant for the inspection of thirteen bridges around Escambia County. Because of both Mott MacDonald's strong local presence and experience with other local bridge repairs, we were selected as the Engineering Consultant on an on-call contract to service Escambia County bridges. Mott MacDonald was selected to provide inspection services for thirteen bridges that are required to be inspected by the Escambia County.



Mott MacDonald performed bridge inspections for emergency closures and required repairs for the County's 127 off-system bridge inventory. The Bridge maintenance and repair inspections were performed to measure, and document deficiencies identified in the State bridge inspection reports and to identify any additional deficiencies to be addressed in the maintenance or repair plans. Approximately 60% of the bridge inventory is identified for maintenance or repair. Emergency inspections were performed following overtopping events and vehicle impacts. We also provided repair and rehabilitation plans to restore

structural capacity to useable levels, as well as assisting the County with bidding process and performed repair inspections following construction.

A couple examples of the type of work we've performed for the County on a number of bridges:

**Escambia County Bridge Inspection and Design On-Call** 

FDOT notified the County that a scour critical depth had been reached at Bent 14 on Bridge No. 480045 along County Road (CR) 184 over Escambia River. We performed emergency bridge analysis using existing plans and inspected ground line measurements to determine that the bridge could remain open under current conditions, identified water depth which would require bridge closure and initiated USGS gage monitoring, designed riprap for Bents 13, 14 and 15, and inspected concrete collar constructed at these bents.

FDOT notified the County that deficiencies in the bridge required a lowering of the posted weight limit to five tons on Bridge No. 480027 on CR 168 over Hobbs Branch. We performed bridge inspection to verify conditions, measured damage and identified additional defective items, designed repair plans including timber pile posting using steel collars, produced bid documents, and provided post-design inspections. Similar work was also performed on Bridge No.484032 on Chestnut Road over Dry Creek.

Mott MacDonald was also tasked with creating the Escambia County Bridge Specification Guide. This guide is used as a standard for which every bridge in Escambia county is to be inspected, designed and constructed.

Nature of firm's responsibility: Prime Consultant

Firm members involved include: Bart Hendricks, P.E.

Page 55 of 83 Prime consultant firm: Gresham Smith

### **17. Firm Experience:** Mott MacDonald

N/A

Escambia County, FL

Past Performance Evaluation Discipline(s)\* Bridge

Florida Department of Transportation (FDOT)

**Owner's Project Manager** 

Firm responsibility (prime or sub?)

Eric Benson



Prime

Mott MacDonald is providing comprehensive consulting services including leading coordination efforts betweer
projects, concept development, alignment feasibility and alternatives analysis, database preparation,
preliminary design including preliminary bridge layouts and bridge hydraulics studies, MS-4 post-construction
stormwater report, right-of-way plans, final construction plans including final bridge design, quantities

for Bartow and Floyd Counties. Other benefits include improved access and connectivity to I-75, improved truck routes for freight movement, and better local access for mobility. The project consists of the construction of the Rome-Cartersville Development Corridor on new location from the US 41/US 411 interchange to Cass White Road, a distance of 5.7 miles. The typical section consists of approximately 5.7 miles of a 4-lane rural section with a 32-foot to 44-foot depressed grassed median and open channel drainage systems. Improvements include the construction of a new interchange at I-75, reconstruction of the existing US 41/US 411 interchange. five multi-lane roundabouts, two RCUT intersections, and the widening or construction of nine bridges. There are five new bridges located over streams, one new bridge over CSXT railroad, one pair of bridge widenings over CSXT railroad, one new bridge over I-75, and one new bridge overpass at US 41.

The purpose of this project is to connect US 411 and I-75 in Bartow County to support economic development

01/07 Present

**Owner's name** 

**Rome-Cartersville Development Corridor from US 41/US** 

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

Bartow County, GA **Project location Owner's Project Manager** Owner's address. 600 West Peachtree St., Floor 25, Atlanta, GA, 30308 / 404.631.1530 / dwhite@got.ga.gov phone, email \$5,902 Services commenced by this firm (mm/yy) Total consultant contract cost (\$1,000's) Services completed by this firm (mm/yy) Cost of consultant services provided by this firm (\$1,000's) \$2,786

calculations, environmental, utility and geotechnical coordination, public involvement and stakeholder outreach, and quality assurance.

Nature of firm's responsibility: Prime Consultant Firm members involved include: Rachel Dicke, P.E.



Prime

**17. Firm Experience:** 

411 to Cass White Road

N/A

Mott MacDonald

**Project number** 

Past Performance Evaluation Discipline(s)\*

Bridge

Georgia Department of Transportation (GDOT)

Firm responsibility (prime or sub?)

Davida White, EIT

Civil Design & Construction, Inc.				Past Per Disciplin	formance Eva le(s)*	luation	Survey	Survey		
Rural Bridge Initiative						Firm responsil sub?)	Sub			
Project number	H.013955, H etc.	. 013956,	Owner's Louisiana Department of Transpo			it of Transportation	on and Developme	nt		
Project location	Vernon Parish	ו, LA		Owner's Project Manager (Sub to BKI)						
Owner's address email	, phone,	Unknown								
Services commenced by this firm (mm/yy) 07/2			07/20	Total consultant contract cost (\$1,000's)			N/A			
Services completed by this firm (mm/yy) 04/2			04/21	Cost of consultant services provided by this firm (\$1,000's) \$338				<b>(s)</b> \$338		
Describe the proje	ct including t	he firm's role	and memb	ers involved	. (Highlight st	aff to be used i	n this proposal.) *	If there is more than		

one past performance evaluation category included in the advertisement, then indicate which past performance evaluation discipline(s) this project is being used to represent.

#### Project Description:

The intent of this project was all necessary engineering and related services required for developing plans for the replacement of 35 bridges on the State Highway System and/or local roadways, LA. CD&C provided survey for 6 of these sites. Those include H.013955, H.013956, H.013957, H.013958, H.013959, & H.013989. CD&C used Mobile LiDAR and traditional means and methods to survey the sites in accordance with LADOTD Location and Survey Manual.

#### CD&C's Role:

CD&C performed a topography within the existing right of way on each of the 6 sites our firm was tasked. CD&C also located all utilities within the designated areas of the bridge site and cross-sectioned each channel up and downstream of the bridge. Utilities were marked by LA One Call. 3D Terrestrial Scanning was used in conjunction with traditional surveying means and methods to collect data for the project.

<u>Members Involved:</u> Karla E. Weston, P.E., Ralph Burgess, PLS, Chris Ballard, PLS John Ewing, Phil Dupree, Jacob Stoehr, Scott Benton, Madison Mills, LSI & Trenton Norris



Civil Design & Construction, Inc.				Past Disc	t Perfor	mance Eva s)*	aluation	Survey	Survey		
LA 58: Petit Caillou Bridge Rehabilitation / Sarah Bridge				ו	Firm responsi sub?)	Sub					
Project number	H.013955, H. 013956, Owner's etc. name			Lo	Louisiana Department of Transportation and Development						
Project location	ct location Terrebonne Parish, LA				Owner's Project Manager Thomas Gattle (Huva			ıval & Assoc)			
Owner's address, phone, email 922 W. Point Des Mouton Rd., Lafayette, LA 705007 / 337.234.3798 / tgattle@tgattle@huvalassoc.cd					uvalassoc.com						
Services commenced by this firm (mm/yy) 04/17 T				Total c	Total consultant contract cost (\$1,000's)				N/A		
Services completed by this firm (mm/yy) 07/17 C				Cost of consultant services provided by this firm (\$1,000's)				<b>s)</b> \$31			
Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.) * If there is more than											

one past performance evaluation category included in the advertisement, then indicate which past performance evaluation discipline(s) this project is being used to represent.

**Project Description:** The purpose of this project is to provide a structural, architectural, mechanical, and electrical rehabilitation of the movable bridge and approaches that shall allow it to remain in service for an additional 50 years with routine maintenance along with various other repairs and updates to the site. CD&C was tasked with performing the topographic survey and DTM for this movable bridge structure and site.

**CD&C's Role:** CD&C performed a topography survey along LA 58 from Little Caillou Road to Bayside Drive within the existing right of way. Also, CD&C located all utilities within the designated areas of the bridge site and cross-sectioned this large bayou up and downstream of the bridge. Utilities were marked by LA One Call. **3D Terrestrial Scanning** was



used in conjunction with single beam hydrographic surveying in addition to traditional means and methods to collect data for the project. To obtain all critical information for design the bridge had to be scanned at both raised and lowered positions.

<u>Members Involved:</u> CD&C employees involved in the project included Ralph Burgess, PLS, Survey Manager; Christopher Ballard, PLS Survey Project Manager; Trent Norris, 3D Scanning Technician; John Ewing, Survey Technician

Civil Design & Co	onstruction, In	IC.		Past Performance Eva Discipline(s)*	aluation	Survey			
I-10: TX Stat	te Line Ea	st of Coc	one Gully		Firm responsibility sub?)	Sub			
Project number	H.003284.5		Owner's name	Louisiana Department of Transportation and Development					
Project location	Calcasieu, LA	١		Owner's Project Manager Stanley Ard, PLS					
Owner's address, email	, phone,	1201 Capital	Access Rd., B	aton Rouge, LA 70802 /	225.379.1292 / stanle	y.ard@la.gov			
Services commer	nced by this fi	irm (mm/yy)	10/15 <b>T</b>	otal consultant contrac	N/A				
Services complet	ed by this firr	n (mm/yy)	12/18 <b>C</b>	Cost of consultant services provided by this firm (\$1,000's) \$443					
Describe the proje	ct including t	ha firm's rola	and mombor	involved (Highlights	taff to be used in this	nronosal) * l	f there is more than		

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.) \* If there is more than one past performance evaluation category included in the advertisement, then indicate which past performance evaluation discipline(s) this project is being used to represent.

**Project Description:** This was a 6-lane widening project on I-10 in Calcasieu Parish. The project limits extended from the foot of the Sabine River Bridge (approximately 0.5 miles east of the state line) to a point approximately 2000 feet east of the beginning of the existing 6-lane section (located East of Coone Gully). The survey width of the project was from apparent right of way to apparent right of way and 500 feet past the gore along each of the on and exit ramps.

• In 2018, CD&C was supplemented to extend the original limits of this survey approximately 1500' and to pick up several other areas of additional topographic updates.

**CD&C's Role:** CD&C performed a complete topographic survey in accordance with the Location and Survey Manual and all current accepted Location and Survey Automation Procedures for this project. A topographic survey was already completed at all bridge sites located within the limits. The survey included all utilities with depths and information, all drainage structures, and all survey DTM and improvement features that fell inside the survey limits. Due to traffic concerns **3D Terrestrial Scanning was utilized for the location of roadways and traditional means and methods were used to complete the topographic survey on this project.** The final submittal of the survey was a combination of the supplied data from LADOTD for the bridges with the current survey that was completed for this project.

**Members Involved:** CD&C employees involved in the project included Karla E. Weston, P.E.; Ralph Burgess, PLS, Survey Manager; Christopher Ballard, PLS, Survey Project Manager; Phil Dupree, Party Chief; Jacob Stoehr, Party Chief; Trent Norris, 3D Scanning Technician; John Ewing, Survey Technician, Scott Benton, 3D Scanning Technician.





Civil Design & Constru	Pa Di	Past Performance Evaluation Discipline(s)*			Survey	Survey			
Verot School R				Firm responsib sub?)	lity (prime or	Sub			
Project number	Project number H.011235 Owner's name				Louisiana Department of Transportation and Development				
Project location Lafayette, LA					Owner's Project Manager Thomas Gattle				
Owner's address, phone, email 922 W. Pont Des			es Mouton	Rd.,	Lafayette	, LA 70507 /	337.234.3798 / tç	attle@huvalas	soc.com
Services commenced by this firm (mm/yy) 08/16					Total consultant contract cost (\$1,000's)				N/A
Services completed by this firm (mm/yy)			01/18	Cost (\$1,0	Cost of consultant services provided by this firm (\$1,000's)			his firm	\$435

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.) \* If there is more than one past performance evaluation category included in the advertisement, then indicate which past performance evaluation discipline(s) this project is being used to represent.

