**CONTRACT FOR LA 447 CORRIDOR** 

### LIVINGSTON PARISH, LA

# CONTRACT NO. 4400024641

**Prepared for** LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT Prepared by STANTEC CONSULTING SERVICES INC.

JULY 19, 2022



# **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 IN-ACCURATE 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 LA 447 Corridor
2.	Contract number(s) as shown in the advertisement	No. 4400024641
3.	State Project Number(s), if shown in the advertisement	No. H.005734
4.	Prime consultant name (as registered with the Louisiana Secretary of State where such registration is required by law)	Stantec Consulting Services Inc. Stantec
5.	Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	EF.0003506
6.	Prime consultant mailing address	1200 Brickyard Lane Suite 400, Baton Rouge, LA 70802
7.	Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	1200 Brickyard Lane Suite 400, Baton Rouge, LA 70802
8.	Name, title, phone number, and email address of prime consultant's contract point of contact	Gary Heitman, PE, Senior Principal (225) 215-5105   gary.heitman@stantec.com
9.	Name title, phone number, and email address of the official with signing authority for this proposal	Gary Heitman, PE, Senior Principal (225) 215-5105   gary.heitman@stantec.com

10.	This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.	Signature (shall be the same person as #9): Additional and the same person as #9): Date: July 19, 2022
11.	If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal and each firm(s)' percentage.	Firms(s)Firm(s)'%:Civil Design & Construction, Inc.10%



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

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

The only past performance evaluation disciplines to be used are: Road, Bridge, Traffic, CE&I/OV, Geotech, Survey, Environmental, Data Collection, Planning, Right-of-Way, CPM, ITS, Appraiser and Other. The crosswalk from the old categories to the new categories can be found at the link below: <a href="http://wwwsp.dotd.la.gov/Inside\_LaDOTD/Divisions/Engineering/CCS/General%20Information/CPPR%20Crosswalk%20to%20New%20Evaluation%20Disciplines.pdf">http://wwwsp.dotd.la.gov/Inside\_LaDOTD/Divisions/Engineering/CCS/General%20Information/CPPR%20Crosswalk%20to%20New%20Evaluation%20Disciplines.pdf</a>.

**Sub-consultants are allowed to be used for this proposal.** Fill in the table by identifying only those evaluation disciplines consistent with the approach and methodology proposed in Section 19 of the DOTD Form 24-102\*, the name of each firm that is part of the proposal, and the percentage of work in each past performance evaluation discipline to be performed by that firm. The percentage estimated for each evaluation discipline is for evaluation purposes only and will not control the actual performance or payment of the work. The percentages for the prime and sub-consultants must total 100% for each past performance evaluation discipline, as well as the overall total percent of the contract. (Add rows as needed)

Evaluation Disciplines	% of Overall Contract	Stantec Consulting Services Inc. (Prime)	Civil Design & Construction, Inc.			
Road	75%	93.33%	6.67%			
Bridge	15%	100%	0%			
Traffic	5%	100%	0%			
Survey	5%	0%	100%			
Identify the percentage of work for the overall contract to be performed by the prime consultant and each sub-consultant.						
Percent of Contract	100%	90%	10%			

\* If no additional survey services are needed for the project, the CD & C effort will be reallocated to Road

#### 13. Firm Size:

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

http://wwwsp.dotd.la.gov/Inside LaDOTD/Divisions/Engineering/CCS/Job Qualification/Job%20Classifications%20with%20Descriptions.pdf

Firm Name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
Stantec Consulting Services Inc.	Principal	1	4
Stantec Consulting Services Inc.	Supervisor - Eng	2	2
Stantec Consulting Services Inc.	Engineer	10	12
Stantec Consulting Services Inc.	Engineer Intern	4	6
Stantec Consulting Services Inc.	Senior Technician	3	3
Stantec Consulting Services Inc.	CADD Technician	1	3
Stantec Consulting Services Inc.	Administrative	1	2
Stantec Consulting Services Inc.	Planner	1	2
Civil Design & Construction, Inc. (CDC)	Supervisor Engineer	1	1
Civil Design & Construction, Inc. (CDC)	Engineer Intern	1	1
Civil Design & Construction, Inc. (CDC)	Surveyor	2	2
Civil Design & Construction, Inc. (CDC)	Party Chief	3	5
Civil Design & Construction, Inc. (CDC)	Instrument Man	2	3
Civil Design & Construction, Inc. (CDC)	Rodman	2	2
Civil Design & Construction, Inc. (CDC)	CADD Operator	1	1
Civil Design & Construction, Inc. (CDC)	Senior Technician	3	5
Civil Design & Construction, Inc. (CDC)	Supervisor - Other	1	1

#### 14. Organizational Chart:

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

Legend

- Stantec
- Civil Design & Construction, Inc.
- \* Traffic Engineering Process and Report Training
- Т Has work-zone training
- В Meets NBIS Team Leader Criteria



#### 15. Minimum Personnel Requirements:

Use the table below to identify both prime consultant and sub-consultant staff designated to work on this contract meeting the Minimum Personnel Requirements (MPRs) specified in the advertisement. Ensure the résumé reflects the required experience stated in the MPR.

MPR No.	<b>Personnel being used to meet the MPR</b> (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the Advertisement)	Firm employed by	Type of license / certification & number	State of license	License / certification expiration date
1.	Gary Heitman, PE	Stantec	PE No. 24670	LA	9/30/2022
	Joe Cains III, PE	Stantec	PE No. 33670	LA	3/31/2024
2.	Supporting Staff: Gary Heitman, PE Cindy Hall, PE	Stantec	PE No. 24670 PE No. 27073	LA LA	9/30/2022 9/30/2023
	Joe Cains III, PE	Stantec	PE No. 33670	LA	3/31/2024
3.	Supporting Staff: Gary Heitman, PE Cindy Hall, PE Nick Prudhomme, PE Mary Frances (Bratton) O'Rourke, PE	🕥 Stantec	PE No. 24670 PE No. 27073 PE No. 35996 PE No. 41444	LA LA LA LA	9/30/2022 9/30/2023 3/31/2023 9/30/2023
4.	Brian Johnson, PE	() Stantas	PE No. 31273	LA	9/30/2022
	Supporting Staff: Amir Botros, PhD, PE	J stantec	PE No. 43701	LA	3/31/2024

1. At least one (1) principal of the prime consultant shall be a registered professional engineer in the state of Louisiana.

2. At least one (1) principal or other responsible member of the prime consultant shall be currently registered in the state of Louisiana as a professional engineer in civil engineering.

- 3. At least one (1) principal or responsible member of the prime consultant shall be a professional civil engineer, registered in the state of Louisiana, and shall have a minimum of ten (10) years of experience in responsible charge of roadway design.
- 4. At least one (1) professional civil engineer, registered in the state of Louisiana, shall have a minimum of five (5) years of experience in responsible charge of structural design involving bridge structures.

16. Staff Exp	erience:						
FIRM EMPLOYED	BY	Stantec Consulting Se	Stantec Consulting Services Inc.				
NAME	Gary Heitman, PE			YEARS OF RELEVANT EXPERIENCE WITH THIS EMPLOYER	22		
TITLE	Senior Principal			YEARS OF RELEVANT EXPERIENCE WITH OTHER EMPLOYER(S)	12		
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS   1986   Civil Engin	eering			
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 24670   LA   9/	30/2022			
YEAR REGISTERED	1992     DISCIPLINE     Civil Engineering						
Contract role(s) / brief description of responsibilities	Gary will serve as <b>PRINCIPAL-IN-CHARGE</b> for this contract. He has over 34 years of experience and led our Highway Division for over 22 years leading various project types, including interstates and interchanges, arterials and collector highways, local roads, bridge replacement projects, roundabouts and other similar transportation systems, on both existing highway alignments and new locations. His experience includes traditional and alternative delivery types as well as Construction Administration services, allowing him to apply lessons learned in the construction arena to the design process and thereby provide a more comprehensive deliverable. He is currently serving as the leader of the entire Baton Rouge office. Gary's role for this contract will include client management and support and general contract oversight. Gary meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 1,2						
Experience dates (mm/yy - mm/yy)	Experience and qualifications specified in the applicable MP	relevant to the proposed co R(s).	ontract; i.e., "Designed dra	nage", "designed girders", "designed intersection", etc. Experience dates shoul	d cover the time		
10/12 - 09/17	<b>17</b> LADOTD RETAINER CONTRACT FOR ROADWAY PROJECTS   LADOTD H.4400002748   Statewide, LA Project Manager. Gary provided project management throughout the duration of this retainer that included the completion of the following projects: Essen Lane Widening, Government Street and West Prien Lake Road Relocation. He was involved in all project meetings, supervised the design, plan development and the preparation of exhibits, coordinated directly with LADOTD and City personnel to ensure the project schedules, quality goals and other LADOTD requirements were met. Gary supervised all phases of work including: completion of the environmental phase, development of final roadway, signal, and bridge plans, and continued coordination with all parties to ensure timely delivery of the final construction documents.						
01/13 - 07/16	LADOTD RETAINER CONTRACT FOR TRAFFIC ENGINEERING ROAD MANAGEMENT   LADOTD H.4400002748   Statewide, LA Contract Manager and QA/QC. Under this retainer, Stantec designed five roundabout projects, including: Cleo Road, US 79 Bypass at LA 9, LA 75 Roundabouts (Plaquemine), LA 86 & LA 320 Roundabout (New Iberia) and LA 447 / I-12 Interchange. Gary managed the contract, performed QA/QC, provided geometric guidance and oversight during plan development.						
03/07 - 12/12	<b>RIVER ROAD (LA 327) RELOCATION FOR PINNACLE CASINO DEVELOPMENT   LADOTD   Baton Rouge, LA</b> Lead Roadway Engineer. Gary managed the relocation undertaking for Louisiana 327 (River Road) for about a 1-mile segment in order to create a more contiguous site for development. During planning, design, and construction phases of the roadway work, he provided extensive coordination with the LADOTD Headquarters and District 61 staff, to ensure timely plan approvals and permitting. He provided QC reviews for the roadway plans and documents prepared by staff under his direct supervision, and assisted with construction support during the construction phase. In addition, plans for off-site improvements identified in the Traffic Impact Study, including several intersections were developed. Gary's roles for the offsite work included direct oversight of the roadway design and plan development, as well as QA/ QC support and assistance with the LADOTD permitting process. Gary developed a wayfinding signage plan directing traffic from I-10 approximately 13 miles along various state highways to the site, and assisted the developer with obtaining LADOTD input and approvals for this additional signage.						
08/05 - 12/13	<b>STARING LANE EXTENSION AND BRIDGE   City of Baton Rouge   Baton Rouge, LA</b> Roadway QA/QC. This GLP project required a design study and plan development for a new four-lane urban boulevard with a 30-foot median with subsurface drainage, sidewalks, and traffic signals. Gary's responsibilities included technical assistance in the study and design phases, QA/QC of roadway plans, and participation in regular project meetings as well as public meetings.						

04/15 - Ongoing	LA 30 (NICHOLSON DRIVE) ROADWAY IMPROVEMENTS (LSU TO SOUTH BOULEVARD)   LADOTD   Baton Rouge, LA Project Manager. Gary is managing the Stantec team, including roadway, structural and traffic engineers assigned to the project, and coordinating with both the State (DOTD) as well as the City of Baton Rouge. The project is part of a City-State road transfer agreement, and as part of this process, Stantec began with a study to identify feasible improvements for the corridor. In addition to the improvements identified along LA30, the I-10 exit ramp terminus will be relocated to facilitate traffic movements and be compatible with development plans along the corridor. Bids for construction were received 3/9/22, and Stantec will provide DOTD Construction Support services during the ongoing construction phase. This will include answering RFI's, reviewing shop drawings, and attending construction progress meetings as requested by DOTD.
08/19 - Ongoing	I-10/LOYOLA INTERCHANGE DESIGN-BUILD   LADOTD   New Orleans, LA Roadway Design QC. Gary is providing roadway design quality control for this multimillion-dollar project that will improve access and traffic operations to and around the new Northfield Terminal at the New Orleans Airport. This project consists of a Diverging Diamond Interchange, in addition to flyover ramps leading to/ from the Airport on the east side of the interchange.
04/15 - 06/18	US 90 AT LA 318 INTERCHANGE DESIGN-BUILD   LADOTD   St. Mary Parish, LA Roadway Independent QC. This project constructed a diamond interchange to replace the current at-grade signalized intersection of US90 and LA 318, as well as frontage roads and ramps through the project limits. Gary assisted with alternatives to the concept presented in the RFP. Performed independent QC and assurance reviews on the roadway design packages.
11/10 - Ongoing	NELSON ROAD EXTENSION AND BRIDGE   LADOTD   Lake Charles, LA Roadway Division Manager. Gary oversaw the design effort for this new high-level bridge and approaches over Contraband Bayou, a navigable waterway in the Lake Charles area. This will provide a crucial link to downtown and the Port of Lake Charles by extending Nelson Road over Contraband Bayou to West Sallier Street.
04/11 - 06/15	I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT   LADOTD   Lake Charles, LA Roadway Division Manager. Gary oversaw the roadway design efforts on this fast-paced project to improve access to the casino site located on I-210 between Cove Lane and Nelson Road Interchanges. Stantec led the initial study regarding appropriate access needs to and from the casino along I-210 as prior access to the site was not sufficient for the expected increase in traffic. Deliverables included a final report meeting all LADOTD requirements for a traffic impact study based on the proposed development and Stage 0 requirements for long-term improvements at the I-210/Cove Lane and I-210/Nelson Road interchanges, in each case reflecting all agency comments with no outstanding comments or further review required.
07/15 - Ongoing	I-49 LAFAYETTE CONNECTOR   LADOTD Contract No. H.004273.5   Lafayette, LA Assistant Program Manager and Geometrics Task Manager. Gary is assisting with the Program Management task, including overseeing the implementation of an extensive QC/QA plan. Managing geometric design of the corridor, which includes segments of at-grade and elevated mainline, frontage roads, urban interchanges and slip ramps, as well as connections/modifications to the existing roadway network. Geometric team's task includes conceptual constructability and maintenance of traffic plans, conceptual drainage design, and estimates of probable construction costs throughout the project.
01/18 - Ongoing	<b>DIJON DRIVE PHASE I &amp; PHASE II   City of Baton Rouge   Baton Rouge, LA</b> Project Manager. Stantec designed this roadway on new alignment for the City of Baton Rouge as an access roadway to the new Our Lady of the Lake Children's Hospital. This fast-paced project includes 4-lane divided roadway on new alignment, sanitary sewer force main, subsurface drainage, signalization and off-site intersection improvements. Gary led the team in the environmental study, line and grade, and the current design/plan development phases of the project. He also led construction support services provided by Stantec. Roundabouts were studied as a part of this project, but developer changes resulted in them not being implemented.
11/09 - 08/12	I-12 WIDENING DESIGN-BUILD   LADOTD Contract No. 454-02-0071   Livingston Parish, LA Project Design Manager. Gary was responsible for coordination of design and plan development efforts to widen this four-mile stretch of Interstate, from the Amite River to the Juban Road interchange, as part of the selected Design-Build team. Project design elements included widening, removal, overlay, and replacement of various pavement sections, ramp deceleration lane improvements, interchange lighting, permanent signing, permanent concrete median barrier, median subsurface drainage, and widening of the Gray's Creek Bridges and the 4-H Club Road and Range Avenue overpasses. The project required erosion control plans addressing storm water runoff during construction, as well as extensive maintenance of traffic and traffic control plans for this heavily traveled stretch of interstate and connecting ramps. In addition to the design and plans developed for the construction elements, Gary was actively involved in construction progress meetings, and assisted the contractor during construction, after designs and plans were approved, working with the team to address construction questions and issues in the field. At the completion of construction, as-built plans and electronic files were created for the project, again with Gary serving as the Project Design Manager for all of the plan and design elements.

FIRM EMPLOYED BY		Stantec Consulting Ser	rvices Inc.					
NAME	Joseph "Joe" Cains, III, PE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	18	1 al		
TITLE	Senior Associate			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	0	No.		
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS   2003   Civil Engineering					
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 33670   LA   03/31/20	024				
YEAR REGISTERED	2008 DISCIPLINE Civil Engineering							
Contract role(s) / brief description of responsibilities	(s) / interstates and interchanges, arterials and collector highways, local roads, bridge replacement projects and other similar transportation systems, on both existing highway alignments and new locations. He also has experience with innovative intersections, including roundabouts, DDIs, CFIs, and has been involved in several major projects involving implementation of innovative designs. He has experience in both traditional and alternative delivery types as well as Construction Administration services, allowing him to help lead the charge in the transportation industry for Stantec in the State of Louisiana. Joe meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 2,3							
Experience dates (mm/yy - mm/yy)	Experience and qualifications	relevant to the proposed co	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc.				
01/13 - 01/ 15	5 LA 447/I-12 INTERCHANGE   LADOTD   Livingston Parish, LA Project Manager. Joe managed the roadway design of improvements to the existing ramp terminal intersections for the diamond interchange at LA 447 and Interstate 12. The proposed roundabout improvements at both ramp terminals facilitate traffic movements in all directions, as well as provide bypass lanes for I-12 eastbound & westbound traffic, which increase the overall operation of the interchange. Both roundabout locations proposed are multilane roundabout intersections, featuring two circulating lanes for the north and south approaches. The roundabout approaches expand from two to four lanes on each side of the existing LA 447 bridge that overpasses I-12. The location of the roundabout intersections were strategically placed to expedite construction and maintain traffic during the construction phase. Joe designed all horizontal and vertical geometry including the roundabout intersection and other roadway improvement elements, and lead the plan development efforts for this interchange improvement, which included study and investigation of future phased construction including the partial cloverleaf improvement planned at the I-12 interchange, assuring that the design would provide space for minimal reconstruction in the future.							
03/07 - 12/12	<b>RIVER ROAD (LA 327) RELOCATION   LADOTD   Baton Rouge, LA</b> Assistant Project Manager. Joe led roadway design and plan development efforts to relocate River Road for approx. 1.1 miles and install three new single-lane roundabout intersections for the proposed development access that mitigated impacts for this \$400M+ casino development (L'Auberge Baton Rouge). He was heavily involved in the client coordination and project coordination efforts during the planning of the development. In addition to the River Road Relocation effort, he led the management, design, and plan development for 5 offsite intersections also associated with the traffic impact for this development. In addition to designing the horizontal and vertical geometry for these improvements, Joe also designed the drainage elements for the project (paved gutter drains, culvert design, and open ditch design), striping & signage, and maintenance of traffic plans, and also assisted with coordination of utilities and lighting for the project. Joe was also heavily involved in the construction phase of the project, including construction support and construction administration.							
08/14 - 08/19	<b>W. PRIEN LAKE ROAD REL</b> Project Manager. Joe serve approximately 1.4 miles to and later oversaw the final for the various disciplines i subconsultant.	OCATION   LADOTD   La ed as Project Manager fo improve interchange ope design of the horizontal nvolved, including roadw	<b>ke Charles, LA</b> or the Preliminary and Final Des erations at I-210 and Nelson Ro and vertical geometry, as well vay design, drainage design, st	ign Phases of this project, that proposed to realign W. Prien Lak bad. Joe designed the original horizontal and vertical geometry for as provided general oversight, guidance, and coordination of pla ructural design, traffic signal design, and lighting design perform	e road fo or the pro n develo ed by a	or oject, opment		

08/05 - 01/13	<b>STARING LANE WIDENING AND BRIDGE   City of Baton Rouge / Green Light Plan (GLP)   Baton Rouge, LA</b> Roadway Engineer. Joe designed drainage and assisted with plan development for a new four-lane urban boulevard with a 30-foot median between Perkins Road and Highland Road in Baton Rouge, LA. The new design included subsurface drainage, sidewalks, traffic signals, new bridge crossings for Dawson Creek, and offsite drainage improvements. The sequence of construction plans for this project was complex (included several phases), and incorporated the installation of a large diameter sanitary sewer force main line during the roadway construction.
11/10 - Ongoing	<b>NELSON ROAD EXTENSION AND BRIDGE   LADOTD   Lake Charles, LA</b> Project Manager. Joe served as Project Manager for the Environmental Assessment as well as the Preliminary and Final Design Phases of this project, that proposes to construct a new high-level bridge over Contraband Bayou. During the environmental phase, Joe coordinated all environmental tasks, and developed the line and grade study, performed a vessel survey to better understand navigational requirements for the proposed bridge, assisted with development of the Section 404 and Section 10 permits (USACE and USCG), and coordinated the compilation of the entire EA document, which included 3 subconsultants. Joe also designed the horizontal and vertical geometry for the project, and providing general oversight, guidance, and coordination of plan development for the various disciplines involved, including roadway design, drainage design, maintenance of traffic, bridge design, traffic signal design, railroad design, lighting design, and assisted District 07 with the coordination of utility impacts.
04/11 - 06/15	I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT   LADOTD   Lake Charles, LA Assistant Project Manager and Lead Roadway Engineer. Project proposed to reconstruct I-210 to overpass the extension of Cove Lane and widen it between the foot of the I-210 bridge over the Calcasieu River ship channel to the Nelson Road Interchange. During Stage 0 and IMR phases of the project, Joe developed 29 full interchange alternatives and coordinated with traffic engineers during the analysis and modeling efforts to modify the alternatives as needed to satisfy DOTD needs. In the environmental phase, he provided the exhibits and materials necessary to support the Environmental Assessment document. During Preliminary and Final Design Phases of the project, he designed the horizontal geometry for the entire project, led the roadway design plan development efforts, and coordinated multiple disciplines including hydraulic analysis and design, striping and signing design, bridge and structural design, geotechnical design, maintenance of construction, as well as ROW acquisition, Utility Coordination & Relocation, and implementing environmental commitments into the design. Joe was involved with the development of the Transportation Management Plan, and the development and approval of several Special Provisions for the project. He was heavily involved in the construction process, which included frequent trips to the project site, answering RFIs, and assisting LADOTD with maintaining the project schedule.
08/19 - Ongoing	I-10/LOYOLA INTERCHANGE DESIGN-BUILD   LADOTD   New Orleans, LA Lead Roadway Engineer. Joe serves as lead roadway engineer of this multimillion-dollar design-build project that will improve access and traffic operations to and around the new Northfield Terminal at the New Orleans International Airport. Project consists of a Diverging Diamond Interchange and flyover ramps leading to/ from the Airport on the east side of the interchange.
03/17 - Ongoing	PERKINS ROAD (SIEGEN TO PECUE) WIDENING TRAFFIC STUDY, ENVIRONMENTAL ASSESSMENT (EA), PRELIMINARY PLANS, FINAL PLANS AND RIGHT-OF-WAY MAPS   City of Baton Rouge Contract 12-CS-HC-0015   Baton Rouge, LA QC Manager. Under the MOVEBR Program, Stantec is currently completing Final Plans for Perkins Road from Siegen Lane to Pecue Lane using MOVEBR design criteria. This 2-lane to 4-lane divided roadway widening project accommodates the increase in traffic and improves travel efficiency along this corridor by introducing access management principles which have been shown to increase capacity and safety. Partial median openings and u-turn movements with bulb outs are being provided along the corridor. Stantec is responsible for all final design including roadway and traffic signal plans, subsurface drainage and culvert design, and wetlands permitting. Final plans for this project should be completed by the end of 2022.
04/15 - 06/18	US 90 AT LA 318 INTERCHANGE DESIGN-BUILD PROJECT   LADOTD   St Mary Parish, LA Lead Roadway Engineer. Project included upgrading the existing two-lane undivided roadway LA 318 to a two-lane divided roadway with a raised median, and constructing a new overpass bridge for US 90 over LA 318. This project also included a significant utility relocation coordination effort, as well as ROW acquisition (first for a Design-Build Project), and a Transportation Management Plan. Joe's duties included leading the effort for plan development of the various design units, development of the TMP, as well as construction support during the process.
11/09 - 08/12	I-12 WIDENING DESIGN-BUILD   LADOTD Contract No. 454-02-0071   Livingston Parish, LA Roadway Engineer. Joe was responsible for Stantec's roadway design efforts to widen a four-mile stretch of Interstate. Design included widening, removal, overlay and replacement of various pavement sections, ramp deceleration lane improvements, and widening of the Gray's Creek Bridge, and the 4-H Club Road and Range Avenue overpasses. The project required extensive maintenance of traffic and traffic control plans on this heavily traveled stretch of interstate.

