CONTRACT FOR OFF SYSTEM HIGHWAY BRIDGE PROGRAM
HALES ROAD BRIDGES

Contract No. 4400025036
State Project No. H.014986.5
December 6, 2022

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

SDR

SECTION 1-11

DOTD FORM: 24-102

(Revised March 1, 2022)

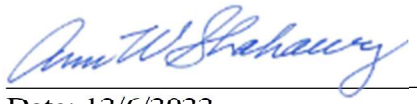
PROPOSAL TO PROVIDE CONSULTANT SERVICES

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

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

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

1. Contract title as shown in the advertisement	Contract For Off System Highway Bridge Program Hales Rd Bridges
2. Contract number(s) as shown in the advertisement	4400025036
3. State Project Number(s), if shown in the advertisement	H.014986.5
4. Prime consultant name (as registered with the Louisiana Secretary of State where such registration is required by law)	**SDR Engineering Consultants, Inc.**
5. Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	EF0003263 DUNS Number: 968522367
6. Prime consultant mailing address	2820 Continental Drive, Suite 100, Baton Rouge, LA 70808
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	2820 Continental Drive, Suite 100, Baton Rouge, LA 70808
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Mohsen Shahawy, PhD, PE Principal & COO (850) 222-2737, Ext. 226 shahawy@sdrengineering.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Ann Shahawy CEO (850) 222-2737, Ext. 222 ashahawy@sdrengineering.com
10. This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time	

frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel, and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.	Signature (shall be the same person as #9):  Date: 12/6/2022
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.	NO DBE GOAL

SECTION 12-15

SDR

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.

Evaluation Discipline(s)	% of Overall Contract	SDR Engineering Consultants, Inc. (Prime)	SJB Group, LLC	Terracon Consultants, Inc.
Survey	20%		100%	
Bridge	70%	100%		
Environmental	10%			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%	70%	20%	10%

Consultants:

SDR Engineering Consultants, Inc.

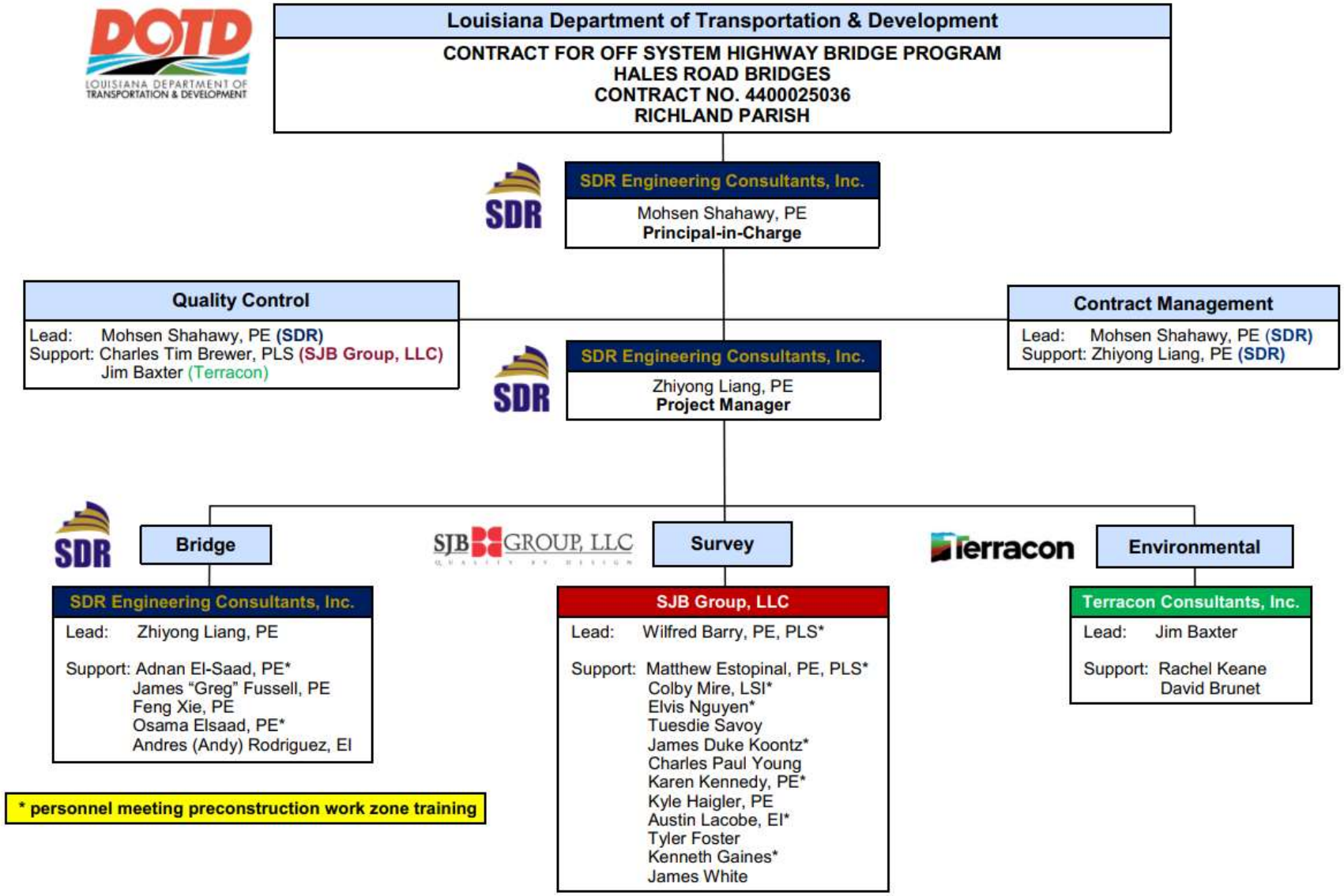
SJB Group, LLC

Terracon Consultants, Inc.

13. Firm Size:

Firm name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
SDR Engineering Consultants, Inc.	Principal	1	2
	Supervisor Engineer	2	3
	Engineer	4	4
	Engineer Intern	6	10
	Inspector-Bridge	6	8
	CADD Drafter	1	2
	Computer Analyst	1	2
	Administrative	1	2
SJB Group, LLC	Accountant	0	2
	Administrative	0	1
	CADD Drafter	0	1
	CADD-Operator	1	1
	Computer-Analyst	0	1
	Engineer	0	2
	Instrument Man	2	2
	Landscape Architect	0	1
	Party Chief	2	4
	Principal	3	4
	Professional	2	2
	Rodman	2	2
	Senior Technician	4	6
	Supervisor-Engineer	0	1
	Supervisor-Other	1	3
Terracon Consultants, Inc.	Biologist/Wetlands	2	20
	Environmental Manager	1	15

14. Organizational Chart:



15. Minimum Personnel Requirements:

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

MPR No.	Personnel being used to meet the MPR	Firm employed by	Type of license / certification & number	State of license	License / certification expiration date
1	Mohsen Shahawy, PhD, PE	**SDR Engineering Consultants, Inc.**	PE.31465	LA	03/31/2023
2					
3	Zhiyong Liang, PhD, PE		PE.34873	LA	03/31/2024
	Adnan El-Saad, PE		PE.34533	LA	09/30/2023
4	Wilfred Barry, PE, PLS	**SJB Group, LLC**	PE.0017452 PLS.0004612	LA LA	03/31/2024 03/31/2024
	Matthew Estopinal, PE, PLS		PE.0039151 PLS.0004955	LA LA	03/31/2023 03/31/2023
	Charles Tim Brewer, PLS		PLS.0005009	LA	09/30/2023
5	Jim Baxter	**Terracon Consultants, Inc.**	N/A	N/A	N/A

SECTION 16

16. Staff Experience:

Firm employed by: SDR Engineering Consultants, Inc.					
Name	**Mohsen Shahawy, PhD, PE**		Years of relevant experience with this employer	25	
Title	Principal and COO		Years of relevant experience with other employer(s)	15	
Degree(s) / Years / Specialization			PhD / 1984 / Civil Engineering MS / 1981 / Civil Engineering BS / 1976 / Civil Engineering		
Active registration number / state / expiration date			PE.31465 / Louisiana / 03-31-2023		
Year registered	2004	Discipline	Civil Engineer		
Contract role(s) / brief description of responsibilities			Principal in charge, design, management, QC/QA		

Dr. Shahawy is the managing principal of SDR. He has 40 years of experience and has published over 180 papers in the areas of prestressed/reinforced concrete performance, LRFD Code issues related to shear performance, structural testing, evaluation, load testing and load rating of bridges, dynamic behavior of bridges, and bridge rehabilitation. He is a Co-author of the Prestressed Concrete Institute (PCI) Bridge Design Manual. He has led the SDR team in the development of the **LADOTD Bridge Design and Evaluation Manual** and in the development of the **LG Girder Details and Design Standards**. He has been responsible for the design of more than 90 bridges with spans ranging up to 280 feet, the production of conceptual reports for 40 bridges, and design peer reviews of more than 300 bridges for various authorities.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "Bridge Inspection", "condition assessment", "steel and concrete rehabilitation, "Non-destructive Testing", "Project Management".
08/19 – Present	**H.011309: MacArthur Interchange Completion, Phase II, Jefferson Parish, LA** Scope of work is to provide two new on-ramp and off-ramp connection between the eastbound of West Bank Expressway (US 90-Z) and Frontage road, demolish the existing off-ramp, and widen the US 90-Z bridge to accommodate the new ramps. The project consisted of providing all necessary engineering design services (Stage 3) required to construct the two separate ramp structures and the relocation of Frontage road. To accommodate the new structures for the two ramps, Frontage road required relocation along with utilities while maintaining all business access. SDR developed Stage 3 Preliminary Plans from 2016-2018. Dr. Shahawy's Role(s): performed independent QC/QA of all structure elements and provided guidance to the project team to address review comments at every stage.
10/16 – 04/21	**H.002980: I-10 over US 165 and MP RR, Jefferson Davis Parish, LA** replacement of the two I-10 bridges overpass US 165 and MP Railroad. Each bound total bridge length is 765 ft. comprising seven (7) spans. Four (4) spans were made one continuous unit, and the other three (3) spans were continuous unit. Design included all elements of bridge structure along with required slope and embankment

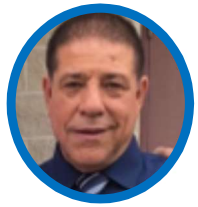
	work. The replacement of the bridge involved complex construction phasing to maintain traffic on the interstate while removing the old structure and constructing the new bridge. To ensure design economy and accelerated construction, DOTD standard precast prestressed concrete girders (LG Girders) were used for the superstructure. Role: Lead the development of the construction phasing and carry out QC/QA review of design.
11/17 – 10/20	**H.011484: US-80 Texas Street Bridge Rehabilitation, Shreveport, LA** The bridge consists of a main truss span comprised of two 182 ft. anchor spans and one 520 ft. steel cantilever span, six 102.75 ft. steel deck truss spans, one 91 ft. steel girder span, and 35 reinforced concrete deck girder approach spans of varying span lengths. The scope of work consisted of conducting NBIS element level inspection of the entire bridge, 3-D computer modeling and analysis of existing deficiencies, load rating based on existing conditions, developing scope of rehabilitation including cleaning and painting of steel trusses, design of epoxy-urethane overlay system on deck, CFRP repair of concrete spall for columns, caps and concrete beams, strengthening of steel truss spans members, floor beams and gusset plates, repair of steel plate girder spans, sealing of joints and pin replacement. **Role(s):** performed independent QC/QA of all above listed work elements and provided guidance to the project team to address review comments at every stage.
10/18 – 02/21	**H.011487: LA 182 Over Atchafalaya River (Berwick Bay) Bridge Rehabilitation, Lafayette, LA** The Bridge, built in 1933, is a through truss carrying LA-182 over Atchafalaya River. The bridge consists of three main trusses with span length of 608 ft. each, two deck trusses with span length of 126 ft. each, and 40 concrete T-beam spans with span length of 40 ft. each. The work included performing in-depth inspection of the truss and concrete spans, NDT of the concrete T-beams, load rating the bridge based on observed deficiencies, 3-D modeling of computer models of the truss spans, analysis including design and developing repair details for the steel truss members, gusset plates, reinforced concrete T-beam and deck slab, prepare rehabilitation plans and technical special provisions and construction cost estimate. **Role(s)**: independent QC/QA of all above listed work elements and provided guidance to the project team to address review comments at every stage.
07/15 – 06/17	**Evaluation and Load Rating of Three Major Truss Bridges, Statewide, LA** The scope of work included in-depth inspection and 3-D computer modeling of the truss spans to access existing deficiencies and performing load rating of three major truss bridges including the approach spans. 1. Mississippi River Bridge at Vicksburg (4,210 ft) 2. Sunshine Bridge at Donaldsonville (3,327 ft) 3. I-10 Calcasieu River Bridge at Lake Charles (6,617 ft) **Role (s)** Project Manager, lead engineer, Responsibilities included: QC review of all inspection reports, structural assessment of found deficiencies and determining effect of steel section loss for both members and gusset plates on load rating; developing structural modeling parameters and supervising the team developing the 3-D finite element model for the main truss using LUSAS; and load rating all elements of the truss spans.

Firm employed by: SDR Engineering Consultants, Inc.					
Name	**Zhiyong Liang, PhD, PE**		Years of relevant experience with this employer	13	
Title	Vice President		Years of relevant experience with other employer(s)	12	
Degree(s) / Years / Specialization			PhD / 2008 / Civil Engineering MS / 2004-2005 / Civil Engineering-Computer Science BS / 1996 / Civil Engineering FHWA-NHI-13055 Safety Inspection of In-Service Bridges		
Active registration number / state / expiration date			PE.34873 / Louisiana / 3-31-2024		
Year registered	2009	Discipline	Civil Engineering-Structures		
Contract role(s) / brief description of responsibilities			Bridge NDT, load test, and load rating leader.		

Dr. Liang's experience focuses on bridge design, load rating, and conditions evaluation of steel and concrete bridges. He has been a Project Manager and Engineer of Record on many successfully completed bridge load rating, design, testing, and rehabilitation projects. He served as the Lead Engineer in the development of the LADOTD Bridge Design and Evaluation Manual (BDEM).

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
08/19 – Present	**H.011309: MacArthur Interchange Completion, Phase II, Jefferson Parish, LA** Scope of work is to provide two new on-ramp and off-ramp connection between the eastbound of West Bank Expressway (US 90-Z) and Frontage road, demolish the existing off-ramp, and widen the US 90-Z bridge to accommodate the new ramps. The project consisted of providing all necessary engineering design services (Stage 3) required to construct the two separate ramp structures and the relocation of Frontage road. To accommodate the new structures for the two ramps, Frontage road required relocation along with utilities while maintaining all business access. SDR developed Stage 3 Preliminary Plans from 2016-2018. SDR is the prime consultant and Dr. Liang responsibilities are as follows: • Lead the design and plans development of the superstructure. • QCQA review of substructure design and plans production. • Lead construction cost estimate
10/16 – 04/21	**H.002980: I-10 over US 165 and MP RR, Jefferson Davis Parish, LA** replacement of the two I-10 bridges overpass US 165 and MP Railroad. Each bound total bridge length is 765 ft. comprising seven (7) spans. Four (4) spans were made one continuous unit, and the other three (3) spans were continuous unit. Design included all elements of bridge structure along with required slope and embankment work. The replacement of the bridge involved complex construction phasing to maintain traffic on the interstate while removing the old structure and constructing the new bridge. To ensure design economy and accelerated

	construction, DOTD standard precast prestressed concrete girders (LG Girders) were used for the superstructure. Dr. Liang responsibilities were as follows: • Engineer of Record overseeing the bridge structural design of the superstructure and substructure, deck drainage design, and construction cost estimate. • Project manager coordinating with LADOTD Project Manager and roadway design group.
09/18 – 08/19	**H.012009: US 71 (LA-1) S Market Street over ICG RR, Caddo Parish, LA** This project was to provide Stage 0 Design (Feasibility Study) on the twin two-lane bridge structures on US 71 (LA-1) Market Street viaduct Southbound over ICR railroad through downtown Shreveport. • Two alternates were designed to satisfy the railroad minimum clearance requirements. Several stakeholders were identified and were approached for solicitate of views (SOV) about the two selected alternates. Dr. Liang served as the Project manager overseeing the different tasks and leading the structural design of the two alternates.
10/19 – 10/20	**H.012028: I-20 over Lakeshore Drive and KCS RR, Caddo Parish, LA** This project was to provide Stage 0 Design (Feasibility Study) for four (4) bridge structures of I-20 crossing over Lakeshore Drive and KCS Railroad in Shreveport, LA. Design of rehabilitation to improve the bridges conditions, service life, and load rating was carried out by SDR. Different rehabilitation options were designed and detailed. Cost estimate and rehabilitation plans were provided to assist DOTD in selecting the best cost-benefit option. • Dr. Liang served as the Project manager overseeing the different tasks and leading the structural design of the rehabilitation and development of the cost estimate.
06/16 – 10/17	**H.012302: I-10 WB on-Ramp From US-61, Ascension Parish, LA** Interstate I-10 westbound on-ramp from US-61 is a fracture critical, curved steel plate girder bridge was struck by an over-height vehicle causing severe damage to the exterior girder of four continuous spans. SDR tasks included inspection, design the repair, develop construction plans involving staged demolition and construction, load testing, and provide construction supports. The repair technique developed was building the entire damaged span and to slide in place using SPMT to provide minimal closure of I-10. Dr. Liang responsibilities were as follows: • Lead the bridge strcutural design team and plans development. • In charge of the field load testing.