**Project Description:** This project is located in Lafayette Parish between Lafayette Regional Airport and Broussard, Louisiana. The project is for the proposed widening of US 90/I-49 South and realignment of Verot School Road. A topographic survey was performed along the entire proposed route as well as an existing drainage map. This included a complete topographic survey of all utilities with depths, drainage and finished floor elevations of all buildings that fell within the designated survey limits. Also, CD&C was required to coordinate with the topographic survey of the adjacent I-49 Connector project and include required portions of the I-49 Connector project with the survey of this project.



<u>CD&C's Role:</u> CD&C performed a complete topographic survey of the project site by using **3D Terrestrial Scanning in conjunction with** traditional means to complete the survey. Control was set for the scanning throughout the project limits. Coordination with Cardno, Inc. (Team member) was necessary for the location of all utilities in the project area. CD&C also coordinated with all the property owners for access to the properties and also meet with safety advisors for the industrial business that were impacted. The survey included coordination with the ongoing I-49 Connector project and merging of that survey to the CD&C survey in order to make a complete project for the area. CD&C also researched and compiled an existing right of way linework for the prime consultant to use for exhibits for the project. In order to complete the survey CD&C also had to coordinate with BNSF railroad for access to BNSF's rail.

<u>Members Involved:</u> Karla Weston, PE; Ralph Burgess, PLS Survey Manager; Christopher Ballard, PLS Survey PM; John Ewing, Survey Tech; Trent Norris, 3D Scan Tech; Phil Dupree, Party Chief; Jacob Stoehr, Party Chief.

Civil Design & Construction, Inc.				Past Pe Discipli	Past Performance Evaluation Discipline(s)*				Survey	
LA 443: Tangip	Bridge		Firm responsibility (prime or			Sub				
Replacement					sud?)					
Project number H.012728.5 Owner's name					Louisiana Dep	ouisiana Department of Transportation and Development				
Project location Tangipahoa Parish, LA					Owner's Pr	<b>Project Manager</b> Thomas Gattle (Huval & Assoc)			/al & Assoc)	
Owner's address, phone, email 922 W. Pont Des Mouton				Rd., Lafaye	ette, LA 70507 /	337.234.3798 / 1	gattle	e@huvalassoc.o	com	
Services commenced by this firm (mm/yy) 10/16 Total					otal consultant contract cost (\$1,000's)			N/A		
Services completed by this firm (mm/yy) 11/1				Cost of consultant services provided by this firm (\$1,000's)				s firm	\$81	

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.) \* If there is more than one past performance evaluation category included in the advertisement, then indicate which past performance evaluation discipline(s) this project is being used to represent.

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

**CD&C's Role:** CD&C completed a topographic survey which included all utilities with depths, all drainage, all building information including finish floor elevations, and all super/substructure of the bridge over the Tangipahoa River. Additional cross-sectional information regarding the river was located by traditional means upstream and downstream for the engineer's design of the new bridge. To utilize data collection of the failed bridge, 3D Terrestrial Scanning was incorporated in conjunction with traditional means to complete the topographic survey. **Due to the nature of the project being an** 



Emergency Bridge replacement all staff worked on this project non-stop until field work was completed in less than 3 weeks.

**Members Involved:** All CD&C Personal were involved on this project. Karla Weston, PE; Ralph Burgess, PLS Survey Manager; Christopher Ballard, PLS Survey PM; John Ewing, Survey Tech; Trent Norris, 3D Scan Tech; Phil Dupree, Party Chief; Jacob Stoehr, Party Chief.



#### 18. Approach and Methodology:

#### **Project Understanding**

At Gresham Smith, our approach to a project doesn't begin with the Noticeto-Proceed, but, at the teaming and proposal stage. For this US 190 bridge replacement project we understand that the constructability and traffic control must be integral with the bridge and roadway design. While the multi-span bridge replacements require structural expertise, the development of how the bridges will be constructed while maintaining traffic on this critical alternative to the I-10 Atchafalaya Basin Bridge between Lafayette and Baton Rouge will be the essential key element.

For this reason, we believe that critical components such as the overall bridge lead, the roadway lead, and traffic control development, should not be sent out of house, to either a subconsultant or another office. Gresham Smith has highly qualified bridge, roadway, and traffic engineers in our Baton Rouge office. We sit in an open-office concept and communicate directly with each other daily. This working relationship, without major subconsultants will enhance the planning and communications process.

The project includes the replacement of two pairs of parallel structures carrying Eastbound and Westbound US 190 over the Union Pacific Railroad just east of I-49 (Site 1) and over Little Teche Bayou (Site 2), approximately 3 miles east of the railroad crossing. The projects could be let concurrently, and our team is sized to accommodate this option that would provide economy of scale by providing a larger project for contractors with similar construction details. However, with the 3-mile spacing, the projects could be let independently to account for any potential issues with funding or approvals. Our Project Manager and Bridge Lead will be working directly with the highway and traffic control staff. Our team includes three Senior Roadway Engineers with experience in the DOTD's Roadway Group and Gresham Smith has the experience to let one large or two smaller bid packages with equal efficiency.

#### **Bridge Options**

Both Site 1 and Site 2 include similar length structures, but not truly dual bridges since the EB and WB structures were constructed about 10 years apart and include different materials and varying span lengths. For Site 1, the EB structure includes a steel beam span over the railroad and shorter concrete T-Beams throughout the remainder of the structure. The WB structure includes all steel beams of variable span lengths. The curb-to-curb width of both structures is 28'.

The primary issue to address with these structures is the bent/pier arrangements. The substructure units are all normal to the roadway; however, this creates alignment issues with both the underlying roadways and the railroad. The substructures are actually skewed opposite to desired arrangement with the railroad tracks and their right-of-way. We anticipate that all substructure units within a bridge can have an identical skew to improve the alignment with the roadway and tracks, while the skew angle for the EB and WB structures could likely be slightly different.

For Site 2, the bridges were built at different times and contain steel beams (WB) and concrete beams (EB), similar to the Site 1 material types. Both the EB and WB structure have similar span arrangements consisting of approximately 3, 40'-spans each. The replacement goal would be to minimize any increase in the roadway profile while improving the hydraulic characteristics. We anticipate that three-span structures would be the best option to meet this requirement. LG-25 girders would provide for the shallowest superstructure option and a 45' to 50' span length would shift the new substructures slightly to avoid conflicts with the existing bents while improving the hydraulic characteristics.

For the railroad crossing structures, our Gresham Smith/Mott MacDonald team has already begun brainstorming potential structural enhancements and we feel that the total bridge length can be reduced from 405' (8 spans) to 290' (5 spans) by utilizing MSE Abutments and wrap around walls to shorten the structure for an estimated savings of 20%. This arrangement would utilize three 65' spans and a 95' span over the tracks. This arrangement would reduce the substructure units from 20 to 10 for the two rail crossing structures. A slight profile adjustment with incorporation of a vertical curve can improve the vertical under clearance for the railroad and a realigned Prudhomme Street.

Shoulder widths for all structures would be verified against the roadway classification, with 8' shoulders anticipated. The 40' clear width would allow for additional width during Stage 2 construction when the new bridges are carrying both EB and WB traffic.

#### **Traffic Control**

We would anticipate that traffic would need to be reduced to one lane per direction with a lowered speed limit. For Stage 1, traffic would be shifted to one of the bridges while the parallel bridge is reconstructed. Detailed investigation would be required to verify that two lanes of traffic with a positive divider can be installed within the limited clear width between parapets.

For the railroad structure, a temporary bridge would not likely be prudent, but an evaluation could include the possibility of shifting the alignment to the outside and constructing a new structure while 4 lanes of traffic are carried on the existing structures.

For the Site 2 bridges, the clear width appears to be slightly less than the railroad structures; therefore, a temporary structure on parallel alignment could be feasible. The overhead utilities along the WB structure are already setback to allow for consideration of this option.

Local roads and side street issues also need to be addressed. At Site 1, Prudhomme Street loop road would need to be closed under the bridges, while maintaining access to the cabinet company, the St Landry Parish facilities, Tractor Supply, and local driveways. This can be accommodated by requiring J-Turns which will be facilitated by the current turn lane improvements along US-190. The proximity of I-49 ramps to the western construction limits will also create a challenge that will be addressed.

For Site 2, the at-grade intersection of US 190 and LA 743 would be within the lane restrictions for the bridge. All modified movements can be accommodated by requiring all traffic to make right turns from LA 743 and then completing a J-Turn for traffic detoured in the opposite direction.

There are several additional constraints and issues to address during development of the traffic control plans. Sugar cane deliveries are very common during season and accommodations need to be included in this plan for the larger vehicles and heavier truck volumes.

Also, US 190 serves as the emergency route for closures of I-10 east of Lafayette. A TMP will be required to account for the possibility of rerouting I-10 traffic through the construction stages during any I-10 emergency closure.

The Gresham Smith team is well prepared to integrate all of the constructability and traffic control solutions into the bridge and roadway design plans.

#### **Principled Leadership and Proficient Management**

Gresham Smith has established a core management team specific for this project to leverage their specific experiences with the bridge sites and to work closely with all the required service lines. Gresham Smith will perform the Traffic, Roadway and any Hydraulic analysis required for this project as

Page 63 of 83 Prime consultant firm: Gresham Smith

well as the design of the bridges over Little Teche Bayou. This will reduce coordination with multiple subconsultants will add value and efficiency to LADOTD on this project. In addition to the Gresham Smith staff, Mott MacDonald will design the bridges over the Union Pacific Railroad and CDC will provide surveying for the project. Each of our teams Task Leaders has proven expertise, relevant experience, and required communication and leadership skills to effectively build a blended and unified team. Gresham Smith's Project Executive (Principal), Herbert "Bert" Moore II, P.E., PLS, PTOE has over 20 years of experience in traffic engineering and operations and has served as both a consultant and as LADOTD's District 61 Traffic Operations Engineer (DTOE) for six years. Throughout his career, Bert has worked as a traffic engineer working with traffic patterns, traffic growth, traffic signals and Transportation Management Plans (TMP). As project executive, Bert will provide overall management and direction for our team, ensuring that LADOTD's vision for the project is achieved. Bert will conduct monthly budget review meetings with the PM to ensure the project is on schedule and under budget. Along with Rebecca Murray, P.E., PTOE, RSP1, our traffic team has the highest skills and experience levels available for this assignment, and will develop the temporary traffic control plans and the TMP to ensure that traffic impacts are minimized with the construction of this project along this critical alternative route to I-10.

**Our roadway team will be managed by Brennon Hughes, P.E.** with support provided by **Richard Savoie, P.E. and Ronnie Robinson, P.E.** All of our roadway design leaders are former DOTD Roadway Group staff with proven experience on DOTD projects. As former Chief Engineer for the Department, **Richard Savoie, P.E.** and as former Assistant District Administrator of Engineering for District 61, **Ronnie Robinson, P.E.** have both overseen the development of hundreds of bid packages. The roadway managers will also work closely with the hydraulics staff during the initial evaluations to verify that any proposed grade adjustments required for meeting hydraulics can be accommodated in the approaches with minimal impacts to side slopes and adjacent properties and drainage facilities.