FIRM EMPLOYED	BY	Stantec Consulting Services Inc.					
NAME	Cindy Hall, PE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	30	(S)	
TITLE	Principal, Transportation I	nfrastructure Engineer		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	0		
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS   1992   Civil Engineering			Here and the second second	
ACTIVE REGIST	RATION NUMBER / STATE / E	EXPIRATION DATE	PE No. 27073   LA   09/30/20	023			
YEAR REGISTERED	1997     DISCIPLINE     Civil Engineering						
Contract role(s) / brief description of responsibilities	Cindy's 30 years of experience have included the design and project management of various civil and transportation projects. As Roadway Division Manager, Cindy manages the productivity of the roadway staff and oversees the quality of the plans and specifications developed by the Roadway Division. She has also served as project manager on many transportation projects including interstate and interchange improvements, rural arterials, and urban roadways with subsurface drainage and traffic signalization. Cindy has been involved in numerous projects implementing innovative geometric solutions including continuous flow intersections, a diverging diamond interchange and roundabouts. She has also recently been involved in three Design-Build projects for LADOTD. In addition to her transportation experience, Cindy has designed and managed many wastewater pipeline and pump station projects over the course of her career. Cindy will serve as QA/QC - ROADWAY for this contract. Cindy meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 2,3						
Experience dates (mm/yy - mm/yy)	tes Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc.						
05/12 - 12/21	I GOVERNMENT STREET ROAD DIET   LADOTD   Baton Rouge, LA Project Manager. Cindy managed the evaluation of alternatives during the environmental phase for this 4 mile portion of Government Street. She attended public meetings, managed public preliminary and final plan development phases. Cindy coordinated with LADOTD, City of Baton Rouge, BREC, CATS and other project stakeholders. The project rehabilitates and restripes existing roadway from a 4-lane section to a 3-lane section (Road Diet). Restriping the roadway allows the reclaimed pavement to be used to provide multi-modal and streetscape improvements. Bike lane improvements and vegetative median islands were added to the corridor and sidewalks were brought up to ADA compliance. This project includes a single-lane roundabout with bypass lanes designed for the Lobdell Avenue intersection, complete street improvements, access management and community enhancements. Cindy provided construction support services during construction, which was completed at the end of 2021.						
08/05 - 12/13	12/13 STARING LANE EXTENSION AND BRIDGE   City of Baton Rouge   Baton Rouge, LA Project Manager. This GLP project required a design study and plan development for a new four-lane urban boulevard with a 30-foot median wit drainage, sidewalks, and traffic signals. Cindy led construction plan development and design of preliminary and final plans including geometrics earthwork modeling, striping, quantities, signal design, sanitary sewer force main design and quality control. She also attended public meeting with City and sub-consultants.					face ctions, dinated	
03/07 - 12/12	<b>RIVER ROAD (LA 327) RELOCATION   LADOTD   Baton Rouge, LA</b> QA/QC. Cindy performed QA/QC plan check of construction plans for three roundabouts on Relocated River Road. Plans for off-site improvements identified in the Traffic Impact Study, including several intersections were developed.						
01/18 -Ongoing	<b>DIJON DRIVE PHASE I &amp; I</b> Quality Control. Stantec de Hospital. This fast-paced p intersection improvements of work two times and offe in them not being implement	PHASE II   City of Baton signed this roadway on r roject includes 4-lane div . Cindy was responsible red comments before m nted.	Rouge   Baton Rouge, LA new alignment for the City of B vided roadway on new alignme for quality control during the c ajor milestone submittals. Rou	aton Rouge as an access roadway to the new Our Lady of the Lal ent, sanitary sewer force main, subsurface drainage, signalization ourse of this project which was broken into 2 phases. Cindy revie indabouts were studied as a part of this project, but developer ch	ce Chil and c wed e anges	ldren's ›ff-site :ach phase : resulted	

04/11 - 06/15	I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT   LADOTD   Lake Charles, LA Roadway Engineer. Cindy was responsible for the sequence of construction and maintenance of traffic plans for this complex tight diamond interchange which required ramps elevated on MSE walls, two new bridges and surface street improvements including a new roundabout. Cindy was also responsible for the Level 2 Transportation Management Plan required for the project including safety and traffic analyses and traffic management strategies.
11/12 - Ongoing	PERKINS ROAD (SIEGEN TO PECUE) WIDENING TRAFFIC STUDY, ENVIRONMENTAL ASSESSMENT (EA), PRELIMINARY PLANS, FINAL PLANS AND RIGHT-OF-WAY MAPS   City of Baton Rouge Contract 12-CS-HC-0015   Baton Rouge, LA Project Manager. This project initially included an EA and Preliminary Plans for improving 3.4 miles of Perkins Road (LA 427) from the existing 2-lane roadway to a 4-lane divided curb and gutter roadway with raised median, sidewalk, sewer and subsurface drainage. During the EA phase, Cindy was responsible for Line and grade alternatives study, stakeholder coordination, public outreach, led EA phase, preliminary plans (geometry, drainage, sequence of construction, signalization, preliminary construction cost estimate) and final ROW maps. Under the MOVEBR Program, Stantec is currently completing Final Plans for Perkins Road from Siegen Lane to Pecue Lane using MOVEBR design criteria. This 2-lane to 4-lane divided roadway widening project accommodates the increase in traffic and improves travel efficiency along this corridor by introducing access management principles which have been shown to increase capacity and safety. Partial median openings and u-turn movements with bulb outs are being provided along the corridor. Stantec is responsible for all final design including roadway and traffic signal plans, subsurface drainage and culvert design, and wetlands permitting. Final plans for this project should be completed by the end of 2022.
08/19 - Ongoing	I-10/LOYOLA INTERCHANGE DESIGN-BUILD   LADOTD   New Orleans, LA Design Manager. Cindy manages this multimillion-dollar project that will improve access and traffic operations to and around the new Northfield Terminal. Cindy is overseeing the design and plan preparation efforts to add two directional ramps, I-10 Westbound to Loyola Southbound & Loyola Northbound to I-10 Eastbound. Cindy has worked with the contractor to develop phased construction plans and design unit plan sets to construct critical path items first. She has worked with the D-B team to implement cost/schedule savings through design modifications and alternative material selections.
05/15 - 06/18	<b>US 90 AT LA 318 INTERCHANGE DESIGN-BUILD   LADOTD   St. Mary Parish, LA</b> Design Manager. Cindy managed the design for this Design-Build project which improved the intersection of US 90 at LA 318 to a grade separated interchange and brought US 90 up to interstate standards as a part of the Future I-49 Corridor. The project included dual overpass bridges, ramps, and frontage road relocations. Stantec proposed an alternative technical concept to the proposed alternative in the RFP. This ATC conserved right of way and lessened impacts to the community and the environment, and saved construction cost. Stantec was also responsible for acquiring the right of way while construction was ongoing. Cindy also managed the relocation of utilities during construction and designed water and sewer relocations for St. Mary Parish. Stantec remained involved throughout construction and participated in resolving design and construction non-conformance issues and requests for information. Construction was complete in January of 2018.
11/09 - 08/12	I-12 WIDENING DESIGN-BUILD   LADOTD Contract No. 454-02-0071   Livingston Parish, LA Lead Roadway Engineer. Cindy was responsible for Stantec's roadway design efforts to widen a four-mile stretch of Interstate, from the Amite River to the Juban Road interchange. Design included widening, removal, overlay and replacement of various pavement sections, ramp deceleration lane improvements, and widening of the Gray's Creek Bridge, and the 4-H Club Road and Range Avenue overpasses. The project required extensive maintenance of traffic and traffic control plans on this heavily traveled stretch of interstate. In addition to designing the construction plans, Cindy was actively involved in the construction phase, assisting the contractor by developing quality, cost-effective solutions that met or exceeded contract scope requirements.
07/19 - Ongoing	<b>MOVEBR PROGRAM MANAGEMENT   City of Baton Rouge   Baton Rouge, LA</b> Quality Control Project Reviewer. Cindy serves as QC Project Reviewer concentrating on Roadway and Complete Streets reviews. Cindy has reviewed design studies, preliminary and final plans, quantities and construction cost estimates for corridor, signal and sidewalk improvement projects.
10/09 - 06/11	<b>US 90 AT LA 85 INTERCHANGE DESIGN-BUILD   LADOTD Contract No. 424-04-0032   Iberia Parish, LA</b> Design Quality Control Manager. Cindy led the design QC effort for this project to elevate the rural arterial to urban interstate standards. The Design-Build Team designed upgrades involving construction of a concrete girder span bridge over Louisiana 85 along the US 90 corridor, an extensive rehabilitation of frontage roads and ramps, and the installation and upgrade of permanent drainage structures. As Design Quality Control Manager, Cindy was responsible for developing the Design Quality Control Manual, managing the Design Quality Control Reviews, responding to comments, holding design review meetings, distributing plan submittals, and documenting quality control records. During construction, she was responsible for adherence to the construction plans and the resolution of design non-conformance reports. Construction was completed, and the interchange opened to the public, in June 2011.

FIRM EMPLOYED BY		Stantec Consulting Ser	rvices Inc.				
NAME	Mary Frances (Bratton) O'Rourke, PE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	12	1	
TITLE	Roadway Engineer			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	0	J.C	
DEGREE(S) / YE	ARS / SPECIALIZATION		BS   2012   Civil Engineering				
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 41444   LA   09/30/2	023			
YEAR REGISTERED	2017	DISCIPLINE	Civil Engineering				
Contract role(s) / brief description of responsibilities	Mary's roadway engineering experience includes preparing roadway plans, quantity calculations, hydraulic analysis, striping and signing design, coordination of utility relocation for design-build projects and geometric design such as horizontal and vertical alignments for a variety of projects in Louisiana. Mary is knowledgeable in a number of software programs including Microstation, InRoads and SignCad. She has assisted in the design of roundabouts, interchanges and realignments of urban roadways. Mary will serve as ROADWAY/DRAINAGE DESIGN TASK LEAD for this contract. Mary meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 3						
Experience dates (mm/yy - mm/yy)	Experience and qualifications	relevant to the proposed co	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc.			
01/13 - 01/ 15	LA 447/I-12 INTERCHANGE   LADOTD   Livingston Parish, LA Roadway Engineer. Mary was responsible for roadway striping and signing design of improvements to the existing ramp terminal intersections for the diamond interchange at LA 447 and Interstate 12. She also assisted in the MOT plans. The proposed roundabout improvements at both ramp terminals facilitate traffic movements in all directions, as well as provide bypass lanes for I-12 eastbound & westbound traffic, which increase the overall operation of the interchange. Both roundabout locations proposed are multilane roundabout intersections, featuring two circulating lanes for the north and south approaches. The roundabout approaches expand from two to four lanes on each side of the existing LA 447 bridge that overpasses I-12. The location of the roundabout intersections were strategically placed to expedite construction and maintain traffic during the construction phase.						
08/19 - Ongoing	g I-10/LOYOLA INTERCHANGE DESIGN-BUILD   LADOTD Contract No. H.011670   New Orleans, LA Design-Build ROW/Utilities Manager for this multimillion-dollar design-build project that will improve access and traffic operations to and around the new Northfield Terminal at the New Orleans International Airport. Project consists of a Diverging Diamond Interchange, in addition to flyover ramps leading to/fm Airport on the east side of the interchange. Mary's responsibilities also included developing the signing and striping layout, assisting with the geometric lay assisting with the drainage design which included using HYDRWIN to design to DOTD standards, developing joint layouts, quantity calculations, and coordin with the contractor to answer REIs. Mary assisted with ROW Acquisition and leads the utility relocation coordination efforts for the project						
11/12 - Ongoing	PERKINS ROAD (SIEGEN TO PECUE) WIDENING TRAFFIC STUDY, ENVIRONMENTAL ASSESSMENT (EA), PRELIMINARY PLANS, FINAL PLANS AND RIGHT-OF-WAY MAPS   City of Baton Rouge Contract 12-CS-HC-0015   Baton Rouge, LA Roadway Engineer. During the EA and Preliminary Phase, Mary assisted with line & grade studies, EA, plan development and design of subsurface drainage systems by using LADOTD Hydraulics Manual and LADOTD HYDRO Software. She calculated quantities for a construction cost estimates. Under the MOVEBR Program, Stantec is currently completing Final Plans for Perkins Road from Siegen Lane to Pecue Lane using MOVEBR design criteria. This 2-lane to 4-lane divided roadway widening project accommodates the increase in traffic and improves travel efficiency along this corridor by introducing access management principles which have been shown to increase capacity and safety. Stantec is responsible for all final design including roadway and traffic signal plans, subsurface drainage and culvert design, and wetlands permitting. Final plans for this project should be completed by the end of 2022.						
10/17 - Ongoing	and culvert design, and wetlands permitting. Final plans for this project should be completed by the end of 2022.           NELSON ROAD EXTENSION AND BRIDGE   LADOTD   Lake Charles, LA           Lead Roadway Engineer. Mary lead the plan development efforts, including the finalization of the horizontal and vertical design, signing, and maintenance of traffic during plan development. Mary also assisted with the NEPA Environmental Assessment process and coordination between all of the stakeholders. Stantec is lead designer for this new high-level bridge (56-foot clearance) and approaches over the navigational channel of Contraband Bayou. This project provides a crucial link to downtown Lake Charles and the Port of Lake Charles by extending Nelson Road over Contraband Bayou to West Sallier Street.					ce of traffic tec is lead crucial link	

07/14 - 06/16	US 79 BYPASS AT LA 9 ROUNDABOUT   LADOTD   Claiborne Parish, LA Lead Roadway Engineer. Project replaced a signalized intersection with a roundabout while maintaining traffic. Mary's responsibilities involved managing and leading plan development, client coordination, and the design of all areas of plan development including horizontal and vertical alignments, earthwork modeling, drainage design, signing and striping layout, sequence of construction which required 3 detour roads and a temporary subsurface drainage system, quantity calculations, and cost estimate for the construction.
05/12 - 12/21	<b>GOVERNMENT STREET ROAD DIET: STUDY, FINAL DESIGN, CONSTRUCTION PLANS AND CONSTRUCTION SUPPORT   LADOTD   Baton Rouge, LA</b> Roadway Engineer. Mary designed bike lane facilities and signing/striping layout for this preliminary and final plan design project to upgrade a 4-mile portion of Government Street. Mary assisted with designs/plan development including typical sections, plan sheets, geometric details, signing and striping and sequence of construction. She calculated quantities and developed the cost estimate for construction and provided construction support.
01/18 - Ongoing	<b>DIJON DRIVE PHASE I &amp; PHASE II   City of Baton Rouge   Baton Rouge, LA</b> Roadway Engineer. Stantec designed this roadway on new alignment for the City of Baton Rouge as an access roadway to the new Our Lady of the Lake Children's Hospital. This fast-paced project includes 4-lane divided roadway on new alignment, sanitary sewer force main, subsurface drainage, signalization and off-site intersection improvements. Mary's responsibilities include designing the signing and striping layout, calculating quantities to develop a construction cost estimate, and assisting with plan development to produce typical section sheets, plan and profile sheets, summary of quantity sheets, drainage map sheets, geometric detail sheets, signing and striping sheets, and suggested sequence of construction sheets. Mary also provided construction support. Roundabouts were studied as a part of this project, but developer changes resulted in them not being implemented.
04/15 - 06/18	US 90 AT LA 318 INTERCHANGE DESIGN-BUILD   LADOTD   St. Mary Parish, LA Roadway Engineer. This project constructed a diamond interchange to replace the current at-grade signalized intersection of US90 and LA 318, as well as frontage roads and ramps through the project limits. Mary assisted with plan development, and directly coordinated with utility companies for all required utility relocations on the project, as well as LADOTD Headquarters, and the District office to ensure the utilities were relocated in a timely manner to mitigate utility conflicts roadway construction.
04/11 - 06/15	I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT   LADOTD   Lake Charles, LA Roadway Engineer. Mary assisted in the design and plan development for the proposed full tight diamond interchange at Cove Lane and I-210. She was responsible for assisting with striping and signing design as well as quantity calculations.

FIRM EMPLOYED BY		Stantec Consulting Services Inc.						
NAME	Nick Prudhomme, PE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	16	100		
TITLE	Roadway Engineer			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	0	Y		
DEGREE(S) / YE	ARS / SPECIALIZATION		BS   2006   Civil Engineering					
ACTIVE REGIST	RATION NUMBER / STATE / E	EXPIRATION DATE	PE No. 35996   LA   3/31/20	23				
YEAR REGISTERED	2011	DISCIPLINE	Civil Engineering					
Contract role(s) / brief description of responsibilities	Nick has over 16 years o ramps, arterials, local roa alignments. His experier Highway Safety Manual. <b>Requirements (MPRs)</b> a	Nick has over 16 years of experience in feasibility/alternative studies and preliminary and final design of interstates, entrance and exit ramps, arterials, local roads, bridge replacement projects, and other similar transportation systems along both existing and proposed alignments. His experience also includes training courses for Traffic Control Supervisor, Traffic Control Design Specialist, and training in the Highway Safety Manual. Nick will perform ROADWAY/DRAINAGE DESIGN for this contract. Nick meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 3						
Experience dates (mm/yy - mm/yy)	Experience and qualifications	relevant to the proposed co	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc.				
04/15 - Ongoing	LA 30: SOUTH BOULEVAR Roadway Lead. Nick oversav and quantities. LA 30, also k the Interstate 10 off-ramp to typical sections, plan and pro The plans have been completed	A 30: SOUTH BOULEVARD TO WEST CHIMES STREET   LADOTD   Baton Rouge, LA coadway Lead. Nick oversaw all aspects of the roadway design including horizontal and vertical geometry, roadway modeling, drainage, striping, sequence of construction, ind quantities. LA 30, also known as Nicholson Drive, is a commuter route that connects LSU and downtown Baton Rouge. Additional scope included the realignment of he Interstate 10 off-ramp to Nicholson Dr. and Highland Rd. and the widening of Oklahoma street from a two-lane to four-lane section. The plan set currently consists of ypical sections, plan and profile sheets, drainage details, pavement markings, signs, sequence of construction, traffic signal plans, right of way plans, and bridge plans. The plans have been completed with construction expected to begin this year.						
01/06 - 12/13	STARING LANE EXTENSION Engineer Intern. Nick worke a new 4-lane urban bouleval bridges as part of the overa including geometrics, inters	<b>STARING LANE EXTENSION AND BRIDGE   City of Baton Rouge   Baton Rouge, LA</b> Engineer Intern. Nick worked with the roadway division assisting with drainage improvements for the project. The project involved the design and plan development for a new 4-lane urban boulevard with a 30ft median. The new design will include subsurface drainage, sidewalks and traffic signals. Stantec handled the design of two bridges as part of the overall development of the project. In addition, Stantec was in charge of construction plan development and design of preliminary and final plans including geometrics intersections, earthwork modeling, stripping, sequence of construction, guantities, signal design and guality control						
01/14 - 03/18	LA 86 & LA 320 ROUNDAB Roadway Lead. Nicks response horizontal and vertical desi construction, quantity calcu	OUT   LADOTD   New Ibe onsibilities involved proje ign, sight distance calcu ulations, and cost estima	<b>ria, LA</b> ect management, client coordi lations, drainage design, earth ation.	nation, and the design and supervision of all areas of plan develo work modeling, cross section development, striping layout, seque	pment incl ence of	cluding		
08/19 - Ongoing	I-10/LOYOLA INTERCHAN Assistant Roadway Lead ar Drive and the new airport a Nick has designed horizont approving drainage shop dr terminal recently construct	-10/LOYOLA INTERCHANGE DESIGN-BUILD   LADOTD Contract No. H.011670   New Orleans, LA Assistant Roadway Lead and Drainage Lead. As Drainage Lead, Nick oversees the drainage design consisting of subsurface drainage systems along Loyola Drive and the new airport access road, drainage systems/cross drains on I-10, and the extension of 2-8'x7' box culverts in Canal 13. As Assistant Roadway Lead, Nick has designed horizontal and vertical geometry, graphical grades, and Inroads roadway modeling. Nick also performs construction support by reviewing and approving drainage shop drawings as well as RFIs and NCRs relating to drainage and roadway design. This project will serve as a main entrance to the new airport terminal recently constructed for the Louis Armstrong New Orleans International Airport.						
11/12 - Ongoing	PERKINS ROAD (SIEGEN RIGHT-OF-WAY MAPS   C Roadway Lead. During the the development of the Env development including clie construction cost estimate MOVEBR design criteria.	PERKINS ROAD (SIEGEN TO PECUE) WIDENING TRAFFIC STUDY, ENVIRONMENTAL ASSESSMENT (EA), PRELIMINARY PLANS, FINAL PLANS AND RIGHT-OF-WAY MAPS   City of Baton Rouge Contract 12-CS-HC-0015   Baton Rouge, LA Roadway Lead. During the EA phase, Nick assisted with the alternative analyses, conceptual drainage design, public meeting materials and presentations, and the development of the Environmental Assessment report and documentation. During preliminary plan development, he assisted in all areas of design and plan development including client interaction, drainage design, drainage report, roadway modeling and earthwork analyses using InRoads, quantity calculations, and construction cost estimate. Under the MOVEBR Program, Stantec is currently completing Final Plans for Perkins Road from Siegen Lane to Pecue Lane using MOVEBR design criteria.						

FIRM EMPLOYED	BY	Stantec Consulting Services Inc.						
NAME	Michael Neumann, PE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	7	25		
TITLE	Roadway Engineer			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	0			
DEGREE(S) / YE	ARS / SPECIALIZATION		BS   2015   Civil Engineering					
ACTIVE REGIST	RATION NUMBER / STATE / E	EXPIRATION DATE	PE No. 45396   LA   9/30/20	23				
YEAR REGISTERED	2021	DISCIPLINE	Civil Engineering					
Contract role(s) / brief description of responsibilities	Michael is a Civil Engineer with experience in designing subsurface and open channel drainage systems, roadway geometry through interse and striping plans along a major corridor. His work has encompassed both improvements to existing roadways and roadways on new align Michael has also had a hand in analyzing existing conditions for a high-profile rehabilitation of an existing roadway. He has had both govern and private client experience in his projects. Michael is familiar with technical programs including: MicroStation, AutoCAD, ArcGIS, InRoads, AutoTURN, and HYDR2009. Michael will perform <b>ROADWAY/DRAINAGE DESIGN</b> for this contract.					ections, nments. rnmental s,		
Experience dates (mm/yy - mm/yy)	Experience and qualifications	relevant to the proposed co	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc.				
06/20 - Ongoing	PERKINS ROAD (SIEGEN RIGHT-OF-WAY MAPS   C Drainage Design Engineer. MOVEBR design criteria. Th corridor by introducing acc with bulb outs are being pro Final plans for this project	PERKINS ROAD (SIEGEN TO PECUE) WIDENING TRAFFIC STUDY, ENVIRONMENTAL ASSESSMENT (EA), PRELIMINARY PLANS, FINAL PLANS AND RIGHT-OF-WAY MAPS   City of Baton Rouge   Baton Rouge, LA Drainage Design Engineer. Under the MOVEBR Program, Stantec is currently completing Final Plans for Perkins Road from Siegen Lane to Pecue Lane using MOVEBR design criteria. This 2-lane to 4-lane divided roadway widening project accommodates the increase in traffic and improves travel efficiency along this corridor by introducing access management principles which have been shown to increase capacity and safety. Partial median openings and u-turn movements with bulb outs are being provided along the corridor. Michael is leading the design of five subsurface drainage systems and culvert design, and the drainage report. Final plans for this project should be completed by the end of 2022.						
08/19 - Ongoing	I-10/LOYOLA INTERCHAN Roadway Engineer for this New Orleans International of the interchange. Michae Loyola/Airport Access Roa	I-10/LOYOLA INTERCHANGE DESIGN-BUILD   LADOTD Contract No. H.011670   New Orleans, LA Roadway Engineer for this multimillion-dollar design-build project that will improve access and traffic operations to and around the new Northfield Terminal at the New Orleans International Airport. Project consists of a Diverging Diamond Interchange, in addition to flyover ramps leading to/from the Airport on the east side of the interchange. Michael modeled the cross sections in InRoads and calculated earthwork quantities. He also designed the subsurface drainage systems along Lovola/Airport Access Road.						
10/17 - 10/19	NELSON ROAD EXTENSIC Roadway Engineer. This pro Bayou to West Sallier Stree Contraband Bayou. Michae and earthwork design.	ELSON ROAD EXTENSION AND BRIDGE   LADOTD   Lake Charles, LA oadway Engineer. This project provides a crucial link to downtown Lake Charles and the Port of Lake Charles by extending Nelson Road over Contraband ayou to West Sallier Street. Stantec has led the design effort for this new high-level bridge (56-foot clearance) and approaches over the navigational channel of contraband Bayou. Michael assisted with the NEPA Environmental Assessment process and coordination between stakeholders. He also assisted with drainage nd earthwork design						
05/15 - 12/17	<b>GOVERNMENT STREET RC</b> Engineer Intern. Michael pr current ADA standards. Thi construction plans as well	<b>GOVERNMENT STREET ROAD DIET: STUDY THROUGH FINAL DESIGN   LADOTD   Baton Rouge, LA</b> Engineer Intern. Michael provided analysis of existing project conditions through field work. Michael also provided recommendations to bring conditions up to current ADA standards. Through public meetings held be LADOTD, he met with residents and business owners impacted by the project. Michael also produced construction plans as well as exhibits for public information meetings.						
01/18 - Ongoing	DIJON DRIVE PHASE I & PHASE II   City of Baton Rouge   Baton Rouge, LA         Roadway Engineer. Stantec designed this roadway on new alignment for the City of Baton Rouge as an access roadway to the new Our Lady of the Lake Child         Hospital. Fast-paced project includes a 4-lane divided roadway on new alignment, sanitary sewer force main, subsurface drainage, signalization and off-site         intersection improvements. Michael performed field condition analysis and floodplain identification through LIDAR data analysis. He also performed open childesign and culvert analysis, subsurface drainage design, and coordinated with LADOTD. Roundabouts were studied as a part of this project, but developer childer in them not being implemented.							