Firm employed by: SDR Engineering Consultants, Inc.					
Name	**Adnan El-Saad, P.E.**		Years of relevant experience with this employer	10	
Title	Senior Project Engineer & GM		Years of relevant experience with other employer(s)	23	
Degree(s) / Years / Specialization			BS / 1981/ Civil Engineering		
Active registration number / state / expiration date			PE. 34533 / Louisiana / 09-30-2023		
Year registered	2009	Discipline	Civil Engineering-Structures		
Contract role(s) / brief description of responsibilities			Senior Engineer & Deputy Project Manager		

Mr. El-Saad has over 30 years of experience in bridge design, inspection, evaluation, and non-destructive testing. Mr. El-Saad has planned, instrumented, and executed over 120 bridge tests. He has strong experience in numerous activities for construction engineering inspection and design of AASHTO bridges and precast concrete segmental bridges. He has extensive experience and specialization in bridge design. Detailed knowledge of both steel and concrete bridge design including concrete box culverts, mast arms, sign structures, foundation analysis, and retaining wall structures. He served as a lead bridge engineer for FDOT and TXDOT for 11) and nine (9) years, respectively.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
08/19 – Present	**H.011309: MacArthur Interchange Completion, Phase II, Jefferson Parish, LA** Scope of work is to provide two new on-ramp and off-ramp connection between the eastbound of West Bank Expressway (US 90-Z) and Frontage Road, demolish the existing off-ramp, and widen the US 90-Z bridge to accommodate the new ramps. The project consisted of providing all necessary engineering design services (Stage 3) required to construct the two separate ramp structures and the relocation of Frontage road. To accommodate the new structures for the two ramps, Frontage Road required relocation along with utilities while maintaining all business access. SDR developed Stage 3 Preliminary Plans from 2016-2018. SDR is the prime consultant and Mr. Elsaad responsibilities are as follows: • Independent constructability review of construction plans • Verification and review of construction cost estimate
10/18 – 02/21	**H.011487: LA 182 Over Atchafalaya River (Berwick Bay) Bridge Rehabilitation, Lafayette, LA** The major through truss bridge carries LA 182 over the Atchafalaya River (Berwick Bay). The bridge consists of 47 spans with a total length of 3,746 ft. The approach spans consist of two (2) reinforced concrete slab spans, 40 reinforced concrete T-beam spans, and two (2) deck truss spans. The navigational spans consist of three (3) identical through truss spans. The substructure is comprised of concrete pile bents, two-column concrete bents, and concrete piers. Mr. Elsaad responsibilities are as follows:

	• Inspection lead engineer, my major tasks included gathering all pertinent structure related information, review of all existing records, developing in-depth inspection plans, performing NBIS element-level inspection of the entire bridge, instrumentation and load testing of the approach concrete T-beam spans. • Lead designer of the substructure rehabilitation, bridge deck, concrete approach spans, and QC/QA of the superstructure rehabilitation.
10/16 – 08/20	**H.002980: I-10 over US 165 and MP RR, Jefferson Davis Parish, LA** replacement of the two I-10 bridges overpass US 165 and MP Railroad. Each bound total bridge length is 765 ft. comprising seven (7) spans. Four (4) spans were made one continuous unit, and the other three (3) spans were continuous unit. Design included all elements of bridge structure along with required slope and embankment work. The replacement of the bridge involved complex construction phasing to maintain traffic on the interstate while removing the old structure and constructing the new bridge. To ensure design economy and accelerated construction, DOTD standard precast prestressed concrete girders (LG Girders) were used for the superstructure. Mr. Elsaad responsibilities were as follows: • Independent constructability review of construction plans • Verification and review of construction cost estimate
09/18 – 08/19	**H.012009: US 71 (LA-1) S Market Street over ICG RR, Caddo Parish, LA** This project was to provide Stage 0 Design (Feasibility Study) on the twin two-lane bridge structures on US 71 (LA-1) Market Street viaduct Southbound over ICR railroad through downtown Shreveport. Two alternates were designed to satisfy the railroad minimum clearance requirements. Several stakeholders were identified and were approached for solicitate of views (SOV) about the two selected alternates. Mr. Elsaad roles: • lead bridge inspector • developing evaluation report in light of inspection findings.
05/16 – 04/18	**H.011484: US 80 Texas Street Bridge over Red River Rehabilitation, Caddo Parish, LA** The bridge consists of a main truss span, six deck truss spans, one steel girder span, and 35 reinforced concrete deck girder spans. Mr. Elsaad responsibilities are as follows: • Serving as Inspection lead engineer collecting all pertinent structure related information, performing NBIS element-level inspection of the entire bridge, performing NDT of the pins, coordinating traffic control and all required inspection equipment including snooper truck, boat access and manlifts, • Preparing a comprehensive report containing all inspection results, • Support the rehabilitation design of the concrete and steel members repairs. • Lead construction support including attending construction meetings, responding to RFIs, reviewing of shop drawings.

Firm employed by: SDR Engineering Consultants, Inc.					
Name	**James "Greg" Fussell, ME, PE**		Years of relevant experience with this employer	8	
Title	Bridge Engineer		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			ME / 2014 / Structural Engineering BS / 2013 / Civil Engineering		
Active registration number / state / expiration date			PE.0043706 / Louisiana / 03-31-2024		
Year registered	2019	Discipline	Civil Engineer		
Contract role(s) / brief description of responsibilities			PM, Design, Analysis, Load Rating, Inspection, Drafting		

Mr. Fussell has 8 years of experience on bridge inspection, design, and load rating of steel and concrete bridges. He has led and managed design and load rating teams. He has a very strong background in concrete and steel bridges. He has also completed the FHWA-NHI Bridge Inspection Training.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "Bridge Inspection", "condition assessment", "steel and concrete rehabilitation, "Non-destructive Testing", "Project Management".
08/19 – Present	**H.011309: MacArthur Interchange Completion, Phase II, Jefferson Parish, LA** Scope of work is to provide two new on-ramp and off-ramp connections between the eastbound of West Bank Expressway (US 90-Z) and Frontage Road, demolish the existing off-ramp and widen the US 90-Z bridge to accommodate the new ramps. The project consisted of providing all necessary engineering design services (Stage 3) required to construct the two separate ramp structures and the relocation of the Frontage Road. To accommodate the new structures for the two ramps, Frontage Road required relocation along with utilities while maintaining all business access. SDR developed Stage 3 Preliminary Plans from 2016-2018. SDR is the prime consultant and Mr. Fussell's responsibilities are as follows: • Lead the substructure design and plan development • QC of drainage design, 3D modeling, superstructure design, and bridge quantities
10/16 – 04/21	**H.002980: I-10 over US 165 and MP RR, Jefferson Davis Parish, LA** replacement of the two I-10 bridges overpass US 165 and MP Railroad. Each bound total bridge length is 765 ft. comprising seven spans. Four spans were made one continuous unit, and the other three spans were continuous unit. Design included all elements of bridge structure along with required slope and embankment work. The replacement of the bridge involved complex construction phasing to maintain traffic on the interstate while removing the old structure and constructing the new bridge. Mr. Fussell responsibilities were as follows: • Analysis and design of the column bents substructure supported by drilled shafts. • Preparation of construction plans of column bents and the drilled shafts. • QCQA review of the construction plans of the superstructure.

10/18 – 02/21	**H.011487: LA 182 Berwick Bay Bridge Rehabilitation, St. Mary, LA** The major through truss bridge carries LA 182 over the Atchafalaya River (Berwick Bay). The bridge consists of 47 spans with a total length of 3,746 ft. The approach spans consist of two (2) reinforced concrete slab spans, 40 reinforced concrete T-beam spans, and two (2) deck truss spans. The navigational spans consist of three (3) identical through truss spans. The substructure is comprised of concrete pile bents, two-column concrete bents, and concrete piers. Mr. Fussell responsibilities included: • preparing the inspection report and rehabilitation recommendations • rehabilitation design of the approach deck truss spans, and main truss spans. • Lead construction plans development
05/16 – 04/18	**H.011484.5: US 80 Red River Bridge Inspection, Load Rating, and Rehabilitation, Shreveport, LA** The US 80 Texas St. Bridge is a historic truss bridge in Shreveport, LA that has undergone inspection, load rating, and rehabilitation design. The complex structure consists of two 182’ anchor spans and one 520’ steel cantilever span, six 102’-9” steel deck truss spans, one 81’ steel girder span, and 35 reinforced concrete deck girder approach spans of various lengths. Considering the inspection, the load rating was performed using AASHTOWARE Bridge Rating for the approach spans, deck truss spans, main truss spans, truss members, and gusset plates. Mr. Fussell responsibilities were as follows: • In-depth field investigation of the truss and approach spans, as well as the various column bents and piers. The entire structure was inspected by the SDR team to determine current conditions and critical members. • Preparation of the inspection report and organization of the inspection figures and tables. • The load rating was performed using AASHTOWARE Bridge Rating for the approach spans, deck truss spans, main truss spans, truss members, and gusset plates. • Considering the inspection and load rating findings, investigation of repair procedures such as heat straightening and paint containment systems for truss configurations. • Extensive drawings were developed using Microstation for repair procedures of the superstructure and substructure, along with re-producing shop drawings of members to be repaired.

Firm employed by: SDR Engineering Consultants, Inc.					
Name	**Feng Xie, MS, PE**		Years of relevant experience with this employer	7	
Title	Structural Engineer		Years of relevant experience with other employer(s)	1	
Degree(s) / Years / Specialization			MS / 2014 / Civil Engineering BS /2012/ Civil Engineering		
Active registration number / state / expiration date			PE. 43987/ Louisiana/ 03-31-2024		
Year registered	2019	Discipline	Civil Engineer		
Contract role(s) / brief description of responsibilities			Engineer, bridge non-destructive evaluation and analysis		

Mr. Xie is a seasoned structural engineer with over 7 years of experience in structural engineering. His current work is primarily in bridge inspection, non-destructive testing, load testing, bridge design and detailing, load rating, and construction quantity/cost estimate preparation. He has encompassed concrete, prestressed concrete, steel, timber bridges, etc. in his professional career.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "Bridge Inspection", "condition assessment", "steel and concrete rehabilitation, "Non-destructive Testing", "Project Management".
05/21 – Present	**H.014288.5-2: LA 82 Mermentau River MB (G Chenier) Bridge Rehabilitation, Cameron Parish, LA** This 1049-feet movable bridge was built in 1959 and has been identified as a Preservation Priority Bridge. The main span of this bridge is a 204 feet swing steel low truss span. Its approaches comprise (26) concrete slab spans of 20 ft. span length and (8) steel I-beam spans of 40 feet span length. Feng's responsibilities included: • In-depth field inspection and identifying structural deficiencies • Structural analysis and design of structural member strengthening details • Task manager for the development of rehabilitation plan
08/19–Present	**H.011309 Macarthur Interchange Completion Phase II, Jefferson Parish, LA** This project aims at providing connections between the eastbound direction of the Westbank Expressway and the eastbound frontage road near Peters Road and the East Bound Harvey Tunnel. Feng's responsibilities include: • Reviewing documents and plans for the bridge • Load rating of the existing superstructure and design of new girders • Development of girder details for the new ramps
10/18 – 02/20	**H.011487 LA 182 Berwick Bay Bridge Rehab, Lafayette Parish, LA** This project consisted of the development of the rehabilitation plan of deficient structural components for the Long-Allen Bridge. Feng's responsibilities included: • Identification of the deficient structural components during inspections • Load testing of the reinforced concrete approach spans

	• Reviewing bridge plans and conducting load rating analysis of the structures • Development of rehabilitation plans for the deficient members
01/17-07/17	**H.002980 I-10 Overpass Over US 165 & MP RR, Jefferson Davis Parish, LA** This project consisted of structural design and plan development for the replacement of EB and WB of I-10 overpass over US 165 and MP Railroad bridges. The total length of each bridge is 765 feet with a unit of four continuous spans and a unit of three continuous spans. Feng's responsibilities were as follows: • Structural analysis and design of the substructures • Development of substructure construction plans
06/16-07/17	**I-10: WB on-Ramp From US-61, Ascension Parish, LA** A curved steel girder in a bridge on US-61, ramp K over I-10 interstate, which is located in Ascension Parish was struck by an over-height truck. As a result, the girder was damaged. This project consisted of the evaluation of the damage and the development of a rehabilitation plan. Feng's responsibilities were as follows: • Reviewing incident related documents, site visits, and damage assessment • Structural analysis and development of the repair plan • Instrumentation and monitoring of the bridge before the removal of the damaged portion and after installation of the replacement segment
01/16-07/17	**US 80 Texas Street over Red River Bridge Rehab, Shreveport, LA** This project consisted of the in-depth inspection, load rating, and rehabilitation of the US 80 Texas Street Bridge located in Shreveport, Louisiana. The bridge consists of a main truss span comprised of (2) 182' anchor spans and one 520' steel cantilever span, (6) 102'-9" steel deck truss spans, (1) 91' steel girder span, and (35) reinforced concrete deck girder approach spans of varying span lengths. Feng's responsibilities included: • Performing in-depth field investigations of the bridge members using articulating lifts • Reviewing the truss spans as well as approach spans' models while considering deterioration • Development of inspection reports and bridge rehabilitation plan
07/14 -03/15	**H.010498 Luling Bridge Deck Overlay & Repair, St. Charles Parish, LA** This project consisted of the design of traffic control plans, developing deck overlay repair plans, and analyzing the impact on cable stress and stability using the 3D-Finite element method while replacing the deck overlay on a 5-span 2745ft. long cable-stayed bridge built in 1983. Feng's responsibilities included: • Modeling and analyzing the impact on both superstructure and substructure when replacing the cables • Investigating result accuracy of different analytical models • Preparing the analysis report explaining the methodology and assumptions

Firm employed by: SDR Engineering Consultants, Inc.					
Name	**Osama Elsaad, ME, P.E.**		Years of relevant experience with this employer	6	
Title	Structural/Bridge Engineer		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			ME / 2017 / Civil Engineering (Structural) BS / 2016 / Civil Engineering		
Active registration number / state / expiration date			PE.45668 / Louisiana / 09-30-2023		
Year registered	2021	Discipline	Civil Engineer-Structures		
Contract role(s) / brief description of responsibilities			Structural Bridge Engineer, bridge inspection and testing		

Osama Elsaad has 6 years of experience on bridge inspection, load testing, design, and load rating of steel and concrete bridges. He has led and managed field load testing and field inspection teams as well as instrument bridges. He has a very strong background in bridge testing and analysis, construction, and has hands-on experience on field bridge rehabilitation. He has also completed the FHWA-NHI Bridge Inspection Training.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "Bridge Inspection", "condition assessment", "steel and concrete rehabilitation, "Non-destructive Testing", "Project Management".
08/21-Present	**H.014608: LA1 Over Plaquemine Bridge, Iberville Parish, LA** The bridge consists of a 150' main truss span, and (10) 30' approach steel spans The scope was to perform a load test, in-depth inspection to evaluate the bridge, and develop rehabilitation solutions all deficient steel members of the truss span, approach spans, and substructures. Mr. Elsaad's responsibilities were as follows: • Lead the in-depth inspection in conformance to AASHTO Manual for Bridge Evaluation, LADOTD bridge inspection manual and the NBIS. • Lead the load test of the bridge. • Review load test results and report. • Develop rehabilitation plans.
08/19 – Present	**H.011309: MacArthur Interchange Completion, Phase II, Jefferson Parish, LA** Scope of work is to provide two new on-ramp and off-ramp connection between the eastbound of West Bank Expressway (US 90-Z) and Frontage road, demolish the existing off-ramp, and widen the US 90-Z bridge to accommodate the new ramps. The project consisted of providing all necessary engineering design services (Stage 3) required to construct the two separate ramp structures and the relocation of Frontage road. To accommodate the new structures for the two ramps, Frontage road required relocation along with utilities while maintaining all business access. SDR developed Stage 3 Preliminary Plans from 2016-2018. SDR is the prime consultant and Mr. Elsaad's responsibilities were as follows: • Design concrete footings, drilled shafts, continuous flight auger piles, and curtain walls.