Our bridge team includes 5 Louisiana Professional Engineers and support staff. John Weres, P.E. will serve as Project Manager and Lead Structures Engineer. John brings over 40 years of experience including DOTD experience, railroad overpass experience, major program management with multiple bridges and experience with compact girder designs such as LG-25 shaped girders. We have teamed with Mott MacDonald, a nationally recognized structural design firm with exceptional railroad experience. Mott MacDonald's structure team will lead the design for the rail crossing structures under the direction of **Justin Robinson**, **P.E.** Justin's experience includes railroad overpasses with coordination with North Carolina Railroad, CSX, and Norfolk Southern Railroad.

**Tom Tran, P.E.** will provide Quality Assurance for the bridge team. Tom has managed bridge designs for hundreds of bridges, including featured project No. 2, the Sandersville Railroad Overpass in Georgia. **Emery Sayre, P.E.** has served as Engineer of Record for multiple bridges utilizing the LG-25 style beam shapes, without a top flange, for MDOT. **Courtney Rome, P.E.** will assist with both the bridge designs and hydraulics analysis. Courtney's experience includes the foundation designs for the US 71 Emergency Repairs project (Featured Project No. 1) which included close coordination with Union Pacific and KCS Railroads.

Our Hydraulics team will be led by **Rachel Westerfield**, **P.E.** Rachel leads the Hydraulics Group for Gresham Smith's entire Gulf Coast region. As a former Mississippi DOT State Hydraulics Engineer, Rachel's experience is unmatched for stream stability, scour analysis and floodplain management.



The survey for the hydraulics structures (Site 2) will be performed by Civil Design & Construction (CD&C). CD&C is led by Karla Weston, P.E. and they have proven expertise in surveying for hydraulic structures and for right-of-way map development. CD&C is a certified WBE firm. While there is no stated DBE goal for this project, our team is committed to assisting the Department meet their overall DBE Utilization goals.

The experience and expertise provided for this project by our leadership and core team is unmatched, and perfectly aligned to meet the challenges presented by this US 190 project. As shown in Section 15, Minimum Personnel Requirements, and in the table to the right, our proposed leadership team provides an average of 880% more experience than the minimum required for the 3 primary categories, Bridge, Survey, and Road Design. Our staff experience includes former DOTD/MDOT experience with Bridge, Hydraulics, Traffic, and Road Design. As detailed in Section 17, Gresham Smith and our entire design team demonstrates proven expertise with railroad bridges and coordination, hydraulic bridge replacements, traffic

Page 64 of 83 Prime consultant firm: Gresham Smith

control for critical roadways with TMPs and roadway construction. Our team has completed final plan submissions under the new plan review quality control system and is experienced in the requirements for obtaining Chief Engineer approval under the new letting system.



#### **Railroad Coordination Experience**

Coordination with Union Pacific Railroad will be a key component of this project. Gresham Smith and Mott MacDonald are experienced in this type of coordination and will begin the dialog with Union Pacific upon NTP. While the rail operations are not the major component at this site, locating the new bridge bents in an arrangement to maximize the railroad's access and right-of-way will be critical. As shown in key Project Descriptions, 1 thru 4, Gresham Smith has designed several bridge replacements and repair projects requiring close coordination with various railroads. For the US 71 Emergency Repairs project in Shreveport, a Union Pacific train derailment caused major damage to a DOTD historic bridge. The Gresham Smith team worked closely with both Union Pacific (track operator) and KCS Railroad (track owner), on daily access to this congested site and to ensure that the new foundations and crash wall would provide required clearance for track operations, including during construction.

#### **Quality Program**

John Weres, P.E., will serve as Project Manager and Structural Engineerof-Record for the hydraulic crossings while Justin Robinson, P.E. will serve as EOR for the railroad structures; and Tom Tran, P.E. will provide the quality assurance verification for all of the designs. The roadway designs and contract documents will be led by either Brennon Hughes, P.E. or Richard Savoie, P.E. As noted in our project specific QA/QC Plan, all engineering tasks will follow a similar checking and QC process as the bridge plan. At Gresham Smith, Quality is an essential component of each task and not simply a process to be completed. Each of our task leads are provided the authority to properly ensure that all team members understand the project requirements and that they follow the prescribed systems to ensure reliability in the design process.

#### Project Knowledge & Schedule

With the infusion of new federal funding, our team has the depth and flexibility to expedite projects in order to complete the replacement projects sooner than planned. The schedule shown is based on the duration noted in the advertisement of approximately 3 years. But our team is prepared to expedite the designs for all the bridges. Working closely with the DOTD's Project Manager, we would develop a proposed phasing plan based on initial funding constraints but maintain the ability to expedite both sites, utilizing concurrent design approaches. Early in the project, we will develop a milestone tracking spreadsheet will list the proposed dates/actual dates for the following and be submitted with each monthly invoice:

- Topographic Survey
- Environmental Clearance
- Core Boring Program/Foundation Recommendations
- 60% Preliminary Submission
- 95% Preliminary Submission
- Plan in Hand Meeting
- 95% Final Plans (for technical review)
- 98% Final Plans (for Chief Engineer
- approval)100% Final Plans for letting
- Letting Date

The project design will begin with a kickoff meeting with all design staff and applicable DOTD personnel, followed by a field view where the design team can see the constraints and issues first hand. With the survey for Site 1 (Railroad Bridges) advanced completion, conceptual design and railroad coordination can begin immediately. For Site 2, we will perform the topo surveys and hydraulic studies as the initial design stages.

	20	2022			)23		2024				
Site	3rd Qtr.	4th Qtr.	1st. Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st. Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	
					0			Railroad			
	Site Views,			Preliminary				Concurrence &			
Site 1	Concepts &			Design 95% &	Borings &			Chief Engr.	Bidding		
Railroad	Begin RR Cord.	Preliminary	Design 60%	Plan-in-Hand	Geotch	95% Fin	al Plans	Approval	Process		
	Site View,			Preliminary				Permitting &		-	
Site 2	Hydraulics &			Design 95% &	Borings &			Chief Engr.	Bidding		
Bayou Brs.	Topo Survey	Preliminary	Design 60%	Plan-in-Hand	Geotch	95% Fin	al Plans	Approval	Process		

#### **Typical Design Schedule**

19. Workload:

Firm	Past Performance Firm Evaluation Disciplines(s)		Project Name and Location	Remaining unpaid balance**
	4400	0005890 - LADOTD Re	tainer Contract for Traffic Engineering	
Gresham Smith	Traffic	H.12018.5	Lafayette Adaptive Traffic Signals	\$201,360
Gresham Smith	Road	H.013271.5-2	LRSP/SRTS Tangipahoa Striping and Signage	\$7,414
Gresham Smith	Road	H.012279.5	LRSP/SRTS Endom Bridge Construction Support Supplement	\$4,450
Gresham Smith	Road	H.012527.5	LRSP/SRTS West Feliciana Signs, Striping and Guardrail	\$3
Gresham Smith	Road	H.013763.5	LRSP Signs and Stripping - Vernon and Sabine Parishes	\$1,374
Gresham Smith	Road	H.013720.5	LRSP Signs and Stripping - Bonner Street Bridge Pedestrian Improvements	\$29,509
Gresham Smith	Road	H.013767.5	LRSP Signs and Stripping - St. Landry and St. Martin Parishes	\$73,854
Gresham Smith	CE&I/OV / ITS	H.011500.6	Lake Charles ITS Phase 3	\$49,490
Gresham Smith	CE&I/OV / ITS	H.012381.6	Fiber Optic Mapping and Management Services – Lafayette, West Baton Rouge, point Coupee, St. Landry and Rapides	\$46,072
Gresham Smith	CE&I/OV	H.009308.6	TO#1 New Orleans DPW SRTS Sidewalk Project	\$39,422
Gresham Smith	Bridge	H.009730.5	Complex Bridge Inspection TO#4	\$238,015
Mott MacDonald, LLC	Bridge (4.3 Rating)	H.012079	LA 23: Belle Chasse Tunnel Interim Repairs	\$0
Mott MacDonald, LLC	Bridge (4.3 Rating)	H.012079.5	Belle Chasse Tunnel Rehabilitation	\$0
Mott MacDonald, LLC	Bridge (5.0 Rating)	H.011006	In-Depth Tunnel Inspection and Rehabilitation/Repair Plan Preparation for the Belle Chasse, Houma, and Harvey Tunnels	\$0
Mott MacDonald, LLC	Bridge	H.010673.5	Harvey Tunnel Rehabilitation Plan Preparation	\$0
Mott MacDonald, LLC	CEI/OV	H.013706.6	Harvey Tunnel Lighting Replacement Construction Engineering Services	\$273,680.00
Mott MacDonald, LLC	Other	H.011006.5	Tunnel Inspection Policies and Procedures	\$60,000.00
Mott MacDonald, LLC	CEI/OV	H.004791	LA 23: Belle Chasse Bridge & Tunnel (HBI)	\$75,780.00
Mott MacDonald, LLC	Bridge	H.004791	LA 23: Belle Chasse Bridge & Tunnel (HBI)	\$350,362.00
Mott MacDonald, LLC	Bridge	H.011006.5	Tunnel Inspection for the Harvey and Houma Tunnels	\$616,100.00
Mott MacDonald, LLC	Other	4400017327 TO 1	I-10 Calcasieu River Bridge P3 Project	\$402,900.00
Civil Design & Construction, Inc.	Surveying	4400017597	Rural Bridge Replacement Initiative (Districts 03, 07, 61, & 62)	\$21,000
Civil Design & Construction, Inc.	Surveying	4400013850	IDIQ for Design of Safety Projects (Downtown Greenway LA Connector -BR)	\$27,000
Civil Design & Construction, Inc.	Surveying	4400011199	IDIQ contract for ADA Design Projects (Sidewalk Improvements to comply with ADA requirements – St. Tammany Parish)	\$18,000
Civil Design & Construction, Inc.	Surveying	4400011225	IDIQ for Bridge Preservation (Southern University Ravine)	\$58,000
Page 66 of 83 Prime	consultant firm: G	resham Smith		

#### 20. Certifications/Licenses:



Certificate of Training

PRESENTED BY The National Cooperative Research Program

TO CERTIFY THAT

## Herbert Moore

HAS SATISFACTORILY COMPLETED 20 HOURS OF TRAINING IN

#### Highway Safety Manual Workshop NCHRP 17-38

Karen K. Dixon, PhD, P.E. Ida van Schalkwyk, PhD Larry F. Sutherland, P. E. Instructors

the second s



December 1-3, 2010 Date Baton Rouge, Louisiana Location Certificate of Training

PRESENTED BY

Louisiana Local Technical Assistance Program

TO CERTIFY THAT

# Bert Moore

HAS SATISFACTORILY COMPLETED 3 PROFESSIONAL DEVELOPMENT HOURS IN:

**Regional Crash Data Workshop** 



Eebruary 23, 2017 Date Baton Rouge, Louisiana Location














### 20. Certifications/Licenses:



Certificate of Completion				
Tait Karlson				
for completing the				
Traffic Engineering Analysis Process & Report Module 3				
Date: July 2, 2019 Location: Baton Rouge, Louisiana	Professional Development Hours (PDHs) Awarded: 3.5			
Joly Alderen Authorized Instructor Authorized Instructor	<u>Authorized instructor</u>			











Status: Active

Page 75 of 83 Prime consultant firm: Gresham Smith







	~	n an			
- 1		2	121	JZ	
	~				~

Print Lookup Details

#### The Louisiana Professional Engineering and Land Surveying Board has the following information on file:

Name:	Public Address:
Civil Design & Construction, Inc.	Ms. Karla Weston P.O. Box 857 Port Allen,LA 70767

#### License/Certificate Information w/ Supervision

License	Status	First Issuance Date	Expiration Date	Supervisor(s)
EF.0003414	ACTIVE	02/27/2006	09/30/2022	Mrs. Karla Ewing Weston # PE.0031010 - Active



12/14/21, 10:20 AM	/21, 10:20 AM Print Lookup Details				
The Louisiana Profe	ssional Engineer	ing and Land Surveying 1	Board has the follow	ving information on file:	
Name: Civil Design & Const	truction, Inc.	Public Address: Ms. Karla WestonP. O Port Allen, Louisiana	9. Box 857 70767		
License/Certificate I	Information w/ S	upervision			
License VF.0000555	Status Active	First Issuance Date 02/10/2006	Expiration Date 09/30/2023	Supervisor(s) Mr. Ralph D. Burgess #	# PLS.0005040 - Active
CIVIL DESIGN & CONSTR	UCTION, INC			Entity Status	Expiration Date
DUNS Unique Entity ID: 927299974		Purpose of Registration	on:	Active	Sep 14, 2022
SAM Unique Entity ID: DFBJTEJDY1C6		Address: 3251 SOUTHERN PA PORT ALLEN, LA 701	CIFIC RD 767-0000 USA		
CAGE/NCAGE: 4BDY6					



Page 80 of 83 Prime consultant firm: Gresham Smith

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

Please see our team's tailored QA/QC workplan on the following pages.