FIRM EMPLOYED BY		Stantec Consulting Services Inc.						
NAME	Hannah Krebs, PE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	7	35		
TITLE	Roadway Engineer			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	0			
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS   2017   Civil Engineering					
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 45917   LA   3/31/20	24				
YEAR REGISTERED	2021	DISCIPLINE	Civil Engineering					
Contract role(s) / brief description of responsibilities	Hannah has seven years o locations. She also has ex roadway design, environm	of experience in design sperience with the design nental assessments and	and plan development of integration of intersection improvement of intersection improvement d temporary traffic control pla	erstate, arterial, and collector facilities, including existing and r nts for both urban and rural projects. Hannah is specifically ex ans. Hannah will perform <b>ROADWAY/DRAINAGE DESIGN</b> for	iew a perie r this	lignment Inced in contract.		
Experience dates (mm/yy - mm/yy)	Experience and qualifications	relevant to the proposed co	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc.				
06/17 – 09/18	US 90 AT LA 318 INTERCH Engineer Intern. This project intersection between Lafay existing two-lane undivided Hannah's duties included ta	JS 90 AT LA 318 INTERCHANGE DESIGN-BUILD   LADOTD   St. Mary Parish, LA Engineer Intern. This project proposed to upgrade the intersection of existing US 90 at LA 318 near Sorrel, to a grade separated interchange. This was the last ntersection between Lafayette and the interchange at US 90 at LA 83 near Baldwin to be upgraded for the Future I-49 Corridor. This project included upgrading the existing two-lane undivided roadway LA 318 to a two-lane divided roadway with a raised median and constructing a new overpass bridge for US 90 over LA 318. Hannah's duties included taking the lead on the water and sewer as-built plan set, compiling plan sets for submittals, and participating in construction meetings.						
06/20 - Ongoing	PERKINS ROAD (SIEGEN TO PECUE) WIDENING TRAFFIC STUDY, ENVIRONMENTAL ASSESSMENT (EA), PRELIMINARY PLANS, FINAL PLANS AND RIGHT-OF-WAY MAPS   City of Baton Rouge   Baton Rouge, LA Roadway Engineer. Hannah is responsible for final plan development, geometric design, and traffic control plans. Under the MOVEBR Program, Stantec is currently completing Final Plans for Perkins Road from Siegen Lane to Pecue Lane using MOVEBR design criteria. This 2-lane to 4-lane divided roadway widening project accommodates the increase in traffic and improves travel efficiency along this corridor by introducing access management principles which have been shown to increase capacity and safety. Partial median openings and u-turn movements with bulb outs are being provided along the corridor. Stantec is responsible for all final design including roadway and traffic signal plans, subsurface drainage and culvert design, and wetlands permitting. Hannah produced the plan set that was submitted with the wetlands permit application. Final plans for this project should be completed by the end of 2022.							
09/18 - Ongoing	I-10/LOYOLA INTERCHAN Roadway Engineer. Hannah will improve access and tra Diamond Interchange, in ad	- <b>10/LOYOLA INTERCHANGE DESIGN-BUILD   LADOTD Contract No. H.011670   New Orleans, LA</b> Roadway Engineer. Hannah is responsible for creating traffic control plans and modifying as needed during construction. This is a multi-million dollar project that will improve access and traffic operations to and around the new Northfield Terminal at the New Orleans International Airport. The project consists of a Diverging Diamond Interchange, in addition to flyover ramps leading to and from the Airport on the east side of the interchange.						
06/17 - 06/21	<b>NELSON ROAD EXTENSION AND BRIDGE   LADOTD   Lake Charles, LA</b> Engineer Intern. Hannah was responsible for organizing and completing a vessel survey during the Environment Assessment phase. Vessel owners were contacted to determine a bridge clearance business impact to a local shipyard. Hannah also assisted in the vertical profile design, drainage design, template design, and plan preparation for the preliminary submittal. The Nelson Road extension over Contraband Bayou will connect the community of Lake Charles and provide an alternate route to alleviate traffic from the interstate system.							
06/17 - Ongoing	I-49 LAFAYETTE CONNECT Roadway Engineer. Hannah in public meetings, horizon I-49/I-10 interchange to the effort along with developm investigated.	<b>FOR   LADOTD Contract  </b> is responsible for devel tal and vertical geometry proposed I-49/US 90 int ent of an implementation	<b>No. H.004273.5   Lafayette, L.</b> oping cost estimates for vario <i>y</i> , and project organization. Th terchange. For the Comprehen n plan and strategy. The projec	<b>A</b> us alternatives, creating public meeting exhibits, attending and pa is route will provide the final nationwide link of I-49 by connecting sive Stage 0 and Environmental Study, Stantec leads the traffic si ct is currently in the Environmental Assessment stage and alterna	articip the e udy a tives	bating existing Ind impacts are being		

FIRM EMPLOYED BY		Stantec Consulting Services Inc.						
NAME	Brian Johnson, PE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	17			
TITLE	Principal, Bridge Division I	_eader		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	5			
DEGREE(S) / YE	ARS / SPECIALIZATION		MS   2000   Civil Engineering	; BS   1999   Civil Engineering				
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 31273   LA   9/30/20	22				
YEAR REGISTERED	2004	DISCIPLINE	Civil Engineering					
Contract role(s) / brief description of responsibilities	Brian brings over 22 year in the Baton Rouge office bridge projects with a va trusses, horizontally curv projects and been involv as QA/QC - BRIDGE for for this project: 4	Brian brings over 22 years of engineering experience specifically related to structural projects and serves as the Structural Section Manager n the Baton Rouge office. His primary expertise lies in analysis, design, rating, inspection, and rehabilitation of bridges. Brian has managed pridge projects with a variety of structure types such as prestressed concrete girders, steel truss vertical lift bridges, long span steel trusses, horizontally curved steel plate girders, concrete box culverts, and retaining walls. He has overseen several NSBI bridge inspection projects and been involved in several hydraulic studies for bridge replacement projects in both Mississippi and Louisiana. Brian will serve as QA/QC - BRIDGE for this contract. Brian meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 4						
Experience dates (mm/yy - mm/yy)	Experience and qualifications	relevant to the proposed co	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc.				
08/14 - 07/19	WEST PRIEN LAKE ROAD RELOCATION   LADOTD   Lake Charles, LA Lead Structural Engineer. This project realigned existing W. Prien Lake Road north of the existing Nelson Road Interchange at I-210 in Lake Charles. Brian was responsible for leading design and plan development efforts for a two-cell, 12-ft x 12-ft reinforced concrete box culvert. The culvert is 117-ft long supporting four travel lanes, a shared use path, and a sidewalk. An architectural railing was installed along the headwall length. Brian oversaw construction administration activities which included reviewing shop drawings, addressing contractor REIs, and providing construction engineering							
08/05 - 12/13	STARING LANE EXTENSION Bridge Design Manager. As twin four-span quad beam hydraulic study during the o	STARING LANE EXTENSION AND BRIDGE   City of Baton Rouge   Baton Rouge, LA Bridge Design Manager. As part of a 2-mile, \$38 million roadway and sewer improvement project, Stantec was responsible for the design and plan development for twin four-span quad beam girder bridges over Dawson Creek. The bridges are 160 feet in length and supported by cast-in-place pile bents. Brian assisted with the bydraulic study during the conceptual study and was responsible for the structural design						
04/11 - 03/15	I-210: COVE LANE INTERC Lead Structural Engineer. B and twin concrete slab spa supported by a cast-in-plac addressing RFIs, attending Bridge Design Specificatior	210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT   LADOTD H.010151   Lake Charles, LA ead Structural Engineer. Brian managed and led the structural design of a single-span, 130-ft long, prestressed concrete girder bridge along I-210 over Cove Lane nd twin concrete slab span bridges over Cline Canal. Bridge approaches for all three structures consisted of a mechanically stabilized earth wall (MSEW) system upported by a cast-in-place load transfer platform using over 8,000 timber and concrete piles. Brian provided construction support by reviewing shop drawings, ddressing RFIs, attending weekly progress meetings and performing construction engineering. All design was performed in accordance with AASHTO LRFD bridge Design Specifications. Project received the Highways/Bridges: Award of Merit from the Engineering News Record for Texas and Louisiana in October 2016.						
12/15 - Ongoing	<b>NELSON ROAD EXTENSIO</b> Lead Structural Engineer. B plans and specifications fo including foundations, med light supports with concret the inspection of an existin	<b>VELSON ROAD EXTENSION AND BRIDGE</b>   <b>LADOTD Contract No. H.005967</b>   <b>Lake Charles, LA</b> .ead Structural Engineer. Brian managed the bridge and structural design efforts from preliminary to final plans. He performed quality review of bridge design, plans and specifications for this bridge extension to the surrounding roadway network. Project tasks included design of bridge superstructure, substructure ncluding foundations, median barrier design and as-designed load rating. Other design elements include navigational lighting bridge attachments, steel bracket ight supports with concrete anchors to the bridge structure. Structural Design was performed in compliance with AASHTO LRFD Specifications. In addition, he led the inspection of an existing sign truss to ensure it could be reused for the current project.						
07/15 - 06/18	US 90 INTERCHANGE AT L Structural QA/QC Manager. interchange. This stretch of to 111-ft supported by multi	A 318 DESIGN-BUILD   I Brian served as the struc US 90 has been designati- column concrete bents.	LADOTD   St. Mary Parish, LA stural quality control manager fo ted as the future I-49 corridor. T Brian performed independent r	or this design-build project which consisted of a new twin structure The bridges consisted of LG-54 prestressed concrete girder spans eviews of the reported designs and the proposed construction plan	es and with le	a diamond ngths up		

08/15 - 03/20	I-20 / TARBUTTON INTERCHANGE   City of Ruston   Ruston, LA Project Manager. Brian managed the design of a two-span bridge over I-20 to replace an existing structurally and geometrically deficient bridge along Tarbutton Road. The bridge consisted of structural steel plate girders and drilled shaft foundations. Design efforts were performed in under four months to avoid losing project funding. In addition to design and plan development, Brian oversaw construction support which included reviewing shop drawings and addressing contractor RFIs.
08/10 - Ongoing	MISSISSIPPI STATEWIDE COMPLEX BRIDGE INSPECTIONS & LOAD RATINGS   Mississippi Office of State Aid Road Construction   Statewide, MS Project Manager. Brian manages all field and office work for inspecting and load rating over 200 bridges annually throughout the state. Inspections and load ratings are performed in accordance with current NBIS and procedures as outlined in the AASHTO MBE. Brian is responsible for managing project activities, inspection scheduling, and performing QC/QA on field inspections, load ratings, and inspection reports. Structure types include steel trusses, structural steel plate girders, steel railroad flat cars, reinforced concrete girders and slabs, reinforced concrete box culverts, and masonry arches.
05/17 - 08/17	SR609 OVER OLD FORT BAYOU IN-DEPTH BRIDGE INSPECTION   MDOT   Ocean Springs, MS Project Manager for the in-depth inspection of the 1760-ft long bridge that consists of a double leaf steel girder bascule span (176-ft) and 17 prestressed concrete girder approach spans. Inspection types included routine NBI, element level, in-depth and fracture critical which include full electrical, mechanical, and structural inspection of all components of the bascule span. Brian's responsibilities included overseeing the project, scheduling and coordination of the field inspections, performing quality review checks of the draft and final inspection reports, and reviewing monthly invoices. Three different Stantec offices and one sub-consultant were involved in the inspections and report development. Due to the heavy traffic in these areas, inspections were limited to four business days which condensed field activities to a maximum of one week.
01/19 – Ongoing	LA 12 BRIDGE REPLACEMENTS VALUE ENGINEERING   LADOTD Contract No. H.000428   Calcasieu Parish, LA Project Manager. Brian manages the plan development for the replacement of six bridges consisting of 40-ft quad beam spans supported by prestressed concrete pile bents. Span arrangements include 3-span and 4-span units. Detour bridges were proposed in the original contract; however, the contractor preferred to construct additional bridge width which greatly reduced construction time and saved some costs. Phase construction is being used to ensure traffic flow is uninterrupted. Currently Brian oversees construction administration services.
09/17 - 06/20	SR145 BRIDGE REPLACEMENTS   MDOT Contract No. BR-2839-00(019) / 100153-301000   Prentiss County, MS Project Manager. The Mississippi Department of Transportation (MDOT) replaced five structurally deficient bridges along SR 145 in Prentiss County. Construction was performed on the existing roadway alignment which created challenges both during design and construction. The five crossings include Twenty Mile Creek, Wolf Creek and its tributary, Osborne Creek, and Kings Creek. Brian served as Engineer-of-Record and project manager responsible for overseeing all design and production of contract documents. He was the single point of contact for MDOT's project divisions (roadway, bridge, geotechnical) and for managing the project budget.
07/18 - Ongoing	SR 12 OVER SUNFLOWER RIVER   MDOT   Washington and Humphreys Counties, MS Project Manager. Brian serves as the project manager for this bridge replacement project. The existing structurally deficient bridge is being replaced by a three- span structural steel plate girder bridge (910-ft) with a main span of 350-ft. Steel pipe pile and drilled shaft (7-ft diameter) are being used for the foundations. Segmental joints were designed for the bridge ends to accommodate large movements and to minimize future maintenance considerations.
08/19 - 06/21	MADISON AVE OVER BRASHEAR CREEK   MDOT Contract No. ACNH-9204-00(006) / 100486-304000   Madison, MS Project Manager. Replacement of an existing structurally deficient bridge to accommodate additional travel lanes, sidewalks, and raised median. The bridge consists of a single 147.5-ft span using FIB-63 prestressed girders supported by steel pile, cast-in-place abutments. A cast-in-place retaining will be constructed in the northwest quadrant to prevent channel meandering. Brian served as the Engineer of Record and Project Manager for the design and plan production phase. This project is anticipated to be advertised within the next year.
07/15 - 10/20	I-10 ATCHAFALAYA FLOODWAY CLEAN, PAINT & MISC. REPAIRS   LADOTD Contract No. H.009461   St. Martin & Iberville Parishes, LA Project Manager. Brian was responsible for overseeing plan production, scheduling field activities, reviewing assessment reports, and construction support services. The project consisted of developing repair and rehabilitation plans for approximately 18.5 miles of structure. Structural steel plate girder and prestressed concrete girder spans founded on multi-column concrete bents were the primary structure types. Repair solutions included concrete deck and barrier rail repairs, concrete and steel girder repairs, bridge bearing replacements, and painting existing structural steel.

FIRM EMPLOYED BY		Stantec Consulting Services Inc.							
NAME	Amir Botros, PhD, PE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	1				
TITLE	Senior Structural Engineer			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	15				
DEGREE(S) / YE	ARS / SPECIALIZATION		PhD   2015   Civil Engineerin	g; MS   2009   Civil Engineering; BS   2005   Civil Engineering					
ACTIVE REGIST	RATION NUMBER / STATE / E	EXPIRATION DATE	PE No. 43701   LA   3/31/20	24					
YEAR REGISTERED	2019	DISCIPLINE	Civil Engineering						
Contract role(s) / brief description of responsibilities	With over 15 years of experience, Amir will serve as structural task lead for this contract. Amir has extensive experience in the analysis, design and rating of variety of bridge types including Prestressed Concrete Girders, Steel Plate Girders, Precast and Cast in Place Concrete Slabs, Column and Pile Bents, and RC box culverts. He is proficient in commercial design and rating software packages. He has been involved in bridge replacement projects across the state and has been a member of the Precast Prestressed Concrete Institute (PCI) for many years and has participated in PCI research projects. Further, he is the recipient of the 2017 Martin P. Korn and George Nasser PCI Journal Awards. He also received the 2018 ASCE T.Y. Lin award for his outstanding research on the dapped ends of prestressed concrete thin stemmed members. Amir will perform <b>BRIDGE INSPECTION AND DESIGN TASK LEAD</b> for this contract. <b>Amir meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 4</b>								
Experience dates (mm/yy - mm/yy)	Experience and qualifications	relevant to the proposed co	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc.					
01/21 - Ongoing	MDOT TRUSS INSPECTIONS AND LOAD RATINGS   MDOT   Statewide, MS Load Rating Engineer. Stantec is tasked with inspecting and load rating superstructure elements on four steel through truss bridges with spans ranging from 120-ft to 180-ft. MDOT will use the findings to develop rehabilitation plans for future projects and establish procedures that will be used on other structures throughout the state. Amir is responsible for performing quality reviews of load ratings for four steel through truss bridges. AASHTOWare BrR is being used to model and analyze all truss members including main members, floor beams, stringers, and gusset plates. The load factor rating (LFR) method is being used at the request of MDOT and to have the ability to compare with the original designs.								
03/21 - 06/21	ALDOT LOAD RATING OF 4 Lead Structural Engineer. P types comprised cast in pla Responsibilities included re load rating analysis and rev	ALDOT LOAD RATING OF 42 BRIDGES   ALDOT   Statewide, AL Lead Structural Engineer. Project consisted of rating of 42 bridges in accordance with ALDOT Policies and Guidelines for Bridge Rating and Evaluation. Bridge types comprised cast in place concrete T beam spans, Post-tensioned Channel beams and continuous steel plate-girders and steel I beam encased girders. Responsibilities included review of the as-built plans/ standard plans of the bridges, determining the appropriate load rating method, supervising engineers on the load rating analysis and review of load rating reports.							
10/19 - 12/20	<b>RC CULVERTS TESTING AND RATING OF 100 CULVERTS   LADOTD H.009859.5   Statewide, LA</b> Lead Structural Engineer. Project consisted of developing a load rating methodology for Reinforced concrete box culverts that accounts for the actual field conditions, performance history, and advanced modeling techniques. Study investigated the effect of utilizing advanced modeling techniques (finite element analysis) on the load rating of concrete box culverts. Results were verified through diagnostic testing of a sample of culverts (12 culverts) representing the existing Louisiana inventory. Responsibilities included building 3D FE analytical models of the parametric study, designing instrumentation and diagnostic load test procedure, supervising the crew on performing the diagnostic load tests, development of load rating guidelines that accurately account for all parameters believed to influence the culvert performance, development of a technical report that summarizes the proposed load rating guidelines and supervising engineers on load rating 100 representative culverts selected from the existing Louisiana inventory using the proposed guidelines.								
10/19 - 12/20	LOAD RATING OF 396 OF Lead Structural Engineer. T The bridge types comprise arch culverts. The substruct included determining the a	on load rating 100 representative culverts selected from the existing Louisiana inventory using the proposed guidelines. LOAD RATING OF 396 OFF SYSTEM BRIDGES   LADOTD H.012485.5   Statewide, LA Lead Structural Engineer. This project consisted of load rating of 396 bridges in accordance with LADOTD Policies and Guidelines for Bridge Rating and Evaluation. The bridge types comprised cast in place concrete slab spans, precast concrete slab spans, prestressed concrete girders, steel plate-girders, and RC box and arch culverts. The substructures comprised various components including reinforced concrete caps, timber caps, timber piles and steel H piles. Responsibilities included determining the appropriate load rating method, supervising engineers on the load rating analysis and review of load rating reports.							

05/20 - 12/20	I-10 OVER US 165 & MPRR   LADOTD   Jefferson Davis, LA This project is a bridge replacement of a multi-span steel I-beam interstate overpass. The design was in accordance to the latest AASHTO LRFD Bridge Design Specifications and LADOTD Bridge Design and Evaluation Manual. The bridge has a total length of 765 ft EB and 776 ft WB and clear roadway widths of 72 ft. Both the EB and WB superstructures consist of eight (8) LG 63 beams over US 165 and ten (10) LG 54 beams over Union Pacific Railroad, acting in composite action with an 8.5-inch continuous concrete deck with new 36" MASH TL-4 bridge railing. The substructure consists of cast-in-place column bents supported drilled shafts. An important aspect of the design was to configure an appropriate construction phasing scheme that ensures that two lanes on each bound of I-10 remain in operation during the bridge replacement. In addition, the new bridge overpasses the Union Pacific Railroad entailing challenges with respect to bent locations and fulfilling the horizontal and vertical clearance requirements. Amir served as senior design engineer in this project and was involved in design calculations and plan preparation.
01/19 - 09/19	<b>27 COMPLEX OFF-SYSTEM BRIDGES RATING AND EVALUATION   LADOTD H.009859.5   Statewide, LA</b> Lead Structural Engineer. This project consisted of rating of 27 complex bridges in accordance with LADOTD Policies and Guidelines for Bridge Rating and Evaluation. The bridge types comprised prestressed concrete girders, steel plate-girders, truss bridges, swing spans and steel trapezoidal girders. The superstructures were rated using Bridge Rating AASHTOWARE and/or and the substructures were rated using RC-Pier combined with MathCad Sheets. Some bridges involved complex irregular geometry for their on/off ramp spans and were not analyzed using AASHTO approximate methods and therefore those bridge/ ramp junctions were analyzed using finite element models developed using Midas Civil software. Responsibilities included: reviewing the as-built drawings of the bridges; determining the appropriate load rating method for complex bridges; performing load rating on selected complex bridges and supervising the team on other bridges; developing the load rating reports. Additionally, multiple steps of QC were performed to assure accuracy and consistency of the rating analysis.
02/19 - 10/20	LA 182 OVER ATCHAFALAYA RIVER (BERWICK BAY) BRIDGE REHABILITATION   LADOTD H.011487   Lafayette, LA Lead Structural Engineer. Amir's responsibilities included supervising engineers on performing the load rating analysis for the truss members and Gusset plates using Bridge Rating software. Design of the instrumentation and the diagnostic load testing procedure for the reinforced concrete T-beam spans. Supervising engineers on designing appropriate strengthening systems for the deficient truss members, gusset plates, bracing members and connections. Design of appropriate strengthening systems for the concrete pile bents, and the column bents using carbon fiber reinforced polymer sheets (CFRP) and preparation of the rehab plans of the bridge elements. The 100% final plans were submitted in October 2020.
04/16 - 03/17	LA 10 BEAVER CREEK BRIDGE   LADOTD   St. Helena Parish, LA This project is an emergency bridge replacement that consisted of an expedited design within two months of a precast prestressed concrete girder bridge consisting of two 60' LG-36 girder spans and one 80' LG-36 girder span. The design was performed according to the specifications provided in the LADOTD Bridge Design Manual. The responsibilities of this project included substructure design and evaluation using standard details and RC-Pier for analysis, bearing design according to LADOTD requirements and LG girder standard details, and calculations for the girder design data tables, such as prestressed strand configuration, shear reinforcement, camber, deflections, and haunch requirements. Amir was responsible for the structural analysis and design for all the bridge elements and preparation of the plans.
03/16 - 09/16	<b>US 80 RED RIVER TEXAS STREET BRIDGE: INSPECTION AND LOAD RATING   LADOTD H.011484   Bossier, LA</b> Senior Structural Engineer. Amir's responsibilities performing load rating analysis for the truss members and Gusset plates using Bridge Rating software, preparation of load rating report for the bridge with proposed repair recommendations for the deficient elements and development of a three-dimensional (3D) finite element model using Midas Civil Software for verification of the load effects on the truss members
01/17 - 10/18	<b>US 80 RED RIVER BRIDGE TEXAS STREET REHABILITATION PLANS   LADOTD H.011484   Bossier, LA</b> Senior Structural Engineer. Amir's responsibilities included design of appropriate strengthening systems for the deficient truss members and gusset plates for the deck truss spans and the main truss spans. Design of suitable strengthening schemes for the reinforced concrete T beams of the approach spans, the concrete pile bents, and the two column bents using carbon fiber reinforced polymer sheets (CFRP). Preparation of the rehab plans of the bridge followed the design phase and the 100% final plans were submitted in October 2018.
01/21 - Ongoing	MISSISSIPPI STATEWIDE COMPLEX BRIDGE INSPECTIONS & LOAD RATINGS   Mississippi Office of State Aid Road Construction   Statewide, MS Load Rating Engineer. Amir oversees QA/QC for the load rating analyses for over 200 bridges annually. Inspections performed by Stantec personnel are used to assist with developing load rating models and performing the analysis using AASHTOWare BrR, RC Pier, and STAAD. Load ratings are performed in accordance with AASHTO MBE and typically use the load factor rating (LFR) method to match the original design as requested by the client. Structure types include steel trusses, structural steel plate girders, steel railroad flat cars, reinforced concrete girders and slabs, reinforced concrete box culverts, and prestressed concrete girders.

FIRM EMPLOYED BY		Stantec Consulting Services Inc.						
NAME	Kunal Malpani, PE	·		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	8			
TITLE	Structural Engineer			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	0			
DEGREE(S) / YE	ARS / SPECIALIZATION		MS   2012   Civil Engineering	;; BS   2010   Civil Engineering				
ACTIVE REGISTI	RATION NUMBER / STATE / E	EXPIRATION DATE	PE No. 43016   LA   3/31/202	23				
YEAR REGISTERED	2018	DISCIPLINE	Civil Engineering; NBIS Certi	ified Team Leader				
Contract role(s) / brief description of responsibilities	Kunal has 8 years of eng and inspection of a varie concrete bents, and pile In addition to bridge des serve as <b>BRIDGE DESIG</b>	Kunal has 8 years of engineering experience with an emphasis on structural projects. His primary focus has been in the analysis, design, rating, and inspection of a variety of bridge types including prestressed concrete girders, structural steel plate girders, concrete slab spans, multi-column concrete bents, and pile bents. He is proficient in commercial software packages such as AASHTOWare BrDR, RC-Pier, CONSPAN, MDX, and STAAD. In addition to bridge design, Kunal has been involved in the design of highway sign structures and reviewing structural shop drawings. Kunal will serve as <b>BRIDGE DESIGN</b> for this contract						
Experience dates (mm/yy - mm/yy)	Experience and qualifications	relevant to the proposed co	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc.				
09/15 - 07/16	I-20 AND TARBUTTON ROAD INTERCHANGE   LADOTD   Ruston, LA Structural Engineer. Project consists of replacing an existing concrete overpass structure over I-20 near Ruston, LA with a two-span structural steel plate girder structure. Substructure units are supported by drilled shafts to minimize the bridge footprint. Design was performed in accordance with AASHTO LRFD. Kunal assisted with quality control of the superstructure and substructure design and performed the as-designed load rating.							
05/13 - 02/16	HOSPITALITY ZONE US 90 Structural Engineer responsi determine an exact location	<b>IMPROVEMENTS   LA</b> ble for developing a solut for each meter and, in tur	<b>DOTD Contract No. H.010189 (</b> ion to minimize traffic impacts b n, locating as-built drawings for	(IDIQ 440000679)   New Orleans, LA by extending existing bent caps to support new ramp meters. Worked that particular bent cap.	l with	LADOTD to		
01/19 - Ongoing	I-10 LOYOLA DESIGN-BUII Structural Engineer who assi curved steel tub girder spans	D   LADOTD Contract No isted signing engineer in c s. Design includes intersta	o. H.011670   New Orleans, LA lesign of flyover ramps, consisti ate lighting and structure mount	Ang of concrete slab spans, prestressed concrete girder spans, and tw poles on bridge ramps and in median barriers.	vin ho	rizontally		
01/19 - Ongoing	NELSON ROAD EXTENSION BRIDGE   LADOTD Contract No. H.005967   Baton Rouge, LA Structural Engineer. Kunal assisted the design engineer with preparation of plans and specifications for this bridge extension to the surrounding roadway network. Design included design of bridge components, including substructure, footing and foundation, load bearing calculations, girders and barrier design. Other design elements include navigational lighting bridge attachments, steel bracket light supports with concrete anchors to the bridge structure.							
09/13 - 11/17	<b>BRIDGE PRESERVATION R</b> Load Rating Engineer. Kunal MBE. Highlights of the projection	ETAINER PROJECTS   L was responsible for deve ct include rating Long Spa	ADOTD   Statewide, LA loping LFR rating procedure usir an Steel Through Trusses, Short s	ng Bridge Rating Software (now BrR) and STAAD for superstructure a span Steel Pony Trusses, and Masonry Arch Bridges.	s per	AASHTO		
07/15 - 06/18	<b>US 90 INTERCHANGE AT L</b> Structural Engineer for the tw responsibilities included per	A 318 DESIGN-BUILD   I vin bridges. Each bridge c forming design, performir	LADOTD   St. Mary Parish, LA consists of LG-54 prestressed co ng the as designed load rating, a	ncrete girder spans on multi-column concrete bents and concrete w nd reviewing shop drawings.	all pie	rs. His		
04/17 - 11/17	LOAD RATING AND POSTING OF ON-SYSTEM BRIDGES   LADOTD   Statewide, LA Structural Engineer. Kunal's responsibilities included developing the LRFR rating procedure using the AASHTO Bridge Rating Software for superstructure and LEAP RC Pier for substructure as per AASHTO MBE and LADOTD rating guidelines. Project included load rating various bridge superstructure types including slab spans, prestressed concrete girders, rolled steel girders, and built-up steel plate girders as well as various substructure types.							