	• Plan development. • Review of bridge plans. • Construction cost estimate.
10/18 – 02/21	**H.011487: LA 182 Berwick Bay Bridge Rehabilitation, St. Mary, LA** The major through truss bridge carries LA 182 over the Atchafalaya River (Berwick Bay). The bridge consists of 47 spans with a total length of 3,746 ft. The approach spans consist of two (2) reinforced concrete slab spans, 40 reinforced concrete T-beam spans, and two (2) deck truss spans. The navigational spans consist of three (3) identical through truss spans. The substructure is comprised of concrete pile bents, two-column concrete bents, and concrete piers. Mr. Elsaad's responsibilities included: • Develop rehabilitation plans of girders and truss members. • Review rehabilitation plans.
10/19 – 10/20	**H.012028: I-20 over Lakeshore Drive and KCS RR, Caddo Parish, LA** This project was to provide Stage 0 Design (Feasibility Study) for four (4) bridge structures of I-20 crossing over Lakeshore Drive and KCS Railroad in Shreveport, LA. Design of rehabilitation to improve the bridges conditions, service life, and load rating was carried out by SDR. Different rehabilitation options were designed and detailed. Cost estimate and rehabilitation plans were provided to assist DOTD in selecting the best cost-benefit option. Mr. Elsaad's responsibilities were as follows: • Performed in-depth inspection. • Assisted to develop report.
10/19 – 10/20	**H.012541: LA 594 over I-20, Ouachita Parish, LA** This project was to provide Stage 0 Design (Feasibility Study) for the bridge structure of LA 594 crossing over I-20 in Monroe, LA. Design of rehabilitation to improve the bridges conditions, service life, and load rating was carried out by SDR. Different rehabilitation options were designed and detailed. Cost estimate and rehabilitation plans were provided to assist DOTD in selecting the best cost-benefit option. Mr. Elsaad's responsibilities were as follows: • Performed in-depth inspection. • Develop stage 0 report including rehabilitation/replacement options.

Firm employed by: SDR Engineering Consultants, Inc.					
Name	**Andres (Andy) Rodriguez, ME, EI**		Years of relevant experience with this employer	3	
Title	Engineer Intern II		Years of relevant experience with other employer(s)	-	
Degree(s) / Years / Specialization			ME / 2020 / Civil Engineering (Structural Focus) BS / 2018 / Civil Engineering		
Active registration number / state / expiration date			EI.0034329 / Louisiana / 3-31-2024		
Year registered	2019	Discipline	Civil Engineer		
Contract role(s) / brief description of responsibilities			Pre-professional Staff Engineer		

Mr. Rodriguez is a pre-professional engineer with 3 years of experience in bridge engineering and in-depth bridge inspection. His current work consists of load rating, bridge detailing and design of ancillary structures, bridge inspection, quantity/cost estimate preparation, conduct Non-Destructive Testing, and evaluation of load testing data. Furthermore, he has successfully completed and obtained certification from the FHWA/NHI Safety Inspection of In-Service Bridges course.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "Bridge Inspection", "condition assessment", "steel and concrete rehabilitation, "Non-destructive Testing".
09/19 – 06/21	**H.009859.5: Load Rating of 311 Bridges, Statewide, LA** The scope of work was to analyze and load rate 653 (342 additional bridges added to the contract) existing off-system bridge structures. The load rating was performed using AASHTOWare Bridge Rating Software. The load rating consisted of concrete slab spans, steel spans, concrete girder spans, pile bents, and hammer head piers. **Role(s):** • Perform load rating of concrete bridges and simply supported and continuous steel bridges. • Perform in-depth field inspection & collect field measurements of bridges with missing plans. • Collect rebar data of concrete structures with missing plans using Ground Penetrating Radar (GPR).
11/19–10/20	**H.009859.5: Evaluation & Load Testing of Substructure of Nine Bridges, Statewide, LA** The scope of work was to evaluate nine (9) substructures to determine the actual settlement of the substructures through proof load testing. The evaluation was carried out utilizing load rating analysis and load testing coupled with detailed 3-D Finite Element Analysis. The settlement of every pile of the critical bent was measured using LVDT displacement devices. **Role(s):** • Develop substructure models using RC-Pier. • Coordinated and procured services relevant to the load test (Traffic Control, etc.). • Processed and interpretated load testing results. Prepared final reports summarizing the findings from the load test(s) and determined the adequacy of the bridge's performance based on the field measurements.

05/21 – Present	**H.009859.5: Load Rating & Rehabilitation of LA 3094 Bridge Over KCS RR, Caddo Parish, LA** The scope of work was to perform an in-depth inspection and evaluation of the steel superstructure deemed to be in critical condition and posted for a weight of 15-25 tons. The findings from the inspection were applied in the evaluation of the continuous superstructure consisting of utilizing load rating analysis and load testing coupled with detailed 3-D Finite Element Analysis. Furthermore, based on the analysis of the load testing SDR was tasked with providing detailed rehabilitation plans to maintain the structural integrity of the bridge for the remainder of its service life. **Role(s):** • Processed and interpretated load testing results. • Develop AASHTOWare model, incorporating section loss and conducted load rating analysis. • Develop Rehabilitation Plans and perform cost estimate/determine quantities. Prepared final reports summarizing the findings from the load test(s) and determined the adequacy of the bridge's performance based on the field measurements.
06/22 – Present	**H.012485.1: Load Testing & Evaluation of 19 Bridges, Statewide, LA** The scope of work includes general inspection and evaluation of 19 bridges with the aim of avoiding load posting by evaluating the strength/load distribution of the bridge not accounted for using the approximate method by means of finite element analysis and load testing. The 19 bridge types vary from box culverts, prestressed channel units, to steel I-beam spans with timber and concrete substructure elements. SDR is tasked with performing the higher-level analysis and providing a comprehensive report detailing the results from the field and suggestions for improved/removal of posting. **Role(s):** • Assist in processing and interpretating load testing results. • Perform in-depth QC of reports finalized by other engineers.
05/22	**Load Test of Emergency Repair of Substructure, I-75 over Hinson Slough, Florida** The work was part of an emergency repair of an intermediate concrete bent impacted by a tractor trailer severely damaging the cap and adjacent piles. SDR was responsible for all elements of the emergency rehabilitation design which included CFRP to strengthen the cap and piles and the design of a steel bracket to support the slab units shifted forward due to the impact damage. Per the FDOT's request, upon the conclusion of the emergency repair a load test was conducted to evaluate the health of the repaired structure. A focus was placed on measuring settlement of the damaged piles and evaluating the demand acting on the damaged portion of the cap. • Develop substructure model using RC-Pier. • Processed and interpretated load testing results. • Assisted in the preparation of the final report summarizing the findings from the load test(s) and determined the adequacy of the repaired substructure performance based on the field measurements.

Firm employed by SJB Group, LLC				
Name	Wilfred Barry, PE, PLS		Years of relevant experience with this employer	47
Title	*Secretary*		Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization			Bachelor of Science / 1974 / Civil Engineering Louisiana State University	
Active registration number / state / expiration date			PE.0017452 / Louisiana / 03.31.2024	
Year registered	1978	Discipline	Civil Engineering	
Active registration number / state / expiration date			PLS.0004612 / Louisiana / 03.31.2024	
Year registered	1989	Discipline	Land Surveying	
Contract role(s) / brief description of responsibilities	Principal-in-Charge. Mr. Barry has over forty-five years of experience in the engineering and surveying fields and will serve as Principal-in-Charge for SJB Group on this project. Mr. Barry is actively engaged in the overall management of the firm's Surveying, SUE and Engineering services, which require daily interaction with parish and private authorities regulating land use and zoning, development activities, and property ownership and transfer. Mr. Barry fulfills MPR 4 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. Experience dates should cover the time specified in the applicable MPR(s).
11/21 – 03/22	LA 30 Roundabouts Subsurface Utility Investigation (Tanger Mall and I-10) – City-Parish Project No. 20-2057 *Principal-in-Charge / SUE Engineer.* SJB Group performed ASCE 38-02 Quality Level A SUE and utility surveying to identify utility conflicts for all utilities owned by the City of Gonzales and the proposed LA 30 Roundabouts at Tanger Mall and I-10 in Ascension Parish. Prior to Quality Level A services, extensive Quality Level D records research was completed to aid in the subsequent SUE design. The accurate location of these utilities was critical to alleviate disruptions to utility services and conflicts and delays to the construction of the project in this heavily congested area.
10/21 – 03/22	Purpera Avenue Drainage Improvements *Principal-in-Charge / SUE Engineer.* SJB Group provided a topographic survey and Subsurface Utility Engineering designating (Quality Level B) and locating services (Quality level A) in accordance with ASCE 38-02 for all utilities owned by the City of Gonzales. Prior to Quality Level A and B services, extensive Quality Level D records research was completed to aid in the subsequent SUE design. The overall efforts established an extensive topographic survey and Quality Level B map with Quality Level A information throughout the project corridor. The accurate location of these utilities was critical to allow for the proper design of the drainage system.
05/21 – 10/21	MovEBR Jefferson at Corporate Intersection – City-Parish Project No. 20-CP-HC-0034 *Principal-in-Charge / SUE Engineer.* SJB Group performed a topographic survey, property survey, Right- of-Way maps, and Quality Level C and Quality Level B SUE services for all utilities of the Jefferson Hwy and Bluebonnet intersection as a sub-consultant to Buchart Horn. Prior to Quality Level B and C services, extensive Quality Level D records research

	was completed to aid in the subsequent SUE design. The accurate location of these utilities is of the utmost importance for successful design and construction of this roadway project.
04/21 – 07/21	Hooper Road Widening (LA 3034 – LA 37) - LA DOTD Project No. H.009300.5 *Principal-in-Charge.* SJB Group completed a topographic survey and subsurface utility engineering project for a one mile stretch of LA Hwy 408 in East Baton Rouge Parish, LA. The topographic survey was an update to a survey done previously by SJB and included locating and verifying all changes to the one mile site since the previous survey was completed in 2014. An updated drainage map was also completed for this project. ASCE 38-02 Quality Level B was completed for the entire project corridor. Prior to Quality Level B services, extensive Quality Level D records research was completed to aid in the subsequent SUE design.
03/21 – 05/22	MovEBR Nicholson Segment 2 – City-Parish Project No. 20-CP-HC-0032 *Principal-in-Charge.* SJB Group was tasked to provide topographic survey, scanning, property and right-of-way survey, and ASCE 38-02 Quality Level B and C subsurface utility engineering by City-Parish for the MovEBR project on Nicholson Rd. in East Baton Rouge Parish, LA. This effort required detailed record research, field investigations and data management. The accurate location of these utilities is critical for the ultimate design and construction of the project.
11/17 – 08/18	LA 23: Belle Chasse Bridge & Tunnel HBI – LA DOTD Project No. H.004791.5 *Principal-in-Charge / SUE Engineer.* SJB Group performed SUE services for the design of a new bridge and tunnel crossing the Intracoastal Canal along LA 23 in Plaquemines Parish. This project required ASCE 38-02 Quality Level A and B services. Prior to Quality Level A and B services, extensive Quality Level D records research was completed to aid in the subsequent SUE design. After compiling the Quality Level B map, the Quality Level A scope of the project was started in an effort to establish exact location and elevations on critical utility systems found in the Quality Level B mapping. The overall efforts established an extensive Quality Level B map with Quality Level A information throughout the project corridor.
10/17 – 02/18	Ford Street Extension – LA DOTD Project No. H.011310 *Principal-in-Charge / SUE Engineer.* SJB Group performed subsurface utility engineering for a topographic survey to extend Ford Street from Plank Road to Howell Blvd. This project required ASCE 38-02 Quality Level B services throughout the project limits and ASCE 38-02 Quality Level A services for all utility lines greater than 4" in diameter. SJB designated 13,000 linear feet of subsurface utilities and performed 9 test holes. Prior to Quality Level A and B services, extensive Quality Level D records research was completed to aid in the subsequent SUE design. The overall efforts established an extensive Quality Level B map with Quality Level A information throughout the project corridor.
04/15 – 09/15	Central SSO-PS 42 Force Main Construction – Project No. 10-FM-MS-0036A *Principal-in-Charge / SUE Engineer.* SJB Group performed topographic surveying, property surveying, right-of-way maps, and SUE tasks on the Central Consolidation PS 42 Force Main Project for East Baton Rouge Parish. SJB provided ASCE 38-02 Quality Level A services. Prior to Quality Level A services, extensive Quality Level D records research was completed to aid in the subsequent SUE design.

Firm employed by SJB Group, LLC					
Name	Matthew Estopinal, PE, PLS			Years of relevant experience with this employer	1.5
Title	*Chief Operating Officer / Survey Department Manager*			Years of relevant experience with other employer(s)	15
Degree(s) / Years / Specialization				Bachelor of Science / 2009 / Civil Engineering Louisiana State University	
Active registration number / state / expiration date				PE.0039151 / Louisiana / 03.31.2023	
Year registered	2014	Discipline		Civil Engineering	
Active registration number / state / expiration date				PLS.0004955 / Louisiana / 03.31.2023	
Year registered	2006	Discipline		Land Surveying	
Contract role(s) / brief description of responsibilities				Survey Project Manager. Mr. Estopinal has more than fifteen years of experience as a Professional Land Surveyor in the state of Louisiana on transportation and community development related projects. His work experience includes ALTA surveys, boundary surveys, topographic surveys, and Right-of-Way maps for state, municipal, and private clients. His duties include coordination of staff, responsible charge of all plan production, all field inspections and the preparation of detailed construction plans on all types of work. He is thoroughly familiar with City-Parish and LA DOTD procedures, manuals, and software programs with respect to all requirements. Mr. Estopinal fulfills MPR 4 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. Experience dates should cover the time specified in the applicable MPR(s).
03/22 – Ongoing	LA 385: Ryan Street Intersection Improvements – LA DOTD Project No. H.012685.5 *Project Manager.* A topographic survey was required in Calcasieu Parish, Louisiana near the intersection of I-210 and LA 385 (Ryan Street) and near the campus of McNeese State University. The survey included all utilities with depths and all drainage, along with finish floor elevations of all buildings that fell within the survey limits. The total linear distance is approximately 2.67 miles.
02/22 – 06/22	LA 3021: Dual Turn Lanes @ LA 38 – LA DOTD Project No. H.014752.5 *Project Manager / QA/QC.* LA DOTD tasked SJB Group to perform a topographic survey in Orleans Parish, Louisiana. The survey was located at the intersection of LA 39 (N. Claiborne Ave.) and LA 46 (Elysian Fields Ave.), and included all utilities with depths, drainage, and finish floor elevations of all buildings within the survey limits. The project had a total linear distance of approximately 3,600 feet.