## DOTD Project No. 44-23434 US 190: UPRR OVERPASS NEAR OPELOUSAS State Project Number H.000445

# Bridge Design QC/QA Plan

Meeting our Client's Needs and Expectations for TECHNICAL QUALITY, SERVICE EXCELLENCE, and CONSISTENT PERFORMANCE

February 2022



## **TABLE OF CONTENTS**

<u>Section No.</u> <u>No.</u>	Section Title	<u>Page</u>
1.0	INTRODUCTION TO THE BRIDGE DESIGN QC/QA PLAN	3
1.1	Alignment of LA DOTD and Gresham Smith QC/QA Policies	
1.2	Responsibility for QC/QA and the LA DOTD's Oversight Role	
1.3	Definitions of QC and QA	
1.4	Evidence/Verification of QC and QA Activities	
2.0	ROLES AND RESPONSIBILITIES	6
2.1	Quality Assurance Manager	
2.2	Original Designers and CADD Design Personnel	
2.3	Discipline QC Reviewers	
2.4	Independent Peer QC Reviewers	
2.5	Inter-Discipline QC Reviewers	
2.6	Engineer of Record	
3.0	PRE – PLANNING ACTIVITIES	9
3.1	Development of the Project Plan	
3.2	Project Directory Structure and Bridge Calculation Document Organization	
3.3	Development of Technical Task Protocols, Design Tools, and Validation of Se	oftware
4.0	QUALITY CONTROL AND QUALITY ASSURANCE REVIEWS	11
4.1	Design Deliverable Activities	
4.2	Discipline Level QC Review of Calculations and Drawings	
4.3	Independent Peer QC Review of Calculations and Drawings	
4.4	Inter-Discipline QC Review of Drawings	
4.5	Quality Assurance Review of Calculations and Drawings	
4.6	Post QA Review Revisions	
4.7	Submittal and Filing	
5.0	DOCUMENTATION OF COMMENTS/RESPONSES	14
5.1	Documentation of Internal Comments and Responses	
5.2	Documentation of Client Comments and Responses	
5.3	Quality Assurance Records	



6.0	CONTROL OF SUBCONSULTANT QC PROCESS	15
7.0	CLIENT FEEDBACK AND QUALITY AUDITS	16
7.1	Administrative Oversight and Continuous Improvement	
7.2	Internal and External Quality Audits	
8.0	APPENDICES	
8.1	Appendix A – Project Pre-Planning Guidance and Forms	
	LA DOTD Design Criteria Checklist	
	LA DOTD Project Activity Log Sheet	
	• LA DOTD Consultant Project Bridge Design Kick-Off Meeting Agenda Che	cklist
	• Gresham Smith PM-2 Assigning Project Roles & Responsibilities	
	Gresham Smith PMF-11 Project Plan Summary	
	• Gresham Smith PM-3 Developing/Updating a Project Plan	
	Gresham Smith SS-1 Developing a Safety & Security Plan	
	Gresham Smith WIPM-31 Developing a Quality Plan	
8.2	Appendix B – Discipline and Inter-Discipline QC Forms	
	LA DOTD Final Calculation Book Checklist	
	<ul> <li>LA DOTD Off-System Guidelines – Survey Checklist – Not Anticipated</li> </ul>	
	Gresham Smith DP-7 Checking and Authorization	
	Gresham Smith DP-10 Developing a Technology Plan	
	Gresham Smith DPF-71 QC Check Cover Sheet	
8.3	Appendix C – Independent Peer Review Bridge QC Forms	
	(Not required for this project)	
8.4	Appendix D – Quality Assurance and Deliverable Release Record Forms	
	LA DOTD QA Information Package Checklist	
	LA DOTD QC/QA Certification	
	LA DOTD Consultant Submittal QC/QA Certification	
	Gresham Smith QM-5 Internal Project Auditing	
	Gresham Smith QMF-52 Corrective Action Report Form	
	Gresham Smith WIDP-71 Signing and Sealing Documents	



## 1.0 INTRODUCTION TO THE BRIDGE DESIGN QC/QA PLAN

A QC/QA program is an essential component of a successful project. The process, when executed properly by a committed bridge team, will eliminate critical errors and conflicts in the ratings and design and improve plan accuracy and quality. Most importantly, the process promotes confidence in the owner and engineer that the rating, design and construction documents reduce liability and financial risk to them. The LA DOTD's Bridge Design and Evaluation Manual – Revision 9 (updated 8/8/2019) includes the Department's *Policy for Quality Control and Quality Assurance* which establishes the process for all bridge designs performed on LA DOTD projects. <u>This QC/QA Plan has been developed with respect to both the LA DOTD and GRESHAM SMITH policies specifically for the US 190: UPRR Overpass near Opelousas project.</u>

#### 1.1 Alignment of LA DOTD and GRESHAM SMITH'S QC/QA Policies

The LA DOTD policy is well aligned with GRESHAM SMITH's QC/QA program. One key difference in the two policies is that the LA DOTD Bridge QC/QA policy is specific to the design of bridges exclusively, while the GRESHAM SMITH Quality Management System (QMS) is applicable to all disciplines associated with a specific project.

GRESHAM SMITH's commitment to quality is rooted in our desire to meet our clients' needs and expectations for technical quality, service excellence and consistent performance. Quality is a pillar within our overall Practice Excellence model and includes a QMS that is built-in to our processes throughout a project life-cycle.

GRESHAM SMITH is a practice-led organization dedicated to the success of our clients and the development of our employees. Through our QMS, we strive for the continuous improvement of our work practices through the consistent application of established processes for the mutual success of GRESHAM SMITH's clients and the firm. The executive management team is fully committed to our QMS as a means to achieve firmwide operational goals. Our QMS is based on criteria found in the International Standard ISO-9001.

We are committed to accomplishing the following:

- Partnering with our clients to provide them with consistent quality in our deliverables, meeting their needs and expectations, and providing a service experience that results in repeat clients,
- Planning our work so that we deliver on our obligations,
- Providing the tools and processes to our employees to accomplish their work in a consistent and efficient manner,
- Training our employees to meet the requirements of the business and our clients,
- Promoting a practice that fosters collaboration and incorporates innovation,



- Measuring our performance against objectives to confirm we are improving, and communicating results throughout the firm and to our clients,
- Auditing our processes to benchmark new goals, verify compliance through multiple points of feedback, and identify opportunities for improvement,
- Continually improving our QMS to enhance its effectiveness,
- Utilizing a dedicated Quality Director responsible for monitoring the quality system and reporting regularly to the Management Team on the system's implementation, status and effectiveness.

#### **1.2** Responsibility for QC/QA and the LA DOTD's Oversight Role

In conversations with the LA DOTD's staff and from review of the LA DOTD's Bridge QC/QA policy, it is apparent that the primary expectation is that consulting engineers contracting with the LA DOTD take full responsibility for their submittals at all stages of the bridge design process. By the assignment of this responsibility, the LA DOTD's bridge design staff expects to provide oversight on the design process but does not expect to be responsible for the checking of bridge designs and plan documents. Specifically, the LA DOTD's Bridge Task Manager will be responsible for the following project tasks, as described in the LA DOTD's Bridge QC/QA policy:

- Develop the bridge design scope of work, labor estimate, design team personnel requirements, and selection evaluation criteria for preparation of the solicitation.
- Participate in the proposal evaluation committee and the selection of the most qualified design team, evaluating design team qualifications, experience and QC/QA plan.
- Initiate a bridge design/rating kickoff meeting, covering items such as the staffing plan, QC/QA plan, project schedule and budget, share expectations and consultant rating criteria, bridge design criteria, and other project management agenda items per the LA DOTD checklist.
- Review and approve the Design Criteria and TS&L submittals for designs. Coordinate revisions in the Design Criteria with the design team for the project duration.
- Monitor the Design Team's implementation of their QC/QA plan.
- Maintain a Project Log sheet recording all major project activities (Project Meetings, Submittals, LA DOTD Review Comments, Major Decisions, etc).
- Review all Design Team submittals, intended to be a cursory review for constructability, consistency and clarity. These reviews are not intended to be a secondary QC of the Design Team's work.
- Monitor project schedule and milestone deliverables.
- Monitor Design Team effort with respect to scope and budget; process supplemental agreements; monitor claims avoidance.



- Review and approve invoices; verify Design Team staff is consistent with proposal; Review and approve qualifications of replacement staff proposed by the Design Team, if necessary.
- Perform a consultant rating for each formal submittal by the Design Team; share ratings and provide feedback to Design Team.
- Archive final bridge design files.

#### 1.3 Definitions of QC and QA

An understanding of the definition of Quality Control (QC) and Quality Assurance (QA), as well as the responsibilities contained in these processes is an important component of GRESHAM SMITH's QMS and the LA DOTD's Bridge QC/QA policy. These key definitions are summarized below:

- Quality Control (QC): This process involves the procedure of checking the accuracy and consistency of calculations and drawings, detecting conflicts, design errors and omissions, and the procedure for resolution of internal comments, correcting and verification of revisions. Also, specific to bridge design, the process verifies that all bridge components are adequately designed for the specified limit stated in the AASHTO LRFD Bridge Design Specifications and the LA DOTD Bridge Design Manual and Memoranda.
- Quality Assurance (QA): This process involves the review of the QC documents to verify that the Quality Control (QC) procedure has been completed in accordance with GRESHAM SMITH's QMS and the LA DOTD Bridge QC/QA policy. In addition, the QA process verifies that the QC process was effective in preventing design and plan errors and assuring consistency.

#### 1.4 Evidence/Verification of QC and QA Activities

GRESHAM SMITH's QMS fully documents the QC and QA processes for all intermediate and final submittals, providing evidence to the LA DOTD that our design team has executed the QC/QA procedures in accordance with the policy.



## 2.0 ROLES AND RESPONSIBILITIES

Meeting or exceeding the provisions of the LA DOTD Bridge QC/QA policy, the GRESHAM SMITH QMS requires that the quality control processes be completed for all design disciplines for all submittals. For this Program, as it pertains to QC/QA, the roles and responsibilities of the design team are described below, with identification of specific staff shown in the Organization Chart.

#### 2.1 Quality Assurance Manager

The QA Manager (Tom Tran, PE) will be responsible for assurance that the QC process has been completed, documented and properly filed in project records. The QA Manager will oversee the communication and training of the QC procedures to the project team, including subconsultants. The QA Manager is responsible for the documentation of this training (sign in sheet, development of the training course) and for filing these documents in the project directory, available for audit. The QA Manager is responsible for certifying that a submittal deliverable has met the requirements of the GRESHAM SMITH QMS and the LA DOTD Bridge QC/QA policy and can be released to the client.