FIRM EMPLOYED BY		Stantec Consulting Services Inc.				367		
NAME	Whit Hawkins, PE, CFM	^		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	5			
TITLE	Hydraulics Engineer			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	11			
DEGREE(S) / YE/	ARS / SPECIALIZATION		MBA   2005; BS   2004   Civi	il Engineering				
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 46867   LA   9/30/20	22				
YEAR REGISTERED	2022(LA); 2005 (MS)	DISCIPLINE	Civil Engineering; Certified I	Floodplain Manager				
Contract role(s) / brief description of responsibilities	Whit has 16 years of expe FEMA's Digital Flood Insu and II bridge scour analys City of Madison, MS, for t sanitary sewers. Whit wil	Whit has 16 years of experience specifically related to hydraulic projects. This experience includes developing hydraulic and hydrologic studies for -EMA's Digital Flood Insurance Rate Maps, Letters of Map Revisions, Risk MAP program, hydraulics for bridge design, 2-D hydraulic modeling, Phase I and II bridge scour analyses, and design of roadway storm-drain systems. Prior to joining Stantec, Whit served as the Director of Public Works for the City of Madison, MS, for two years that involved leading the design, construction, and maintenance of city streets, water supply system, and storm and sanitary sewers. Whit will serve as <b>BRIDGE HYDRAULICS ANALYST</b> for this contract.						
Experience dates (mm/yy - mm/yy)	Experience and qualifications	relevant to the proposed co	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc.				
08/19 - Ongoing	I-10 LOYOLA DESIGN-BUIL Hydraulics Engineer. Whit is for roadway barriers, noise b	I-10 LOYOLA DESIGN-BUILD   LADOTD Contract No. H.011670   New Orleans, LA Hydraulics Engineer. Whit is responsible for determining hydraulic impact of US Interstate 10 bridge expansion over Duncan Canal and determined placement of scuppers for roadway barriers, noise barriers, and bridges from roadway hydrology and hydraulic calculations.						
12/17 - 12/20	US HIGHWAY 80 BRIDGE REPLACEMENTS   MDOT   Newton, MS Hydraulics Engineer. Whit served as the Hydraulics Engineer and calculated flows to determine sizing of drain pipes for four bridge replacement sites in Newton County.							
06/19 - 08/20	SR 772 BETWEEN CR 132 Hydraulics Engineer. Whit pr	AND SR 15 (BRIDGE #2 rovided Phase A bridge h	271.8)   MDOT   Pontotoc Cou ydraulic design and recommen	<b>nty, MS</b> Idations for Bridge No. 271.8 over Chiwapa Creek on SR 772 utilizin	g 2D N	/lodeling.		
01/17 - 12/18	SR 42 BRIDGE REPLACEMENT   MDOT   Perry County, MS Hydraulics Engineer. Whit developed 2-dimensional hydraulic models and proposed bridge designs to replace a bridge over Tallahala Creek on State Route 42 west of Runnelstown, MS.							
05/16 - 06/19	BRIDGE SCOUR EVALUATION FOR LYNCH CREEK AT I-20   MDOT   Hinds County, MS Hydraulics Engineer. Whit developed 2-dimensional hydraulic models and performed a Level 2 Basic Engineering Analysis for three sets of Interstate 20 bridges over Lynch Creek in Jackson, MS.							
03/19 - Ongoing	<b>KEMP BOTTOM ROAD BR</b> Hydraulics Engineer. Whit de Warren County.	IDGE SCOUR   City of V eveloped HEC-RAS mode	icksburg   Vicksburg, MS I to proposed bridge designs a	nd developed countermeasures to resist scour for the Kemp Botton	n Road	l bridge in		
08/05 - 04/14	MISSISSIPPI FLOOD MAP Hydraulics Engineer. Whit w these tasks included GIS da outreach and presentations	P MODERNIZATION INI as responsible for a varie ta processing and analys	TIATIVE   MDEQ   Jackson, M ety of technical tasks necessar ses, hydrologic and hydraulic m	IS y to update FEMA floodplain maps for counties throughout Mississ odeling, digital mapping, production of flood insurance studies, and	ippi. S I comi	come of munity		

FIRM EMPLOYED BY		Stantec Consulting Services Inc.					
NAME	Joey Lefante, PE, PTOE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	14	125	
TITLE	Senior Associate, Traffic E	ngineer		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	0		
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS   2008   Civil Engineering		_		
ACTIVE REGIST	RATION NUMBER / STATE / E	EXPIRATION DATE	PE No. 37244   LA   09/30/2	022			
YEAR REGISTERED	2012	DISCIPLINE	Civil Engineering   PTOE #35	i60, 2013			
Contract role(s) / brief description of responsibilities	With over 14 years of ex improvements through p Synchro, and VISSIM, all ENGINEERING TASK LE	perience working on r olan design and signa lows him to determine <b>AD</b> for this contract.	major traffic projects, prepa l construction. His experier e innovative transportation	aring feasibility studies and interchange modification repo nce using various analysis software packages, including T solutions tailored to each individual situation. Joey will se	rts ar ransC rve as	nd leading CAD, S <b>TRAFFIC</b>	
Experience dates (mm/yy - mm/yy)	Experience and qualifications	relevant to the proposed co	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc.			
11/08 - 12/13	<b>STARING LANE EXTENSI</b> Traffic Engineer. Joey detai Lane and Highland Road. H	<b>ON AND BRIDGE</b>   <b>City o</b> iled traffic signal plans fo le also developed interco	of Baton Rouge   Baton Rouge, or both a signal replacement a onnect plans for Staring Lane b	<b>LA</b> t Staring Lane and Hyacinth Avenue as well as a signal modificat between Highland Road and Hyacinth Avenue.	ion at	Staring	
05/12 - 12/17	<b>GOVERNMENT STREET ROAD DIET: STUDY THROUGH FINAL DESIGN   LADOTD   Baton Rouge, LA</b> Lead Traffic Engineer. Joey served as Traffic Analyst responsible for examining improvements to increase safety and access management on Government Street between I-110 and Jefferson Highway. Stantec evaluated traffic data, developed conceptual alternatives, and accounted for the LADOTD Complete Street Policy. Joey collected traffic data and developed models in VISSIM, Synchro, and SIDRA to analyze different operational improvements alternatives. Joey also prepared materials for and participated in public meetings under the DOTD public involvement process.						
08/19 - Ongoing	I-10/LOYOLA INTERCHANGE DESIGN-BUILD   LADOTD Contract No. H.011670   New Orleans, LA Lead Traffic Engineer. Joey performed VISSIM analyses of an Alternative Technical Concept (ATC) consisting of two new flyover ramps leading to/from the Airport on the east side of the interchange and the first Diverging Diamond Interchange (DDI) in Louisiana. Joey completed an IMR to meet FHWA access policy standards to move the project forward on the accelerated design-build schedule. Joey is also leading the traffic signal design effort, including specialized DDI operations, lane closure analyses, transportation management plan and complete street accommodations such as sidewalks and a two-way cycle track.						
04/11 - 06/15	I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT   LADOTD Contract No. H.010151   Lake Charles, LA Traffic Engineer. Joey developed an Interchange Justification Report (IJR) for I-210 between Cove Lane and Nelson Road interchanges. He developed peak hour traffic volumes for 28 possible design alternatives, which took into account and accommodated for all future developments in the area, including the Nelson Road Bridge over Contraband Bayou and the Ameristar Casino and Hotel development. Joey coordinated collection of traffic counts and performed field calibration of the traffic models. Roundabout was analyzed using SIDRA.						
11/10 - Ongoing	<b>NELSON ROAD EXTENSIO</b> Lead Traffic Engineer. Joey the bridge on the surroundir	N AND BRIDGE   LADOT ran traffic analyses for th ng roadway network. The	D Contract No. H.005967   Lak le different bridge tie-ins being Regional Travel Demand Mode	t <b>e Charles, LA</b> studied. Also included in the traffic analysis was a consideration o I was modified in TransCAD to determine the effects of the bridge	f the i constr	mpact of ruction.	
11/08 - 09/10	<b>SOUTH HARRELL'S FERRY R</b> Project Engineer. Joey creathe design process. He also	COAD SOUTH SHERWOOD ated a new signal wiring o created new interconne	FOREST TO MILLERVILLE  City diagram and chart for the inte ect plans for a fiber run from S	r <b>of Baton Rouge   Baton Rouge, LA</b> rsection of South Harrell's Ferry Road and Millerville Road as wel outh Harrell's Ferry Road at South Sherwood Forest Boulevard to	l as a: the in	ssisted in itersection.	
08/09 - Ongoing	I -49 INNER CITY CONNEC Traffic Engineer. Joey is res Report (IJR) and providing	I -49 INNER CITY CONNECTOR STAGE 0-1, STUDY & IJR   LADOTD   Shreveport, LA Traffic Engineer. Joey is responsible for performing NEPA investigations, developing Interchange Modification Report (IMR) and an Interchange Justification Report (IJR) and providing QA for this 3.5-mile final nationwide link of I-49 by connecting the existing I-49/I-20 interchange to the proposed I-49/I-220 interchange.					

FIRM EMPLOYED BY		Stantec Consulting Services Inc.						
NAME	Stephen Mensah, PhD, PE,	PTOE, RSP1		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	10	200		
TITLE	Associate, Traffic Enginee	r		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	5			
DEGREE(S) / YEA	ARS / SPECIALIZATION		PhD   2007   Civil Infrastruct Engineering	ure Systems in Transportation; MS   2002   Civil Engineering; BS	6   199	8   Civil		
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 38591   LA   09/30/2	022				
YEAR REGISTERED	2013	DISCIPLINE	Civil Engineering; PTOE #39	60, 2013				
Contract role(s) / brief description of responsibilities	Stephen is a transportation and traffic engineer, with over 15 years of experience, specializing in traffic analysis, design and operations. His work experience includes highway safety analysis, traffic impact studies, systems engineering analysis, regional ITS architecture development and traffic signal design. Stephen served as a member of the TRB Committee for Application of Emerging Technologies to Design and Construction. Stephen will perform <b>TRAFFIC ENGINEERING</b> for this contract.							
Experience dates (mm/yy - mm/yy)	Experience and qualifications	relevant to the proposed co	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc.				
01/19 - Ongoing	I-10/LOYOLA INTERCHA Safety Engineer. Stephen is Interchange Modification R	<b>NGE DESIGN-BUILD</b>   La responsible for the safe eport for this Design-Bui	ADOTD Contract No. H.01167 ety analysis of the bridge, ramp Id project.	<b>0   New Orleans, LA</b> os, and roadway included in the Transportation Management Plan	and th	ıe		
03/11 - 03/15	I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT   LADOTD   Lake Charles, LA Safety Analyst. Stephen was responsible for the safety analysis of the intersections and segments impacted by this development including analysis of the freeway safety performance to identify crash hotspots or abnormal crash locations for mitigation. He performed safety assessments for the temporary traffic control included in the Transportation Management Plan.							
05/12 - 12/17	<b>GOVERNMENT STREET ROAD DIET: STUDY THROUGH FINAL DESIGN   LADOTD   Baton Rouge, LA</b> Safety Analyst. Stephen was responsible for the safety analysis of implementing a road diet and bike lanes along this corridor, converting a four-lane urban principal arterial into a three-lane corridor with new bike lanes, improvements to sidewalks and the streetscape. The substantive safety analysis was based on the methodology prescribed in the HSM and Human Factors Guide. The outcome of the safety and traffic analysis helped to develop conceptual alternatives to increase traffic safety and improve access management on this corridor. Stephen also performed a crash analysis of the existing corridor for the Stage 0 study to identify high accident locations.							
04/20 - 07/20	LOUISIANA ROUNDABOUT ENVIRONMENTAL FACTOR DEVELOPMENT   ULL   Baton Rouge, LA Traffic Engineer. Stantec was tasked to develop the Environmental Factor (EF) required for the planning and design of roundabouts in Louisiana using the SIDRA software. The EF is used as a calibration parameter to account for Louisiana specific factors that impact capacity estimated using SIDRA models. An accurate EF is important for efficient roundabout design. Stephen participated in the iterative process of completing SIDRA analysis for saturated flow data sets at each approach to determine the EF that would most closely calibrate the analysis outputs to real-world capacity. The findings of the study were to be used by LADOTD to revise the SIDRA methodology for all roundabout analysis in Louisiana							
07/15 - Ongoing	I-49 LAFAYETTE CONNEC Safety Analyst. Stephen is engineering analysis to dep	<b>CTOR   LADOTD   Lafaye</b> responsible for the safet ploy ITS devices in the co	t <b>te, LA</b> y analysis of interchange desi prridor.	gns providing inputs for crash mitigation. Stephen developed the	syster	n		
03/15 - Ongoing	NICHOLSON CORRIDOR I Stephen was responsible fo multimodal corridor near th	<b>MPROVEMENTS   LADC</b> or the safety analysis that he LSU.	<b>)TD   Baton Rouge, Louisiana</b> at resulted in the expected cras	<b>Safety Analyst</b> sh prediction for mitigation in design. The LA 30 corridor is being	develo	oped into a		

FIRM EMPLOYED	BY	Stantec Consulting Services Inc.							
NAME	Lindsay Grissom			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER					
TITLE	Principal, Senior Environm	ental Scientist		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	11	P 3			
DEGREE(S) / YE/	ARS / SPECIALIZATION		MS  2002  Cell & Molecular	Biology; BS 2000 Zoology & Physiology	L				
ACTIVE REGISTI	RATION NUMBER / STATE / E	XPIRATION DATE	NA						
YEAR REGISTERED	NA	DISCIPLINE	NA						
Contract role(s) / brief description of responsibilities	Lindsay is a Principal Scientist with over 17 years of experience in the environmental services industry. Lindsay specializes in federal and state agency permitting and plan preparations for linear pipeline and facility construction projects. She serves as Stantec's U.S. Technical Lead for Assessment and Permitting. Lindsay routinely provides technical oversight for NEPA documents, with a focus on water resources, socioeconomics, land use, and safety and reliability. Lindsay has a diverse regulatory background in oil and gas, which includes U.S. Army Corps of Engineers Section 408 and 404/10 permitting, threatened & endangered species coordination, state coastal zone permitting, development of environmental training, and occupational health and safety. She has completed projects in more than 25 states, focusing on the gulf coast, mid-west, and Marcellus shale regions. Lindsay will provide <b>PERMITTING SUPPORT</b> for this contract.								
Experience dates (mm/yy - mm/yy)	Experience and qualifications	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc.							
2016 - 2018	<b>DEPUTY PROJECT MANAGER</b>   <b>Confidential Pipeline Project</b>   <b>Louisiana</b> The proposed project involved construction of approximately 40 miles of pipeline in St. Charles, Jefferson, Orleans, and St. Bernard Parishes, including a crossing of Lake Pontchartrain. Responsible for routing and siting support; alternatives analysis; securing federal, state, and local environmental permits; and supporting agency coordination and public outreach.								
2016 – Ongoing	ng VALERO ENERGY ST. CHARLES DOCK EXPANSIONS – MULTIPLE PROJECTS   LOUISIANA Responsible for overseeing environmental surveys, agency coordination, and securing environmental permits for construction and modification of multiple oil and gas dock facilities in Louisiana. Permits and clearances obtained include U.S. Army Corps of Engineers (USACE) Section 404/10 and Section 408 permits, Louisiana Department of Natural Resources (LDNR) Coastal Use Permits, levee district Letters of No Objection (LONOs), and threatened and endangered species clearances.								
2019 – Ongoing	<b>ENBRIDGE TEXAS EASTERN PIPELINE 0&amp;M PROGRAM MANAGEMENT   Louisiana, Texas, Mississippi, Arkansas, Missouri</b> Responsible for environmental review, overall project coordination, and development and oversight of federal, state, and local environmental permit applications for more than 60 operations & maintenance projects along the Texas Eastern pipeline.								
2015 - 2016	UTICA MARCELLUS TEXAS PIPELINE PROJECT   Ohio, Kentucky, Tennessee, Arkansas, Mississippi, Louisiana, and Texas Protected species lead responsible for all aspects of threatened and endangered species compliance for the Project, which involves conversion of 990 miles of pipeline and 375 miles of new build pipeline. Tasks included coordination with state and federal agencies, report preparation oversight, and technical review of related deliverables. Also served as a Quality Assurance/Quality Control lead for the Project.								
2008 - 2015	MULTIPLE LINEAR PIPELI Responsible for review of er Impact Statement. Specific resources.	MULTIPLE LINEAR PIPELINE PROJECTS – THIRD-PARTY CONTRACTOR TO FERC Responsible for review of environmental reports, survey reports, and other studies as well as preparation of the corresponding section of the NEPA Environmental Impact Statement. Specific resource areas included water resources, land use, recreation and visual aesthetics, socioeconomics, health and safety, and geological resources.							

FIRM EMPLOYED BY		Stantec Consulting Services Inc.							
NAME	Scott Hoffeld, CEP			2	130				
TITLE	Senior Project Manager, Er	nvironmental		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	26				
DEGREE(S) / YE	ARS / SPECIALIZATION		MS   1994   Resource Manag	ement and Administration; BA   1989   Economics					
ACTIVE REGIST	RATION NUMBER / STATE / E	EXPIRATION DATE	CEP No. 02040408   LA   3/3	1/2022					
YEAR REGISTERED	2002	DISCIPLINE	Certified Environmental Prac	titioner					
Contract role(s) / brief description of responsibilities	Scott is a Senior Environmental and Transportation Planner with over 27 years of NEPA and permitting experience for LADOTD, spanning form CEs, EAs and re-evaluations to complete multi-phased and 3rd party EISs and SEISs. His LADOTD experience includes 404 wetland, scenic stream and bridge permitting; agency coordination; public outreach; and a variety of corridor and site impact analyses, needs and alternatives justification evaluations, and the communication/presentation of complex information to mixed audiences. Scott will provide ENVIRONMENTAL SUPPORT for this contract.								
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc.								
10/15 - 03/17	17 EA AND REEVALUATION FOR DIJON EXTENSION IMPROVEMENTS   City of Baton Rouge H.012233/H.012232   Baton Rouge, LA Project Manager responsible for EA and public outreach for short connector roadway between LA 3064 (Essen Lane) and LA 1248 (Bluebonnet Boulevard) in Baton Rouge. The project involved coordination with the Our Lady of the Lake and The General hospitals regarding future development plans, as well as consideration of future bikeway plans for the City of Baton Rouge.								
02/04 - 09/05	J5 I-210 AT COVE LANE INTERCHANGE IMPROVEMENTS AND EA   LADOTD   Lake Charles, LA NEPA Project Manager. Scott worked with Stantec, formerly ABMB during this project. He served as NEPA Project Manager for this aggressive seven-month NTP to FONSI, high-profile interstate interchange improvement project in Lake Charles, Louisiana. Project need is related to a new casino special traffic generator. Expedited work included completion of outreach, field work, and analysis of six build alternatives within six weeks of the NTP. Special NEPA documentation and review protocols were proposed by ARCADIS and approved by LADOTD and FHWA, enabling environmental streamlining and reduction of schedule by over 55 percent.								
12/14 - 12/17	US 11 NORFOLK SOUTHERN RAILROAD OVERPASS REPLACEMENT   LADOTD SP No. H.000688   Orleans Parish, LA Project manager for replacement and widening of the US 11 roadway overpass of the Norfolk Southern Railroad in Slidell, Louisiana. Project included evaluation of partial and full-access intersection options and bridge alignment and type alternatives for the heavily skewed and long steel span bridge in this urban area of Slidell. Key issues included the historic status of the bridge, commercial parking impacts, use of the Norfolk southern right of way, and travel pattern changes following the construction.								
04/10 - 10/14	CHEF MENTEUR BRIDGE AND APPROACHES REPLACEMENT   LADOTD   Orleans Parish, LA Scott was the project manager for a high-priority bridge replacement EA and Line and Grade Study, responsible for coordination and technical assessment of key issues. Both movable and fixed-span designs are under consideration along three alignments in an area of notable environmental and design challenges. Built in 1930, the existing US 90 swing-span bridge over Chef Menteur Pass has two 10-foot lanes, no shoulders and a bridge sufficiency rating of 37. Environmental constraints include the abutting Venetian Isles subdivision, Fort Macomb structure and state parkland, terrestrial and submerged archaeological sites, and the Bayou Sauvage National Wildlife Refuge. Intensive public and agency outreach and involvement was initiated along with computerized renderings of post- construction views to be used in the effort.								
02/16 - 12/17	FLORIDA AVENUE IMPROVEMENTS   LADOTD   Orleans and St. Bernard Parishes, LA Scott was responsible for team coordination and public/stakeholder outreach oversight and agency coordination. The project alternatives include a new bridge over the Inner Harbor Navigation Canal, as well as optional roadway improvements, and neighborhood traffic calming for neighborhoods in the vicinity of the project alternatives, including 9th Ward of New Orleans. Key issues include truck traffic, property values, and environmental justice concerns.								

FIRM EMPLOYED BY		Stantec Consulting Services Inc.						
NAME	Derrick Goudeau, PE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	4			
TITLE	Senior ITS/Electrical Engin	eer		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	15			
DEGREE(S) / YE/	ARS / SPECIALIZATION		BS   2003   Electrical Engine	ering				
ACTIVE REGISTI	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 33288   LA   09/30/2	023				
YEAR REGISTERED	2007	DISCIPLINE	Electrical and Computer Eng	ineering				
Contract role(s) / brief description of responsibilities	Le(s) / ption bilities Derrick has over 19 years of experience in the design and development of ITS and electrical power, lighting, control, and related systems. He has been responsible for the preparation of plans and specifications (design and development) of ITS, lighting and electric power engineering projects, from design to final construction inspection. Other design experience includes QC/QA review, calculations, data collection, and report preparation. During the construction phase, Derrick has provided CE&I services to support the owner and verify general conformance with the design including review of shop drawing and equipment submittals, respond to request for information, review/prepare as-built drawings, and perform periodic inspection and final system acceptance. He is also well-versed in industry codes and standards, including the 2020 NEC (NFPA 70) and 2018 NFPA 70E in which he has recently completed training courses. Derrick will provide LIGHTING SUPPORT for this contract.							
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc.							
03/13 - 02/18	18 I-210 OVER CALCASIEU RIVER WEST OF I-10 INTERSTATE LIGHTING   LADOTD H.010440   Lake Charles, LA Engineer of Record (Lighting/Electrical). Derrick designed the roadway lighting and electrical system from the I-10/I-210 Interchange to the I-210/Cove Lane Interchange (approximately 4.5 miles along I-210). The design included 44 ground mount low mast, 54 bridge mounted low mast, and 10 ground mount high mast tower lights. Derrick also provided CE&I services through construction.							
01/14 - 02/18	8 US-61 ROADWAY LIGHTING, DAVID TO TRANSCONTINENTAL   Jefferson Parish   Jefferson Parish, LA Engineer of Record (Lighting/Electrical). Derrick designed the roadway lighting and electrical system for 1.5 miles of US-61 from David Drive to Transcontinental Drive. Project makeup consists of 81 ground mounted low mast roadway lights (LED). The design required coordination with concurrent lighting design by other consultants on adjacent sections of this corridor.							
05/16 - 03/21	STATE HIGHWAY 288 TOLL LANES   TxDOT - Houston District   Houston, TX Engineer of Record (Lighting/Electrical). This P3 project will implement improved functionality over 10.3 miles along SH 288, from US 59 to the Harris/Brazoria County line at Clear Creek, by constructing new toll lanes. Derrick performed photometric analysis for the proposed and existing roadway in the ten-mile corridor and prepared plans for upgrading all of the existing high pressure sodium lighting to LED luminaires. The lighting system consisted of conventional light standards as well as high mast towers up to 175 feet. Derrick also provided technical support during construction.							
03/13 - 05/15	I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT   LADOTD   Lake Charles, LA Engineer of Record/Electrical. Project limits are from the East foot of the I-210 Lake Prien Bridge through the I-210/Cove Lane Interchange. Project included coordinating roadway lighting design with the new interchange which was already in construction. This required frequent field inspection for changing site conditions, coordination with LADOTD Project Engineer and Contractor, and design adjustments for compatibility with Contractor's sequence of construction. Derrick was the Engineer of Record for the lighting/electrical portion of the project (incorporated via plan change) and provided CE&I services through construction.							
04/11 - 06/15	I-12 AT US-11 INTERCHANGE LIGHTING   LADOTD H.000687   Slidell, LA Quality Assurance/CE&I. Project limits include the I-12 / US-11 Interchange. Project makeup consists of the following types of roadway lighting standards: 47 ground mount low mast, 3 ground mount high mast, and 8 underpass. Derrick performed Quality Assurance review for this project and provided CE&I services through construction.							