11/21 – 12/21	Conway Development Topographic Survey for Novus Reb Engineering *Project Manager.* This project consisted of performing a topographic survey of a tract in the Conway development and is limited to running cross-sections through the topo limits. Shots were taken with the use of a robotic total station and 360d prism mounted on a closed cab UTV. Horizontal and vertical control was established at the site with Leica SmartNET RTN.
07/21 – 02/22	UP RR Corridor (Plaquemine) – LA DOTD Project No. H.012851 *Project Manager / QA/QC.* SJB Group performed a complete topographic survey including all utilities, depths and drainage, along with finish floor elevations of all buildings that fell within the survey limits at the intersection of LA 1 and Bayou Rd., and the intersection of Belleview Dr. and Railroad Ave.
03/21 – 05/22	MovEBR Nicholson Segment 2 – City-Parish Project No. 20-CP-HC-0032 *Survey Project Manager.* A topographic survey with scanning, property and right-of-way survey, and subsurface utility engineering were completed by SJB Group for this project.
07/20 - Ongoing	Rural Bridge Replacement Initiative - LA DOTD Contract No. 44-17597 *Project Manager.* Topographic surveys, right-of-way mapping, and road design performed for the proposed 33 bridge replacements for LA DOTD Districts 03, 07, 61, and 62 as a Sub-consultant. Each site required a complete topographic survey of the project limits, as well as a complete inventory for each drainage structure (type, size, length, and invert), and cross sections of all drainage ways.
03/20 – 12/21	St. Francisville Sewer Treatment Plant, Pump Stations, and Force Mains *Project Manager.* The project includes a topographic survey and boundary and servitude maps for the force main route (approximately 8,000 linear feet), pump station, and treatment plant site.
01/18 - 12/18	I-49 Lake Charles – LA DOTD Project No. H.004273.5 *Liaison/Coordinator.* This project required topographic and property/Right-of-Way surveying maps for the proposed I-49 improvements in Lafayette. While working for Stantec, Mr. Estopinal served as in-house coordinator and liaison between Stantec and sub-contractor firms performing the surveying work on the project.
05/16 – 12/19	Water Campus in Downtown Baton Rouge *Project Manager.* A topographic survey and drainage design were completed for the Water Campus location in downtown Baton Rouge. Project included rehabbing five existing roads (Arches St, Aztec St, Gila St, Oklahoma St and Terrace Ave) and addition of the new Water St. Project progressed from survey to design to construction stakeout and construction administration.
09/95 – Ongoing	Various Community Development Projects in Louisiana *Surveyor of Record/Project Manager/Party Chief.* These projects included the topographic & boundary surveys of parent tracts, resubdivisions and Final Plat mapping dedicating new lots of records and Right-of-Ways for development projects, located primarily in southeastern parts of the State. Additionally work included the resurvey, resubdivision or combination of lots for non-development properties or commercial outparcels.

Firm employed by SJB Group, LLC					
Name	Charles Tim Brewer, PLS			Years of relevant experience with this employer	1
Title	*Mississippi Area Manager*			Years of relevant experience with other employer(s)	30
Degree(s) / Years / Specialization				Bachelor of Science / 1988 / Forestry Management Mississippi State University	
Active registration number / state / expiration date				PLS.0005009 / Louisiana / 09.30.2023	
Year registered	2009	Discipline		Land Surveying	
Contract role(s) / brief description of responsibilities				QA/QC. Mr. Brewer joined the firm as the Mississippi Area Manager, bringing more than thirty years of experience in surveying to the firm's Mississippi and Louisiana offices. He has managed a variety of projects throughout his career including, but not limited to: right-of-way control surveys for aerial surveying and mapping, ALTA/NSPS Surveys, topographic surveys, right-of-way acquisition surveys, as-built surveys, and eminent domain surveys and expert witnesses. He has served as a court-appointed Professional Surveyor for property disputes and expert witness testimony, along with appointments for estate sub-divisions. Mr. Brewer fulfills MPR 4 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. Experience dates should cover the time specified in the applicable MPR(s).
10/20 – 8/22	LA 10 Bridges - LA DOTD Project No. H.002176.50 *Project Manager.* The LA 10 Bridges project in St. Landry parish included Right-of-Way surveys, the production of base right-of-way maps, and signed and sealed right-of-way maps for three sites. SJB surveyed the affected properties and determined the existing right-of-way for LA Hwy 10 and multiple state-claimed water bodies.
02/22 – 03/22	Nelson Road Extension and Bridge - LA DOTD Project No. H.005967.50 *Project Manager.* The Nelson Road Extension project was from north across Contraband Bayou to intersect West Sallier Street. The project included the realignment of Nelson Road, new bridge construction, and relocation of an existing railroad. The project was divided into three phases: Property Surveys, base right-of-way maps, and final right-of-way maps.
02/20 – 11/21	Hardy Industries, Inc. *Project Manager.* Mr. Brewer served as project manager for a 380-acre site in the South Lamar Industrial Park. The project included an ALTA survey for two parcels for transfer from Lamar County to Hardy Industries. Extensive records research was performed for the depiction of a non-monumented existing original railroad right-of-way, and additional acquisition for a depot, purchased in the 1800s. The topographic surveying included approximately 150 acres of raw land and boundary surveying of additional property acquisition.
06/19 – 11/21	Old Highway 11 Improvements - Lamar County, Mississippi

	Project Manager. Mr. Brewer served as project manager for a 2.3 mile segment of a state highway turn-back project for Lamar County, Mississippi. The project included existing right-of-way determination, topographic survey, and the preparation of plats and descriptions for additional right-of-way acquisition of approximately 60 parcels. The project included the reconstruction and widening of a two (2) lane roadway to a three (3) lane roadway, and construction of a multi-use path to provide a protected passageway to accommodate pedestrian traffic between Oak Grove High School and Oak Grove Middle School. This project was coordinated through the MS Department of Transportation (MDOT) and Local Public Agency (LPA).
06/18 – 11/21	Lincoln Road and Hegwood Road Improvements - Lamar County, Mississippi *Project Manager.* Mr. Brewer served as project manager for a project encompassing portions of Hegwood Road and Lincoln Road. The project consisted of the reconstruction of a two (2) lane roadway and widening to three (3) lanes on a two mile roadway. The project included boundary surveying, topographic surveying, determination of existing right-of-way, and the preparation of plats and descriptions for right-of-way acquisition of approximately 90 parcels.
04/19 – 01/21	Old River Road - Perry County, Mississippi *Project Manager.* Mr. Brewer served as project manager for the replacement of a bridge over Tallahala Creek in Perry County, Mississippi. The proposed roadway realignment included both upland and bottomland terrain over the 0.5-mile segment. The project included topographic surveying, boundary surveying, and the preparation of plats and descriptions for right-of-way acquisition. The project was coordinated and funded through the Emergency Road and Bridge Repair Fund Program coordinated by Perry County and the MS Department of Transportation (MDOT).
05/18 – 06/20	U.S. Hwy 49 Improvements - Hattiesburg, MS *Project Manager.* Mr. Brewer served as project manager for a project to enhance vehicular access and provide safe corridors for pedestrian and bicycle traffic in and around the mid-town area. The project consisted of roadway modifications to Camp Street, Adeline Street, 27th Street, Mamie Street, U.S. Hwy 49, and U.S. Hwy 49 Frontage Roads. The project included existing right-of-way determination, along with plats and descriptions of approximately 30 parcels for right-of-way acquisition.
06/17 – 03/18	Vernal River Road and High School - Greene County, MS *Project Manager.* Mr. Brewer served as project manager for a project that included bridge replacements on existing OSARC regulated roadways. The project included boundary surveying, topographic surveying, existing right-of-way determination, and plats and descriptions for right-of-way acquisition. The project was coordinated by Greene County and the MS Office of State Aid Road Construction.
04/16 – 06/17	Otho Sellers Road - Perry County, Mississippi *Project Manager.* Mr. Brewer served as project manager for a project that included the realignment of a portion of Otho Sellers Road and bridge replacements on Sand Hill Creek and Piney Woods Creek. The project included boundary survey, topographic surveying, existing right-of-way determination, and plats and descriptions for right-of-way acquisition. The project was coordinated by Perry County and the MS Office of State Aid Road Construction.

Firm employed by SJB Group, LLC					
Name	Colby Mire, LSI			Years of relevant experience with this employer	6
Title	*Assistant Survey Department Manager*			Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization				Bachelor of Science / 2015 / Construction Engineering Technology Southeastern Louisiana University	
Active registration number / state / expiration date				LSI.0000736 / Louisiana / 09.30.2024	
Year registered	2022	Discipline		Land Surveyor Intern	
Contract role(s) / brief description of responsibilities				Senior Survey Technician. Mr. Mire has worked as a rodman, party chief, senior technician, and project manager for SJB Group. He has worked on numerous projects involving topographic, boundary, and right-of-way surveys, as well as mobile LiDAR scanning. His field experience includes numerous DOTD projects, boundary surveys, construction stakeouts, and topographic and right-of-way surveys throughout Louisiana. Mr. Mire is familiar with LA DOTD Location and Survey procedures, manuals, and software programs.	

Experience dates (mm/yy – mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
07/22 – Ongoing	S. Lewis St Widening - LA DOTD Project No. H.013522 (Prime: Meyers Engineers, Ltd.) *Project Manager/Senior Technician.* This project consists of providing a topographic survey for the S. Lewis Street widening project in accordance with DOTD procedures. The topographic survey shall extend past the apparent right-of-way to accommodate the road widening.
06/22 – Ongoing	US 167 - Camellia Blvd-Churchill Dr - LA DOTD Project No. H.013716 (Prime: Digital Engineering & Imaging, Inc.) *Project Manager/Senior Technician.* This project includes thorough topographic survey of the area identifying trees, bushes/shrubs, utility poles, direction of overhead wires, type of pavement surfaces, water meters, sewer cleanouts, fences, water valves, manholes, drainage structures, gas meters, traffic signals, traffic signs, bus shelters, fire hydrants, type of drainage pipes, driveway width, etc. as well as perform Right-of-Way survey for the project limits.
07/21 – 02/22	UP RR Corridor (Plaquemine) - LA DOTD Project No. H.012851 *Project Manager/Senior Technician.* This project included a topographic survey with all utilities and depths at the intersection of LA 1 and Bayou Road, and the intersection of Belleview Dr. and Railroad Ave.

04/21 – 07/21	Hooper Road Widening (LA 3034 – LA 37) - LA DOTD Project No. H.009300.5 *Project Manager/Senior Technician.* A Topographic survey and subsurface utility engineering were completed by SJB for a one mile stretch of LA Hwy 408 in East Baton Rouge Parish, LA. The topographic survey was an update to a survey done previously by SJB and included locating and verifying all changes to the one mile site since the previous survey was completed in 2014.
07/20 - Ongoing	Rural Bridge Replacement Initiative - LA DOTD Contract No. 44-17597 *Junior Project Manager.* Topographic surveys, right-of-way mapping, and road design performed for the proposed 33 bridge replacements for LA DOTD Districts 03, 07, 61, and 62 as a Sub-consultant. Each site required a complete topographic survey of the project limits, as well as a complete inventory for each drainage structure (type, size, length, and invert), and cross sections of all drainage ways.
04/20 – 11/20	US 11 Norfolk Southern RR Overpass (HBI) - LA DOTD Project No. H.000688.5 *Junior Project Manager.* This project included topographic survey and mobile LiDAR scanning in St. Tammany Parish along US 11 between I-12 and US 190.
04/20 – 06/20	US 90 - Pearl River Bridges (HBI) - LA DOTD Project No. H.000284.5 *Junior Project Manager.* Topographic survey and mobile LiDAR scanning along US 90 and west of Pearl River in St. Tammany Parish. The project began 3,000 feet west of the intersection between US 90 and US 190. The total distance of the survey once complete was 4,000 miles.
04/19 – 08/19	LA 182 Barrow Street Bridge - LA DOTD Project No. H.012735.5 *Junior Project Manager.* SJB conducted a topographic survey and subsurface utility engineering Quality Level B for design. The purpose of this project was to replace a bridge structure located at the intersection of Park Avenue and Barrow street in downtown Houma.
04/19 – 08/19	LA 1 / LA 415 Connector - LA DOTD Project No. H.05121.5 *Party Chief.* This project included a topographic survey and drainage map in West Baton Rouge Parish for the design of a future connector roadway from LA 415 to LA 1. The project ran along a corridor beginning north of the intersection of I-10 and LA 415 and continuing in a southeasterly direction to the intersection of Beaulieu Lane and LA 1. This project tied into existing topographic surveys for State Project No. H.004100 on the northern end and H.001234 on the southern end.
10/18 – 04/19	I-10 Paris Road - Lake Pontchartrain - LA DOTD Project No. H.012591 *Junior Party Chief.* This project included complete topographic survey including utilities with depths and all drainage for an 8.24 mile stretch of Interstate 10 in New Orleans East. The project began near the I-510 overpass and ended at the bridge abutment of the I-10 bridge over Lake Pontchartrain.
07/17 – 01/19	I-12 (LA 21 to US 190) & I-12 (US 190 to LA 59) - LA DOTD Project Nos. H.011137 and H.011152 *Junior Party Chief.* SJB Group was prime on these projects and performed Topographic Survey alongside Lazenby.

Firm employed by SJB Group, LLC					
Name	Elvis Nguyen		Years of relevant experience with this employer	7	
Title	*Field Crew Coordinator*		Years of relevant experience with other employer(s)	6	
Degree(s) / Years / Specialization			N/A		
Active registration number / state / expiration date			N/A		
Year registered	N/A	Discipline	N/A		
Contract role(s) / brief description of responsibilities			Senior Survey Technician. Mr. Nguyen has more than thirteen years of experience in the land surveying field. He has lead field crews in performing boundary, topographic, right-of-way, and construction stakeout surveys throughout the State of Louisiana and is capable of leading a crew in remote areas. He is familiar with topographic and right-of-way map requirements of the EBR Department of Public Works and LA DOTD. Mr. Nguyen was recently promoted within SJB Group to Field Crew Coordinator and works as a Senior Technician.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/22 – Ongoing	LA 385: Ryan Street Intersection Improvements - LA DOTD Project No. H.012685.5 *Party Chief/Senior Technician.* A Topographic survey was required in Calcasieu Parish, LA near the intersection of I-210 and LA 385 (Ryan St) and near the campus of McNeese State University. The survey includes all utilities and all drainage, along with finish floor elevations of all buildings that fell within the survey limits. The total linear distance was approximately 2.67 miles.
02/22 – 06/22	LA 3021: Dual Turn Lanes @ LA 39 - LA DOTD Project No. H.014752.5 *Party Chief.* LA DOTD tasked SJB Group to perform a topographic survey in Orleans Parish, Louisiana. The survey was located at the intersection of LA 39 (N. Claiborne Ave.) and LA 46 (Elysian Fields Ave.), and included all utilities with depths, drainage, and finish floor elevations of all buildings within the survey limits. The project had a total linear distance of approximately 3,600 feet.
08/21 – 11/21	LA 109: Gully Bridge - LADOTD Project No. H.012041.5 *Party Chief.* A topographic survey was performed including all utilities with depths and drainage, and floor elevations of all buildings that fall within the survey limits in Calcasieu Parish near the intersection of I-12 and LA 109.
07/21 – 02/22	UP RR Corridor (Plaquemine) – LA DOTD Project No. H.012851 *Party Chief.* SJB Group performed a topographic survey with all utilities and depths at the intersection of LA 1 and Bayou Rd., and the intersection of Belleview Dr. and Railroad Ave.
07/20 - Ongoing	Rural Bridge Replacement Initiative - LA DOTD Contract No. 44-17597

	Senior Technician. Topographic surveys, right-of-way mapping, and road design performed for the proposed 33 bridge replacements for LA DOTD Districts 03, 07, 61, and 62 as a Sub-consultant. Each site required a complete topographic survey of the project limits, as well as a complete inventory for each drainage structure (type, size, length, and invert), and cross sections of all drainage ways.
04/20 – 11/20	US 11 Norfolk Southern RR Overpass (HBI) – LA DOTD Project No. H.000688.5 *Party Chief*. This project included topographic survey and mobile LiDAR scanning in St. Tammany Parish along US 11 between I-12 and US 190.
01/20 – 08/20	LA 73: US 61 (Airline) – Essen Lane – LA DOTD Project No. H.010652.5 *Party Chief*. SJB Group LLC performed a topographic survey of LA 73 (Jefferson Highway) between US 61 (Airline Highway) and LA 3064 (Essen Lane) for a total distance of approximately 2.2 miles. This project allowed for the replacement of existing pavement and repairing of curbing and sidewalks.
08/19 – 11/19	LA 3002 Access Management – LA DOTD Project No. H.011645.5 *Party Chief.* SJB Group LLC performed a topographic survey of LA 3002 (Range Avenue) for a total distance of 1.033 miles. This project required a combination of conventional surveying methods and mobile LIDAR to collect data for the repair of curbing and to add "J-Turn" lanes to Range Avenue.
01/19 – 05/19	LA 182 Barrow Street Bridge – LADOTD Project No. H.012735.5 *Party Chief.* SJB Group was contracted to provide a topographic survey and subsurface utility engineering Quality Level B for design. The purpose of this project was to replace a bridge structure located at the intersection of Park Avenue and Barrow street in downtown Houma.
04/19 – 08/19	LA 1 / LA 415 Connector – LA DOTD Project No. H.05121.5 *Party Chief.* SJB Group LLC performed a topographic survey and drainage map in West Baton Rouge Parish for the design of a future connector roadway from LA 415 to LA 1. The project ran along a corridor beginning north of the intersection of I-10 and LA 415 and continuing in a southeasterly direction to the intersection of Beaulieu Lane and LA 1. This project tied into existing topographic surveys for S.P. No H.004100 on the northern end and H.001234 on the southern end.
10/18 – 04/19	I-10 Paris Road – Lake Pontchartrain – LA DOTD Project No. H.012591 *Party Chief.* SJB Group provided a complete topographic survey including utilities with depths and all drainage for an 8.24 mile stretch of Interstate 10 in New Orleans East. The project began near the I-510 overpass and ended at the bridge abutment of the I-10 bridge over Lake Pontchartrain. This project included topographic survey, LiDAR scanning, and SUE.
05/18 – 12/18	I-10: Loyola Interchange Improvements – LA DOTD Project No. H.011670.5 *Party Chief.* SJB Group performed a full topographic survey, Quality Level B SUE, and utility surveying for the design of an overpass connector for the interchange of Loyola and I-10 in New Orleans providing additional access to the New Orleans Airport.