#### 2.2 Original Designers and CADD Design Personnel

The original designers are responsible for preparing original calculations and plan drawings in accordance with the direction provided by the Project Plan and associated pre-planning references and design tools (i.e. – Design Criteria, Technical Task Protocols, Design Tools, Validated Software, etc.). In the QC/QA process, the original designers are responsible for the timely, complete and effective preparation of the calculations and plans, incorporating weekly design coordination directives during the design development. The original designers may be professional engineers or engineering interns.

The original designers are responsible for actively resolving comments received at each level of QC (Discipline, Independent Peer, and Inter-Discipline) and for making the necessary corrections in advance of the next level of QC or QA reviews. All design personnel (Engineering and CADD designers) will be trained in the QC/QA procedures by the Quality Assurance Manager. Evidence of the training (sign in sheets, copy of training course) will be filed in the project directory, available for audit.

#### 2.3 Discipline QC Reviewers

This level of review will be completed by experienced engineers who are responsible for the detailed checking of all calculations, specifications, special provisions and plan documents. For this program, we anticipate this level of review will be performed by GRESHAM SMITH staff or the corresponding subconsultant, as indicated in the organization chart. If the original calculations are prepared by a professional engineer, the Discipline QC reviewer may be either another professional engineer or an

experienced engineering intern. If the original calculations are prepared by an engineering intern, the Discipline Review will be completed by an experienced professional engineer. This approach is in compliance with LA DOTD policy. A LA professional engineer will serve as either the lead design engineer or the QC reviewer.

The Discipline QC reviewer will be responsible for documenting all comments, pursuing resolution with the original designer or detailer and for progressing the QC documents (calculations, plans and QC forms) to completion prior to forwarding to the Independent Peer QC and Inter-Discipline QC reviewers. The Discipline QC reviewers will be trained in the QC/QA procedures by the Quality Assurance Manager. Evidence of the training (sign in sheets, copy of training course) will be filed in the project directory, available for audit.

#### 2.4 Independent Peer QC Reviewers

Independent peer reviews are not anticipated for this project due to the non-complex classification assigned to this project. Should a future supplement or task order require such an evaluation, an amendment to this document will be provided. Standard forms for independent peer reviews are included in the appendix for general reference.

#### 2.5 Inter-Discipline QC Reviewers

This level of review will be completed by Discipline Task Leaders (i.e. – Bridge, Geotechnical, Roadway, MOT, Drainage, Traffic, CADD, etc) who are responsible for an oversight review of the plans intended to identify conflicts between the disciplines and to identify plan consistency issues not identified in the more detailed Discipline QC review. For this project, we anticipate this level of review will be completed by the Discipline Leads, comprising of GRESHAM SMITH and our teaming partners. This level of review is required by GRESHAM SMITH's QMS policy and is not intended to replace the Independent Peer Bridge QC review.

The Inter-Discipline QC reviewer will be responsible for documenting all comments, pursuing resolution with the original designer or detailer and for progressing the QC documents (calculations, plans and QC forms) to completion prior to forwarding to the Quality Assurance Manager for his QA review. All design personnel, including each Inter-Discipline QC reviewer will be trained in the QC/QA procedures by the Quality Assurance Manager. Evidence of the training (sign in sheets, copy of training course) will be filed in the project directory and available for audit.

#### 2.6 Engineer of Record

The Engineer of Record for this project will be assigned by the supervisor or discipline lead on the project team for each task assignment. The Engineer of Record is responsible for the supervision of the calculation, plan and special provision preparation, and is responsible for participation in or oversight of the QC and QA review processes. The Engineer of Record must be licensed to practice engineering in the State of Louisiana; and must have demonstrated experience in the design of



similar structures. In addition to overseeing the calculations and plan submittal thru the QC/QA process, the Engineer of Record is responsible for obtaining the seal and signature of any co-signed sheets in the bridge plans (geotechnical, H&H, etc). The Engineer of Record (EOR) is also responsible for assembling the complete final calculation documents in the format prescribed by the LA DOTD, assuring that all plan sheets include the designer's, design checker's, detailer's and detail checker's initials and for sealing and ensuring special provisions are accurately shown on the construction proposal.

The Engineer of Record will be trained in the QC/QA procedures by the Quality Assurance Manager. Evidence of the training (sign in sheets, copy of training course) will be filed in the project directory, available for audit.

The Engineer of Record for the bridge design related activities for this project is proposed to be John S. Weres, PE, the Louisiana Bridge Manager for GRESHAM SMITH. A separate Engineer of Record may be assigned for a particular bridge replacement project at a later time, but we would consult with DOTD prior to that assignment.



## **3.0 PRE-PLANNING ACTIVITIES**

Both the LA DOTD's and GRESHAM SMITH's QC/QA policies contain careful project execution planning, document control procedures, communication protocols and specific QC and QA procedures.

#### 3.1 Development of the Project Plan

The GRESHAM SMITH team will prepare a Project Plan for distribution to the design team. The plan will contain:

- A project background description and scope summary,
- A design criteria document prepared in compliance with the LA DOTD's checklist. The design criteria document will be submitted to the LA DOTD for review and concurrence,
- Identification of the project team members, organization chart, contact information, and guidance on internal and external communication,
- Identification of all deliverables,
- Project design schedule and task budgets,
- Description of the project directory structure, filing of external communication and file naming conventions, etc.,
- Organization of calculation documents, in compliance with the LA DOTD's QA/QC policy,
- QC and QA procedures, responsibilities and documentation of QC/QA training,
- Specific technical task protocols, design tool templates and design tool validation documentation,
- Templates of all project forms (Letter, Memorandum, Meeting Minutes, Design tool validation forms, Drawing and Calculation QC forms (LA DOTD and GRESHAM SMITH), Quality Assurance forms (LA DOTD and GRESHAM SMITH) to use on the project,
- Description of internal project quality auditing, continual improvement, and client feedback processes.

The project plan is a living document, and will be revised as the design criteria, scope or other internal procedure is revised. As stated in the LA DOTD's QC/QA policy, revisions in the design criteria will be forwarded to the LA DOTD for review and concurrence.

#### 3.2 Project Directory Structure and Bridge Calculation Document Organization

The GRESHAM SMITH QMS policy has established a standardized project directory structure for the documentation of all projects delivered by GRESHAM SMITH. However, this structure may be modified to meet specific requirements of the client and our teaming partners, including the LA DOTD's preferences and file naming requirements as established in the LA DOTD's ProjectWise procedures.

#### 3.3 Development of Technical Task Protocols, Design Tools, and Validation of Software

The design team will prepare technical task protocols for the purpose of documenting and providing detailed direction on specific design tasks. The protocols will provide direction on the specific use of design tools and validated software involved in the completion of the task. The documents will be controlled; revisions to the protocols will be noted by revision number and updated in the Project Plan. All revisions to task protocols will be communicated to design staff. Design Tools (i.e. – Spreadsheets, MathCAD sheets, etc.) will be developed and utilized for specific design calculation functions. All design tools that are prepared will be validated as required by the GRESHAM SMITH QMS, documented, filed and available for audit.

To the extent possible, the design team will select from the pre-approved list of software posted on the LA DOTD Bridge Division website. Before using the pre-approved software, the program will be validated as directed in the GRESHAM SMITH QMS prior to use. For special applications where software not included in the pre-approved list must be used, a synopsis of the software will be provided to the LA DOTD Bridge Design Engineer for approval prior to use. Similar to the pre-approved software, all specialty software will be validated as directed in the GRESHAM SMITH QMS prior to use. It is anticipated that LEAP bridge and MDX will serve as the primary design software with RC-Pier and ConSpan, and /or hand calculations utilized as necessary for various design and analysis components. MIDAS would be utilized for any complex geometry or required finite element analysis, but this is not anticipated for this program.



## 4.0 QUALITY CONTROL AND QUALITY ASSURANCE REVIEWS

#### 4.1 Design Deliverable Activities

The following are the key anticipated milestones for this project:

- Survey
- Hydraulic Reports
- Pre Plan-in-Hand (Prelim Design)
- Plan-in-Hand
- Post Plan-in-Hand

- Environmental & R/W Requirements
- Pre-Advanced Check Prints
- Advance Check Prints
- Borings or Pile Lengths Reviews
- Final Tracings

Specific expectations for each deliverable are summarized in the LA DOTD Bridge QC/QA policy. Prior to each of the formal submittals, a 3-tiered Quality Control (QC) design review will be performed as well as a Quality Assurance (QA) review. The following flow chart represents the GRESHAM SMITH's design workflow.





#### 4.2 Discipline Level QC Review of Calculations and Drawings

In this first tier of QC review, detailed calculation and drawing review is performed. GRESHAM SMITH's standard Document Checking Process as detailed in Appendix B is supplemented as noted below to blend the standard GRESHAM SMITH process and the DOTD requirements. Preceding the review, design development for the design phase is completed, design activity is in a "pencils down" mode and review sets are produced. In the Discipline QC, each calculation and drawing is thoroughly checked for accuracy, completeness, and for compliance with the project's design task protocols. The reviewer is designated as a senior engineer within the Quality Control Team. The review is documented in the calculations and drawings using a check print stamp and a color-coded mark as indicated below:

- Yellow Confirmed
- Black General comment or suggestion
- Red Correction to be made
- Blue Indicates correction was made
- Green Back check and concurrence with comment or other resolution
- Pink verification by the reviewer that the comment was addressed

Once the Discipline QC review of the calculations is completed, verified and documented using GRESHAM SMITH's-based and LA DOTD-based checklists, the calculations are designated as ready for an independent peer review, as may be appropriate. Similarly, once the Discipline QC review of the drawings is completed, verified and documented using GRESHAM SMITH's-based and LA DOTD-based checklists, the drawings are designated as ready for the Independent Peer QC Review in parallel with an Inter-Discipline QC Review. Issues that cannot be resolved between the Discipline QC reviewer and the original designer will be elevated to the design team leader or deputy project manager for resolution. These processes are described below.

#### 4.3 Independent Peer QC Review of Calculations and Drawings

Refer to Section 2.4 – No Independent Peer Review is anticipated for this project.

#### 4.4 Inter-Discipline QC Review of Drawings

The Inter Discipline Review is a discipline leader and project manager review of the documents; and is intended to be an overall design coordination review to identify potential conflicts in the plans between disciplines (i.e. – Roadway and Geometry, Structures, Drainage, Utilities, Geotechnical, etc.). Preceding the Inter-Discipline review, the Discipline QC review will be completed, design activity is in a "pencils down" mode and a drawing set is produced for review. Similar to the Discipline Review process, comments are provided in black or red, concurrence or other resolution in green, corrections in blue, and verification by the reviewers in pink. Issues that cannot be resolved between



the Inter-Discipline QC reviewer and the original designer will be elevated to the design team leader or deputy project manager for resolution. This review is documented in the Drawing QC checklist form previously discussed.

#### 4.5 Quality Assurance Review of Calculations and Drawings

Once the drawings and calculations have completed the tiered, Discipline QC, Independent Peer QC and Inter-Discipline QC review processes, the submittal is ready for a Quality Assurance review. This review is performed at GRESHAM SMITH by a specifically-trained senior engineer designated to be the Quality Manager for the project. The QA reviewer will examine all documented review materials, including plans, calculations and QC forms for compliance with the GRESHAM SMITH and LA DOTD policies and for completeness. In addition, the QA process verifies that the QC process was effective in preventing design and plan errors and in assuring consistency. Any comments provided by the QA reviewer on the QC process or documentation must be resolved and addressed prior to the QA reviewer approving the design package (plans and calculations) to be submitted.

#### 4.6 Post QA Review Revisions

If for any reason (i.e. – Late inputs or other issue not anticipated) revisions are necessary during or after completion of the QA review, all revisions will be documented on the drawing or calculation check prints and forwarded with revised drawings or calculations to the QA reviewer for a secondary review, prior to submittal.