FIRM EMPLOYED BY		Civil Design & Construction, Inc. (CD&C)							
NAME	Karla Weston, PE	1		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER					
TITLE	President			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	6				
DEGREE(S) / YE	ARS / SPECIALIZATION		BS   1999   Civil Engineer						
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 31010   LA   3/31/20	23					
YEAR REGISTERED	2004	DISCIPLINE	Civil Engineering						
Contract role(s) / brief description of responsibilities	Karla has over 23 years of civil engineering experience. She started CD&C, a small woman-owned business in 2005. Karla has worked with over 10 Corps of Engineering Districts throughout the U.S. She has also worked with various state and local agencies providing civil engineering, surveying, and SUE services. Karla will oversee the firms' role as a sub-consultant and make sure the work is completed to LADOTD standards. Karla will perform <b>ROADWAY DESIGN SUPPORT</b> for this contract.								
Experience dates (mm/yy - mm/yy)	Experience and qualifications	xperience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc.							
02/16 - 09/19	PECUE LANE/I-10 INTERCHANGE   H.003047   Baton Rouge, LA Principal in Charge. Karla oversaw CD&C's role as a subconsultant 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 worked to oversee the firm's design, coordinate with the prime consultant and government agencies.								
12/13 - 10/19	<b>GRAMERCY BRIDGE</b>   <b>H.02960</b>   <b>St. James Parish, LA</b> Principal in Charge. Karla oversaw CD&C'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	I-49 DESIGN BUILD   H.010620   Lafayette, LA QA/QC. Karla provided QA/QC review for the Roadway Design Plans on this Design-Build Project.								
05/13 - 05/14	LA 1 RAILROAD BRIDGE AT DOW   H.009288.5   West Baton Rouge Parish, LA Principal in Charge. Karla oversaw CD&C'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. She worked to oversee the firm's design, coordinate with the prime consultant and government agencies.								
06/12 - 10/12	LA 1 RAILROAD BRIDGE AT DOW   H.009288.5   West Baton Rouge Parish, LA Principal in Charge. Karla oversaw CD&C'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. She worked to oversee the firm's 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   East Baton Rouge Parish, LA</b> Principal in Charge. This project 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.								
06/18 – 05/19	<b>COMITE RIVER DIVERSION – US 61 &amp; KCS BRIDGES   East Baton Rouge Parish, LA</b> Lead Cost Engineer. These bridge projects which are part of the Comite River Diversion project. The project included roadway, bridges, and associated channel improvements. Karla helped provide a complete contractor style estimate including all material costs and quotes, hauling and disposal quotes; labor and equipment prices; and all tasks and assemblies for these items.								
12/19 -12/20	<b>COMITE RIVER DIVERSIO</b> Lead Cost Engineer. This pri style estimate including all	COMITE RIVER DIVERSION – BAYOU BATON ROUGE DROP STRUCTURE   East Baton Rouge Parish, LA Lead Cost Engineer. This project included bridge and roadway improvements as part of the Comite River Diversion project. Karla helped provide a complete contractor style estimate including all material costs and quotes, hauling and disposal quotes; labor and equipment prices; and all tasks and assemblies for these items							

FIRM EMPLOYED	BY	Civil Design & Construction, Inc. (CD&C)						
NAME	Ralph Burgess, PLS			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER				
TITLE	Principal Land Surveyor			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	12			
DEGREE(S) / YE/	ARS / SPECIALIZATION		BS   2004   Industrial Design	& Supervision				
ACTIVE REGISTI	RATION NUMBER / STATE / E	XPIRATION DATE	PLS No. 5040   LA   9/30/20	22				
YEAR REGISTERED	2010	DISCIPLINE	Land Surveyor					
Contract role(s) / brief description of responsibilities	Ralph will serve as <b>TOPOGRAPHIC SURVEYOR TASK LEAD</b> for this contract. He will work to oversee the project progress stays on schedule, aide in both crew coordination and office production, and provide final QC on the firms' deliverable to the Stantec. Ralph has an extensive background in providing topographic surveys for LADOTD in accordance with Location and Survey policies and procedures. He has overseen projects utilizing traditional means and methods of collecting data as well as those that include the use of 3D Terrestrial Scanning.							
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc.							
07/20 - 04/21	<b>COMITE RIVER DIVERSION BRIDGE AT LA 67, LA 19 AND LA 19 RAILROAD BRIDGE   LADOTD H.001352.5 &amp; H.002273.5   East Baton Rouge Parish, LA</b> Survey Manager for this project. CD&C as a sub-consultant on this project was responsible for topographic surveying the LA 67 and LA 19 sites of the Comite River Diversion project. This included merging of data from a previous survey on one portion of the site and field verifications of that data. The topographic data for this project was collected traditionally.							
01/18 - 01/20	I-10: LA 415 TO ESSEN LANE ON I-10 AND I-12   LADOTD H.004100   West and East Baton Rouge, LA 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	LA 30 ROUNDABOUT AT TANGER I-10   LADOTD H.010960.5-2   Ascension Parish, LA 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	US 190 SUPERSTREET   LADOTD H. 005733.5   St. Tammany Parish, LA 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							
10/15 - 12/18	I-10 TEXAS STATE LINE -EAST OF COONE GULLY   LADOTD H.003184.5   Calcasieu Parish, LA Survey Manager for the project. Duties included meeting with LADOTD, coordination of traditional crews and 3D terrestrial scanning crew, coordination of utility companies on the project, review and verification of drainage crossing I10, merging of existing topographic survey of bridges from LADOTD and final review of all survey data for submittals.							
08/16 - 12/17	I-49 SOUTH AT VEROT SCHOOL ROAD   LADOTD H.011235   Lafayette, LA Survey Manager for the project. Duties included meeting with LADOTD, and all consultants on the team, coordination of both traditional crews and 3D terrestrial scanning crew, coordination of survey crews with Cardno, Inc, utility locations on the project, met and review right of entry with landowners for project, review of drainage map, merging of existing topographic survey of the I-49 Connector project from LADOTD with current survey of project, review of apparent right of way mapping for prime consultant, and final review of all survey data.							

FIRM EMPLOYED BY		Civil Design & Construction, Inc. (CD&C)								
NAME	Chris Ballard, PLS			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	6					
TITLE	Survey Project Manager			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	19					
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS   2004   Biological Scienc	ce						
ACTIVE REGIST	RATION NUMBER / STATE / E	EXPIRATION DATE	PLS No. 5033   LA   9/30/20	22						
YEAR REGISTERED	2010	DISCIPLINE	Land Surveyor							
Contract role(s) / brief description of responsibilities	Chris will serve as a <b>TOPOGRAPHIC SURVEYOR</b> for this contract. Chris has an extensive background in providing topographic surveys for LADOTD in accordance with Location and Survey policies and procedures. He has overseen projects utilizing traditional means and methods of collecting data as well as those that include the use of 3D Terrestrial Scanning.									
Experience dates (mm/yy - mm/yy)	Experience and qualifications	experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc.								
01/18 - 01/20	I-10: LA 415 TO ESSEN LANE ON I-10 AND I-12   LADOTD H.004100   West and East Baton Rouge, LA 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 every 500' for control verification and incorporation of the Mobile Lidar for the I-10 pavement.									
04/17 - 07/17	LA 58 PETIT CAILLOU BRIDGE REHABILITATION (SARAH BRIDGE)   LADOTD H.010006.5-3   Terrebonne Parish, LA 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	BRIDGE REPLACEMENTS IN EAST FELICIANA PARISH   Rural East Feliciana Parish, LA 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 topographic surveys for at least 4 Bridge Replacement Projects throughout East Baton Rouge Parish. Chris served as Survey Project Manager on each of these projects which included cross-sectioning and tracing the channel at each location. These included bridges over Dawson Creek, Claycut Bayou, Copper Mill Bayou, and Cypress Bayou.									
10/15 - 12/18	I-10 TEXAS STATE LINE – EAST OF COONE GULLY   LADOTD H.003184.5   Calcasieu Parish, LA Survey Project Manager for this six-lane widening of I-10 Project. 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.									
07/17 - 12/18	LA 30 ROUNDABOUT AT TANGER I-10   LADOTD H.010960.5-2   Ascension Parish, LA Survey Manager for the project. Duties included 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 3D terrestrial scanning.									
06/11 - 09/13	LA 42 WIDENING AND IM Surveyor. Project included	PROVEMENTS   LADOT boundary and topography	<b>D H.002372   Ascension Pari</b> y, establishing the existing RO	<b>sh, LA</b> W and acquisition of additional ROW.						

# OWNER'S ADDRESS, PHONE, EMAIL 1201 Capital Access, Baton Rouge, LA 70808 | 225-242-4640 | joshua.harrouch@la.gov SERVICES COMMENCED BY THIS FIRM (MM/YY) 02/13 TOTAL CONSULTANT CONTRACT COST (\$1,000's) \$2,024 SERVICES COMPLETED BY THIS FIRM (MM/YY) 07/16 COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM (\$1,000's) \$1,724 Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.) TASK RELEVANCE: Under this retainer, Stantec designed four roundabout projects, including: Cleo Road, US 79 Bypass at LA 9, LA 75 Roundabouts (Plaquemine) and LA 86 & LA 320 Roundabout (New Iberia). Stantec also designed the Taffic Analysis & Design

## LA 75 Roundabouts (Plaquemine) and LA 86 & LA 320 Roundabout (New Iber LA 447 / I-12 Interchange under this contract.

LADOTD RETAINER CONTRACT FOR TRAFFIC ENGINEERING

OWNER'S NAME

Stantec Consulting Services Inc.

ROAD MANAGEMENT

Statewide. Louisiana

H.4400002787

17. Firm Experience:

FIRM NAME

PROJECT

LOCATION

PROJECT NAME

PROJECT NUMBER

LA 447 / I-12 Interchange: This project improved the existing ramp terminal intersections for the diamond interchange at LA 447 and Interstate 12. All improvements were within the existing right-of-way, which saved DOTD time and money, and prevented property impacts to residents and business owners. To ease driver headaches caused by traffic impediments during the construction, our design of both roundabouts were offset from the existing ramp terminal intersections. Overall, this shortened the length of construction, while maintaining existing traffic patterns. A Level 2 TMP was developed for the construction of this project. This project is located immediately north of the advertised project.

US 11 at Cleo Road: Stantec was chosen to perform the design and construction plans for the proposed single-lane roundabout at the un-signalized intersection. Because of the proximity to the interstate and truck-related businesses, the roundabout was designed to ensure that interstate-sized trucks can maneuver through and around the roundabout. To maintain all movements during construction of the roundabout, Stantec developed a maintenance-of-traffic plan that included the use of runaround detours and temporary signalization for US 11, as well as Cleo Road. While the initial intersection is a three-leg roundabout, Stantec designed a fourth leg that connects to the north side. The temporary and permanent designs considered the existing properties to avoid relocations or unnecessary impacts. As with all our projects, our team worked closely with DOTD to meet all project goals.

LA 75 Roundabout: This project replaced two closely spaced signalized intersections on LA 75 with single-lane roundabouts as a measure to better control speeds and improve safety along the corridor. Stantec designed both single-lane roundabouts to support future modifications to multi-lane roundabouts with minimal effort, if traffic conditions warrant. Detailed traffic maintenance plans were required to ensure the roundabouts can be constructed while still maintaining traffic on this roadway as property development detours around the construction areas could not be provided. This project was a win for all – the community, property owners, and the traveling public. Stantec was responsible for all designs including the drainage consisting of a mix of open ditch drainage with paved gutter drains and a few short segments of subsurface drainage, and all details required in the construction plans.

LA 86/320 Roundabout: Stantec developed detailed construction phasing plans and designed underground drainage systems to close existing open ditches in some areas. The large farm vehicles and trailers that use the roads required special consideration in the roundabout design to accommodate larger vehicle maneuvering. Stantec developed all design and construction plans for the project, working closely with LADOTD to meet goals and the needs of the roadway users.

TEAM MEMBERS INVOLVED: G. HEITMAN, J. CAINS, C. HALL, J. LEFANTE, N. PRUDHOMME, M. (BRATTON) O'ROURKE

FIRM RESPONSIBILITY (prime or sub?)

Louisiana Department of Transportation and Development

OWNER'S PROJECT MANAGER

PAST PERFORMANCE EVALUATION CATEGORY(IES)\*



Joshua Harrouch. PE

Road. Traffic

Prime



FIRM NAME	Stantec Consulting Services Inc.				PAST PERFORMANCE EVALUATION CATEGORY(IES)*		Road, Traffic
PROJECT NAME	RIVER ROAD RELOCATION					FIRM RESPONSIBILITY (prime or sub?)	Prime
PROJECT NUMBER	257-03-0024, 817-16-003	30	OWNER'S N	AME	Louisiana Department of Transportation and Development		
PROJECT LOCATION	Baton Rouge, Louisiana			OWNER'S PROJECT MANAGER	Robert Isemann		
OWNER'S ADDRESS,	, PHONE, EMAIL	1201 Ca	oital Access	, Baton	Rouge, LA 70808	225-379-1398   robert.isemann@	la.gov
SERVICES COMMEN	03/07 TOTAL CONSULTANT CONTR		ONSULTANT CONTRAC	CT COST (\$1,000's)	\$7,338		
SERVICES COMPLETED BY THIS FIRM (MM/YY) 12/12			C	COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM (\$1,000's)		\$4,110	
Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)							

# To assist the casino developer with access to a proposed \$400M casino resort facility, we used our extensive knowledge of LADOTD policies and requirements to facilitate a partnership between the two entities and developed a plan to have the development open within the timeline imposed by the Gaming Commission.

With all parties informed of the goals of the project, Stantec led the charge to develop a plan that resulted in having construction plans, permitting, and construction completed within the three years allowed before the developer would be required to relinquish their license for that site.

The proposed improvements included relocating River Road (LA 327) for approximately one mile, which was a two lane rural high-speed roadway that paralleled the Mississippi River in Baton Rouge, LA. River Road is also a designated bike route through the project limits. The proposed development required access to their site as well as improved access for roadways leading to the site. From a design standpoint, the project proposed three roundabout intersections which would be the first in the City of Baton Rouge (although in a rural and largely undeveloped area) and included multi-disciplinary elements that needed to be coordinated, including roadway, drainage, bridge, geotechnical, and traffic design for the relocation of River

Road. The goal of implementing roundabouts was to provide a traffic calming effect through the limits of the development property.

Our team was successfully able to lead and complete an expanded Traffic Impact Study in coordination with the City of Baton Rouge and LADOTD and improved five off-site intersections related to the Casino development to mitigate impacts. This project promoted Stantec's recognition for roundabout design in Louisiana. Since then, we have **laid out and designed over 40 roundabout intersections in Louisiana**, with nine of them currently in operation, and several more planned for implementation.

TEAM MEMBERS INVOLVED: G. HEITMAN, J. CAINS, C. HALL, J. LEFANTE, B. JOHNSON, N. PRUDHOMME, M. (BRATTON) O'ROURKE, S. MENSAH



TASK RELEVANCE:

Roadway Design

Quantities/Cost Estimate

Complete Streets Design

Utility Coordination

Roundabout Design (Single/Multilane)

 $\checkmark$ 

 $\overline{}$ 

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 $\square$ 

Permitting

Lighting

FIRM NAME	Stantec Consulting Services Inc.			PAST PERFORMANCE EVALUATION CATEGORY(IES)*			Road, Bridge, Traffic		
PROJECT NAME	LADOTD RETAINER CONTRACT FOR ROADWAY			Y PROJECTS	FIRM RESPONSIBILITY (prime or sub?)	Prime	9		
PROJECT NUMBER	H.4400002748		OWNER'S I	NAME	Louisiana Departi	nent of Transportation and Develo	opment		
PROJECT LOCATION	Statewide, Louisiana					OWNER'S PROJECT MANAGER	Ryan	McMillan	
OWNER'S ADDRESS,	PHONE, EMAIL	1201 Cap	oital Acces	s, Baton	Rouge, LA 70808	225-379-1388   ryan.mcmillan@la	a.gov		
SERVICES COMMEN	CED BY THIS FIRM (MM/YY)	10/12		TOTAL CO	ONSULTANT CONTRAC	CT COST (\$1,000's)	\$2,83	35.2	
SERVICES COMPLET	ED BY THIS FIRM (MM/YY)	09/17		COST OF	CONSULTANT SERVI	CES PROVIDED BY THIS FIRM (\$1,000's)	\$2,56	57.3	
Describe the project in	cluding the firm's role and memb	bers involved.	(Highlight m	embers to l	be used in this proposa	.)			
Under this retainer, Stantec helped LADOTD deliver improvements on major congested roadway corridors, providing relief to these areas for years to come.       Task orders for this retainer contract focused primarily on major corridors in congested areas that needed improvements to provide relief. We provided topographic surveys, roadway design, hydraulic analysis & design, structural design, traffic analysis & modeling, traffic control, signal design, and construction plans for these projects as required. Prior to each submittal we performed internal and independent quality reviews to ensure seamless integration of all disciplines in well-organized, constructible plan sets. In addition, we evaluated these corridors for complete streets implementation in accordance with LADOTD and local policies and guidance.       TASK RELEVANCE:       Task RELEVANCE:         Essen Lane Widening project:       included Roadway Design support for environmental clearance, providing exhibits, cost estimates, and technical discussions of the project, in addition to participating in the public meeting. Following environmental clearance we provided final roadway (including hydraulic analysis and design), bridge, and signal plans for the project, and coordinated with all parties to make sure the final construction documents were delivered in a timely manner. This project also included the development of a Level 2 TMP document. During the construction phase, we also assisted District 61 with construction support by coordinating solutions for utility conflicts, as well as answering RFIs and providing any design clarifications requested to assist the contractor in completing construction. Now complete, Essen Lane has greatly reduced congestion along the corridor, and improved mobility and accessibility for this principal       TMP         Quality Review       Construction Support <td>SK RELEVANCE: Traffic Control Design, Traffic Signal Analysis &amp; Design Preliminary &amp; Final Roadway Design, Plan Development &amp; Cost Estimates Hydraulic Analysis &amp; Design Road Design Services during Environmental Special Provisions TMP Quality Review Construction Support</td>								SK RELEVANCE: Traffic Control Design, Traffic Signal Analysis & Design Preliminary & Final Roadway Design, Plan Development & Cost Estimates Hydraulic Analysis & Design Road Design Services during Environmental Special Provisions TMP Quality Review Construction Support	

Government Street project: included extensive traffic analysis, modeling, and safety analysis to develop conceptual alternatives to increase traffic safety and improve access management in this highly commercial corridor. Again, the considerations of the LADOTD Complete Streets policy played a key role in deciding the alternative chosen for implementation. A "road diet" was identified as the preferred alternative including a roundabout at the intersection of Government St. and Lobdell Ave., and Stantec developed final construction plans for these improvements. The construction plans consisted of roadway plans (including hydraulic analysis and design), signal warrants and plans, as well as landscaping plans for enhancement of this corridor. During the construction phase, we provided limited construction support by answering contractor questions, providing design clarifications, and coordinating with stakeholders about access.

W. Prien Lake Road Relocation project: task order was initiated through a third party stakeholder (developer) who was willing to donate the right-of-way for the project in exchange for access related to their development. Stantec was asked to develop preliminary and final plans for the project, which included complete streets features such as a separated shared use path and sidewalk to promote bicycle and pedestrian mobility as well as a multi-lane roundabout. The project also featured a new signalized intersection

at the relocated roadway and Nelson Road, which required our team **to develop traffic signal warrants, signal timing analyses and signal plans**. Due to the planned urban setting for this area, this project also provided subsurface drainage as well as **hydraulic analysis** of a 12'x12' multi-barrel box culvert which was also designed by Stantec's structures group. Since the improvements impacted certain areas near the Nelson Road interchange at I-210, Stantec developed a Level 2 TMP document. Stantec also **provided construction support** during the construction phase of the project, **providing timely answers to contractor RFIs** and questions, as well as reviewing shop drawings. Now complete, this project has improved traffic flow in this very congested area of Southwest Lake Charles.

TEAM MEMBERS INVOLVED: G. HEITMAN, J. CAINS, C. HALL, J. LEFANTE, B. JOHNSON, N. PRUDHOMME, M. (BRATTON) O'ROURKE, S. MENSAH





FIRM NAME	Stantec Consulting Services Inc.				PAST PERFORMANCE EVALUATION CATEGORY(IES)*		Road, Bridge, Traffic	
PROJECT NAME	LA 30: SOUTH BLVD. TO WEST CHIMES STREE				т	FIRM RESPONSIBILITY (prime or sub?)	Prime	
PROJECT NUMBER	H. 011098 OWNER'S NAME				Louisiana Department of Transportation and Development			
PROJECT LOCATION	Baton Rouge, Louisiana					OWNER'S PROJECT MANAGER	Toby Picard	
OWNER'S ADDRESS, PHONE, EMAIL 1201 Capital Access, Baton					Rouge, LA 70808	225-379-1302   toby.picard@la.go	VC	
SERVICES COMMENCED BY THIS FIRM (MM/YY) 04/			04/15 TOTAL CONSULTANT CONTRAC			CT COST (\$1,000's)	\$1,181.4	
SERVICES COMPLETED BY THIS FIRM (MM/YY) Ongoing			С	COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM (\$1,000's)		\$1,181.4		
Describe the project in	Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)							

LA 30, known in Baton Rouge as Nicholson Drive, is a commuter route that connects Louisiana State University and downtown Baton Rouge.

The existing roadway is an urban, four-lane divided arterial with an average daily traffic ranging between 21,000 and 26,000 vehicles. The posted speed limit varies between 30 mph and 45 mph along the project limits. The existing adjoining developments include residential homes, restaurants, shops, and light commercial facilities.

This portion of the project is currently a state route, but it is intended to be transferred to the City-Parish as part of the Road Transfer Program at the completion and of construction. This corridor was identified by the City-Parish's FuturEBR masterplan as a critical infrastructure investment and development opportunity corridor. The FuturEBR masterplan is envisioned to

"promote a more comprehensive and integrated transportation network that provides safe and diverse multimodal transportation options to all Louisianans regardless of geographic location, physical condition, economic status or service requirement." The corridor revitalization effort includes additional new infrastructure for residential, office, and retail space including the proposed Water Campus and River District developments, which are both located primarily on the west side of Nicholson Drive between downtown Baton Rouge and Louisiana State University.

To address the concerns laid out in FuturEBR, Stantec first conducted a Feasibility Study to assess the anticipated growth in traffic from the future developments and determine measures to improve safety and traffic operations. The proposed improvements included the addition of access management policies at several intersections including the conversion of full access median openings to partial median openings, full median construction, signal removal and relocation, sidewalks, crosswalks, and complete streets implementation. As Preliminary Plan production progressed, several additional scope items were added including the modification of the I-10 eastbound off-ramp and the widening of Oklahoma Street. These modifications will relocate the Nicholson Drive terminus of the I-10 eastbound off-ramp from Terrace Avenue to Oklahoma Street and provide a direct connection to the proposed Water Campus and River Road.

One of the many challenges in urban design is mitigating conflicts. The proposed sidewalks that run the length of the project were shown to be encroaching on the roots of several large, established live oak trees near the existing right of way. Stantec worked with the LADOTD Landscape team and Baton Rouge Green, a local non-profit conservation group, to develop a construction plan that provided pedestrian access while avoiding the removal of significant trees.

The plan set currently consists of typical sections, plan and profile sheets, drainage design, pavement markings, signs, sequence of construction, cross sections, as well as the contributions of multiple disciplines including traffic signal plans, right of way plans, lighting and electrical plans, and bridge plans. The plans have been completed with construction expected to begin this year.

TEAM MEMBERS INVOLVED: G. HEITMAN, J. CAINS, C. HALL, J. LEFANTE, B. JOHNSON, K. MALPANI, N. PRUDHOMME, M. (BRATTON) O'ROURKE, M. NEUMANN, H. KREBS, A. BOTROS, S. MENSAH

**TASK RELEVANCE:** 

Quality Review

Construction Support

 $\checkmark$ 

Analysis & Design

Traffic Control Design, Traffic Signal

Preliminary & Final Roadway Design,

Plan Development & Cost Estimates
FIRM NAME	Stantec Consulting Services Inc.				PAST PERFORMANC	CE EVALUATION CATEGORY(IES)*	Road, Traffic, Bridge			
PROJECT NAME	STARING LANE WIDE		ID BRIDGE		FIRM RESPONSIBILITY (prime or sub?)			Prime		
PROJECT NUMBER	N/A OWNER'S NAME			AME	City of Baton Rou	ge / Green Light Plan				
PROJECT LOCATION	Baton Rouge, Louisiana		^			OWNER'S PROJECT MANAGER	Craig	Craig Rabalais, PE (GLPM)		
OWNER'S ADDRESS,	PHONE, EMAIL	8555 Uni	ted Plaza Blv	vd. Bat	on Rouge, LA 7080	9   225-769-0546   rabalais@csrsc	online.	com		
SERVICES COMMEN	CED BY THIS FIRM (MM/YY)	08/05	т	OTAL CO	ONSULTANT CONTRAC	CT COST (\$1,000's)	\$38,775			
SERVICES COMPLETED BY THIS FIRM (MM/YY) 01/13 CO			OST OF	CONSULTANT SERVIC	CES PROVIDED BY THIS FIRM (\$1,000's)	\$1,952.5				
Describe the project in	cluding the firm's role and memb	pers involved	(Highlight mem	nbers to l	be used in this proposal	.)				
Stantec provide congested corr	Stantec provided nearly 360-degree services on this 2-mile improvement project involving a highly TASK RELEVANCE:							SK RELEVANCE: Traffic Study		
Staring Lane was	a two-lane roadway tha	t included	turn lanes a	at seve	eral intersections.	Baton Rouge residents now	$\checkmark$	Alternative Analysis		
enjoy a much-im	proved north-south link f	rom I-10/	Essen Lane	direct	ly to Burbank Driv	e since Stantec's two-mile design	$\checkmark$	Public Involvement		
improve safety, a	mbined with a concurren ind provide a more comm	t Staring I blete stree	Lane Extensi It that accon	nmoda	oject. These upgra ates all modes of t	des help ease congestion, ravel in the corridor.	$\checkmark$	Survey		
We started the \$	38 million improvement	nroiect wi	th a traffic a	and car	nacity study to loc	k at notential geometric changes		ROW Mapping		
We analyzed the	benefits of three-, four-	and five-la	ine typical s	ection	s under current ar	id 2030 design year traffic		Roadway & Drainage Design		
conditions, produced layouts and cost estimates for each option and determined right-of-way acquisition requirements. 🛛 🖉 Bridge Widening								Bridge Widening		
Based on the stu	dy results, the City aske	d us to pro	oduce final o	constru	uction plans for th	e entire two-mile section. Our		Traffic Signals		
design involved a four-lane urban boulevard with a 30' raised median from Essen Lane to Highland Road, subsurface drainage, sidewalks, and updated traffic signals. We also provided structural and hydraulic design for two four-span							Construction Support			

quad beam girder bridges over Dawson Creek and two box culverts, along with topographic and property surveys and right-of-way mapping.

Stantec coordinated with a sub consultant for the design of 36", 60" and 64" force mains along Staring Lane from Burbank Drive to Perkins Road. Using horizontal directional drilling, 65" OD HDPE pipe was installed under Burbank Drive. We also designed two additional miles of 60" force main from Dawson Creek to Pump Station 58 on Essen Lane, segment that involved challenging railroad, roadway and creek crossings. We provided Construction Support, reviewing submittals and answering Requests for Information from the Contractor.