Firm employed by SJB Group, LLC				
Name	Tuesdie Savoy		Years of experience with this firm/employer	1
Title	*CAD Technician*		Years of experience with other firm(s)/employer(s)	30
Degree(s) / Years / Specialization			Associates of Science / 1989 / Drafting and Design Ascension Technical Institute	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Survey CAD Technician. Ms. Savoy has been in the Drafting and Design Industry for 30 years across several disciplines in both oil and gas and the Municipal sector. She has worked as a CAD Technician on several road widening projects, multi-use path projects, and sidewalks projects for the State of Louisiana and City-Parish governments.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
06/22 – Ongoing	US 167 - Camellia Blvd-Churchill Dr - LA DOTD Project No. H.013716 (Prime: Digital Engineering & Imaging, Inc.) *CAD Technician.* This project includes a thorough topographic survey of the area identifying trees, bushes/shrubs, utility poles, direction of overhead wires, type of pavement surfaces, water meters, sewer cleanouts, fences, water valves, manholes, drainage structures, gas meters, traffic signals, traffic signs, bus shelters, fire hydrants, type of drainage pipes, driveway width, etc. as well as perform Right-of-Way survey for the project limits.
04/22 – 09/22	Pelican State Credit Union (Prime: FMM Maintenance) *CAD Technician.* This project included topographic survey, construction documents, and permitting for the existing Pelican State Credit Union Branch drainage improvements on O'Neal Lane in Baton Rouge.
03/22 – 05/22	Southern University Campus (Prime: PEC) *CAD Technician.* Topographic survey and Boundary Survey were completed in support of drainage repair and road overlay project at the Southern University Campus in Baton Rouge, LA.
02/22 – 06/22	LA 3021: Dual Turn Lanes @ LA 38 – LA DOTD Project No. H.014752.5 *CAD Technician.* LA DOTD tasked SJB Group to perform a topographic survey in Orleans Parish, Louisiana. The survey was located at the intersection of LA 39 (N. Claiborne Ave.) and LA 46 (Elysian Fields Ave.), and included all utilities with depths, drainage, and finish floor elevations of all buildings within the survey limits. The project had a total linear distance of approximately 3,600 feet.
02/22 – Ongoing	Livonia Acres Residential Subdivision (Prime: Pointe Prospect, LLC) *CAD Technician.* This project includes Boundary Survey and Re-subdivision, Topographic Survey, SUE, Drainage Impact Study, Construction Drawings, Construction Staking, Final Plat, and As-Built Drawings.
02/22 – Ongoing	Roddy Road @ LA 933 Roundabout - Parish of Ascension Project No. MA-19-03

	CAD Technician. This project includes road design, topographic survey and Right-of-Way maps in accordance with LA DOTD Location and Survey Manual for the design of a single lane asphalt roundabout at the intersection of Roddy Road and LA 933 in Gonzales, LA.
01/22 – Ongoing	Siegen-Holiday Circle Public Dedication (Prime: Stantec Consulting) *CAD Technician.* Boundary/Servitude Survey and Partial Topographic Survey of the Siegen Plaza site on Siegen Lane, Baton Rouge, LA.
12/21 – 02/22	Materra/Woman's Hospital/Airline (Prime: Stantec Consulting) *CAD Technician.* Topographic Survey and Re-subdivision Map.
12/21 – Ongoing	MOVEBR – Synchronization and Communication Signal Rebuilds Group 2 *CAD Technician.* Drafting Field Roll Packages.
10/21 – 3/22	I-110: North to Plank Road – LA DOTD Project No. H.010319.5 (Prime: Buchart Horn) *CAD Technician.* SJB Group completed the topographic survey and drawings for the stretch of I-110 from North to Plank Road.
09/21 – Ongoing	MOVEBR – S. Sherwood Forest Boulevard Sidewalks – City-Parish Project No. 20-EN-HC-0026 *CAD Technician.* Drafting Plan and Profile Sheets.
09/21 – Ongoing	MOVEBR – Sherwood Forest Boulevard Multi-Use Path – City-Parish Project No. 20-EN-HC-0027 *CAD Technician.* Drafting Plan and Profile Sheets.
07/21 – 09/22	I-10: LA 415 to Essen – LA DOTD Project No. H.004100 *CAD Technician.* SJB Group performed the property survey, title takeoffs, and right-of-way maps for the segment of I-10 from LA 415 to Essen Lane.
10/20 - Ongoing	MovEBR – Siegen at Highland Intersection Improvements – City-Parish Project No. 20-CP-HC-0004 *CAD Technician.* SJB Group has completed the topographic survey for this project and has received a Supplement 1 Task Order to perform the property survey and right-of-way maps for the intersection.
07/20 - Ongoing	Rural Bridge Replacement Initiative - LA DOTD Contract No. 44-17597 *CAD Technician.* Topographic surveys, right-of-way mapping, and road design performed for the proposed 33 bridge replacements for LA DOTD Districts 03, 07, 61, and 62 as a Sub-consultant. Each site required a complete topographic survey of the project limits, as well as a complete inventory for each drainage structure (type, size, length, and invert), and cross sections of all drainage ways.
7/17 – 11/20	Raven Petroleum Facility *CAD Technician.* Developed grading plans, site plans, foundations and steel drawing for various equipment and supports, steel structures and platforms for equipment access, ground flare yard grading and supports.

Firm employed by SJB Group, LLC					
Name	James Duke Koontz			Years of experience with this firm/employer	1
Title	*Survey Party Chief*			Years of experience with other firm(s)/employer(s)	34
Degree(s) / Years / Specialization				N/A	
Active registration number / state / expiration date				N/A	
Year registered	N/A	Discipline		N/A	
Contract role(s) / brief description of responsibilities				Survey Party Chief. Mr. Koontz has over thirty years of experience as a survey party chief, field coordinator, and survey technician. Accuracy and completeness of data is Mr. Koontz's utmost priority. He has extensive experience throughout the State of Louisiana performing boundary, construction stakeout, as-built, ALTA, topographic, hydrographic and right-of-way surveys using both conventional and GPS instruments.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
09/22 – Ongoing	US 90: Tulane Avenue – Danzinger Bridge – LA DOTD Project No. H.014886.5 (Prime: Stanley Consulting) *Party Chief.* SJB Group is providing the topographic survey and LiDAR Scan as a sub-consultant to Stanley Consulting for the LA DOTD Tulane Avenue to Danzinger Bridge project along US 90.
09/22 - Ongoing	LA 73 at Cornerview Roundabout – Parish of Ascension Project No. MA-22-04 *Party Chief.* SJB Group is providing the topographic survey, road design, drainage design, right-of-way-maps, and SUE Quality Level C services for the placement of a roundabout at LA 73 and Cornerview Road in Ascension Parish.
07/22 – Ongoing	S. Lewis St Widening - LA DOTD Project No. H.013522 (Prime: Meyers Engineers, Ltd.) *Party Chief.* This project consists of providing a topographic survey for the S. Lewis Street widening project in accordance with DOTD procedures. The topographic survey shall extend past the apparent right-of-way to accommodate the road widening.
06/22 – Ongoing	US 167 - Camellia Blvd-Churchill Dr - LA DOTD Project No. H.013716 (Prime: Digital Engineering & Imaging, Inc.) *Party Chief.* This project includes thorough topographic survey of the area identifying trees, bushes/shrubs, utility poles, direction of overhead wires, type of pavement surfaces, water meters, sewer cleanouts, fences, water valves, manholes, drainage structures, gas meters, traffic signals, traffic signs, bus shelters, fire hydrants, type of drainage pipes, driveway width, etc. as well as perform Right-of-Way survey for the project limits.
02/22 – 06/22	LA 3021: Dual Turn Lanes @ LA 38 – LA DOTD Project No. H.014752.5 *Party Chief.* LA DOTD tasked SJB Group to perform a topographic survey in Orleans Parish, Louisiana. The survey was located at the intersection of LA 39 (N. Claiborne Ave.) and LA 46 (Elysian Fields Ave.), and included all utilities

	with depths, drainage, and finish floor elevations of all buildings within the survey limits. The project had a total linear distance of approximately 3,600 feet.
02/22 – Ongoing	Livonia Acres Residential Subdivision (Prime: Pointe Prospect, LLC) *Party Chief.* This project includes Boundary Survey and Re-subdivision, Topographic Survey, SUE, Drainage Impact Study, Construction Drawings, Construction Staking, Final Plat, and As-Built Drawings.
02/22 – Ongoing	Roddy Road @ LA 933 Roundabout - Parish of Ascension Project No. MA-19-03 *Party Chief.* This project includes road design, topographic survey and Right-of-Way maps in accordance with LA DOTD Location and Survey Manual for the design of a single lane asphalt roundabout at the intersection of Roddy Road and LA 933 in Gonzales, LA.
01/22 – Ongoing	Siegen-Holiday Circle Public Dedication (Prime: Stantec Consulting) *Party Chief.* Boundary/Servitude Survey and Partial Topographic Survey of the Siegen Plaza site on Siegen Lane, Baton Rouge, LA.
12/21 – 02/22	Materra/Woman's Hospital/Airline (Prime: Stantec Consulting) *Party Chief.* Topographic Survey and Re-subdivision Map.
10/21 – 3/22	I-110: North to Plank Road – LA DOTD Project No. H.010319.5 (Prime: Buchart Horn) *Party Chief.* SJB Group completed the topographic survey for the stretch of I-110 from North to Plank Road.
06/21 – 10/22	LA 56: Boudreaux Canal MB Replacement – LA DOTD Project No. H.002244.5 *Party Chief.* This project included property surveys, title take offs, and a right-of-way map along LA 56.
04/21 - Ongoing	MovEBR Nicholson Segment 2 – City-Parish Project No. 20-CP-HC-0032 *Party Chief.* SJB Group is providing the topographic survey, property survey, right-of-way mapping, and SUE Quality Level B & C services.
03/21 - Ongoing	MovEBR Lee Drive (Highland Road – Siegen Road) – City-Parish Project No. 20-CP-HC-0044 *Party Chief.* SJB Group is providing the topographic survey, right-of-way survey and mapping, and Quality Level C SUE along Lee Drive as a sub-consultant to Arcadis.
07/20 - Ongoing	Rural Bridge Replacement Initiative - LA DOTD Contract No. 44-17597 *Party Chief.* Topographic surveys, right-of-way mapping, and road design performed for the proposed 33 bridge replacements for LA DOTD Districts 03, 07, 61, and 62 as a Sub-consultant. Each site required a complete topographic survey of the project limits, as well as a complete inventory for each drainage structure (type, size, length, and invert), and cross sections of all drainage ways.
11/19 – 06/22	LA 1026: Roundabout at Eden Church Road – LA DOTD Project No. H.012348.5 *Party Chief.* This project included property surveys, title take offs, and a right-of-way map to prepare for the placement of a roundabout at Eden Church Road on LA 1026.

Firm employed by SJB Group, LLC					
Name	Charles Paul Young			Years of experience with this firm/employer	1
Title	*Survey Party Chief*			Years of experience with other firm(s)/employer(s)	34
Degree(s) / Years / Specialization				N/A	
Active registration number / state / expiration date				N/A	
Year registered	N/A	Discipline		N/A	
Contract role(s) / brief description of responsibilities				Survey Party Chief. Mr. Young has over thirty years of experience as a survey party chief, field coordinator, and survey technician. Accuracy and completeness of data is Mr. Young's utmost priority. He has extensive experience throughout the State of Louisiana performing boundary, construction stakeout, as-built, ALTA, topographic, hydrographic and right-of-way surveys using both conventional and GPS instruments. Mr. Young is responsible for the oversight and coordination of the maintenance of all surveying equipment and coordination of field activities for his field crew.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
09/22 – Ongoing	US 90: Tulane Avenue – Danzinger Bridge – LA DOTD Project No. H.014886.5 (Prime: Stanley Consulting) *Party Chief.* SJB Group is providing the topographic survey and LiDAR Scan as a sub-consultant to Stanley Consulting for the LA DOTD Tulane Avenue to Danzinger Bridge project along US 90.
09/22 - Ongoing	LA 73 at Cornerview Roundabout – Parish of Ascension Project No. MA-22-04 *Party Chief.* SJB Group is providing the topographic survey, road design, drainage design, right-of-way-maps, and SUE Quality Level C services for the placement of a roundabout at LA 73 and Cornerview Road in Ascension Parish.
07/22 – Ongoing	S. Lewis St Widening - LA DOTD Project No. H.013522 (Prime: Meyers Engineers, Ltd.) *Party Chief.* This project consists of providing a topographic survey for the S. Lewis Street widening project in accordance with DOTD procedures. The topographic survey shall extend past the apparent right-of-way to accommodate the road widening.
03/22 – Ongoing	LA 385: Ryan Street Intersection Improvements - LA DOTD Project No. H.012685.5 *Party Chief.* A Topographic survey was required in Calcasieu Parish, LA near the intersection of I-210 and LA 385 (Ryan St) and near the campus of McNeese State University. The survey includes all utilities and all drainage, along with finish floor elevations of all buildings that fell within the survey limits. The total linear distance was approximately 2.67 miles.
02/22 – Ongoing	Livonia Acres Residential Subdivision (Prime: Pointe Prospect, LLC)

	Party Chief. This project includes Boundary Survey and Re-subdivision, Topographic Survey, SUE, Drainage Impact Study, Construction Drawings, Construction Staking, Final Plat, and As-Built Drawings.
02/22 – Ongoing	Roddy Road @ LA 933 Roundabout - Parish of Ascension Project No. MA-19-03 *Party Chief.* This project includes road design, topographic survey and Right-of-Way maps in accordance with LA DOTD Location and Survey Manual for the design of a single lane asphalt roundabout at the intersection of Roddy Road and LA 933 in Gonzales, LA.
02/22 – 06/22	LA 3021: Dual Turn Lanes @ LA 38 – LA DOTD Project No. H.014752.5 *Party Chief.* LA DOTD tasked SJB Group to perform a topographic survey in Orleans Parish, Louisiana. The survey was located at the intersection of LA 39 (N. Claiborne Ave.) and LA 46 (Elysian Fields Ave.), and included all utilities with depths, drainage, and finish floor elevations of all buildings within the survey limits. The project had a total linear distance of approximately 3,600 feet.
01/22 – Ongoing	Siegen-Holiday Circle Public Dedication (Prime: Stantec Consulting) *Party Chief.* Boundary/Servitude Survey and Partial Topographic Survey of the Siegen Plaza site on Siegen Lane, Baton Rouge, LA.
12/21 – 02/22	Materra/Woman's Hospital/Airline (Prime: Stantec Consulting) *Party Chief.* Topographic Survey and Re-subdivision Map.
10/21 – 3/22	I-110: North to Plank Road – LA DOTD Project No. H.010319.5 (Prime: Buchart Horn) *Party Chief.* SJB Group completed the topographic survey for the stretch of I-110 from North to Plank Road.
06/21 – 10/22	LA 56: Boudreaux Canal MB Replacement – LA DOTD Project No. H.002244.5 *Party Chief.* This project included property surveys, title take offs, and a right-of-way map along LA 56.
04/21 - Ongoing	MovEBR Nicholson Segment 2 – City-Parish Project No. 20-CP-HC-0032 *Party Chief.* SJB Group is providing the topographic survey, property survey, right-of-way mapping, and SUE Quality Level B & C services.
03/21 - Ongoing	MovEBR Lee Drive (Highland Road – Siegen Road) – City-Parish Project No. 20-CP-HC-0044 *Party Chief.* SJB Group is providing the topographic survey, right-of-way survey and mapping, and Quality Level C SUE along Lee Drive as a sub-consultant to Arcadis.
07/20 - Ongoing	Rural Bridge Replacement Initiative - LA DOTD Contract No. 44-17597 *Party Chief.* Topographic surveys, right-of-way mapping, and road design performed for the proposed 33 bridge replacements for LA DOTD Districts 03, 07, 61, and 62 as a Sub-consultant. Each site required a complete topographic survey of the project limits, as well as a complete inventory for each drainage structure (type, size, length, and invert), and cross sections of all drainage ways.