#### 4.7 Submittal and Filing

Once the QA reviewer has verified that the QC process was completed satisfactorily, they will complete and sign the Document Release Record, allowing the submittal to be released to the client. All calculation, drawing and QC/QA documents will be filed and archived in the project folder, organized and filed by submittal.



## 5.0 DOCUMENTATION OF COMMENTS/RESPONSES

#### 5.1 Documentation of Internal Comments and Responses

The documentation of all internal comments and resolution will be contained within Discipline QC drawing check prints and forms, calculation review check prints and forms, and in Independent Peer Bridge QC calculation review forms and drawing check prints. Similarly, the documentation of the Inter-Discipline QC comments and resolution will be contained within the drawing check prints and forms. All QC documents will be stored electronically in the project folder and be available for audit.

#### 5.2 Documentation of Client Comments and Responses

At formal submittal client reviews, a comment log will be used to document all comments, by page number. A plan markup may also be provided by the client. The design team will promptly review all comments received and schedule a comment resolution meeting to resolve the comments and set forth an action list to be completed prior to the next formal submittal. Revisions in the action list will be documented on the drawing and calculation Discipline QC review check prints for the next formal submittal.

#### 5.3 Quality Assurance Records

Finally, the documentation of the QA review will be contained within the Document Release Record form at the completion and verification of all QC and QA review activities. All QA documents will be stored electronically in the project folder and be available for audit.



## 6.0 CONTROL OF SUBCONSULTANT QC PROCESS

GRESHAM SMITH's approach to project management and delivery is to fully incorporate subconsultants and teaming partners into an integrated project team, as opposed to an approach where subconsultants operate independently, with their deliverables "plugged into" the overall formal submittal. Subconsultants are integrated into the project communication process thru weekly project coordination. Individual subconsultant resources are expected to work as an extension of and inclusive with GRESHAM SMITH's staff resources. As such, subconsultants are expected to be fully trained in the GRESHAM SMITH QMS policy and to participate in the Discipline QC and Inter-Discipline QC reviews.

As described previously, all project personnel (including subconsultants) will be trained in both the LA DOTD's Bridge QC/QA policy, as well as GRESHAM SMITH's QMS policy. The training will be done by the Quality Assurance Manager, or designated Project Manager or Deputy Project Manager familiar with and experienced in the LA DOTD's Bridge QC/QA policy or GRESHAM SMITH's QMS policy.



## 7.0 CLIENT FEEDBACK AND QUALITY AUDITS

#### 7.1 Administrative Oversight and Continuous Improvement

A desired outcome of the GRESHAM SMITH QMS policy is continuous improvement. The process identifies issues where the design team (collectively and individually) can improve design processes and skills. Most importantly, feedback from the client is solicited and incorporated into our process of continuous improvement, for each formal submittal. All project performance issues are discussed internally with the design team in regularly scheduled design coordination meetings throughout the project.

#### 7.2 Internal and External Quality Audits

GRESHAM SMITH's Office of the Risk Management Plan performs independent internal audits of projects to assure that the QC/QA program is being implemented correctly. As all quality records are maintained for each formal submittal in the project directory, all QC and QA documents are available for LA DOTD quality audits at their request.



## **APPENDIX A – PROJECT PRE-PLANNING GUIDANCE & FORMS**

- LA DOTD Design Criteria Checklist
- LA DOTD Project Activity Log Sheet
- LA DOTD Consultant Project Bridge Design Kick-Off Meeting Agenda Checklist
- GRESHAM SMITH PM-2 Assigning Project Roles & Responsibilities (Page 1 of 12)
- GRESHAM SMITH PM-3 Developing/Updating a Project Plan (Page 1 of 9)
- GRESHAM SMITH PMF-11 Project Plan Summary
- GRESHAM SMITH SS-1 Developing a Safety & Security Plan (Page 1 of 10)
- GRESHAM SMITH WIPM-31 Developing a Quality Plan Page (1 of 7)



THE COVER PAGE OF APPLICABLE GRESHAM SMITH PROCEDURES AND POLICIES IS INCLUDED IN THIS DOCUMENT. THE FULL PROCEDURE WILL BE INCLUDED IN THE OPERATIONAL VOLUME OF THE QC/QA PLAN

#### 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  $\eta_D$ , redundancy factor  $\eta_R$ , and operational importance factor  $\eta_I$  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 Railing

The design criteria, types, and test levels for bridge barrier railings shall be listed in this section. Standard Plans 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 should be listed if they are utilized.

#### \_\_\_\_ Approach Slab

Design criteria for approach slab shall be included in this section. Standard Plans 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 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 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 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 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 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 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 should be listed if they are utilized.

#### \_\_\_\_ Mechanical Design

All mechanical design criteria shall be included in this section if applicable. Standard Plans should be listed if they are utilized.

#### \_\_\_\_ Electrical/Lighting Design

All electrical design criteria shall be included in this section if applicable. Standard Plans 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 J—PROJECT ACTIVITY LOG SHEET

Project No.:

Project Name:

Bridge Task Manager:

Date	Project Activity	Comments

## 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 be 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.)



## **Quality Management System**

QMS Process Section: Planning and Managing Work	Revision: 4 Date: 06SEP2018	Number: PM-2
Procedure: Project Roles and Responsibilities	Approval: McGormley/Wharton	Page: 1 of 9

#### A. PURPOSE

This procedure and associated exhibits address Gresham Smith's definition of project roles, standard practice for assigning project roles and responsibilities, and the minimum expectations of those individuals assigned a role to assure consistency in completing the responsibilities.

#### B. SCOPE

- 1. This procedure describes the process for assigning project roles and provides guidance to enable scalable application to suit all Gresham Smith projects.
- 2. This procedure and its associated exhibits define the primary project roles and summarizes general project responsibilities for each role.
- 3. This procedure does not address roles and responsibilities for personnel performing project support roles (e.g., IT, Document Control, etc.), nor does it address personnel performing business operations roles.

Note: Project role names may be labeled differently for external use to match client preferences.

#### C. DEFINITIONS

- 1. Authority: The assigned power or right to give instructions or make decisions.
- 2. Project Role: The project-specific job description assigned to an employee.
- 3. Responsibility: A functional duty or obligation of an employee or employees by the nature of their assigned project role. Responsibility cannot be shared or delegated.
- 4. Roles
  - a. Assistant Project Manager (APM): The APM position works with project managers (PM) in managing the project from the fee proposal stage through close-out. This position will work with project managers in creating, maintaining and communicating all aspects of the Project Plan, monitoring


QMS Process Section: Planning and Managing Work	Revision: 4 Date: 03JUN2019	Number: PM-3
Procedure: Developing/Updating a Project Execution Plan	Approval: John Wharton	Page: 1 of 10

# A. PURPOSE

1. This procedure addresses Gresham Smith's standard practice for planning projects. It identifies all the elements of a well-planned project and identifies how these elements are pulled together into a cohesive plan. This procedure addresses the project activity after award of the project and prior to the kick-off meeting.

# B. SCOPE

- 1. This procedure forms the core of the planning process and shows the relationship between the project execution plan and other portions of the "Planning and Managing Work" process.
- 2. This procedure applies to all projects in Gresham Smith. The degree of development of each project execution plan element is intended to be scalable to match the size and complexity of the project.
- 3. Note: The Project Execution Plan is a <u>living document</u>; The PM should update and re-issue the Plan throughout the project duration as changes occur.

# C. DEFINITIONS

- 1. Agreement: The contractual instrument between the Client and Gresham Smith.
- Digital Data: AIA E203 defines Digital Data as "information, including communications, drawings, specifications and designs, created or stored for the Project in digital form." The term Digital Data includes the Model, CAD files, Word files, Excel files, and PDF files.
- 3. Qualified Reviewer: A person who has experience <u>directly relevant</u> to the project he/she is being asked to review, <u>and</u> who demonstrates the technical capabilities to perform as a checker. Ideally, the qualified reviewer has designed and/or been in responsible charge of a project very similar in nature, scope and complexity.
- 4. Quality Assurance (QA): Part of quality management focused on providing <u>confidence that quality requirements as defined in our QMS will be fulfilled</u>. It is aimed at preventing errors and building in quality throughout the process. This

# Gresham Smith

Quality Management System				
QMS Forms: Project Execution Plan	Revision: 6 Date: 03JUN2019	Number: PMF-31	Page: 1 of 1	
Project Information	-			
Project Name/Location:	ABC Facility and Site Expansion			
Client:	ABC Company, LLC			
Project Manager:	Jones	PX:	Anderson	
Gresham Smith Project Numbe	12365.05	Gresham Smith Responsibility:	Prime	
Date Prepared:	7-Jan-2019	Revision Date:		
	Form of Plan/Document:	Describe Location of Plan o	r Details or Link:	
1 Agreements		(Overwrite folder link if nece	ssary)	
Agreement: Client	Gresham Smith Standard		PM\01ProjPlan\01Agrmnts	
Digital Data Agreement: Client	AIA E203, Digital Model Execution Plan	\\qlobal.qsp\data\nf\cq_nf02\1236505\04	PM\01ProjPlan\01Agrmnts	
Agreement: Subconsultants	Gresham Smith Standard	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\01Agrmnts	
Digital Data Agrmnt: Subconsultant	AIA E203, Digital Model Execution Plan	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\01Agrmnts	
Digital Data Agrmnt: 3rd Party	Gresham Smith Waiver	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\01Agrmnts	
Amendments/Changes:	Located in Agreements folder	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\01Agrmnts	
Invoicing Process:	Gresham Smith Standard	\\qlobal.qsp\data\nf\cq_nf02\1236505\04	PM\00Financial	
2 Risk Management Plan				
Risk Management Plan:	See tab RMF41	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\02RiskMqmt	
3 Staffing Plan / Roles an	d Responsibilities			
Staffing Plan:	See tab PMF21	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\03TeamR&R	
4 Scope of Services				
Scope of Services:	Scope incorporated into Agreement	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\04Scope	
5 Schedule and Deliverab	les			
Project Schedule:	Located in Schedule folder	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\05Schedule	
Team Meetings:	Every Two Weeks	\\qlobal.qsp\data\nf\cq_nf02\1236505\04	PM\01ProjPlan\05Schedule	
6 Budget				
Budget Plan:	Budget Breakdown in Vision	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\06Budget	
Earned Value:	Earned Value in Vision	\\global.gsp\data\nf\cq_nf02\1236505\04	PM\01ProjPlan\06Budget	
7 Work Breakdown				
Work Breakdown Structure:	See Vision	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\07WBS	
8 Quality Plan	•			
Quality Assurance Plan:	Gresham Smith QMS procedures	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\08Quality	
Quality Control Plan:	See tab PMF32	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\08Quality	
Subconsultant Quality Plan:	Subs follow our QC Plan	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\08Quality	
Client Quality Process:	No Special Client Requirements	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\08Quality	
9 Technology Plan				
Document Management:	Gresham Smith Standard - NewForma	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\09PracticeTech	
Technology Validation Plan:	See tab DPF101	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\09PracticeTech	
Digital Model Execution Plan	Located in PracticeTech folder	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\09PracticeTech	
10 Safety & Security Plan				
Safety & Security Plan:	See tab SSF11	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\10Safety	
11 Sustainability Plan				
Sustainability Plan:	See tab PMF33	\\global.gsp\data\nf\cg_nf02\1236505\04	PM\01ProjPlan\11Sustainabilitv	
eastantasinty riall.				



QMS Process Section: Safety and Security	Revision: 1	Number:
	Date: 06SEP2018	SS-1
Procedure: Developing a Safety & Security Plan	Approval: John Wharton	Page: 1 of 10

# A. PURPOSE

 This procedure documents a Safety & Security Plan and provides the details necessary to support the development of a complete and effective plan. The procedure provides a methodology for the identification of the potential risks, evaluation of the probability and severity of those risks, and potential plans to mitigate or eliminate the risk. The Safety & Security Plan is one of the tools for the Project Manager to plan and execute the project.