The Staring Lane project was part of the Green Light Plan. Technical expertise included: Conceptual planning, topographic survey and ROW mapping, traffic, signals, geometrics, roadway, large drainage structures, subsurface drainage, sewer design, bridge creek crossing and construction support.

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





FIRM NAME	Civil Design & Construction, Inc. (CD&C)				PAST PERFORMANC	E EVALUATION CATEGORY(IES)*	Road	
PROJECT NAME	NAME PECUE LANE I-10 INTERCHANGE					FIRM RESPONSIBILITY (prime or sub?)	Sub	
PROJECT NUMBER	H.003047 OWNER'S NAME			Louisiana Department of Transportation and Development				
PROJECT LOCATION	Baton Rouge, LA					OWNER'S PROJECT MANAGER	Brian Kendrick, PE	
OWNER'S ADDRESS,	PHONE, EMAIL	1201 Ca	pitol Access R	Road, E	Baton Rouge, LA 70	)802   225-379-1356   brian.kendri	ck@la.gov	
SERVICES COMMEN	02/16 TOTAL CONSU			ONSULTANT CONTRAC	CT COST (\$1,000's)	N/A		
SERVICES COMPLETED BY THIS FIRM (MM/YY) 06/20 COS			COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM (\$1,000's)			\$330		
Describe the project in	cluding the firm's role and memb	pers involved	. (Highlight memb	bers to l	be used in this proposal	.)		

The scope of this project includes the construction of a new Diverging Diamond Interchange (DDI) at Pecue Lane and I-10.

The project replaces the current two-lane overpass bridge with twin overpass structures and adds ramps to complete one of the first DDI interchanges to be constructed by LADOTD. The project also includes replacing the Pecue Lane Wards Creek bridge, extending Rieger Road to a new intersection with Pecue Lane and extending new Pecue Lane to tie into existing Pecue Lane.

CD&C provided engineering design services for Preliminary and now Final Plans of the West Bound Entrance-Ramp to I-10, the West Bound Exit-Ramp from I-10, the extension to Rieger Road and Pecue Lane Extension.

TEAM MEMBERS INVOLVED: K. WESTON



FIRM NAME	Civil Design & Construction, Inc. (CD&C)				PAST PERFORMANC	E EVALUATION CATEGORY(IES)*	Survey		
PROJECT NAME	I-10 TX STATE LINE EAST OF COONE GULLY					FIRM RESPONSIBILITY (prime or sub?)	Sub		
PROJECT NUMBER	H.003184.5 OWNER'S NAME				Louisiana Department of Transportation and Development				
PROJECT LOCATION	Calcasieu Parish, LA	Calcasieu Parish, LA				OWNER'S PROJECT MANAGER	Stanley Ard, PLS		
OWNER'S ADDRESS,	, PHONE, EMAIL	1201 Ca	pitol Access	Road, E	Baton Rouge, LA 70	@la.gov			
SERVICES COMMENCED BY THIS FIRM (MM/YY) 10/15			TOTAL CONSULTANT CONTRACT COST (\$1,000's)			N/A			
SERVICES COMPLETED BY THIS FIRM (MM/YY) 12/18 COST				OST OF	CONSULTANT SERVIC	\$443			
Describe the proiect in	cluding the firm's role and memb	pers involved	. (Hiahliaht mer	nbers to l	be used in this proposal	)			

# 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 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.

TEAM MEMBERS INVOLVED: R. BURGESS, C. BALLARD





FIRM NAME	Civil Design & Construction, Inc.				PAST PERFORMANC	E EVALUATION CATEGORY(IES)*	Survey	
PROJECT NAME	I-10: LA 415 TO ESSEN LANE ON I-10 AND I-12				FIRM RESPONSIBILITY (prime or sub?)		Sub	
PROJECT NUMBER	H.004100 OWNER'S NAME			Louisiana Department of Transportation and Development				
PROJECT LOCATION	West and East Baton Rouge, LA					OWNER'S PROJECT MANAGER	Nicholas Olivier	
OWNER'S ADDRESS,	PHONE, EMAIL	1201 Cap	ital Access Rd, B	aton	Rouge, LA 70802   2	25-379-1232   Nicholas.olivier@la.go\	1	
SERVICES COMMENCED BY THIS FIRM (MM/YY) 01/18			TOTA	TOTAL CONSULTANT CONTRACT COST (\$1,000's)			N/A	
SERVICES COMPLETED BY THIS FIRM (MM/YY) Ongoing COST OF				T OF CONSULTANT SERVICES PROVIDED BY THIS FIRM (\$1,000's)			\$296	
Describe the project in	cluding the firm's role and memb	pers involved	. (Highlight membe	rs to	be used in this proposal	.)		

This project is located in West Baton Rouge and East Baton Rouge Parishes in the cities of Port Allen and Baton Rouge, LA.

A complete Topographic survey including all utilities (ASCE 38-02, QL "B") with depths and all drainage is required, along with Finish floor elevations of all buildings that fall within the survey limits. The survey begins 1,500 feet West of the western most entrance/exit ramps of the LA 415 and I-10 Interchange. From the I-10, I-12 split the survey shall proceed in southerly and easterly directions along the existing main alignment of I-10 for approximately 1.5 miles & I-12 for approximately 1.5 miles to end the route limits.

# CD&C's Role:

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. 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.

TEAM MEMBERS INVOLVED: R. BURGESS, C. BALLARD





### 18. Approach and Methodology:

# **PROJECT UNDERSTANDING AND EXPERIENCE**

# **EXISTING CONDITIONS**

Livingston Parish has experienced significant growth over the past decade. Due to the lack of major bridge crossings for the Mississippi River to the west and the capital city of Baton Rouge serving as the center of commerce in the 10-parish Capital Region, development has guickly spread to the east, spurring growth in the cities of Denham Springs, Walker, and points east. The LA 447 South (Walker South) corridor has continued to experience growth as a result of this trend, even outside of the incorporated city limits of Walker, LA. The Alternative Analysis Report performed in 2014 shows a growth rate to the south of I-12 that is 2.5 time more than the growth rate north of I-12 along LA 447. From a land use standpoint, this road has gradually begun to transform from a rural area into a more suburban-type area, featuring primarily residential development. A majority of the development is to the west of the corridor, being somewhat constrained to the east by large-tract land owners (Weverhauser) and environmental constraints such as floodplains from the major drainage basins of West Colyell and Middle Colyell Creek. As residents and developments continue to grow to the south of I-12, the LA 447 Corridor will continue to experience increased development and traffic volumes along this substandard rural road.

The distance between LA 16 to the south and the I-12 interchange to the north is approximately 8 miles, and the posted speed is 55 mph for approximately 6 miles beginning north of the LA 16 intersection until Crotwell Rd. where the speed lowers to 45 mph. Based on our team's local knowledge of the area as well as personal experiences, many drivers often exceed the posted speed limit through both speed zones as they approach the I-12 interchange. **Our team believes that this can be attributed to the length of the 55 mph zone in combination with the rural feel of the road, meaning that the prevailing speed of the corridor may be an important consideration in the design of the proposed improvements. As traffic volumes grow within the project limits, the need to encourage slower speeds will become even more important to provide a better multi-modal environment for all anticipated road users.** 

LA 447 is a two-lane, two-way road with minimal shoulders and open ditches along



the entire corridor. Geometrically, within the project limits the existing roadway features many generally short horizontal curves with sharp radii, and the longitudinal profile grade is relatively flat. The existing ROW within the project limits varies between 60 – 70 feet wide. The intersections (driveways and roadway connections) along the route seem to present sight line issues at several locations when considering the higher prevailing speed of the route. These sight line issues will require further investigation for improvement recommendations during the design phase. The high



potential for continued growth and development along this corridor will only increase the demand for roadway and safety improvements in this area.

# **EXISTING BRIDGE CONDITIONS**

The existing bridge, Recall No. 056780, is located approximately 1,400-ft south of the LA 447 and Buddy Ellis Road intersection and crosses an unnamed canal. According to the latest inspection report, dated March 2022, the bridge was built in 1958, is approximately 59-ft long, and has a 10-ft maximum vertical clearance (not navigable according to 23 CFR 650.807(b)(1)). During a Stantec site visit performed on 7/13/2022, Brian Johnson observed three precast concrete slab spans overlaid with asphalt, supported by timber piles with concrete cap pile bents; a helper bent (timber) has been installed beneath span 3. Each span consists of seven deck panels connected with transverse tie rods. Currently the bridge is open to traffic without posting restrictions. Seven of the timber piles were found to have decay, primarily at bents 1 and 2. Concrete spalls were also observed on the deck underside in all three spans. At a minimum, the existing bridge will require rehabilitation to extend its service life.

# **PROPOSED CONDITIONS**

LA 447 (Walker South) Corridor is currently proposed to be improved beginning just south of its intersection with Joe May Road and continuing north to the I-12 Interchange. The project is currently in the Draft Environmental Assessment (Draft EA) phase with FHWA and DOTD. Following a public hearing and Final EA, the document should be environmentally approved and cleared with a FONSI decision. It is important to note that preliminary design prior to the environmental decision for a project is considered to be at-risk due to the possibility of the preferred alternative being modified; therefore, we will work closely with DOTD to understand the appropriate time to proceed with design and will take opportunities to gather data to develop the most context driven design until the document is approved.

The Draft EA document contains information that is important to inform the preliminary design of the project, such as the line and grade study, floodplain assessment, wetlands assessment, and traffic & safety report. Of the information reported in the Draft EA so far, key findings include:



- Additional right-of-way or realignment of the existing roadway may by required in areas of tight existing right-of-way and substandard sight lines. Waivers may need to be considered where appropriate/practical to conserve right-of-way.
- Generally speaking, the entire project limits appear to be in the 100-yr floodplain, and only small portions are within the 500-yr floodplain at the southern limits of the project. Impacts to the 100-year floodplain should be the primary consideration in developing any vertical profile grade adjustments to avoid adverse backwater impacts and promote drainage of the watershed. If major profile adjustments are warranted, additional mitigation should be proposed such as additional crossing culverts and other methods of promoting flow of drainage across the LA 447 corridor to balance impacts between a potential flood event with the roadway design in accordance with Section 1.5 of the DOTD Hydraulics Manual.
- Approximately 1.79 acres of jurisdictional wetlands and 3.12 acres of jurisdictional non-wetland waters of the U.S. will be impacted by the proposed project. The design should consider options to reduce wetland impacts to these areas to the extent practicable / feasible.
- Based on the 2014 traffic report, crashes along the LA 447 South corridor appear to be experiencing an increasing trend. Between LA 16 and the I-12 Interchange, a majority of the crashes appear to be between vehicles and primarily the rear-end crash type. However, based on the other crash types documented, it does appear that right angle, left turn, side-swipe, and othertype crashes make up a large majority of the other crash types in the corridor. The design should consider the location of these crashes and investigate if the current design as proposed in the environmental document will address these safety-related issues.

The proposed sections for the LA 447 improvements are listed as follows:

- 3-lane section from Joe May Road to Buddy Ellis Road (approx. 1.5 miles)
- Replacement of an existing 60' long bridge structure (approx. 1,400 feet south of Buddy Ellis Road Intersection with LA 447)
- Multilane roundabout intersection at Buddy Ellis Road
- 4-lane section from Buddy Ellis Road to O'Donovan Boulevard (approx. 0.9 miles)
- Multilane roundabout intersection at O'Donovan Boulevard
- 4-lane section from O'Donovan Boulevard to the I-12 EB Ramp Terminals (multilane roundabout intersection)

In addition to these improvements, the intersection at Milton Lane and Miller Road with LA 447 is currently being studied for realignment to provide better access management and controlled access near the I-12 interchange. The Final Environmental Assessment document will provide the preferred improvements to address the needs of this area.

According to the Draft EA document, the sections listed above will feature paved sidewalks and / or paved shoulders to satisfy the DOTD Complete Streets policy

and Design Guidelines. From a complete streets perspective, it is important that all modes of transportation are properly considered for the entire corridor. Increasing residential development and access along the corridor will likely result in an increase in pedestrian and bicycle traffic as well. **Since this roadway has a history of vehicles traveling over the speed limit, care will need to be taken to design safe accommodations for all modes of transportation in this corridor. We will use the latest guidance and recommendations for pedestrian and bicycle access, and overall mobility in areas with similar context and work with DOTD to develop solutions that can be implemented along the corridor.** See the Project Challenge / Mitigation Matrix for proposed solutions and/or recommendations.

The proposed roundabout intersections at Buddy Ellis Road and O'Donovan Blvd. are proposed to be multilane roundabouts. In addition to their intended traffic calming effect, these intersections will also provide access for the OLOL hospital as well as single family homes and neighborhoods to the east and west of the LA 447 corridor. In the design of these roundabouts, our team believes it will be important to consider the prevailing speed of northbound traveling vehicles, especially because it will have been approximately 7 miles between an intersection where these vehicles would be required to slow down. From a roundabout design perspective, taking additional measures to slow vehicles down on this approach should be a priority. See the Project Challenge / Mitigation Matrix for proposed solutions and/or recommendations.

# CONSTRUCTABILITY

The constructability of the LA 447 corridor improvement is still yet to be determined as the current Preferred Alternative has yet to be approved in the Final Environmental Assessment Document. However, construction of the expansion of a two-lane roadway is not without special consideration. There are several factors that must be planned for when constructing the expansion of a two-way roadway in phases, and some of them are listed below:

- Operational Considerations: Prevailing speed of the corridor (pre-construction); crash history types and locations
- Horizontal Considerations: Physical clearance to the existing roadway/ construction equipment space; temporary pavement/diversion geometry; maintaining local access; local detour availability/State detour availability; sight lines; vehicular maneuvers at intersections (roads and driveways); space for incident management; concrete vs. asphalt pavement construction (restrictions & space needs)
- Vertical Considerations: Grade differences between existing and new roadway (diversions/shifts); grade differences between proposed roadway and driveway connections (grade breaks/level platforms); sight lines in areas of steep grades between existing access and proposed work; overhead utility conflicts
- □ Drainage Considerations: Phasing should plan for constructing drainage structures beginning on the downstream end first; Jack & Bore requirements, restrictions, & limitations (circular vs. arch pipe); temporary drainage needs (i.e. when existing roadway is lower than proposed roadway); underground utility conflicts



PROJECT CHALLENGE / MITIGATION MATRIX									
CHALLENGES	MITIGATION STRATEGIES								
Excessive Vehicle Speeds	<ul> <li>Perform speed study to determine prevailing speed within the corridor for design consideration purposes</li> <li>Raised grass median w/curb or paved island</li> <li>Raised curb on outer EOP</li> <li>Speed limit signs after every major intersection</li> <li>Provide SSD for prevailing over design speed for driveways and local road intersections</li> </ul>								
Right-of-Way Impacts	<ul> <li>Provide acceptable foreslope values over preferred</li> <li>Provide acceptable lane and shoulder width values over preferred</li> </ul>								
Floodplain Impacts	<ul> <li>Provide additional drainage openings in areas where higher profile grade is proposed</li> <li>Match existing roadway elevation and existing drainage patterns wherever possible</li> </ul>								
Wetland Impacts	<ul> <li>Provide acceptable foreslope values over preferred</li> <li>Provide acceptable lane and shoulder width values over preferred</li> </ul>								
High Crash Rates	<ul> <li>Provide SSD for prevailing over design speed for driveways and local road intersections</li> <li>Provide median width that "shields" vehicles and allows for 2-stage crossing</li> <li>Provide low-cost safety improvements where traditional solutions are not feasible</li> </ul>								
Vehicle – Pedestrian – Bicycle Conflicts	<ul> <li>Supplement high visibility crosswalks with ped / bike actuated flashing beacons</li> <li>Provide warning signage to alert drivers to pedestrian and bicycle activity in the area</li> <li>Provide offset sidewalk where feasible</li> <li>Provide wider outside stripe to separate travel lane from the shoulder</li> </ul>								
High Roundabout Approach Speeds	<ul> <li>Provide a "rural-type" roundabout approach for northbound traffic</li> <li>Supplement standard roundabout approach signing with a flashing beacon</li> </ul>								
Existing Bridge Structure Improvement / Constructability	<ul> <li>Evaluate phase construction to replace the existing bridge while maintaining traffic</li> <li>Compare accelerated bridge construction options (precast elements) with traditional methods to optimize construction time and costs</li> </ul>								

for design and constructability at a time when roundabouts were still very new to the State. Offsetting the roundabouts from the existing roadway to better maintain traffic during construction not only created efficiencies during construction, but addressed design considerations from a roundabout geometry layout standpoint. We also learned that mixing ramp design with an innovative intersection type warranted special design considerations that required us to look at transitions from a high-speed condition to a very low speed condition. Those lessons learned will serve us well as we address some of these same issues along LA 447 such as the northbound approach to the southernmost roundabout at Buddy Ellis Road.

Stantec implemented the first three roundabouts in East Baton Rouge Parish along LA 327 (River Road) and has since designed several other roundabouts for DOTD as traffic calming solutions primarily in rural areas, including the following locations most of which are in operation:

- LA 447 / I-12 Interchange (Walker, LA)
- LA 86 at LA 320 Roundabout (east of New Iberia, LA)
- US 79 Bypass at LA 9 Roundabout (south of Homer, LA)
- US 11 at Cleo Road (near Pearl River, LA)
- LA 75 Roundabouts (Plaguemine, LA)

Except for the LA 447 project, all the roundabouts listed above were single lane roundabout intersections. However, we have worked with DOTD to implement multilane roundabout intersections in

Lake Charles, LA (two locations). Most recently we have worked very closely with DOTD on the I-49 Connector project, laying out dozens of multilane roundabout configurations and variations of roundabouts along the heavily developed

Evangeline Thruway corridor in Lafavette, LA. We believe our roundabout design experience in Louisiana positions us to be highly considered and entrusted with a project requiring this specialized design expertise. and our experience in expanding corridors from a two-lane road to accommodate higher traffic demands gives us the well-rounded experience we need to exceed DOTD's expectations for this project.



+ LA 86 at LA 320 Roundabout

Our team will be proactive to provide recommendations to DOTD in the Level 2 TMP document addressing these and any other issues that need to be considered during the design phase of the project. See the Project Challenge / Mitigation Matrix above for proposed solutions and/or recommendations.

The mitigation strategies listed may be highly influenced by the Preferred Alternative and Environmental Commitments associated with the approval of the EA document, but our team is committed to providing recommendations as required to ensure the safe and efficient implementation of this project for the traveling public and construction workers that will be working along this corridor.

# **EXPERIENCE**

# **PROJECT AREA + ROUNDABOUT**

If selected, Stantec would have the opportunity to continue building on what we helped DOTD start 5 years ago in this area. The LA 447 / I-12 Interchange Project was one of the first phases of an implementation plan to improve the LA 447 corridor. The two multilane roundabouts at this rural interchange began to prepare this area for the improvements to come. Stantec implemented strategies



# BRIDGE

Although several deficiencies were noted in the inspection report for the existing bridge, utilizing this bridge to construct a new crossing needs to be considered. This would allow the contractor to partially build a new bridge adjacent to the existing with enough width to maintain two lanes of traffic at all times during construction of the new structure and demolition of the old structure to complete the work. Stantec has delivered multiple bridge projects similar in scope to the potential bridge replacement along LA 447 South, specifically

Staring Lane over Dawson Creek in Baton Rouge (2013), SR 145 bridge replacements in Prentiss County, MS (2020), Madison Avenue over Brashear Creek in Madison, MS (2021), and LA 12 bridge replacements in Calcasieu Parish (ongoing). We have been serving DOTD with design and load rating services for decades and have a great understanding of bridge division's processes and procedures. Recently our bridge staff completed two major design projects in Louisiana (Nelson Road Bridge and I-10/Loyola Interchange) which involved a variety of structure types and design considerations. In addition to design, we have a wealth of inspection and load rating experience that is extremely important when studying existing and designing new bridges.

# LIGHTING

As currently proposed, roadway lighting does not appear to be a scope item for the project; however, we believe that it is **very important that lighting be considered for this project** for the proposed roundabout intersections as a minimum requirement in accordance with FHWA guidance provided in the NCHRP Report 672, Chapter 8, Section 8.1. Our team has a wealth of experience for designing roadway lighting along roadway corridors, as well as providing designs that meet requirements at roundabouts. In fact, the **Stantec team design for the LA 447 / I-12 Interchange project that constructed the two roundabouts at the interstate ramp terminals included lighting improvements to meet FHWA guidance for roundabouts**. Providing a roadway lighting system along this corridor would likely need to be worked out with the local stakeholders from an O & M standpoint especially since a majority of the system will be outside of the Walker incorporated city limits, but given the several factors that would

Whether we're designing miles of busy urban highway or expanding a road through a rural environment, our mission is always to identify the community solution one that marries solid technical and innovative design with community desires. benefit from roadway lighting in this corridor (driver visibility, pedestrian and bicycle visibility, sporadic wildlife, suburban-type land use, speeds that vehicles operate at along this corridor), our team believes that roadway lighting is a worthy consideration corridor-wide. The Preliminary Plans phase may not have accounted for this in the budget, but if and when this project moves to final plans, our team has the resources, expertise, and experience to include lighting as part of the project deliverable package.

# **PROJECT SCHEDULE**

			YEAR 1			YEAR 2				YEAR 3				YE	AR 4	
PRELIMINARY PLANS DELIVERY SCHEDULE	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
LA 447 Advertised Contract Duration (4 years)																
Contract Execution, NTP, Project Kickoff, Data Gathering, Field Investigations, and Add'l Needs Assessment																
30% Prelim. Plans Dev. (Horiz. & Vert. Geom. Design, Gen. Plan Dev.)																
30% Prelim.Plans Submittal and Review																
60% Prelim. Plans Dev. (Address 30% Comm., Design Report, Gen. Plan Dev., Drng. Des., Draft ROW & Utility Impacts, MOT Plans / Lvl. 2 TMP, Cross Sects., Bridge Design & Plan Dev.)																
60% Prelim.Plans Submittal and Review																
95% Prelim. Plans Dev. (Address 60% Comm., Gen. Plan Dev., ROW & Utility Impacts, Cross Sects., Constructability Form, Bridge Plan Dev., PIH Notes in Plans)																
95% Prelim. Plans Submittal, PIH Review for Distribution, and PIH Mtg.																
100% Prelim. Plans Dev. (address PIH comm., Gen. Plan Dev., Finalize ROW Taking Lines)																

# **CLOSING**

We believe we have provided ample evidence that Stantec is the best choice for this LA 447 Corridor Contract. From the high caliber of our personnel to our past performance to our in-depth familiarity with LADOTD's standards, processes, and expectations – we believe this contract



would be a way to further our decades- long relationship and showcase the talents of our dedicated staff.

#### 19. Workload:

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

1) one of the team's firms is responsible for the performance of the work;

2) authorization to perform the work has been provided, as provided in the contract between the consultant and the contracting entity;

3) the work has not yet been performed and invoiced; and

4) the work is not currently suspended for an indefinite period of time.

For indefinite delivery/indefinite quantity (IDIQ) contracts, list open Task Orders individually. List only the portion of the fees attributable to the firms on the team.

FIRM(s)	Past Performance Evaluation Discipline(S)*	STATE PROJECT NUMBER	PROJECT NAME	REMAINING UNPAID BALANCE**
Stantec Consulting Services Inc.	Bridge	S. P. No. 700-99-0430	Retainer Contract for Bridge Preservation [Statewide, Louisiana]	
			T.O. 701-65-1018 Bayou Tech Bridge	\$1,053
Stantec Consulting Services Inc.	Bridge, Traffic	S. P. No. 700-10-0153	Nelson Road Ext. Bridge [Lake Charles, Louisiana]	\$5,000
Stantec Consulting Services Inc.	Planning	S. P. No. 4400004128	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]	\$1,247,122
Stantec Consulting Services Inc.	Traffic/ITS	S. P. No. 4400010670	Retainer Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services [Statewide, Louisiana]	
			H.004104.5 Pecue Lane/I-10 Interchange Phase 3 [East Baton Rouge Parish]	\$8,255
			H.011152.4 I-12 US 190 to LA 59 [St. Tammany Parish]	\$35,446
			H.013261.6 I-110 ITS Deployment/Constr. [East Baton Rouge Parish]	\$9,233
			H.013866.6 I-12: LA 21 to US 190 Roadway Widening [St. Tammany Parish]	\$19,688
			H.014529.1 Baton Rouge Regional ITS Architecture Update [EBR & WBR Parishes]	\$9
Stantec Consulting Services Inc.	Road, Bridge, ITS, Traffic	S. P. No. H.011670	Loyola Dr./I-10 Interchange to New Airport Terminal Design Build (Sub to Gilchrist Co., LLC) [Jefferson Parish]	\$451,850
Stantec Consulting Services Inc.	Traffic/ITS	S. P. No. 4400017922	IDIQ Contract for Intelligent Transportation Systems (ITS) System Design, Integration and System Verification Services [Statewide, LA]	
			H.014515.1 ATMS and 511 Upgrade SEA [Statewide]	\$9,000
Stantec Consulting Services Inc.	Traffic/ITS	S. P. No. 4400020058	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services [Statewide, LA]	
			H.013710.6 I-10: US-61 to Laplace ITS Deployment [Ascension, St. James & St. John Parishes]	\$0
			H.013842.5 I-10: WBR Queue Warning System Design [Iberville & WBR Parishes]	\$0

			H.001234.6 LA 1: Port Allen Canal BR REPL (PHI) (HBI) [West Baton Rouge Parish]	\$0
			H.002424.5 LA 70: Sunshine Bridge - LA 22 [St. James & Ascension Parishes]	\$1,261
Stantec Consulting Services Inc.	Other	S. P. No. 4400020064	IDIQ Contract for Electrical Services [Statewide, LA]	
			H.005967.5 I-12: Nelson Road Ext. & Bridge-Roadway Lighting Engineering [Calcasieu Parish]	\$9,454
			H.014286.5 I-10: LA 26 (Jennings) Interchange Lighting [Jefferson Davis Parish]	\$68,288
			H.014272.5 I-10: LA 97 (Jennings) Interchange Lighting [Jefferson Davis Parish]	\$169,752
Civil Design & Construction, Inc.	Surveying	4400017597	Rural Bridge Replacement Initiative (Districts 03, 07, 61, & 62)	\$4,335
Civil Design & Construction, Inc.	Surveying	4400017091/ TO-2	LWI Statewide Modeling R5 – Task Order #2	\$96,970
Civil Design & Construction, Inc.	Surveying	4400017091/ TO-3	LWI Statewide Modeling R5 – Task Order #3	\$246,123

#### DO NOT SUM

(Add rows as needed)

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

\*\* Round to the nearest dollar. **Do not** round to the nearest thousands. If there are no active contracts with a remaining unpaid balance, please place N/A in the remaining unpaid balance column. LEAVING THE "REMAINING UNPAID BALANCE" COLUMN BLANK IS NOT ACCEPTABLE.









certifies that

November 20. 2013

presented to

Joey Lefante

for completing the

Module 1

Timothy P. Harpet

July 16, 2018

Baton Rouge, Louisiana

Date

Location: Joly J Colore



Certificate of Completion



Certificate of Completion presented to Stephen Mensah for completing the Traffic Engineering Analysis Process & Report Module 2 August 6, 2018 Professional Development Baton Rouge, Louisian Hours (PDHs) Awarded: 3 al Tembe



THIS CERTIFICATE HEREBY RECOGNIZES THAT

Derrick Goudeau

has attende

Traffic Control Technician-LA State Specific Training Course

ATSS.