Firm employed by SJB Group, LLC				
Name	Karen Kennedy, PE	Years of relevant experience with this employer	1.5	
Title	*SUE and Engineering Department Manager*	Years of relevant experience with other employer(s)	26	
Degree(s) / Years / Specialization		Bachelor of Science / 1995 / Civil Engineering Louisiana State University		
Active registration number / state / expiration date		PE.0028547 / Louisiana / 09.30.2023		
Year registered	1999	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities		SUE and Engineering Project Manager. Ms. Kennedy has twenty-seven years of experience as a licensed civil engineer working in both the municipal and private sectors. Ms. Kennedy has completed infrastructure improvement, site development and subsurface utility engineering (SUE) projects for LA DOTD, MovEBR, and other local entities and private developers. She has a thorough knowledge of the revised Subsurface Utility Engineering CI/ASCE Standard 38-22 procedures.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
08/22 - Ongoing	LA 485 Bridges Near Allen Construction Inspection – LA DOTD Task Order No. H.001820.5-3 *SUE Project Manager.* SJB Group will provide construction coordination and monitoring for the relocation of three water mains in conflict with the project alignments at three bridge locations.
04/22 - Ongoing	LA 30: EBR PL- I-10 - LA DOTD Project No. H.013797 *SUE Department Manager/Engineer of Record.* SJB Group performed ASCE 38-02 Quality Level D services as a sub-consultant to Michael Baker, Inc. as an addition to the Stage 0 Feasibility Study for the Corridor. There are many industrial pipelines within this corridor making the correct identification of the utilities and owners within this corridor imperative for the continuance of the Stages of this project. In addition to the Quality Level D records, SJB performed field investigations to determine the order of the pipelines within the project limits.
03/22 – 08/22	D Vickers Hall Renovations and Addition *SUE Engineer of Record.* SJB Group performed ASCE 38-02 Quality Level A and B SUE services for all utilities as a sub-consultant to Holly & Smith Architects for the proposed D. Vickers Hall Expansion at Southeastern Louisiana University. Locations of the existing utilities are required to determine conflicts with the proposed expansion of D. Vickers Hall, new parking lot, and pedestrian path. Anticipated utilities were water, gas, telephone, cable, and fiber optic. Prior to Quality Level A and B services, extensive Quality Level D records research was completed to aid in the subsequent SUE design.
01/22 – 06/22	Dawson Creek at Hundred Oaks and Broussard Bridges – City Parish Project No. 21-DR-LA-0095

	SUE Engineer of Record. SJB Group performed subsurface utility engineering and utility surveying as a sub-consultant for the proposed Dawson Creek at Hundred Oaks and Broussard Bridges. This project required ASCE 38-02 Quality Level A and B SUE services for all utilities within the project limits. The accurate location of these facilities was critical for the ultimate design of the bridge infrastructure included in this project.
11/21 – 03/22	LA 30 Roundabouts Subsurface Utility Investigation (Tanger Mall and I-10) – Project No. 20-2057 *SUE Engineer of Record.* SJB Group performed ASCE 38-02 Quality Level A SUE and utility surveying to identify utility conflicts for all utilities owned by the City of Gonzales and the proposed LA 30 Roundabouts at Tanger Mall and I-10 in Ascension Parish. Prior to Quality Level A services, extensive Quality Level D records research was completed to aid in the subsequent SUE design. This effort required detailed record research, field investigations and data management. The accurate location of these utilities was critical to alleviate disruptions to utility services and conflicts and delays to the construction of the project in this heavily congested area.
10/21 - Ongoing	MovEBR Widening of Lee Drive (Highland to Perkins) - City/Parish Project No. 20-CP-HC-0044 *SUE Engineer.* SJB Group performed ASCE 38-02 Quality Level C SUE services for all utilities within the project corridor as a sub-consultant. Prior to Quality Level C services, extensive Quality Level D records research was completed to aid in the subsequent SUE design. This corridor is heavily congested with utilities making the accurate location of such a critical part of the ultimate design of the project.
10/21 – 03/22	Purpera Avenue Drainage Improvements *Project Manager / SUE Engineer of Record.* SJB Group provided a topographic survey and SUE designating (Quality Level B) and locating services (Quality level A) in accordance with ASCE 38-02 for all utilities owned by the City of Gonzales. Prior to Quality Level A and B services, extensive Quality Level D records research was completed to aid in the subsequent SUE design. The overall efforts established an extensive topographic survey and Quality Level B map with Quality Level A information throughout the project corridor. The accurate location of these utilities was critical to allow for the proper design of the drainage system.
10/21 – 04/22	I-110: 1-110 North Street to Plank Road – LA DOTD Project No. H.010319.5 *SUE Engineer of Record.* SJB Group performed ASCE 38-02 Quality Level C and D SUE services for all utilities on this LA DOTD project in East Baton Rouge Parish. Quality Level C and D services requires extensive records research to aid in the subsequent SUE design.
08/21 – 03/22	UPRR Corridor (Plaquemine) – LADOTD Project No. H.012851 *SUE Engineer of Record.* SJB Group performed ASCE 38-02 Quality Level B, C, and D subsurface utility engineering and utility surveying for the project located in Iberville Parish along the Union Pacific Railroad Corridor between the intersection of LA 1 and Bayou Road and the intersection of Belleview Drive and Railroad Avenue.

Firm employed by SJB Group, LLC					
Name	Kyle Haigler, PE			Years of relevant experience with this employer	1
Title	*Engineering Project Manager*			Years of relevant experience with other employer(s)	6
Degree(s) / Years / Specialization				Bachelor of Science / 2016 / Civil Engineering Louisiana State University	
Active registration number / state / expiration date				PE.0044652 / Louisiana / 09.30.2024	
Year registered	2020	Discipline		Civil Engineering	
Contract role(s) / brief description of responsibilities				Hydraulic and Drainage Engineer. Mr. Haigler is a registered professional engineer in the state of Louisiana and offers seven years of experience working in the civil development industry. He specializes in drainage calculation and modeling, and focuses on commercial and residential development planning for SJB Group. His experience includes preliminary site layouts and design, residential and commercial construction plans, preparation of drainage impact studies, and subsurface/open ditch drainage systems.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/22 – Ongoing	Tiger Bayou RV Park *Drainage Engineer.* SJB group first developed a Preliminary Site Plan that satisfied the needs and requirements of both the client and West Baton Rouge Parish. Next, Construction Documents and a Drainage Impact Study including open ditch and sub-surface hydraulics were developed that met the requirements of the parish. Construction plans included geometric layout, drainage layout, utility layout, erosion control, and standard details.
03/22 – 06/22	Harvest View Subdivision for Pointe Prospect *Drainage Engineer.* SJB Group provided drainage analysis for the as-built detention design of a single family residential development. The drainage analysis was requested by Pointe Coupee Parish to ensure the as-built detention system reduced the runoff to a pre-developed rate as required by Pointe Coupee Parish.
03/22 – Ongoing	Benny's – Zachary, LA Location Infrastructure Plans *Project Engineer.* SJB Group is providing a full commercial subdivision site design and construction plans for the proposed Benny's Carwash property in Zachary, LA. Design includes drainage, grading, utility, and geometrics for the property to provide pad ready property for future commercial developments. SJB Group also managed the Rezoning and Site Plan Approval with the City of Zachary. This process included a full Drainage Impact Study and hydraulic design of the development and a formal Site Plan Package.
02/22 – 06/22	LA 3021: Dual Turn Lanes @ LA 38 – LA DOTD Project No. H.014752.5

	Drainage Engineer. LA DOTD tasked SJB Group to perform a topographic survey and drainage map in Orleans Parish, Louisiana. The survey was located at the intersection of LA 39 (N. Claiborne Ave.) and LA 46 (Elysian Fields Ave.), and included all utilities with depths, drainage, and finish floor elevations of all buildings within the survey limits. The project had a total linear distance of approximately 3,600 feet.
01/22 – 06/22	Catalpa Lane – Longleaf Drainage Study *Drainage Engineer.* This project included plans to close in roadside ditches within the existing Longleaf Development along with onsite drainage improvements to reduce erosion problems onsite. Drainage Calculations and hydraulic modeling were used to size subsurface drainage system.
08/21 – 03/22	UPRR Corridor (Plaquemine) – LADOTD Project No. H.012851 *Drainage Engineer.* SJB Group performed ASCE 38-02 Quality Level B, C, and D subsurface utility engineering, utility surveying, and a drainage map for the project located in Iberville Parish along the Union Pacific Railroad Corridor between the intersection of LA 1 and Bayou Road and the intersection of Belleview Drive and Railroad Avenue.
08/21 – 03/22	RJ Daigle – Asphalt Plant Expansion *Project Engineer.* This project included hydraulic modeling of an existing ditch onsite in HEC-ras. This model was used to size three ditch crossings onsite. The HEC-ras model was submitted to and approved by Ascension Parish. Construction Plans and a hydraulic report were created for the ditch crossings.
2021 – 2022 *Approximate*	Benny's Carwash Denham Springs *Drainage Engineer.* This project included the addition of a mobile lube building along with expanding parking, pay stations, and vacuum canopies. Mr. Haigler was in charge of the design of drainage, grading, detention, and utility routing along with the creation of a full Drainage Impact Study.
07/20 - Ongoing	Rural Bridge Replacement Initiative - LA DOTD Contract No. 44-17597 *Project Engineer.* Topographic surveys, right-of-way mapping, and road design performed for the proposed 33 bridge replacements for LA DOTD Districts 03, 07, 61, and 62 as a Sub-consultant. Each site required a complete topographic survey of the project limits, as well as a complete inventory for each drainage structure (type, size, length, and invert), and cross sections of all drainage ways.
2016-2017 *Approximate*	Tru Hotel at Citiplace *Project Engineer.* This project included the removal of the existing development and the design of a new hotel within the Citiplace development in Baton Rouge. The design included onsite drainage, utility routing, and grading. The project also required a Stormwater Management Plan implementing East Baton Rouge Best Management Practices for treating storm water runoff.

Firm employed by SJB Group, LLC				
Name	Austin LaCombe, EI	Years of relevant experience with this employer	1	
Title	*Assistant SUE Department Manager*	Years of relevant experience with other employer(s)	7	
Degree(s) / Years / Specialization		Bachelor of Science / 2017 / Civil Engineering Louisiana State University		
Active registration number / state / expiration date		EI.0033659 / Louisiana / 09.30.2024		
Year registered	2018	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities		SUE Project Engineer. Mr. LaCombe manages and assists with managing subsurface utility engineering (SUE) projects for SJB Group. He is tasked with managing day-to-day operations of SUE field crews including project research, preparation of field packages, supporting field efforts, organization and processing of field data, client coordination, and preparation/QA/QC of project deliverables. Mr. LaCombe has significant experience working on a variety of projects with diverse timelines. He is also responsible for ensuring that all safety guidelines and policies are followed by SUE personnel.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/22 – 08/22	D Vickers Hall Renovations and Addition *SUE Engineer.* SJB Group performed ASCE 38-02 Quality Level A and B SUE services for all utilities as a sub-consultant to Holly & Smith Architects for the proposed D. Vickers Hall Expansion at Southeastern Louisiana University. Locations of the existing utilities were required to determine conflicts with the proposed expansion of D. Vickers Hall, new parking lot, and pedestrian path. Prior to Quality Level A and B services, extensive Quality Level D records research was completed to aid in the subsequent SUE investigation. Utilities located included water, gas, telephone, cable, and fiber optic. Coordination with the project team and university personnel were key as this work was performed in high foot traffic areas.
11/21 – 03/22	LA 30 Roundabouts Subsurface Utility Investigation (Tanger Mall and I-10) – Project No. 20-2057 *SUE Engineer.* SJB Group performed ASCE 38-02 Quality Level A SUE and utility surveying to identify utility conflicts for all utilities owned by the City of Gonzales and the proposed LA 30 Roundabouts at Tanger Mall and I-10 in Ascension Parish. Prior to Quality Level A services, extensive Quality Level D records research was completed to aid in the subsequent SUE design. This effort required detailed record research, field investigations and data management. The accurate location of these utilities was critical to alleviate disruptions to utility services and conflicts and delays to the construction of the project in this heavily congested area.
10/21 – 02/22	I-10: LA 73 - LA30 – LA DOTD Project No. H.009266.5 *Project Manager.* LA DOTD is preparing plans to widen I-10 from 4 to 6 lanes from LA 73 – to LA 30. This project required Quality Level B SUE services at the LA73/I-10 interchange as well as Quality Level D services for the remainder

	of the project limits. Mr. LaCombe assisted with utility records research, as well as managed SUE field efforts throughout the duration of the project.
01/20 – 11/20	I-49 South, Ambassador Caffery & US 90 Interchange – LA DOTD Project No. H.002868.5 *Project Manager / QA/QC.* This project involved providing designating (Quality Level B) and locating (Quality Level A) SUE services to map the underground utilities within the project limits. In this congested corridor, the first task required mapping subsurface utilities along several mile of the Ambassador Caffery and US 90 right-of-way. After the completion of the Quality Level B investigation, this information was compiled and reviewed to conduct Quality Level A services on critical utilities in an effort to further aid in the design process. Mr. LaCombe performed secondary utility records research, and compiled utility permits/relocation agreements to identify potentially new installed or relocated utilities within the project area.
01/18 – 05/20	I-10: LA 415 to Essen Lane on I-10 and I-12 – LA DOTD Project No. H.004100.5 *Project Manager / QA/QC.* Mr. LaCombe assisted in the collection of utility owner record information and other project research used in the development of the comprehensive map, used by the design team to avoid critical utilities in preliminary design. Mr. LaCombe also coordinated SUE field efforts for utility designation and with project team members for utility data collection and accurate depiction of phase changes, as well as the preparation and QA/QC of project deliverables. Records research (Quality Level D) and designating (Quality Level B) SUE efforts throughout the 10-mile project corridor were key in providing more reliable and complete utility information.
10/16 – 08/17	Essen Lane Widening (Route LA 3064), Perkins Road to I-10B – LA DOTD Project No. H.010560.5 *Assistant Project Manager.* This project required designating (Quality Level B) and locating (Quality Level A) SUE services to map the underground utilities within the project limits. This corridor is one of the most congested roads in Baton Rouge with utilities servicing business and medical facilities. All utilities inventoried were useful in helping the designer to fully understand the available space for the new construction and the impacts. Utility coordination services were provided to identify and resolve utility/design conflicts. Utility coordination presented challenges due to the need to minimize right-of-way acquisition.
07/15 – 12/21	I-49 Connector (Lafayette Regional Airport to I-10/ I-49/ US 167 Interchange) – LA DOTD Project No. H.004273.5 *Project Manager / QA/QC.* This project required ASCE 38-02 Quality Level A & B services services to map the underground utilities within the project limits spanning 7 miles of downtown Lafayette. Prior to Quality Level B activities, an extensive Quality Level D records-based map was created to aid in the preliminary design. This effort required multiple field leaders, detailed field data management, and constant oversight. After compiling the Quality Level B map, Quality Level A portion of the project was started in an effort to establish elevations on critical utility systems as well as unknown utilities found in the Quality Level B mapping. The overall efforts established an extensive Quality Level B map with Quality Level A information throughout the project corridor in combination with the Utility Coordination to keep utility owners aware of the mapping progress. Mr. LaCombe assisted with and coordinated utility field investigations, conducted utility records research, processing of field data, and QA/QC of project deliverables.