# B. SCOPE

- 1. This procedure applies to all projects and provides the standard template for capturing all issues related to Safety and Security.
- 2. Safety & Security Management begins during the "Pursuing" phase before a proposal has been submitted and continues throughout the life-cycle of the project. The major efforts will take place during both the Pursuing and Planning phases, after which the efforts will primarily focus on ensuring the plan is followed by the project team, identifying additional risks that may arise, and monitoring for compliance to the plan.
- 3. The intent is to address all elements of the project that are included in our scope including work in the home office, client's site, and construction site. Guidance is provided for typical scenarios, but is not to be considered comprehensive.
- 4. The plan requires the PM to identify issues that are beyond the scope of "typical" hazards for which the majority of our staff will have been trained. These atypical or unusual hazards are to be identified and then a plan must be developed to address how we will work in a safe and secure manner. The PM is not expected to identify every possible hazard.



QMS Process Section: Planning and Managing Work	Revision: 3	Number:
	Date: 03JUN2019	WIPM-31
Work Instruction: Developing a Quality Control Plan	Approval: John Wharton	Page: 1

# A. PURPOSE

1. This work instruction addresses Gresham Smith's standard practice for creating and maintaining a Quality Control Plan.

# B. SCOPE

1. This work instruction applies to all projects in Gresham Smith. The degree of development of the Quality Control Plan is intended to be scalable to match the size of the project.

# C. DEFINITIONS (See <u>QM-7: Definitions</u>)

- 1. Formal Check: Types of Formal Checking Include: Off-Team Discipline QC Check, Cross-Discipline Coordination (CDC) Check, Constructability Check
- 2. Quality Assurance (QA)
- 3. Quality Control (QC)
- 4. Quality Assurance (QA) Plan
- 5. Quality Control (QC) Plan
- 6. Quality Management System (QMS)
- 7. Roles: Constructability Reviewer (CR), Project Professional (PP), Qualified Reviewer (QR)

Notes:

- If a Market has a listing of designated Qualified Reviewers and Constructability Reviewers, the QR or CR must be from this list.
- Although the QR is not part of the project team, the team is encouraged to inform the QR periodically as significant decisions are made. This will provide valuable context to the QR prior to their review.
- 8. Scope of Services (SOS)
- 9. Self-Check
- 10. Work Breakdown Structure (WBS)



DOTD Project No. 44-23434 US 190: UPRR Overpass Near Opelousas Bridge Design QC/QA Plan

# **APPENDIX B – DISCIPLINE & INTER-DISCIPLINE QC FORMS**

- LA DOTD Final Calculation Book Checklist
- LA DOTD Off-System Guidelines Survey Checklist Not Anticipated
- GRESHAM SMITH DP-7 Checking and Authorization (Page 1 of 13)
- GRESHAM SMITH DP-10 Developing a Technology Plan (Page 1 of 5)
- GRESHAM SMITH DPF-71 QC Check Cover Sheet (Pages 1 & 2 of 2)



THE COVER PAGE OF APPLICABLE GRESHAM SMITH PROCEDURES AND POLICIES IS INCLUDED IN THIS DOCUMENT. THE FULL PROCEDURE WILL BE INCLUDED IN THE OPERATIONAL VOLUME OF THE QC/QA PLAN

#### 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 (Including the As-Designed Rating Report)
- \_\_\_\_ 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.

# SURVEY CHECK LIST

PROJECT NO .:	
PARISH:	
DATE:	
CHECKED BY:	

- Minimum of 4 TBMs (one at each end of project & at each bridge end)
  North arrow
- 3. Scale:
- 4. Name of roadway:
- 5. \_\_\_\_\_ Type of roadway:
- 6. \_\_\_\_\_ Width of roadway:
- 7. Centerline elevations 2 decimals (Asphalt or Concrete) 1 decimal (Gravel)
- 8. \_\_\_\_\_ Bearings
- 9. Curve data
- 10. Showing distance to the nearest intersecting roadway on both ends of survey?
- 11. Elevations & plusses of centerline of channel
- 12. Stream traverse shown & stationed where it ties to the survey line
- 13. Structure Number:

14. Description of existing structure in upper right corner?

- 15. Description of existing structure: W- x L-
- 16. # of Spans:
- 17. Type of Bridge:
- 18. Exist. structure dashed/spans in the plan view
- 19. Exist. structure dashed/spans in the profile view
- 20. All existing pipe dashed
- 21. All cross drains shown in profile (dashed) with flow lines
- 22. Pipe diameters shown
- 23. Name of waterway:
- 24. Flow arrows in stream shown
- 25. \_\_\_\_\_ Type of fence spelled out. # strands of B/W shown? Y N N/A
- 26. Utilities in plan & profile (if buried) shown
- 27. Utility Owners
- 28. Existing / Assumed / Apparent R/W
- 29. Reference Points
- 30. Low Chord Elevation:
- 31. Drainage Map
- 32. Lettering & symbols correct size & weight? Will be legible when reduced to half-size?
- 33. State Project number and Parish name on field book(s) in permanent ink?
- 34. Certification in field book(s)?
- 35. \_\_\_\_\_ Point listing: numerical order with description, coordinates, elevations?
- 36. Point listing: station & offset, descriptions, elevations?
- 37. \_\_\_\_\_ Point listing: roadway cross section points; station, offset, elevations?
- 38. \_\_\_\_\_ Point listing: stream cross section points; station, offset, elevations?
- 39. Plotted roadway and stream cross sections
- 40. Copy of color photos for DOTD file?
- 41. \_\_\_\_\_ State plane coordinates shown at 2 points (min.) on survey?
- 42. QC/QA Certification



QMS Process Section: Design and Consulting Practices	Revision: 2 Date: 06SEP2018	Number: DP-7
Procedure: Document Checking and Authorization	Approval: J. Wharton	Page: 1

#### A. PURPOSE

1. Establish minimum requirements for checking and authorizing documents.

# B. SCOPE

- 1. The scope of this document applies to technical reports, drawings, technical specifications, calculations, and cost estimates.
- This procedure describes a process for checking documents to ensure quality work has been produced. Proactive efforts are required to produce quality work through daily commitment to the project plans, and close coordination with colleagues, Clients, and external parties.
- 3. All Formal Issue documents REQUIRE an Off-Team Discipline QC Check prior to issue. This check is performed by a Qualified Reviewer who is not part of the project team.
- 4. All Formal Issue documents that involve multiple disciplines REQUIRE the Project Professionals to perform a Cross-Discipline Coordination Check prior to issue.
- 5. Constructability Checks are strongly recommended prior to each Formal Issue, if applicable.
- 6. Informal Issues of Documents For Information Only do not require a formal check.
- 7. The scope of this document <u>includes our subconsultants</u>. Any documents that are produced by others under our prime agreement with the Owner must go through an Off-Team Discipline QC Check (using their own resources to perform the check). Subconsultants must also fully participate in our Cross-Discipline Coordination Check prior to each formal issue. Subconsultants are <u>required</u> to produce a cover sheet DPF-71 as evidence that the check took place and provide the signed copy to the GS&P Project Manager for each Formal Issue.

# C. DEFINITIONS

1. Authorization: Individual's signature or initials on a document indicating the document is approved for Formal Issue.



QMS Process Section: Design and Consulting Practices	Revision: 2 Date: 06SEP2018	Number: DP-10
Procedure: Developing a Technology Plan	Approval: J. Wharton	Page: 1

# A. PURPOSE

1. This work instruction addresses Gresham Smith's standard practice for creating and maintaining a Technology Plan.

# B. SCOPE

- 1. This procedure applies to all projects in Gresham Smith.
- 2. The Technology Plan is the minimum requirement; however, many projects will require a Digital Model Execution Plan.
- 3. This procedure addresses the use of the following types of software products:
  - a. Commercially licensed software
  - b. Vendor-supplied software
  - c. Client-supplied or Client-mandated software
  - d. In-house developed software
  - e. Excel Spreadsheets used to impact design or deliverables
  - f. Public domain software
  - g. New Versions/Updates to any of the above
- 4. This procedure does not apply to software that is developed by Gresham Smith for use outside of Gresham Smith. Software developed for external use must be approved by the MVP and CFO.
- 5. This procedure does not apply to technology that is being used only to record data or information. For example, an Excel spreadsheet that is used to create a table of information.

# C. DEFINITIONS

- 1. Commercial product: A product available for sale on the commercial market that provides results that we will use to impact our deliverables.
- 2. In-House Developed Software: Software developed by Gresham Smith that is not to be transferred outside of Gresham Smith. (Software developed for transference outside of Gresham Smith requires corporate approval.)

# Gresham Smith Quality Management System

QMS Forms: QC Check Cover Sheet	Revision: 2	Number:	Page: 1
	Date: 06SEP2018	DPF-71	

Project Information			
Project Name/Location:			
Client:			
Project Manager:	PX:		
Gresham Smith Project Number:	Date Prepared:		
Project Professional:	Discipline:		
Submittal Description:	Submittal Date:		
Qualified Reviewer:	Constructability Reviewer:		

Off-Team Discipline QC Check – Signature Block				
Action: Signature: Date:				
Submitted by Project Professional:				
Checked by Qualified Reviewer:				
Resolved by Project Professional:				

Cross-Discipline Coordination Check – Signature Block			
Discipline Designation	Originating PP: Confirm Review (Signature)	Discipline Designation	Originating PP: Confirm Review (Signature)
Choose an item.		Choose an item.	
Choose an item.		Choose an item.	
Choose an item.		Choose an item.	
Choose an item.		Choose an item.	
Choose an item.		Choose an item.	
Originating Discipline Resolved and Back-Checked Comments:			
Resolved By PP:		Date:	

Constructability Check – Signature Block				
Action: Signature: Date:				
Submitted by Project Professional:				
Checked by Constructability Reviewer:				
Resolved by Project Professional:				

Note: Completed Forms are to be stored digitally in the Newforma Folder: 04PM\01ProjPlan\08Quality

QMS Forms: QC Check Cover Sheet	Number: DPF-71	Page: 2

Documents to be Checked in this review (PP to List or Attach List)      Document Name/Description (Drawings, Reports, Specs, Calculations, etc.)    Revision/Date
Documents to be Checked in this review (PP to List or Attach List)      Document Name/Description (Drawings, Reports, Specs, Calculations, etc.)    Revision/Date
Documents to be Checked in this review (PP to List or Attach List)      Document Name/Description (Drawings, Reports, Specs, Calculations, etc.)      Revision/Date
Documents to be Checked in this review (PP to List or Attach List)      Document Name/Description (Drawings, Reports, Specs, Calculations, etc.)    Revision/Date
Documents to be Checked in this review (PP to List or Attach List)      Document Name/Description (Drawings, Reports, Specs, Calculations, etc.)    Revision/Date      Image: Control of the contro of the control of the control of the control of the co
Document Name/Description (Drawings, Reports, Specs, Calculations, etc.)    Revision/Date

Supporting Documents (PP to List or Attach List)	
Document Name/Description (Design Basis, Code Analysis, AHJ Comments)	Revision/Date



DOTD Project No. 44-23434 US 190: UPRR Overpass Near Opelousas Bridge Design QC/QA Plan

# APPENDIX C – INDEPENDENT PEER REVIEW BRIDGE QC FORMS

Not Required for this Bridge Project.