Dom H. Clad

Alan Terlocho

President CEO

ployment by ATSSA.

8/4/2020 to 8/4/2020

Baton Rouge, LA

08/25/2015 Date

New Orleans, LA



THE ACADEMY OF BOARD



To Whom It May Concern,

This is to verify that the below listed employees of Stantec have successfully completed LADOTD required ATSSA Traffic Control Training.

ATSSA Traffic Control Supervisor Refresher Training - June 24, 2022: Cindy Hall, Hannah Krebs, Joseph Cain, Joseph Lefonte, Michael Neumann, Nick Prudhomme and Stephen Mensah

This letter will serve as temporary proof of training until above listed employees receive their official certificates from American Traffic Safety Services Association (ATSSA).

If there are any questions regarding this issue, please contact Mr. Brett Morgan of LADOTD at Headquarters in Baton Rouge, LA (225-379-1584) or Judy Brousseau at the above captioned address.

Best Regards,

Kenner Elyno

Ken Naquin, LAGC Chief Executive Officer

Services Association

Hereby recognizes that Scott Hoffeld

has attended

Training Course

SAFER BRARS SAVE LIVE



#### Transportation Professional Certification Board Inc.

1627 Eye Street, NW + Suite 600 + Washington, DC 20006 USA + Tel: 202-785-0060 + Fax: 202-785-0609 + www.tpcb.org

Joseph Patrick Barker Buchart Horn Inc. 4504 Jeanne Marie Pl New Orleanse, LA USA 70122

It is my pleasure to transmit the enclosed notice that you have passed the examination to be certified as a Professional Traffic Operations Engineer®. Congratulations!

The Certification Board previously determined you met all other requirements for certification. If there is no balance due on the attached invoice you may now use the title Professional Traffic Operations Engineer® and/or the initials PTOE® in the conduct of your professional practice. If payment is outstanding, you must pay the balance due and only then are you a PTOE®.

While you wait for your certificate, your PTOE® certification number is: 4364 A certificate will reach you within 120 days. If you wish your name to appear on the certificate any differently from how it is shown here, please contact Ann ONe limmediately an annihility hours.

#### Joseph Patrick Barker

Your initial certification fee covers a three-year period and will expire November 20, 2020. During that period you must keep at least one governmentally issued professional engineering license valid and must report to the Certification Board at this letterband address should your professional engineering license in any jurisdiction, your membership in any professional engineering society or your employment or engagement as a professional engine be suspended or terminated for unethical or illegal actions. Any of the above could cause your certification to be revoked, subject to an established appeal procedure.

At the end of the three-year period, your certification will be renewed without examination if you demonstrate you have met the continuing professional development and education activities required. The specific components of the required continuing professional development are described in the enclosed attachment. Begin enting and keeping track of your professional development units so when it is time to renew, the PDH's will be easily accessible. ITE has developed a web-hased Professional Competency Record Keeping System to assist you in keeping such a log-

In the certification and licensure industry, it has become common for a certain percentage of recertification applicants' attestation materials to be audited and verified. TPCB has been working with its psychometrician at Castle (TPCB's certification and licensure testing company) to determine harpercentage as well as the process that must be implemented to rapply for its accreditation. Please be advised that beginning January 1, 2018, TPCB will implement a policy in which 20% of explication metrication will be audited which means that the certificant will be required to provide documentation as backup to support the application. This sampling will be completely random.

Let me again congratulate you on obtaining this certification. We hope you will display your certificate with justified pride and carry out your professional activities in a manner to bring added luster to the title and practice of Professional Traffic Operations Engineer<sup>68</sup>. Should you have questions now or in the future, please do not hesitate to contact me or the staff at the address above.

DOTD

LOUISIANA UNIFIED CERTIFICATION PROGRAM **Disadvantaged Business Enterprise Program (DBE) Small Business Element (SBE)** This is to certify that under Title 49, Part 25 of the Code of Federal Regulation

**Civil Design & Construction, Inc.** 

NC541330, NC541340, NC541350, NC541370

Certificate Eligibility: March 2022 to March 2023 is valid through the above date provided. This firm meets the on-going progra annual update requirement to remain in good standing as a DBE. This certific

Rhonda Wallace, DBE/SBE Programs Manager

nt of Transp

Rhonda Wallace

tation & Develop

NOTE: There may be other approved NAICS Codes. The online DBE Directory includes a complete

taged Business Enterprise (DBE) & Small Business Element (SBE) in the following spe

42

Sincerely

RTA 为

Is a Certified D

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Michael K. Park, P.E., PTOE
Chair, Transportation Professional Certification Board Inc
Attachments
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	ATSSA
PROOF C	DF TRAINING HEREBY RECOGNIZES THAT
So H Traffic Control Te Tr	eott Benton as atlended chnician-LA State Specific aning Course
4/28/2020 to 4/28/2020 Date	Vice President of Member Services
Baton Rouge, LA Location	Alar, Technolow President, CEO
ATSSA	American Traffic Sufety Services Association ATSSA com







6/25/2023



Page 50 of 112 Stantec Consulting Services Inc.

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

If the advertisement requires submission of a QA/QC plan or Work plan, include them here. Otherwise, leave this section blank.

Quality Management Plan CONTRACT NO. 4400024641 CONTRACT FOR LA 447 CORRIDOR STATE PROJECT NO. H.005734 F.A.P. NO. H005734 ROUTE: LA 447 LIVINGSTON PARISH

Stantec Project No.: TBD



Joseph Cains III, P.E. – Project Manager

Gary Heitman, P.E. – Principal-in-Charge

**Document Date: TBD** 

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# Foreword

Stantec recognizes the importance of quality on the LA 447 Corridor. We are committed to developing, implementing and adhering to a detailed Quality Management Plan for all services provided as part of the Project. In addition, since the Project has a large bridge component, our team is committed to the principles dictated in the LADOTD, Bridge Design Section, "Policy on Quality Control and Quality Assurance's Construction Plans".

This Quality Management Plan (**QMP**) is a "living document". As such, it will periodically be reviewed for performance and amended as necessary to achieve the quality commitments and goals. This QMP will also be amended as the Project moves into future phases of development.

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

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

#### The goals of the QMP for the proposed bridge improvement is to:

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



Accurately mitigate impacts of unforeseen conditions and events

Particularly with respect to the bridge elements of the improvements to the existing bridge crossing, the LADOTD Bridge Section has specific QC/QA processes which must be addressed. This QMP conforms to Part I – Policy and Procedures; Chapter 3 - Policy for Quality Control and Quality Assurance (QC/QA) of the current LADOTD BRIDGE DESIGN AND EVALUATION MANUAL (BDEM).

This **QMP** contains seven (7) appendixes:

- APPENDIX A: GUIDELINES FOR DESIGN & DOCUMENT PREPARATION
- APPENDIX B: GUIDELINES FOR PROCESSES
- APPENDIX C: QC CHECKLIST & COMMENT FORMS
- APPENDIX D: QA CHECKLIST & COMMENT FORMS
- APPENDIX E: INDEPENDENT REVIEW & COMMENT FORM
- APPENDIX F: LADOTD BRIDGE DESIGN QC/QA PLAN
  - F1: LADOTD BRIDGE DESIGN (DESIGN CRITERIA CHECKLIST)
  - F2: LADOTD BRIDGE DESIGN (FINAL CALCULATION BOOK CHECKLIST)
  - F3: LADOTD BRIDGE DESIGN (QA INFORMATION PACKET CHECKLIST)
  - F4: LADOTD BRIDGE DESIGN (QC/QA CERTIFICATION)
  - F5: LADOTD BRIDGE DESIGN (PEER REVIEW RESOLUTION AGREEMENT)
  - F6: LADOTD BRIDGE DESIGN (CONSULTANT PROJECT BRIDGE DESIGN KICK-OFF MEETING AGENDA CHECKLIST)
- APPENDIX G: NON-CONFORMANCE REPORT FORM

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



# **Revision Summary**

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

Revision	Date	Section	Summary of Revision



# **Required Reading Form**

All members of the LA 447 Project Team – Designers, Checkers, Reviewers, and Professionals of Record shall become acquainted with the contents of this document and related attachments. As a record of responsibility of the team, and a record of accountability by Stantec, this form shall be maintained on the Project.

Name	Signature	Date



# SECTION 1. UNDERSTANDING OUR ROLE

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

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

### 1.2 QUALITY MANAGEMENT PLAN PHILOSOPHY

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

### 1.3 QUALITY MANAGEMENT PLAN PRINCIPLES

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

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

### 1.3.1 Client Focus

Stantec knows and understands that our future depends on our Clients – which equates to satisfaction with our company and services. Therefore, our primary focus is to understand our



Client's current and future needs, while continually striving to meet and exceed our Client's requirements and expectations.

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

- **Knowing our Client's View** we strive to know what the expectations are within our Client's organization, including such things as design philosophy, cost expectations, and project purpose.
- **Knowing our Client's People** we focus on relationships by knowing the point-of-contact for our Clients and understanding "who does he report to?", or "what is her background on this type of project?", or more personally "what makes him really excited? Or upset?"
- Knowing our Client's Scope we strive to completely understand project requirements. We want to appreciate "what's behind that?" and pursue it until we get answers like, "that's very important to the project outcome," or "that's crucial to project approval," or "that's a particular area of project distinction".
- Knowing our Client's Risk we appreciate and attempt to understand our Client's important issues such as "what keeps him up at night?"; or "what will create problems for her?"; or in a positive way, understanding "what outcome will give greatest value", or "what outcome will give greatest satisfaction."

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

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

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

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



# STANTEC QUALITY CONTROL/QUALITY ASSURANCE CONCEPTS & DEFINITIONS

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

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

The following definitions of quality management, quality control and quality assurance will apply to the improvements for the existing bridge.

Checking Stamp	An electronic or rubber stamp to be affixed on all QC documents and to be used as part of the <b>Five Step Process</b> for all <b>QC Checking</b> .	
Five Step Procedure	A detailed checking procedure to be followed by all <b>QC Checkers.</b>	
Independent Review	As part of the QA Review, an Independent Review will include one (are more) of the following:	
	• <b>Consistency review</b> of the plan details to assure uniformity of design, detailing, format and presentation;	
	• <b>Constructability review</b> of the plan details to identify possible design improvements to make construction easier, safer and less costly and/or reduce environmental impacts;	
	• <b>Operational Review</b> to understand how the Project functions, how it can be more user friendly and easier to maintain and how the design can be made more efficient; and,	
	• <b>Risk review</b> of areas of critical importance; areas where, based on the reviewer's experience, mistakes may be typically found; and areas that may be new to the design practice.	
Inter-Discipline Reviews	A review focused on specific discipline elements or coordination between different disciplines – includes survey, roadway and bridge; bridge and geotechnical; roadway and traffic; etc.	



Management Review Meetings	Review by Project leadership and QC/QA leadership to measure QC/QA compliance at various Project milestones. Review will also include effectiveness of the <b>QMP</b> with the objective of continual improvement.
Primary QC Signature	Signature by Project Manager / Discipline Leader on all submittals and documents prepared under their control.
Quality Control (QC) Submittal Checking	Every work product requires a full review. Work products include plans, cost estimates, reports, evaluations, or studies. For the various submittals, responsibilities may include:
	Checking for completeness in accordance with guidelines approved by the Project Manager or Discipline Leader;
	<ul> <li>Ensuring that the work product adequately and accurately presents the required information;</li> </ul>
	Verification of all dimensions and quantity calculations;
	• Verification of the accuracy of the preparer's work product;
	<ul> <li>Verification that all design information is correctly and completely shown on the details and in accordance with the approved design calculations;</li> </ul>
	Verification of conformance to standards of practice;
	• Verifications of cost effectiveness & fitness for the purpose and function of the specified Project;
	<ul> <li>Performance of CAD drawing reviews for formatting, layering and CAD Conform requirements; and</li> </ul>
	• <b>Performance</b> of redline checks of the work product (where deemed necessary); or production of an independent work product and comparison of the results.
QC Design Checking	A full review of the design calculations, survey calculations, software input and output, and cost estimates. Responsibilities will also include:
	• Verification of the accuracy and adequacy of the preparer's work product;
	Compliance with specified codes, standards, and permits;
	Conformance to standards of practice;
	<ul> <li>Performance of redline checks of the work product; or production of an independent work product and comparison of the results; and</li> </ul>

• **Ensuring** that the work product adequately and accurately presents the



	required information. (The calculations of the Design Checker will also become a part of the calculation of record when independent checking calculations are produced.) (The Design Checker will not be the one who performed the original design.)
QC (LADOTD Bridge Design)	In addition to the definitions above: 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 states in the AASHTO LRFD Bridge Design Specifications and the LA DOTD Bridge Design Manual and Memoranda.
Quality Assurance (QA) Review	A review of QC documents to ensure that the QC process is complete and the work products (field rolls, designs, plans, cost estimates, reports, evaluations, and studies) are in accordance with the established Project practices, policies, and procedures.
QA (LADOTD Bridge Design)	<b>In addition to the definition above:</b> This process involves the review of the QC documents to verify that the quality control (QC) procedure has been completed in accordance with 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.
QA Information Package	Package of Quality Control documentation submitted to the QA Reviewer. QA Information Packages will be prepared for all Project submittals and shall include appropriate designs, plans, cost estimates, reports, evaluations, or studies. QA Packages will include all QC documentation of the Project submittal such as calculations, plans, and estimates of probable construction costs and include checklists, comments and markups by the Project Professional, Design Checker and Detail Checker.
Quality Management Plan (QMP)	The documented requirements that establish and define responsibilities, performance measures, milestone audits and work procedures to ensure that the project deliverables meet predetermined requirements. It encompasses Quality Control, Quality Assurance, and Audit of the scope of work covered by the Project.



# SECTION 2. QUALIFICATIONS AND RESPONSIBILITIES OF STANTEC LEADERSHIP AND STAFF

The following qualifications and responsibilities will apply to the leadership and staff of the Stantec team on the LA 447 Corridor Project.

Designer Engineer (LA licensed PE or EI) directly tasked with the development of design calculations, drawings, and estimates of probable construction costs. Responsibilities will include: • Understanding and following the Project Design Criteria; Developing, organizing and maintaining design calculations; • Communicating with the detailer and supervising the detailing work to • ensure adequate and accurate presentation of design information; Checking his own work; and • Updating design calculations to correct any errors or omissions • discovered by the Design Checker. Detailer Individual directly responsible for the creation of CAD drawings. Responsibilities will include: Understanding of drawing formats; • Understanding of layering requirements; • Understanding of LADOTD's CAD Conform requirements; and Checking his own work for accuracy and completeness. . **Project Manager** Professional (LA licensed as required) (in most cases a Louisiana licensed PE) tasked with the duty to lead the Stantec team, with the following experience and responsibilities: Experience - Professional with technical and management experience of projects with similar scope and magnitude. Responsibilities • Serve as overall project leader and liaison with the LADOTD; Develop and monitor overall project scope, schedule and budget; Identify and obtain approval of any scope changes (when required);

Monitor the overall project development, deadlines and



deliverables;

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



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

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

Engineer-of-Record (EOR) Engineer (LA licensed PE), designated by the Project Manager, responsible for supervision and/or preparation of plans, sealing



	<ul> <li>calculations, plans, and special provisions. (The EOR can be the Designer, Design Checker, QA Reviewer, or Project Manager - who is directly involved in the project design activities.) The responsibilities of the EOR include:</li> <li>Ensure the QC/QA certifications are signed by all responsible parties</li> <li>Assemble design calculations from all designers, finalize the calculation book, and seal the cover sheet of the calculation book.</li> <li>Ensure the names of the Designer, Design Checker, Detailer, Detail Checker, and QA Reviewer are correctly shown on the title block of each plan sheet.</li> <li>Stamp all plan sheets or designate a Designer, Design Checker, or QA Reviewer developed under their supervision.</li> <li>Ensure all special provisions are accurately shown on the construction proposal and stamped by the Specification Engineer (or by the EOR).</li> </ul>	
Independent Reviewer (IR)	Engineer (LA licensed PE) responsible for conducting a totally independent review of all Project document and final deliverables. The Independent Reviewer and QA Reviewer may be the same and also occur at the same time.	
QA Reviewer	Engineer, Surveyor or appropriate Professional (LA licensed PE or PLS where required) assigned QA Review responsibilities. The Reviewer must have experience related to the Project discipline.	
QC Design Checker	Engineer (LA licensed PE) assigned QC Design Checking responsibilities.	
QC Submittal Checker	Engineer, Surveyor or appropriate Professional (LA licensed PE or PLS where required) assigned QC Submittal Checking responsibilities.	
QC/QA Leader	Engineer (LA licensed PE) responsible for coordinating the Quality Management practices across the Project and to ensure implementation of the <b>QMP</b> for the Project. Duties also include:	
	<ul> <li>Establish Process Controls and overall QMP for QA/QC;</li> </ul>	
	Provide QC and QA oversight;	
	<ul> <li>Prepare Quality Audit Reports (Proof of Compliance) to track quality trends, solicits feedback from the LADOTD on quality related issues;</li> </ul>	
	<ul> <li>Attend Management Review Meetings conducted by the Project Manager and prepare report of findings and recommendations for</li> </ul>	

improvement; and



• **Sign** Delivery Release Record attesting that all QC/QA documentation has been properly completed and authorized for release of the submittal.



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

### 3.1 QUALITY MANAGEMENT PLAN

The Quality Management Plan for the LA 447 Corridor Project includes formats and templates for QC and QA that have been successful on many past projects. Our QMP processes will also focus on the following:

- **High risk elements** which will include the segmental concrete superstructures, signature structures, and unique foundation systems;
- Rigorous verification elements such as project geometrics; and
- Refinement elements such as superstructures and substructures with a high level of repetition - where efficiency of detail could yield financial benefit.

### 3.1.1 **Project Meetings**

Project meetings required for the LA 447 Corridor Project are as outlined and described in the Scope of Work. All project meetings will be guided by the principles and requirements as detailed in the **Process Guideline (Project Meetings)**.

### 3.1.2 Process Control

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

Process control may include the following:

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



# 3.2 QUALITY CONTROL

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

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

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

SUBMITTAL:	Stantec
ORIGINATOR:	DATE:
CHECKER:	DATE:
BACKCHECKER:	DATE:
CORRECTOR:	DATE:
VERIFIER:	DATE:



### **Checking Stamp**

### 3.2.1 Five Step Procedure

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

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

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

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

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

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

### 3.2.2 Quality Control (LDOTD Road Requirements)

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

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

• For the simple and moderately complex elements of the Project, create checklists to assist in the reviews and provide documentation of the review.



- For the high-risk elements and complex components of the Project, institute the use of QC by independent design teams, rather than line-by-line checking to make sure that both math and methodology are checked in an effective way.
- Create Process Guidelines (PG's) as the basic tool to define standards, outline technical approaches, and define the salient points and objectives of design. PG's will be developed by Discipline Leaders and other senior technical staff.

### 3.2.3 Quality Control (LDOTD Bridge Requirements)

Refer to Appendix 'F' for details on completing **LDOTD Bridge QC/QA**. These procedures are tailored to satisfy the **LADOTD**, **Bridge Design Section**, "**Policy on Quality Control and Quality Assurance's Construction Plans**." These procedures augment the procedures described herein and are **required for all LDOTD Bridge work products**.

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

- For the simple and moderately complex elements of the Project, create checklists to assist in the reviews and provide documentation of the review.
- For the high-risk elements and complex structural components of the Project, institute the use of independent modeling and QC by independent design teams, rather than line-by-line checking to make sure that both math and methodology are checked in an effective way.
- Create Process Guidelines (PG's) as the basic tool to define standards, outline technical approaches, and define the salient points and objectives of design. PG's will be developed by Discipline Leaders and other senior technical staff.

Particular components of the PG's will include:

- Bridge PG's create protocols to identify software to be used, the methodology and approach to structure interactions, construction preferences for materials and methods, specific LADOTD criteria, and project specific criteria. The purpose of the PG's is to serve as clear guides to keep design efforts focused and coordinated.
- Bridge "Complex" Element PG's will also establish protocols for elements defined as "complex" in preparing independent analyses and required calculations to ensure true independence for comparison to the original analyses and calculations used to perform a QC check of the bridge plans.

# 3.3 QUALITY ASSURANCE

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

 Assign Quality Management Personnel (QA reviewers) for the Project and ensure these individuals possess the technical skills, relevant qualifications and experience required to


complete the efforts (in particular, the bridge aspects of the project) (These individuals are summarized in Section 4);

- Verify that Quality Assurance (QA) Information Packages have been properly prepared for the QA reviewer's use;
- Complete the required QA certification (signed by the appropriate QA reviewer);
- Document QA reviewer's comments;
- Reconcile, and/or develop accepted course of action;
- Prepare QA Review Comment Form Reports or Non-Conformance Form Reports as appropriate to deal with issues noted in the review; and
- Confirm that all issues raised and actions identified are addressed.

For LADOTD Bridge Design, QA packages shall be prepared as detailed in Appendix C.

#### 3.4 INDEPENDENT REVIEW AND CONSTRUCTABILITY REVIEW

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

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

#### 3.4.1 Document and Data Control

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

These records will include the following:

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

For LADOTD Bridge Design, Calculation Books shall be prepared as detailed in Appendix B.

#### 3.4.2 Control of Sub-Contracted Work

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



#### 3.4.3 Control and Correction of Non-Conforming Work

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

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

#### 3.5 PROJECT DESCRIPTION

#### 3.5.1 Disciplines/Tasks

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

- Roadway, Geometric Design and Analysis, Drainage
- Structure and Bridge
- Traffic Engineering
- Topographic Survey
- Environmental & Permitting (Support)



# SECTION 4. QUALITY MANAGEMENT (QC/QA) PERSONNEL

List of Personnel Assigned to Quality Management Tasks per Activity	<b>Project Manager</b> – Joe Cains III, PE		
Road	way, Geometrics and Drainage		
Designer(s)	Mary Frances O'Rourke, PE, Nick Prudhomme, PE, Michael Neumann, PE, Hannah Krebs, PE, Karla Weston, PE		
QC – Design & Plans	Nick Prudhomme, PE, Joseph Cains III, PE		
QA – Design & Plans & Independent Review	Cindy Hall, PE, Gary Heitman, PE		
Structure and Bridge			
Designer(s)	Kunal Malpani, PE		
QC – Design & Plans	Amir Botros, PE, Brian Johnson, PE		
QA – Design & Plans & Independent Review	Robert Smith, PE		
Traffic Engineering			
Designer(s)	Joseph Barker, PE, Stephen Mensah, PhD, PE, PTOE, RSP1,		
QC – Design & Plans	Joey Lefante, PE, PTOE, Joseph Cains III, PE		
QA – Design & Plans & Independent Review	Matthew Davis, PE		
Topographic Survey			
Land Surveyors	Philip Dupree, Jason Stoehr, Trent Norris, Scott Benton, Jacob Stoehr		
QC – Topographic Survey	Chris Ballard, PLS		
QA – Topographic Survey	Ralph Burgess, PLS		
Environmental & Permitting (Support)			
Designer(s)	Lindsay Grissom		
QC – Design & Plans	Scott Hoffeld, CEP		
QA – Design & Plans & Independent Review	Gary Heitman, PE		





## Appendix A20: Guidelines for Document Preparation

#### A.1 Purpose and Scope

- **A.1.1.** The purpose of these Guidelines is to establish a method for consistently delivering quality project work that meets client needs and prevents rework.
- A.1.2. These Guidelines are mandatory and apply to all project work.
- A.1.3. Methods for rework prevention include reviewing project input; checking and verifying project work by someone other than the **Originator**; conducting **Interdisciplinary Reviews**, where required; and **Approving** project work for further use or delivery.
- A.1.4. It is recognized that some projects do not result in the "traditional" deliverables of calculations, designs, contract documents, studies/reports, etc. Nonetheless, the principles underlying Checking and Verification must be applied.
- A.1.5. These Guidelines are to be supplemented by the Appendix F LDOTD Bridge QC/QA.

#### A.2 Preparation of Calculations

#### A.2.1. Terms and Definitions

- A.2.1.1 Calculations Mathematics-based computations that transform input data into a result that is used as further input to the delivered project work, or is delivered directly to the client to meet contract obligations.
- A.2.1.2 Assumptions Estimated or presumed information used as input to a calculation.
- A.2.1.3 Confirmation Verification that an assumption was correct based on actual data.

#### A.2.2. Procedure

#### A.2.2.1 Calculation Preparation

- (i) **Discipline Leaders** shall assign qualified individuals the task of preparing calculations and are responsible for monitoring compliance with this guideline.
- (ii) Calculations are to be neat, legible and suitable for reproduction. They are to be prepared using company calculation pads, where available, including a header with space for identifying the calculation title, page numbers, project name and number, and the Originator's and Checker's names, initials and dates.