Firm employed by SJB Group, LLC				
Name	Tyler Foster		Years of experience with this firm/employer	6
Title	*CAD Technician*		Years of experience with other firm(s)/employer(s)	0
Degree(s) / Years / Specialization			Associates of Science / 2016 / Drafting and Design Technology ITI Technical College	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			SUE CAD Technician. Mr. Foster is involved with the preparation of boundary surveys, right-of-way maps, topographic surveys, utility mapping, stakeout computations, and as-built survey maps. Additionally, he has experience in the preparation of SUE field sketches, electronic drawings, Quality Level B deliverable maps, and Quality Level A test hole data forms. He has experience in design and drafting using CAD design software packages as well as MicroStation In Roads.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
08/21 – 03/22	UPRR Corridor (Plaquemine) – LA DOTD Project No. H.012851 *CAD Technician.* SJB Group performed Quality Level B, C, and D subsurface utility engineering and utility surveying for the project located in Iberville Parish along the Union Pacific Railroad Corridor between the intersection of LA 1 and Bayou Road and the intersection of Belleview Drive and Railroad Avenue.
04/21 – 07/21	Hooper Road Widening (LA 3034 – LA 37) – LA DOTD Project No. H.009300.5 *CAD Technician.* SJB performed a topographic survey, subsurface utility engineering, and an update of an existing drainage map for a one mile stretch of LA Hwy 408. The topographic survey was an update to a survey done previously by SJB and included locating and verifying all changes to the one mile site since the previous survey was completed.
03/21 – 06/21	LA 91: Bayou Plaquemine Brusly Bridge Replacement – LA DOTD Project No. H.010885.5 *CAD Technician.* SJB Group performed a topographic survey for Louisiana Department of Transportation and Development for a bridge replacement of the Bayou Plaquemine/Brusly Bridge.
12/19 – 01/20	Nelson Road Extension & Bridge – LA DOTD Project No. H.005967 *CAD Technician.* The project was located along the Nelson Road corridor, which is located south of Contraband Bayou in Calcasieu Parish, near Lake Charles, Louisiana. The project included the realignment of Nelson Road, new bridge construction, and relocation of an existing railroad. SJB performed ASCE 38-02 Quality Level B services throughout the project limits and ASCE 38-02 Quality Level A services for all utility lines greater than 4" in diameter crossing the survey alignment.
11/19 – 10/21	US 190: LA 437 – US 190 BUS (PH 1) – LA DOTD Project No. H.001344

	CAD Technician. This project required the roadway widening located along US 190 from LA 437 to US 190 (BUS) and adding a new westbound bridge over the Bogue Falaya River in St. Tammy Parish in the City of Covington, LA. SJB Group performed Quality Level A and B SUE for design conflicts.
01/19 – 08/19	LA 182 Barrow Street Bridge – LA DOTD Project No. H.012735 *CAD Technician.* SJB Group was hired by LA DOTD to provide Quality Level B SUE throughout Topographic Survey limits.
11/18 – 07/19	Plank Road and Florida Blvd – Baton Rouge Transit *CAD Technician.* SJB Group performed subsurface utility engineering and utility surveying for the design of new bus stops for the Capital Area Transit System along Florida Boulevard and Plank Road in East Baton Rouge Parish. This project required ASCE 38-02 Quality Level B services at certain locations where bus stops were being proposed in order to eliminate conflicts with underground utilities.
05/18 – 11/18	I-10 Loyola Interchange Improvements – LA DOTD Project No. H.011670 *CAD Technician.* SJB Group performed SUE and utility surveying for the design of an overpass connector for the interchange of Loyola and I-10 in New Orleans providing additional access to the New Orleans Airport. This project required ASCE 38-02 Quality Level B services throughout the entire project limits and all associated surveying including above ground utility lines and features.
07/17 – 11/17	I-12: US 190 to LA 59 – LA DOTD Project No. H.011152 *CAD Technician.* SJB Group, LLC performed subsurface utility engineering for a topographic survey to extend the existing topographic survey limits in nine areas. The additional topographic survey and ASCE Quality Level B locating services was performed along LA 59, north and south of I-12 in St Tammany Parish. SJB Group also performed the topographic survey of the original and extended limits.
10/16 – 10/16	LA 44 Turn Lane at LA 621 – LA DOTD Project No. H.009956 *CAD Technician.* SJB Group was hired to perform SUE services for the LA 44 Turn Lane at LA 621 in Ascension Parish for LA DOTD under the retainer contract.
05/16 – 02/17	Chef Menteur Pass Bridges and Approaches – LA DOTD Project No. H.000263.5 *CAD Technician.* SJB Group provided a topographic survey and subsurface utility engineering services for a proposed bridge replacement in Orleans Parish. Mr. Foster designed drainage maps and utility sheets.
02/16 – 02/17	Hooper Road Extension – Rt. LA 408 – LA DOTD Project No. H.005403.5 *CAD Technician.* SJB Group performed a topographic survey of utilities and their depths as well as drainage maps. The survey was for the extension of Hooper Road across the Amite River. Mr. Foster created primary control data sheets, drainage maps, and utility sheets.

Firm employed by SJB Group, LLC					
Name	Kenneth Gaines			Years of relevant experience with this employer	<1
Title	*SUE Technician III*			Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization				N/A	
Active registration number / state / expiration date				N/A	
Year registered	N/A	Discipline		N/A	
Contract role(s) / brief description of responsibilities				SUE Technician. Mr. Gaines has over seven years of experience as a subsurface utility locator, on a variety of projects ranging from small rural areas to large utility congested urban cities across the United States. Mr. Gaines began his utility career as a field associate and has elevated himself to a senior field position due to his grasp of investigative best practices, knowledge of utility locating equipment, and attention to detail. In addition to his locating experience, Mr. Gaines is responsible for the supervision of field crews, conducting utility field meetings, performing intermittent QA/QC measures in field investigations, and determining the need for additional utility investigations for projects.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
10/22 - Ongoing	MOVEBR Airline Highway, North (Florida Blvd to Interstate I-110) – City-Parish Project No. 20-CP-US-0099 *SUE Technician.* SJB Group will complete ASCE 38-02 Quality Level D services for the project as a sub-consultant to Huval & Associates. There is a heavy congestion of utilities within these project limits and identification of utility owners and approximate locations is critical to the preliminary design of the project.
08/22 - 08/22	Hawthorne Hollow Bridge in Madisonville, LA *SUE Technician.* SJB Group provided ASCE 38-02 Quality Level A subsurface utility locating and hydro-probing for this project.
08/22 - 08/22	Mandeville City Hall Lot 1A, 2A, and 3A *SUE Technician.* SJB Group provided ASCE 38-02 Quality Level B designating services as a sub-consultant to Kelly McHugh and Associates, Inc.
08/22 - 08/22	Siegen Lane School for Duplantis Design Group (Project No. 22-1014) *SUE Technician.* SJB Group provided ASCE 38-02 Quality Level A subsurface utility locating for this project as a sub-consultant to Duplantis Design Group.
08/22 - Ongoing	Gillis Long Center in Carville, LA

	SUE Technician. SJB Group is providing ASCE 38-02 Quality Level B utility marking services for approximately 43,000 feet of underground water lines and various other underground utility lines.
05/22 - Ongoing	LA 30: EBR PL 1-10 (Part 1) – LA DOTD Project No. H.013797 (Prime: Michael Baker, Inc.) *SUE Technician.* SJB Group is providing ASCE 38-02 Quality Level D, GIS, and LiDAR review services as a sub-consultant to Michael Baker, Inc. for state project H.013797.
05/22 - Ongoing	MovEBR SUE for Airline Highway South – City-Parish Project No. 20-CP-US-0100 *SUE Technician.* SJB Group is providing ASCE 38-02 Quality Level D utility locating services services as a sub-consultant to Stantec Consulting Services Inc. on Airline Highway South from Parish Line to Bluebonnet Boulevard.
04/22 – 08/22	MSY Car Rental for BFM Corporation *SUE Technician.* SJB Group provided ASCE 38-02 Quality Level B designating services for the MSY Car Rental Generator Addition located at the MSY Airport in Kenner, LA.
04/22 – 06/22	St. Bernard Parish Water Treatment Plants SUE *SUE Technician.* SJB Group provided ASCE 38-02 Quality Level B and Quality Level A services for the St. Bernard Parish Water Treatment Plant expansion. Prior to Quality Level A and B services, extensive Quality Level D records research was completed to aid in the subsequent SUE design. The plant site is heavily congested with existing utilities serving the site. Records provided were out of date and therefore the accurate location of the facilities within the expansion area was critical to avoid disruption of water service or costly relocation costs.
03/22 – 08/22	D Vickers Hall Renovations and Addition *SUE Technician.* ASCE 38-02 Quality Level A and B SUE services for all utilities as a sub-consultant to Holly & Smith Architects for the proposed D. Vickers Hall Expansion at Southeastern Louisiana University. Locations of the existing utilities are required to determine conflicts with the proposed expansion of D. Vickers Hall, new parking lot, and pedestrian path. Anticipated utilities were water, gas, telephone, cable, and fiber optic. Prior to Quality Level A and B services, extensive Quality Level D records research was completed to aid in the subsequent SUE design.
04/21 - Ongoing	Hooper Road Widening (LA 3034 – LA 37) - LA DOTD Project No. H.009300.5 *SUE Technician.* SJB Group completed a topographic survey and subsurface utility engineering project for a one mile stretch of LA Hwy 408 in East Baton Rouge Parish, LA. ASCE 38-02 Quality Level B was completed for the entire project corridor. Prior to Quality Level B services, extensive Quality Level D records research was completed to aid in the subsequent SUE design.

Firm employed by SJB Group, LLC					
Name	James White			Years of relevant experience with this employer	<1
Title	*SUE Technician II*			Years of relevant experience with other employer(s)	4
Degree(s) / Years / Specialization				N/A	
Active registration number / state / expiration date				N/A	
Year registered	N/A	Discipline		N/A	
Contract role(s) / brief description of responsibilities				SUE Technician. Mr. White has over four years of experience as a subsurface utility locator, on a variety of projects such as pipeline asset protection and utility congested urban city streets. Mr. White began his utility career as a damage prevention field associate and has elevated himself to a crew lead locator position due to his grasp of investigative best practices, knowledge of utility locating equipment, and knowledge of utility systems. In addition to his locating experience, Mr. White is responsible for conducting utility field meetings, performing intermittent QA/QC measures in field investigations, and determining the need for additional utility investigations for projects.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
10/22 - Ongoing	MOVEBR Airline Highway, North (Florida Blvd to Interstate I-110) – City-Parish Project No. 20-CP-US-0099 *SUE Technician.* SJB Group will complete ASCE 38-02 Quality Level D services for the project as a sub-consultant to Huval & Associates. There is a heavy congestion of utilities within these project limits and identification of utility owners and approximate locations is critical to the preliminary design of the project.
08/22 - 08/22	Hawthorne Hollow Bridge in Madisonville, LA *SUE Technician.* SJB Group provided ASCE 38-02 Quality Level A subsurface utility locating and hydro-probing for this project.
08/22 - 08/22	Mandeville City Hall Lot 1A, 2A, and 3A *SUE Technician.* SJB Group provided ASCE 38-02 Quality Level B designating services as a sub-consultant to Kelly McHugh and Associates, Inc.
08/22 - 08/22	Siegen Lane School for Duplantis Design Group (Project No. 22-1014) *SUE Technician.* SJB Group provided ASCE 38-02 Quality Level A subsurface utility locating for this project as a sub-consultant to Duplantis Design Group.
08/22 - Ongoing	Gillis Long Center in Carville, LA

	SUE Technician. SJB Group is providing ASCE 38-02 Quality Level B utility marking services for approximately 43,000 feet of underground water lines and various other underground utility lines.
05/22 - Ongoing	LA 30: EBR PL 1-10 (Part 1) – LA DOTD Project No. H.013797 (Prime: Michael Baker, Inc.) *SUE Technician.* SJB Group is providing ASCE 38-02 Quality Level D, GIS, and LiDAR review services as a sub-consultant to Michael Baker, Inc. for state project H.013797.
05/22 - Ongoing	MovEBR SUE for Airline Highway South – City-Parish Project No. 20-CP-US-0100 *SUE Technician.* SJB Group is providing ASCE 38-02 Quality Level D utility locating services services as a sub-consultant to Stantec Consulting Services Inc. on Airline Highway South from Parish Line to Bluebonnet Boulevard.
04/21 - Ongoing	Hooper Road Widening (LA 3034 – LA 37) - LA DOTD Project No. H.009300.5 *SUE Technician.* SJB Group completed a topographic survey and subsurface utility engineering project for a one mile stretch of LA Hwy 408 in East Baton Rouge Parish, LA. ASCE 38-02 Quality Level B was completed for the entire project corridor. Prior to Quality Level B services, extensive Quality Level D records research was completed to aid in the subsequent SUE design.

Firm employed by: Terracon Consultants, Inc.					
Name	**Jim Baxter**			Years of relevant experience with this employer	15
Title	Senior Ecologist			Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization				Master of Forest Resources, University of Georgia, 2002 Bachelor of Science, University of the South, Natural Resources, 2000	
Active registration number / state / expiration date				N/A	
Year registered	N/A	Discipline		**CERTIFICATION**: Wetland Delineation, 2005	
Contract role(s) / brief description of responsibilities				Mr. Baxter meets the requirements of MPR #5 with 20 years of experience performing wetland delineations.	

Mr. Baxter is a Senior Ecologist. Project duties include jurisdictional waters delineations, Section 404 permitting, threatened and endangered species habitat assessments and surveys, state waters guidance, stream buffer variance applications, guidance for mitigation banking, and Phase I Environmental Site Assessments (ESA). Mr. Baxter is a lead reviewer for natural resource work, including wetland delineations and he oversees various ecological projects throughout the southeast.

Mr. Baxter was initially trained in wetland delineation field methods in 2005. He has since attended additional courses and training programs in wetlands and endangered species.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "Bridge Inspection", "condition assessment", "steel and concrete rehabilitation, "Non-destructive Testing".
06/21 – 01/22	**H.014319.5 Cedar Crest Ave. Off System Bridge Wetland Delineation, Baton Rouge, LA, DOTD** • Senior Project Reviewer. Terracon performed a WOTUS delineation for a project that involved a proposed bridge dismantling project and a new replacement structure at the Cedar Crest bridge location in Baton Rouge, LA where it crosses Weiner Creek.
01/20 – 02/20	**H.013081 Roundhill Road Wetland Delineation, W. Carroll Parish, LA, DOTD** Senior Project Reviewer. Terracon conducted a wetland delineation and prepared a preliminary WOTUS delineation report addressing Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act compliance requirements for the proposed Roundhill Road over Little Colewa Bayou bridge replacement.
12/19 – 02/20	**H.013111 Webster Bridge, Minden, LA, DOTD** Senior Project Reviewer. Terracon conducted a wetland delineation and prepared a WOTUS delineation report addressing Section 404 of the Clean Water Act (Section 404) and Section 10 of the Rivers and Harbors Act (Section 10) compliance requirements for the proposed Dorcheat Road over Caney Creek bridge replacement project in Webster Parish, LA.
07/19 – 12/19	**H.013143, OSB Avoyelles Parish, LA, DOTD** • Senior Project Reviewer. Terracon conducted a wetland delineation for the Carbon Plant Road bridge over Bayou Boeuf in Avoyelles Parish. The delineation was conducted accordance with the 1987 US Army Corps of Engineers (USACE) Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Delineation Manual:

	Atlantic and Gulf Coastal Plain Region (Version 2.0, 2010) for a replacement bridge design/construction project with a similar alignment to the previous bridge.
07/19 – 12/19	**H.013130, OSB Ouachita Parish, Red Cut Road Bridge (over Watson Branch) and Charles Rawls Road (over Prairion Bayou), Ouachita Parish, LA, DOTD** • Senior Project Reviewer. Terracon conducted a wetland delineation for the Red Cut Road Bridge traversing Watson Branch south of West Monroe, LA. The proposed project included design/construction of a replacement bridge structure with a similar alignment to the previous bridge.
07/19 – 03/20	**H.013163 Wadesboro Road over Unnamed Creek, Tangipahoa Parish, LA, DOTD** • Senior Project Reviewer. Terracon conducted a site visit at the Wadesboro Road Bridge for proposed replacement of the 29.7-foot-long timber bridge, a project located withing the Pontchartrain River Basin in the Lake Maurepas Watershed. Terracon subsequently prepared a Waters of the US (WOTUS) Delineation report based on site conditions. The delineation was conducted in general accordance with the 1987 USACE Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0, 2010), and the Louisiana Department of Transportation and Development (DOTD) guidelines.
05/22 – 06/22	**SP H.014270, Lefort Bypass Road OSB, Thibodaux, LA, DOTD** • Senior Ecologist. Terracon prepared a Waters of the US (WOTUS) Delineation report based upon findings obtained during field delineation. Terracon recommended consultation with the USACE to determine the appropriate Nationwide Permitting action and for a jurisdictional determination of the identified waters, and for potential permit issuance prior to initiating construction activities for this project.
02/22 – 04/22	**After the Fact Permitting – McComb Substation, LaPlace, LA, Illinois Central RR** • Senior Project Reviewer. Terracon performed a preliminary WOTUS delineation on the approximately 37.03-acre site to characterize the existing site conditions, observe the site for the presence of WOTUS, including wetlands, provide an opinion regarding whether WOTUS (if observed) would be considered jurisdictional by the USACE. Additionally, at the time of the WOTUS delineations, Terracon sought to identify (if observed) any impact from emergency repair operations from Hurricane Ida.
10/18 – 02/19	**City Parish Project No. 16-BR-US-0019, Port Hickey Road Bridge over Drainage Bayou, E. Baton Rouge Parish, LA** • Senior Project Reviewer. Provided environmental wetlands services including Cultural and Historical Sensitivity of the Property (Section 106 Environmental Review).
07/18 – 04/20	**SR 306 from SR 400 to SR 369, Baldridge Creek Project, Forsythe County, GA, GDOT** • Project Manager. For the approximately one-mile road widening project for State Route (SR) 306 located from SR 400 to SR 369, Terracon performed a wetland determination in addition to other ecological surveys. Background research was conducted prior to field surveys to identify potential ecological resources within the study area. Jurisdictional wetland determinations were performed using the three-parameter approach (hydrophytic vegetation, hydric soils, and hydrology) as described in the 1987 USACE *Wetland Delineation Manual* and utilized the *2012 Eastern Mountains and Piedmont Regional Supplement* as guidance.