DOTD Project No. 44-23434 US 190: UPRR Overpass Near Opelousas Bridge Design QC/QA Plan

# APPENDIX D – QUALITY ASSURANCE & DELIVERABLE RELEASE RECORD FORMS

- LA DOTD QA Information Package Checklist
- LA DOTD QC/QA Certification
- LA DOTD Consultant Submittal QC/QA Certification
- GRESHAM SMITH QM-5 Internal Project Auditing (Page 1 of 11)
- GRESHAM SMITH QMF-52 Corrective Action Report Form (Page 1 of 1)
- GRESHAM SMITH WIDP-71 Signing and Sealing Documents (Page 1 of 18)

THE COVER PAGE OF APPLICABLE GRESHAM SMITH PROCEDURES AND POLICIES IS INCLUDED IN THIS DOCUMENT. THE FULL PROCEDURE WILL BE INCLUDED IN THE OPERATIONAL VOLUME OF THE QC/QA PLAN

# APPENDIX C-QA INFORMATION PACKAGE CHECKLIST

Project No.:

Project Description:

 Calculation Book
 Plans
 Special Provisions
 Cost Estimate
 Other Documents

#### **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						
Deteiler						
Detailers						
Detail Checkers						
Reviewers						
Peer Reviewer						
Geotechnical Engineer						
Hydraulic Engineer						
EOR						

#### 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



QMS Process Section: Quality Management	Revision: 1 Date: 15SEP2017	Number: QM-5
Procedure: Internal Project Auditing	Approval: John Wharton	Page: 1 of 11

#### A. PURPOSE

To define the steps for internal auditing of projects. Audits are conducted to verify conformance to process definitions, procedures, work instructions, and policies, in order to determine the effectiveness of the Quality Management System.

#### B. SCOPE

This procedure applies to internal audits only, and covers the complete audit process, from identification of the need for an internal audit, method of conducting an audit, reporting of audit findings, to completion of follow-up on corrective actions.

Internal audits are generally scheduled in advance, but an unscheduled audit may be initiated when a procedure breakdown has been identified, significant quality problem has arisen, or at other times as identified by the Director of Quality or Market Vice President.

# C. DEFINITIONS

- 1. Audit Terms:
  - a. Complete: All information is provided and filed properly in the project directory. All form blanks requesting information are addressed, or identified as "Not Applicable". All actions are performed according to the relevant procedure or work instruction.
  - b. Partially Complete: Information is entered that is meaningful for a portion of the document that is being audited, but other relevant parts of the document are incomplete or incorrect.
  - c. Maintained: Documents have been created, and have been updated as the project has changed or evolved with time. For example, the project plan and the 11 modules that supplement the project plan are created at the beginning of the project, and those documents especially schedules frequently require maintenance as things change.



QMS Process Section: Quality Management	Revision: 2	Number:
	Date: 06SEP2018	QMF-52
QMS Forms: Corrective Action Report	Approval: Wharton	Page: 1 of 1

Project Name/Location:	Project Name						
Client Name:	Client Name						
Project Manager:	Name		PX:	Nam	e		
Auditor's Name:	Name		Gresham Smith Project No:	0000	00.00		
Auditee's Name:	Name		Gresham Smith Office:	Choo	se an	item.	
Project Phase being audited:	Choose an item.		Date Prepared:	5-Jar	n-2017		
Note: Turn on "Review"	"Trac <b>k Changes</b> " to a	llow tracking of C	omments and Signati	ır <b>e</b> s			
<u>Auditor's Description of Non-</u> <u>Conformance</u> (Include a list of Project documents that do not conform to QMS Requirements, and list QMS documents that address the requirements)							
	Comply with Procedu	re, Non-Conforman	ce will be Corrected:		Yes		No
	Recommend a Change	e to the Procedure	(Explain Below):		Yes		No
<u>Auditee Proposed Corrective Action Plan:</u>	Other (Explain below)	<u>.</u>			Tes		
Auditar Deepenage	Corrective Action Plar	Approved:			Yes		No
Auditor Response:	Corrective Action Plar	Disapproved:			Yes		No
Corrective Action Completed (Auditee):	Signature:		Date:				
Corrective Action Confirmed (Auditor):	Signature:		Date:				
	Follow-up Action Req	uired:			Yes		No
Director of Quality Response:	Procedure Revision to	be Implemented:			Yes		No



QMS Process Section: Design and Consulting Practices	Revision: 1	Number:
	Date: 06SEP2018	WIDP-71-EX4
Work Instruction: Signing and Sealing Documents:	Approval:	Page: 1 of 4
Exhibit 4 – Issuing Digitally Certified Documents	Wharton/Munkel	

# Process for Creating "Digitally Certified" Documents

- 1. <u>PP</u>: Before applying seals and signatures, create a "backup" folder and store copies of PDFs to be sealed. The signing process sometimes has glitches and creating a backup can avoid having to re-publish PDFs from CAD.
- 2. <u>PP</u>: Apply the electronic seal image.
  - a. Method 1: Apply the electronic seal image and date in the native format (CAD or Revit) file. Generate the PDF file with the seal embedded. Be sure to use the correct <u>PDF naming convention</u>.
  - Method 2: Apply the electronic seal image in the PDF after the PDF has been generated from the native format (CAD or Revit) file. This is done in Adobe Reader DC using the "Stamp" tool. Select "Tools", then "Stamp". Click on the "Stamp" icon in the top banner. From the drop-down list, select "Seal". If you created a custom stamp (See Exhibit 3), it will appear as an image. Drag the image to the correct location and click to place it.
- <u>PP</u>: Apply the date (If the date was not already placed in the native format file prior to creating the PDF file): In Adobe Reader click "Tools", then click "Comment". Click on the text box symbol T. Then place the text box on the PDF file. The date normally goes below the professional seal, but be sure to check the state



licensing laws and policies to ensure you are complying. Insert the appropriate date in the text box. The box should be formatted with no border.

3. <u>PP</u>: Place the digital signature/certificate on each document:

Note: If you are using the Entrust verification system, insert your USB token with the Entrust Certificate into a USB port now.

Note: The PP <u>must perform a final review of the PDF contents</u> to ensure the PDF is complete and ready for signature.

- a. Open one or multiple PDFs using Adobe Reader DC. Up to about 10 PDF's can be opened at a time.
- b. Zoom / pan to the area in the plan where the seal resides.

# Gresham Smith- Quality Management System

QMS Process Section: Design and Consulting Practices	Revision: 1	Number:
	Date: 06SEP2018	WIDP-71-EX4
Work Instruction: Signing and Sealing Documents:	Approval:	Page:
Exhibit 4 - Issuing Digitally Certified Documents	Wharton/Munkel	2 of 4

- c. Click the "Tools" tab and then click the "Certificates" icon. Click "Digitally Sign"
- d. Select the Location of the digital signature: A box will appear. Place the box and resize if necessary to place the signature block in the correct location. The signature normally goes across the professional seal, but be sure to check the state licensing laws and policies to ensure you are complying.



e. Apply the Digital Certificate: A pop up box, "Sign with a Digital ID" will appear. Select the correct digital ID, and hit the "Continue" button. Note: Typically, there will just be one choice, unless you have certificates with both Entrust and IdenTrust.



- f. Choose how the signature will appear: Another box "Sign As..." will appear. Select the "appearance" box to make the selection.
  - Method 1: The default signature is the text certificate, and is the more secure method. Below is an example of a text, time and date stamp digital signature.
    Stephen Brown Brown Date: 2017.07.07 15:11:28-05'00'
  - ii. Method 2: If the client, AHJ or State Licensing Board requires a scanned image of a manual signature, click on the drop-down box next to "Appearance" and select the transparent signature image created in the setup process (Exhibit 3).

Gresham Smith- Quality Mar	nagement Systen	า
QMS Process Section: Design and Consulting Practices	Revision: 1 Date: 06SEP2018	Number: WIDP-71-EX4
Work Instruction: Signing and Sealing Documents:	Approval:	Page:
Exhibit 4 - Issuing Digitally Certified Documents	Wharton/Munkel	3 of 4

- g. The "Sign as "YOUR NAME"" screen will appear. Select "Lock document after signing".
- h. Complete the signing process:
  - i. Enter your password created during the setup process.

Appearance	Created 2017.12.29 16:05:33 -05' v	Create Edit
	11	)
🖲 Lock docu	ment after signing	View Certificate Detai
€ Lock docu Review docur	ment after signing	View Certificate D

- ii. Select the "Sign" button.
- iii. The "Save As" Windows dialog will appear. Click the "Save" button. Another dialog box will appear asking if you want to replace the existing file. Click "Yes". This will overwrite the original PDF with the new signed, secure version.
- iv. Close the individual PDF (not the Adobe window).



Note: After you save the file, be careful not to click again in the PDF until after the save command is complete which can take a few seconds. Clicking while it is saving can cause you to inadvertently apply two signatures which can frequently crash Adobe Reader DC.

Note: You may will see an error message after the save process competes. This is a glitch that typically has no adverse effects associated with viewing the final secure pdf and can typically be disregarded.

# Gresham Smith- Quality Management System

· · · · · ·	<u> </u>	
QMS Process Section: Design and Consulting Practices	Revision: 1	Number:
	Date: 06SEP2018	WIDP-71-EX4
Work Instruction: Signing and Sealing Documents:	Approval:	Page:
Exhibit 4 - Issuing Digitally Certified Documents	Wharton/Munkel	4 of 4

- 4. <u>PP</u>: Repeat the signing steps with the remaining PDFs. If you keep the active Adobe Reader DC window open during the entire multiple PDF signing process, you will not be prompted to enter your password each time you apply a signature.
- 5. <u>PP or Designee</u>: After the process is complete for multiple sheets, re-open each of the files to verify the signature has been properly applied and the security certificate is valid.
- 6. <u>All PP's: Applying multiple signatures</u>: If multiple signatures are required on a single sheet, for example, a Project Manual cover sheet, each registrant should apply their seal and signature as above, but DO NOT click on "Lock document after signing" as described above. If that box is checked, it will not be possible to add more signatures without invalidating the signatures already in place. Only the last registrant will click on "Lock document after signing".
- 7. <u>PP:</u> Signed documents should always be retained internally in accordance with various state board regulations and GSP document retention policies. Be careful to not delete any securely signed documents. These are considered originals.

<u>Tips:</u>

- Note: If you must apply anything other than your signature in Adobe, do so prior to applying the signature. For example, if the seal or date is left off, it can be applied in Adobe before applying the signature. Once you select "Lock document after Signing", "Sign", and save the file, <u>you cannot make any changes</u> to the document without invalidating the document.
- Non-secure documents such as transmittals can be signed simply using the "Sign" tool in "Fill & Sign". Typically, secure signatures are only needed in sealed documents or other sensitive documents.

Fill & Sign *	(Ab) X V O - • 🖉
---------------	------------------

# **REVISION HISTORY**

Rev. No.	Date	Approval	Summary of Changes
1	05JAN2017	Wharton	General Revisions
2	06SEP2018	Wharton	Format Change

# 22. Sub-consultant Information:

Firm Name (as registered with Louisiana's Secretary of State)	Address	Point of Contact and email address	Phone Number
Mott MacDonald	650 Poydras Street, Suite 2025 New Orleans LA 70130	Many Heymann many.heymann@mottmac.com	504.799.0437
Civil Design & Construction, Inc.	Mailing: PO Box 857 Physical: 3251 Southern Pacific Rd. Port Allen, LA 70767	Karla Weston, PE kweston@cdcbr.com	225.765.1802
(Add rows as needed)			

Page 82 of 83 Prime consultant firm: Gresham Smith

23. Location:





Alpharetta, GA Atlanta, GA Baton Rouge, LA Birmingham, AL Charlotte, NC Chattanooga, TN Chicago, IL Cincinnati, OH Columbus, OH Dallas, TX Ft. Lauderdale, FL Jackson, MS Jacksonville, FL Knoxville, TN Lexington, KY Louisville, KY Memphis, TN Miami, FL Nashville, TN Richmond, VA Suwanee, GA Tallahassee, FL Tampa, FL 10000 Perkins Rowe Suite 280 Baton Rouge, LA 70810 225.757.5849 GreshamSmith.com