- (iii) Calculations must be organized and logically presented, and are to include sufficient notes, explanations and sketches to make the calculation easily followed. The intent is to make calculations understandable by an individual competent in the subject matter without going back to the originator.
- (iv) The following information should be provided in the calculation, or on a cover or summary page:
  - (a) Objective A statement of the problem or question to be solved (if not obvious from the title).
  - (b) Method Identify the methods to be used, including software.
  - (c) Assumptions Clearly state any assumptions applied.
  - (d) References and Inputs Identify the inputs and the references for inputs, equations, methods, etc. Design inputs used as the basis for calculations shall be verified by the **Originator** as obtained from a reliable source. Design equations, tables, field data, etc., shall be referenced to the specific section of the applicable design code or manual. Any information not readily available to a reviewer should be attached as an appendix to the calculations.
  - (e) Conclusions Clearly state the conclusions of the calculations including any limitations, conditions and/or exceptions.
- (v) Confirmations Critical assumptions need to be tracked and confirmed by the Originator as soon as valid and current data becomes available. The impact of any variances between assumptions and confirmed information must be evaluated, and any necessary revisions to calculations made.
- (vi) In assembling larger sets of calculations, or where providing summary information will be useful, the use of a calculation cover page may be helpful.
- (vii)Prior to the results of a calculation being utilized for subsequent design work, relevant calculations shall be checked and verified in accordance with **Checking** and **Verification Procedure** and documented accordingly.

#### A.2.2.2 Computer Calculations

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



- (ii) Calculations utilizing computer programs to perform analyses or design shall include the following:
  - (a) Name of the program including version or revision level.
  - (b) Paper copies of computer output files, or portions thereof, that are required to satisfy the documentation requirements of this procedure shall be labelled and filed.
  - (c) Identification and/or location of associated electronic files.
- (iii) Spreadsheet calculations shall be documented and organized so that formulae used in the spreadsheet can be checked for accuracy of incorporation into the spreadsheet, using a calculator or other method. After validation of the spreadsheet calculations the spreadsheet shall be protected to prevent inadvertent modification of the embedded formulae.

#### A.2.2.3 Revisions to Calculations

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

- (i) Revisions shall be reviewed and approved in the same manner as the original. The **Originator** and **Reviewer** of the calculations shall be responsible for the revision. The revision to the calculation shall be clearly identified and dated or shall be replaced by a new calculation.
- (ii) Revisions shall be prepared in a manner that provides a clear record of the content of the calculation, both prior to and after the revision. The reason for the revision should be identified.
- (iii) Revisions to calculations that impact other disciplines shall be immediately reported to the **Project Manager** and the affected disciplines.

#### A.2.2.4 Control of Calculations

(i) All calculations shall be organized and adequately indexed to facilitate retrieval of results and verification of completeness. A calculation index may be useful as a



> tool to help plan and organize the work, or may be developed upon completion of the calculations for record and archival purposes.

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

#### A.3 Preparation of Studies/Reports

#### A.3.1. Terms and Definitions

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

#### A.3.2. Procedure

#### A.3.2.1 Style and Format

- (i) The report should be prepared following the client-specific preference and project standardized format. If the client has a specific preference or the office or group preparing the report has a previously used style with that client, these factors should be considered in developing the report format.
- (ii) The format (organization and content) of project technical studies and reports shall be based on the client's requirements. Absent client-specified format, the **Project Manager** and/or the originating **Discipline Leader** shall determine the format based on the scope and complexity of the report.

#### A.3.2.2 Development and Review

- (i) **Discipline Leaders** shall assign qualified individuals the task of preparing study and report content and are responsible for monitoring compliance with this guideline.
- (ii) **Discipline Leaders** shall arrange for reviews in accordance with the **Checking** and **Verification Procedure** and documented in the associated forms.
- (iii) In addition to discipline reviews, the **Project Manager** shall review the study/report for overall adequacy, completeness, and contractual requirements including compliance with applicable client requirements.



#### A.3.2.3 Distribution and Filing

- (i) **Project Manager** shall distribute copies of technical reports and studies and any changes thereto to personnel/organizations requiring them.
- (ii) If multiple reports are expected, it is suggested that the **Project Manager** or designee maintain an index of project technical studies and reports.

#### A.3.2.4 Changes

- (i) Technical reports and studies should be maintained current with significant changes identified during technical development.
- (ii) Changes to issued technical reports and studies shall be processed in the form of revision/addenda, approved and distributed.
- (iii) Changes incorporated in technical reports and study revisions that are to be reissued should be identified. The reasons for changes should also be provided when it would be helpful for users. The revision date shall be added to the cover.

#### A.3.2.5 Use of Photographs or Digital Images

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

#### A.4 Preparation of Drawings

#### A.4.1. Procedure

#### A.4.1.1 General Guidelines

- (i) **Discipline Leaders** shall assign qualified individuals the task of preparing drawings and are responsible for monitoring compliance with this guideline.
- (ii) At project inception, a project drawing list is to be developed, or updated from one prepared during the proposal phase, by each discipline. Drawing lists will be updated at each milestone to help the **Project Manager** in estimating progress or completion status.



- (iii) Drawing Numbers and File Naming Drawings and drawing files shall be uniquely identified with drawing numbers in accordance with the system applicable to the project.
- (iv) CAD Standards –The CAD Standards to be used on the project shall be as identified in the scope of services, or through detailed discussions with the client.
- (v) Origin of Drawings Discipline Leaders are responsible for assigning the preparation of drawings to a Designer who may work with the Detailer working under the direction of a CAD Manager. Each Designer shall be responsible for seeing that the required information is transmitted to the Detailer via sketches, marked-up prints, electronic data, and/or written or verbal instructions.
- (vi) Duplication of information is to be avoided on drawings, and between drawings and specifications.

#### A.4.1.2 Review of Drawings During Preparation

- (i) Designer will conduct periodic reviews of drawings in progress to see that proper scales, orientation, standards, formats and design information are being utilized and that the design input has been interpreted, applied properly, and is being coordinated with other disciplines. This type of "over-the-shoulder" review takes place as the work progresses, and precedes the formal reviews that occur as part of the Checking and Verification Procedure.
- (ii) Where available, the **Designer** may use discipline-specific, client-specific, project-specific or other similar checklists to verify that design, construction and presentation aspects and details are being adequately addressed.

#### A.4.1.3 Client Requests for Unchecked In-progress Drawings

- (i) Clients occasionally request non-contractual, unscheduled, interim or in-progress submittals of drawings for any number of purposes. Given the risks associated with providing unchecked documents to a client and the potential for client complaints, it is always intended that drawings be reviewed in accordance with the **Checking** and **Verification Procedure** prior to submission. However, when circumstances demand, unchecked drawings may be released if the following minimum requirements are met:
  - (a) The **Project Manager** shall review the drawing set to confirm that the drawings have progressed to the completion level anticipated by the client and to confirm that the non- contractual progress submittal would not be deemed as unacceptable by the client in any way.



- (b) A disclaimer statement (or bold stamp) shall be placed on the drawing set indicating that "IN-PROGRESS" and are being provided for "INFORMATION ONLY" at the request of the client."
- (c) The Project Manager shall submit the non-contractual progress submittal with a cover letter stating that the drawing set is being provided for "INFORMATION ONLY" as requested by the client. The cover letter shall also state that the IN-PROGRESS submittal has not yet been reviewed in accordance with project procedures and is subject to revision in concept and detail as work progresses.

#### A.4.1.4 Signing and Sealing of Drawings

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

#### A.5 Software Validation Procedure

#### A.5.1. Purpose and Scope

- A.5.1.1 This procedure describes minimum requirements to ensure that technical software used on the project has been validated before use.
- A.5.1.2 This procedure applies to software used for any of the following:
  - (i) Performing calculations;
  - (ii) Developing input for use in calculations;
  - (iii) Creating designs or drawings using embedded calculations;
  - (iv) Generating output provided directly to clients;
  - (v) Generating output included in deliverables to clients; or
  - (vi) Software that is developed and delivered to a client as a contractual obligation.

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

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



- (ii) Used to produce output that is checked and verified manually;
- (iii) Inherent to equipment for measuring and testing, which is periodically verified and calibrated in accordance with the manufacturer's specifications; or
- (iv) Designed to enable the operation and maintenance of a computer system and its associated programs (systems software).
- A.5.1.3 Mathematical, formulaic and logic-based programming developed within standard office-type platforms such as Excel and Mathcad may typically be validated as calculations in accordance with the **Checking** and **Verification Procedure**. Advanced or complex programs that are not amenable to standard checking/verification shall be validated in accordance with this procedure.

#### A.5.2. Terms and Definitions

- A.5.2.1 **Approver** The individual, independent of the **Validator**, that reviews the validation output and accepts the software for use on the project.
- A.5.2.2 Industry-Standard Software Commercially available technical software that is widely used and accepted in a discipline or practice area, and that does not require significant adaptation.
- A.5.2.3 Legacy Software Technical software regularly used in the current version for at least three years and for which no problems have been reported, or for which problems have been reported and corrected.
- A.5.2.4 **Non-Standard Software** Technical software that is not widely used and accepted in the industry.
- A.5.2.5 **Software Register** An up-to-date listing of validated technical software maintained by each **Discipline Leader** and posted in a location accessible to all staff.
- A.5.2.6 Validation The process of accepting technical software for use by an LCP Company.
- A.5.2.7 Validator The individual that performs the validation.

#### A.5.3. Procedure

A.5.3.1 Staff Responsibilities with Technical Software



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

#### A.5.3.2 Technical Software Register

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

#### A.5.3.3 Responsibility for Software and Validation

**Discipline Leaders** are responsible for monitoring the use of technical software within their departments, disciplines and/or practice areas and ensuring that such software meets the requirements of this procedure. When appropriate, **Discipline Leaders** may serve as Validators and/or Approvers.

#### A.5.3.4 Software Classification

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

- (i) Legacy Software
- (ii) Industry-standard Software
- (iii) Non-standard Software

#### A.5.3.5 Validation Process

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

- (i) Legacy Software Acceptance is based on previously documented and satisfactory internal production experience.
- (ii) Industry-Standard Software The software developer/vendor shall be requested to provide a signed statement or certification that the software has undergone a quality control validation process confirming that it performs as intended. Based on this certification, such software requires no further validation other than a run with sample data to verify that the program functions properly. When no such



> statement or certification is available, the software shall be treated as Nonstandard Software.

- (iii) Non-standard Software Shall be validated using either of the following test procedures:
  - (a) Run the software using input from a known solution and verify that the program output matches the known solution. All significant design options/methodologies offered by the program shall be verified.
  - (b) Perform a manual calculation to verify the results obtained using the software.

#### A.5.3.6 Validation Approval

The **Validator** shall provide the results and documentation of the validation process to the assigned **Approver**, who shall review the information and, if found acceptable, approve the software for use. The **Approver** shall take the necessary steps to have the technical software added to the LCP validated software register. Technical software shall not be used in production until it has been accepted by the **Approver**.

#### A.5.3.7 Validation of Software Revisions

- (i) New versions of technical software that have been previously validated shall be reviewed by a **Validator** by running the input file or database from the previous version and comparing results. Any differences between the outputs shall be justifiable.
- (ii) When approving new versions, changes that may affect previous output shall be noted and communicated by the **Validator** to the **Discipline Leader**.
- (iii) The widespread use and acceptance of the new version of the software in our industry, without apparent concern regarding its performance, may also be considered as a basis for accepting new versions.
- (iv) New versions of technical software shall not be used prior to acceptance by the **Approver**.
- (v) Consideration shall be given to whether only the latest version of the software is to be maintained, keeping in mind that the use of older versions may still be required by the client or for continuity with earlier output.



#### A.5.3.8 Software Validation Documentation

The validation process shall be documented.

#### A.5.3.9 Software Errors

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

- (i) Notifying the software developer/vendor and Project Manager
- (ii) Identifying projects that have used or are using the software
- (iii) Assessing the impact of the error on both completed and ongoing projects, including notification of other **Discipline Leaders** as appropriate.
- (iv) Developing a corrective action plan for all affected projects
- (v) Revising the validation documentation, including the software register, as necessary



### Appendix B: Guidelines for Processes

#### **B.1 Project Processes**

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

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

- administrative processes; and,
- technical processes

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

Basic Elements of a Process Guideline should include:

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



Appendix C: QC Checklist & Comment Forms



QC DESIGN CHECKLIST & COMMENT FOR	VI
PROJECT ELEMENT	
DESIGNER QC DESIGN CHECKER	
ENGINEER OF RECORD	
CALCULATION TYPE Hand calculation Spreadsheet Vendor Softw	are 🔄 Other
1. If SPREADSHEET, has it been approved by Stantec's Project Manager?	No
2. If VENDOR SOFTWARE, is it on the LDOTD, Bridge Design	No
3. If not on pre-approved list, has it been approved for use by	
LDOTD, Bridge Design Section?	Νο
4. If OTHER, please describe	
DESIGN INPUT VERIFICATION	
1. Has design input been generated from another source?	Νο
2. Has source information been checked and approved?	No
CALCULATION CHECK (If response is <u>No</u> , provide applicable comments)	
1. Has the DESIGNER signed and dated the calculation?	Yes No N/A
2. Is the calculation in accordance with a standard approach to preparing the design?	Yes No N/A
3. Is the calculation consistent with contractual requirements of the Scope of Work?	Yes No N/A
4. Are any new DTM's by LDOTD required to be implemented in this design?	Yes No N/A
5. Has the Project Design Criteria been included & followed?	Yes No N/A
6. Is a Project "GO-BY" required for this design?	Yes No N/A
7. Has the Project "GO-BY" been followed?	🗌 Yes 🗌 No 🗌 N/A
8. Have assumptions for the design been reviewed and confirmed?	🗌 Yes 🗌 No 🗌 N/A
9. Are results & conclusions consistent & reasonable considering the inputs & approach?	Yes No N/A
10. Are special provisions or Non-Standard Specification required for this design?	Yes No N/A
11. Have any NON-CONFORMANCE REPORTS been prepared?	☐ Yes ☐ No ☐ N/A
Comments:	



QC DESIGN CHECKER SIGNATURE

DATE:



QC DETAIL CHECKLIST & COMMENT FORM					
PROJECT DRAWINGS CHECKED					
ORIGINATOR(S) QC DETAIL CHECKER					
CHECK LEVEL 30% Final 95% Final 98% Final	PS&E				
DESIGN, QUANTITIES, MATERIALS, SPECIFICATIONS & NOTES					
1. Has the DESIGN INFORMATION been checked and approved?	🗌 Yes 🗌 No 🗌 N/A				
2. Have the QUANTITIES been checked and approved?	☐ Yes ☐ No ☐ N/A				
3. Are the MATERIALS properly coordinated with the Project specifications?	🗌 Yes 🗌 No 🗌 N/A				
4. Are special provisions or Non-Standard Specifications required for any of the design elements or materials shown on the DRAWINGS?	☐ Yes ☐ No ☐ N/A				
5. Do the NOTES include proper references for DESIGN & MATERIALS and proper cross- references to other DRAWINGS?	☐ Yes ☐ No ☐ N/A				
DRAWING CHECK (If response is <u>No</u> , provide applicable comments)					
1. Are titles and sheet numbers properly shown & matching the Sheet Index?	Yes No N/A				
2. Have comments from previous internal reviews been addressed?	☐ Yes ☐ No ☐ N/A				
3. Have comments from previous LDOTD reviews been addressed?					
4. Is the DESIGN INFORMATION properly and correctly presented?					
5. Is completeness sufficient for the REVIEW LEVEL?					
6. Have the appropriate CAD standards been followed?					
7. Are the DRAWINGS properly formatted in accordance with the "GO-BY"?					
8. Are there any constructability issues presented on the DRAWINGS?	☐ Yes ☐ No ☐ N/A				
9. Have the appropriate CAD standards been followed?	☐ Yes ☐ No ☐ N/A				
10. Have dimensions been independently verified?	☐ Yes ☐ No ☐ N/A				
11. Are critical dimensions and clearances correct?	☐ Yes ☐ No ☐ N/A				
12. Have redundancy and duplication issues been eliminated?	☐ Yes ☐ No ☐ N/A				
13. Have the DRAWINGS' information been properly interfaced with other disciplines?	☐ Yes ☐ No ☐ N/A				
14. Have Project geometrics been verified with other discipline drawings?					
15. Have any NON-CONFORMANCE REPORTS been prepared?					
Comments:					



QC DETAIL CHECKER SIGNATURE

DATE:



Appendix D: QA Checklist & Comment Forms



QA REVIEW & COMMENT FORM			
DESCRIPTION OF QA PACKAGE:			
Designs Included in Package:			
Drawings Included in Package:			
QA REVIEWER			
REVIEW LEVEL 95% Final 98% Final	PS&E		
QA PAKCAGE PREPARATION			
Has the QA PACKAGE been properly prepared for review?			
Have INDEPENDENT CHECKS been properly prepared & included in the QA PACKAGE?			
Comments:			
PACKAGE REVIEW (If response is <u>No</u> , provide applicable comments)			
1. Have all DESIGNS been properly checked in accordance with the 5-step method?	Yes No N/A		
2. Have all DESIGN COMMENTS been properly resolved?	Yes No N/A		
3. Have all DRAWINGS been properly checked in accordance with the 5-step method?	Yes No N/A		
4. Have any NON-CONFORMANCE REPORTS been prepared?	Yes No N/A		
Comments:			
QA REVIEWER SIGNATURE	DATE:		



Appendix E: Independent Review & Comment Form



INDEPENDENT REVIEW & COMMENT FORM	
DESCRIPTION OF QA PACKAGE:	
Designs Included in Package:	
Drawings Included in Package:	
INDEPENDENT REVIEWER	
REVIEW LEVEL 95% Final	
IR PAKCAGE PREPARATION	
Has the IR PACKAGE been properly prepared for review?	🗌 Yes 🗌 No
Comments:	
COMPLETENESS & CONSTRUCTIBILITY REVIEW (If response is <u>No</u> , provide applicable comm	ents)
1. Do the PLANS & SPECIFICATIONS satisfactorily complete the Project SOW?	Yes No N/A
2. Are the design concepts & technical solutions suitable to the Project's SOW?	Yes No N/A
3. Are the PLANS & SPECIFICATIONS presented with completeness for bidding?	Yes No N/A
4. Do the PLANS & SPECIFICATIONS provide the contractor with clear, concise information that can be utilized to prepare a competitive, cost-effective bid?	Yes No N/A
5. Can the Project, as detailed in the PLANS & SPECIFICATIONS, be constructed using standard construction methods, materials and techniques?	Yes No N/A
6. When constructed in accordance with the PLANS & SPECIFICATIONS, can be the Project be maintained in a cost-effective manner?	Yes No N/A
Comments:	
	DATE:



## Appendix F: LADOTD Bridge Design QC/QA Plan

In addition to the QC/QA procedures described in this QMP, LADOTD Bridge Design and Evaluation Manual (2014) have established requirements for all bridge design and rating projects. This Appendix F has been developed with respect to the current LADOTD Bridge policies. Stantec's QMP program is well aligned with the LADOTD Bridge Policy.

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

- F1: LADOTD Bridge Design (Design Criteria Checklist)
- F2: LADOTD Bridge Design (Final Calculation Book Checklist)
- F3: LADOTD Bridge Design (QA Information Packet Checklist)
- F4: LADOTD Bridge Design (QC/QA Certification)
- F5: LADOTD Bridge Design (Peer Review Resolution Agreement)
- F6: LADOTD Bridge Design (Consultant Project Bridge Design Kick-Off Meeting Agenda Checklist)



## F1: LADOTD Bridge Design (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  $\Pi_D$ , redundancy factor  $\Pi_R$ , and operational importance factor  $\Pi_I$  shall be listed in this section.
- \_\_\_ **Design Loads** All design loads (dead load, live load, wind load, thermal loads, vessel collision loads, seismic load, wave loads, etc.) used for the project shall be included in this section.
- \_\_\_\_ Limit States All applicable limit states for this project shall be listed in this section.
- \_\_\_\_ Bridge Barrier The design criteria, types, and test levels for bridge barriers shall be listed in this section. Standard plans and special details should be listed if they are utilized.
- **\_\_\_\_ Guardrail** The design criteria, types, and test levels for guardrails shall be listed in this section. Standard plans and special details should be listed if they are utilized.
- \_\_\_\_ **Approach Slab -** Design criteria for approach slab shall be included in this section. Standard plans and special details should be listed if they are utilized.



- \_\_\_\_ Deck and Deck Drainage All design criteria for deck and deck drainage design shall be included in this section. Standard plans and special details should be listed if they are utilized.
- **Bearing** All bearing types and design criteria for each bearing type shall be included in this section. Standard plans and special details should be listed if they are utilized.
- \_\_\_\_ **Joint** All joint types and design criteria for each type shall be included in this section. Standard plans and special details should be listed if they are utilized.
- \_\_\_\_ **Superstructure** All superstructure types and design criteria for each type shall be included in this section. Standard plans and special details should be listed if they are utilized.
- \_\_\_\_ **Substructure** All substructure types and design criteria for each type shall be included in this section. Standard plans and special details should be listed if they are utilized.
- Piles and Drilled Shafts All pile types, sizes, and structural design criteria shall be included in this section. Standard plans and special details should be listed if they are utilized.
- \_\_\_\_ Geotechnical Design All geotechnical design criteria shall be included in this section and the information shall be provided by the Geotechnical Engineer. Standard plans and special details should be listed if they are utilized.
- \_\_\_\_ **Mechanical Design** All mechanical design criteria shall be included in this section if applicable. Standard plans and special details should be listed if they are utilized.
- \_\_\_\_ Electrical/Lighting Design All electrical design criteria shall be included in this section if applicable. Standard plans and special details should be listed if they are utilized.
- \_\_\_ **As-Designed Bridge Rating Criteria** All as-designed bridge rating criteria shall be included in this section.
- **Software** All software used for design and check shall be included in this section.



## F2: LADOTD Bridge Design (Final Calculation Book Checklist)

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

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

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

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

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



# F3: LADOTD Bridge Design (QA Information Packet Checklist)

<b>QA INFORMAT</b> (Bridge Design Section Q	ION PACKAGE C/QA Policy (Octobe	CHECKLIST er 2012) – Appendix	C)
PROJECT NO.:			
Project Description:			
PREPARER			
REVIEW LEVEL	🗌 95% Final	98% Final	PS&E
QA PAKCAGE CHECKLIST			
Are the CALCULATION BOOKS included?			🗌 Yes 🗌 No
Are the PLANS included?			🗌 Yes 🗌 No
Are the SPECIAL PROVISIONS included?			🗌 Yes 🗌 No
Is the COST ESTIMATE included?			🗌 Yes 🗌 No
Are there OTHER DOCUMENTS included?			🗌 Yes 🗌 No
OTHER DOCUMENTS:			
PREPARER SIGNATURE		DA	λTE:





# F4: LADOTD Bridge Design (QC/QA Certification)

QC/QA CERTIFICATION (Bridge Design Section QC/QA Policy (October 2012) – Appendix D)						
		LA PE No.	Responsibility			
Team Members	Name		Plan Sheet(s)	Special Provision(s)	Cost Estimate	Signature
Designers						
Design Checkers						
Detailers <sup>–</sup>						



QC/QA CERTIFICATION (Bridge Design Section QC/QA Policy (October 2012) – Appendix D)					
Detail Checkers					
Reviewers					
Peer Reviewer					
Geotech Engineer					
Hydraulic Engineer					
EOR				·	·



QUALITY MANAGEMENT PLAN CONTRACT NO. 4400022901 STATE PROJECT NOS. H011094 AND H012005 F.A.P. NOS. H011094 AND H012005 ROUTES LA 3094 AND US 80 CADDO PARISH

# F5: LADOTD Bridge Design (Peer Review Resolution Agreement)

Project No.: Project Name:

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

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



## F6: LADOTD Bridge Design (Consultant Project Bridge Design Kick-Off Meeting Agenda Checklist)

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

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



# Appendix G: Non-Conformance Report Form

#### NON-CONFORMANCE REPORT

	1	NCR #
Activity #:		
Activity:		
Location:		
NCR Prepared By:	Name:	Date:
	Company:	
NCR Given to:	Name:	Date:
	Company:	
Non-Conformance	Description:	
	-	
□ No Impact or	Assessed Impac	t:
·	·	
No Action or	Action Required:	
References/Attachm	nents	
Action(s) To Be Imp	lemented Bv (Na	me & Date):
( )		,
Action(s) Completed	d By	
(name & signature):		Date:
Remarks:		
Date copied:		Fax No
Comments:		


QUALITY MANAGEMENT PLAN CONTRACT NO. 4400024641 CONTRACT FOR LA 447 CORRIDOR STATE PROJECT NO. H.005734 F.A.P. NO. H005734 ROUTE: LA 447 LIVINGSTON PARISH



QUALITY MANAGEMENT PLAN CONTRACT NO. 4400024641 CONTRACT FOR LA 447 CORRIDOR STATE PROJECT NO. H.005734 F.A.P. NO. H005734 ROUTE: LA 447 LIVINGSTON PARISH

## **Guidelines for NCR use**

- 1. NCRs record non-conforming work incorporated into the project and could include, but not be limited to, deviations from design requirements, unexpected soil conditions, material defects, dimensional defects or other deviations in the work.
- 2. NCRs do not replace routine inspections, diary entries, or materials delivery or testing reports, but can refer to them.
- 3. Ideally, the person whose actions or decisions create the need for a NCR will issue it, but in other cases the person who finds the non-conformance issues the NCR.
- 4. The person who issues the NCR ensures it is completed to the point where a copy can be sent within 24 hours to the Quality Assurance Manager.
- 5. It is implicit that if non-conforming work is not to be repaired or replaced (i.e., no assessed impact) the finished deliverable will meet project requirements.
- 6. The assessment of the situation will include a review of whether or not the non-conformance is likely to re-occur and if so, a description of the measures that will be implemented to prevent this.
- 7. The NCR event should be resolved at the lowest appropriate decision making level and escalated only if necessary. The NCR process is not meant to replace quick decision-making in the field or replace communications between the parties involved.
- 8. The status of unresolved NCRs shall be reviewed in any regular progress meetings and in the Quality Audit summaries done by the Project Quality Assurance Manager.



## 22. Sub-consultant Information:

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

Firm Name (as registered with Louisiana's Secretary of State)	Address	Point of Contact and Email Address	Phone Number
Civil Design & Construction, Inc.	3251 Southern Pacific Road Port Allen, LA 70767	Karla Weston, PE kweston@cdcbr.com	225-765-1802



## 23. Location:

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





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