Firm employed by: Terracon Consultants, Inc.					
Name	**Rachel Keane**			Years of relevant experience with this employer	4
Title	Senior Staff Scientist			Years of relevant experience with other employer(s)	20
Degree(s) / Years / Specialization				Bachelor of Science, Limnology, 1997	
Active registration number / state / expiration date				N/A	
Year registered	N/A	Discipline		**CERTIFICATION**: Wetland Delineation, U.S. Army Corps of Engineers 1987 Manual	
Contract role(s) / brief description of responsibilities				Ms. Kean meets the requirements of MPR #5 requiring a minimum of 5 years of experience performing wetland delineations.	

Ms. Keane meets the qualifications of an Environmental Professional as defined by EPA's AAI. With 24 years of experience, she has performed all aspects of Phase I ESA's including site reconnaissance and report preparation for sites throughout the Southeast. She has also been a contributing writer of documents required by the National Environmental Policy Act (NEPA) as well as Phase I Environmental Site Assessments (ESAs) and assisted in natural resources surveys for various projects. Ms. Keane has completed +200 Phase I ESAs and has assisted in multiple Phase II ESAs.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "Bridge Inspection", "condition assessment", "steel and concrete rehabilitation, "Non-destructive Testing".
01/20 – 06/20	**Carruth Road Bridge over the Little Comite River, E. Feliciana Parish, LA** Senior Staff Scientist. Provided DOTD NEPA Environmental Clearance.
03/20 – 05/20	**SP H.013122 Ouachita Parish Bridge Replacement: Harrison Street and Collier Street Bridge/Drainage Canal, Ouachita Parish, LA** Senior Staff Scientist. DOTD NEPA Environmental Clearance.
03/20 – 05/20	**SP H.013122 Ouachita Parish Bridge Replacement: Pine Street Bridge Ouachita Parish, LA** Senior Staff Scientist. DOTD NEPA Environmental Clearance.
02/18 - Ongoing	**New Orleans Redevelopment Authority - Acquisition, Construction, and Disposition Projects, New Orleans, LA** Project Manager/Main Point of Contact. Provided NEPA and Environmental Review Record (ERR) documentation for several HUD programs.
1/20 – 6/20	**John Thomas Bridge** Senior Staff Scientist. DOTD NEPA Environmental Clearance.
02/18 - Ongoing	**Louisiana Housing Corporation – Renovation and New Construction, Various Grant Programs for 2016 Flooding Recovery, Statewide, LA** Program Manage/Principal Technical Writer/Team Leader. Prepared Environmental Assessments and Tier II ERRS in support of various grant programs administered by the Louisiana Housing Corporation (LHC) for renovation and recovery funding for the March and August 2016 flood events in Louisiana. These programs included Neighborhood Landlord, Multifamily, Baton Rouge Rebuilds, and Baton Rouge Rebuilds Developers grant funding. Ms. Keane also trained junior staff and guided the preparation of 100+ Environmental Assessments and Tier II ERRs.

02/20 – 08/20	**Habitat for Humanity – Four (4) Residences, Lafayette, Louisiana** Project Manager/Principal Technical Writer. Prepared the Phase I ESA and Environmental Assessment (EA) in compliance with HUD and NEPA for the construction of four single-family residences on contiguous parcels in Lafayette, Louisiana. The Phase I ESA was conducted in compliance with the appropriate ASTM Standard. Resources assessed for the EA included, but was not limited to, historic resources, endangered species, floodplain impacts, and other natural and community resources. No issues of concern were identified for either the Phase I ESA or the EA.
7/19 – 11/19	**Jim Cryer Lane Bridge** - Senior Staff Scientist. Environmental Clearance
10/18 – 05/19	**Habitat for Humanity St. Tammany West – Four Scattered Residential Lots, Mandeville and Covington, LA** Project Manager/Main Technical Writer. HUD NEPA Environmental Clearance.
01/07 - Present	**Department of Housing and Urban Development** – Multiple Project – HUD NEPA Environmental Clearance

Firm employed by: Terracon Consultants, Inc.					
Name	**David Brunet**			Years of relevant experience with this employer	<1
Title	Senior Staff Scientist			Years of relevant experience with other employer(s)	22
Degree(s) / Years / Specialization				Master of Science /Biology/1995; Bachelor of Science, Biology, 1994	
Active registration number / state / expiration date				N/A	
Year registered	N/A	Discipline		N/A	
Contract role(s) / brief description of responsibilities				Wetlands Biologist	

Mr. Brunet has 22 years of experience as a wetland consultant. He has conducted field work associated with wetland delineations and Coastal Use Permits. For various projects, he performed various rare and endangered species surveys and habitat surveys. For four years, Mr. Brunet served as the Environmental Program Manager / Coastal Zone Administrator for the St. Tammany Parish Government. In this role, he was responsible for reviewing all local Coastal Use Permits for compliance with local and state regulation and issuing permits as appropriate. He ensured that all parish projects followed local, state, and federal environmental permits and assisted various state and federal agencies in data collection efforts on the Pearl River System in St. Tammany Parish.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "Bridge Inspection", "condition assessment", "steel and concrete rehabilitation, "Non-destructive Testing".
11/22 - Ongoing	**Plettenburg Bridge OSB, W. Feliciana Parish, LA** • Wetland Scientist. Terracon is conducting a WOTUS delineation for the bridge site. David is conducting the wetland delineation and preparing the permit application.
11/22 - Ongoing	**Baton Rouge City-Parish, Replacement of the Port Hickey Road Bridge over Drainage Bayou, Zachary, LA** Wetland Scientist. Terracon conducted a geotechnical investigation and is providing wetlands permitting for the project. David is assisting with obtaining the wetland permit.
01/20-12/20 *(performed with previous employer)*	**Sawaya Site, Coastal Use and Scenic River Permits, Lacombe LA** Environmental Consultant. David was responsible for the fieldwork, data collection, drafting, and reporting for the addressing Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act compliance requirements for permitting along with Coastal Use, State Lands, Scenic Rivers, and local requirements for the bulkhead and boat house. Project size was two acres.
02/18-03/19 *(performed with previous employer)*	**Railroad Avenue Site, Wetland Delineation and Scenic River Permits, Covington LA** • Environmental Consultant. David was responsible for the fieldwork, data collection, drafting, and reporting for the addressing Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act compliance requirements for permitting along with Coastal Use, State Lands, Scenic Rivers, and local requirements for the bulkhead and boat house Project size was one acre.

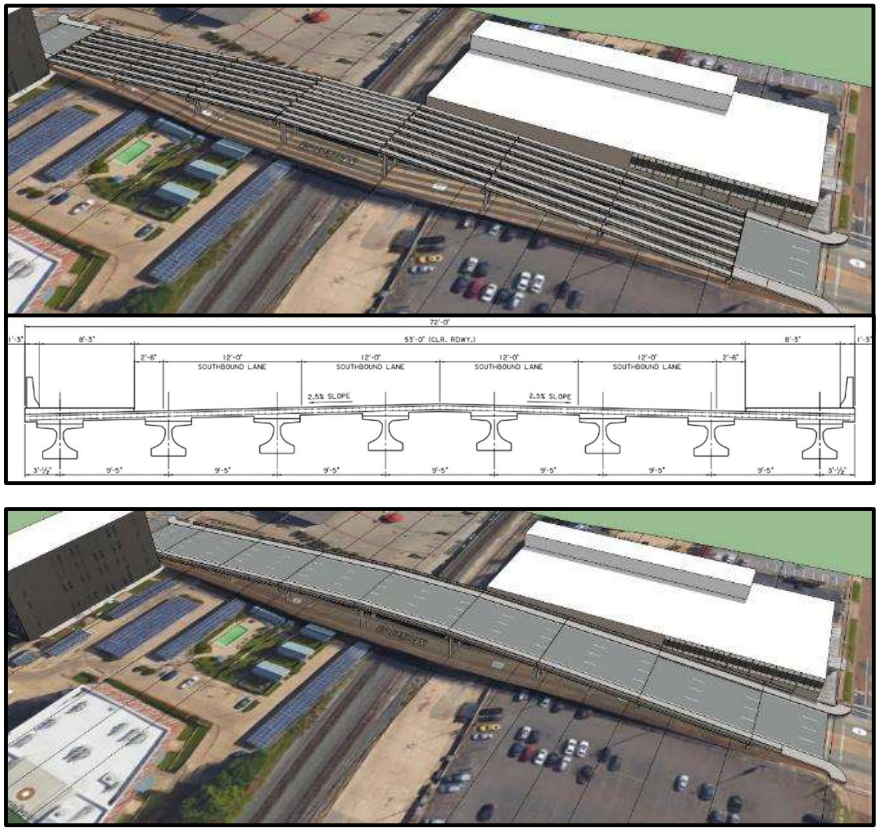
04/19-12/19 *(performed with previous employer)*	**Residential Subdivision, Wetland Delineation and permits, scenic river permit, DEQ Water quality certification Covington LA** • Environmental Consultant. David was responsible for the fieldwork, data collection, drafting, and reporting for the addressing Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act compliance requirements for permitting along with Coastal Use, State Lands, Scenic Rivers, and local requirements to construct a residential subdivision. Project size was 64 acres.
11/22 - Ongoing	**Plettenburg Bridge OSB, W. Feliciana Parish, LA** • Wetland Scientist. Terracon is conducting a WOTUS delineation for the bridge site. David is conducting the wetland delineation and preparing the permit application.
11/22 - Ongoing	**Baton Rouge City-Parish, Replacement of the Port Hickey Road Bridge over Drainage Bayou, Zachary, LA** • Wetland Scientist. Terracon conducted a geotechnical investigation and is providing wetlands permitting for the project. David is assisting with obtaining the wetland permit.
01/20-12/20 *(performed with previous employer)*	**Sawaya Site, Coastal Use and Scenic River Permits, Lacombe LA** • Environmental Consultant. David was responsible for the fieldwork, data collection, drafting, and reporting for the addressing Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act compliance requirements for permitting along with Coastal Use, State Lands, Scenic Rivers, and local requirements for the bulkhead and boat house. Project size was two acres.
02/18-03/19 *(performed with previous employer)*	**Railroad Avenue Site, Wetland Delineation and Scenic River Permits, Covington LA** • Environmental Consultant. David was responsible for the fieldwork, data collection, drafting, and reporting for the addressing Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act compliance requirements for permitting along with Coastal Use, State Lands, Scenic Rivers, and local requirements for the bulkhead and boat house Project size was one acre.
04/19-12/19 *(performed with previous employer)*	**Residential Subdivision, Wetland Delineation and permits, scenic river permit, DEQ Water quality certification Covington LA** • Environmental Consultant. David was responsible for the fieldwork, data collection, drafting, and reporting for the addressing Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act compliance requirements for permitting along with Coastal Use, State Lands, Scenic Rivers, and local requirements to construct a residential subdivision. Project size was 64 acres.
11/22 - Ongoing	**Plettenburg Bridge OSB, W. Feliciana Parish, LA** • Wetland Scientist. Terracon is conducting a WOTUS delineation for the bridge site. David is conducting the wetland delineation and preparing the permit application.

SECTION 17

17. Firm Experience:

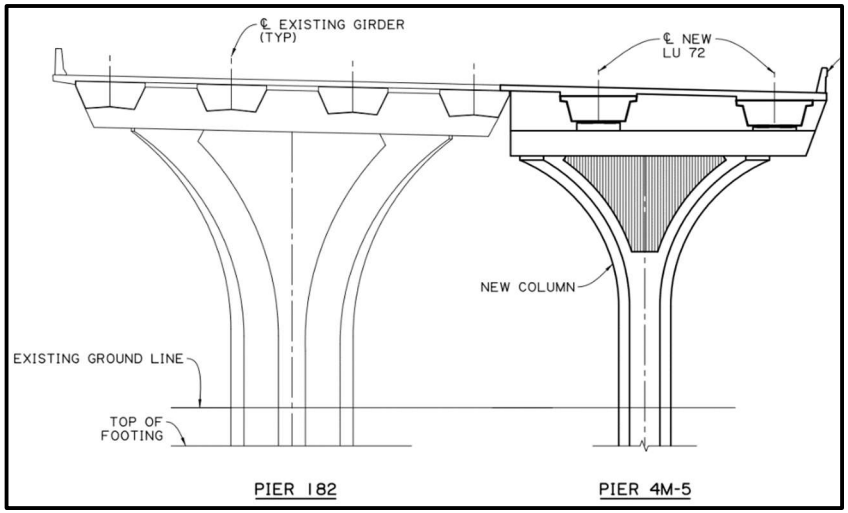
Firm name	SDR Engineering Consultants, Inc.			Past Performance Evaluation Discipline(s)	Bridge
Project name	**US 71 (LA-1) Market Street over ICG RR**			Firm responsibility (prime or sub?)	Prime
Project number	H.012009	Owner's name	LADOTD		
Project location	Caddo Parish, LA			Owner's Project Manager	Carl Gaudry
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, 225-379-1075, Carl.Gaudry@la.gov				
Services commenced by this firm (mm/yy)	7/2017	Total consultant contract cost ($1,000's)			$160
Services completed by this firm (mm/yy)	8/2018	Cost of consultant services provided by this firm ($1,000's)			$160

This project was to provide Stage 0 Design (Feasibility Study) on the twin two-lane bridge structures on US 71 (LA-1) Market Street viaduct Southbound over the ICR railroad through downtown Shreveport. The bridges also cross over the city's Festival Plaza on the north approach and a business storage area on the south approach. The Roadway is classified as a Principal Arterial in an urbanized area. These structures were built in the year 1940 and are constructed with reinforced concrete super and substructures with steel I-beam spans at the approaches.



Based on reviewing existing documents, an inspection of the existing bridge, and an evaluation by SDR, it was recommended that the two twin bridges be replaced with a single bridge structure within the same right of way. Two alternates were designed to satisfy the railroad minimum clearance requirements of 23.5 ft. vertical and 25 ft. horizontal, Alternates "C" and "E". Several stakeholders were identified and were approached for Solicitation of Views (SOV) about the two selected alternates. Alternate "C" utilizes precast 36-in deep prestressed concrete (PPC) girders with span lengths ranging from 80 ft. to 90 ft. At a speed of 30 mph, the vertical grades are 7.6% and -7.9% Alternate "E" utilizes a combination of 36-in. deep PPC girders for approach spans and heavy, shallow steel rolled beams (W12x336) over the railroad to satisfy the railroad with span lengths ranging from 80 ft. to 90 ft. At a design speed of 30 mph, grades are 6.2% and -6.5%.

Firm name	SDR Engineering Consultants, Inc.			Past Performance Evaluation Discipline(s)	Bridge
Project name	**MacArthur Interchange Completion Phase II**			Firm responsibility (prime or sub?)	Prime
Project number	H.011309.5	Owner's name	LADOTD		
Project location	Jefferson Parish, LA			Owner's Project Manager	Li Yang, PE
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, 225-379-1456, li.yang@LA.GOV				
Services commenced by this firm (mm/yy)	8/2019	Total consultant contract cost ($1,000's)			$3,319
Services completed by this firm (mm/yy)	Present	Cost of consultant services provided by this firm ($1,000's)			$2,750



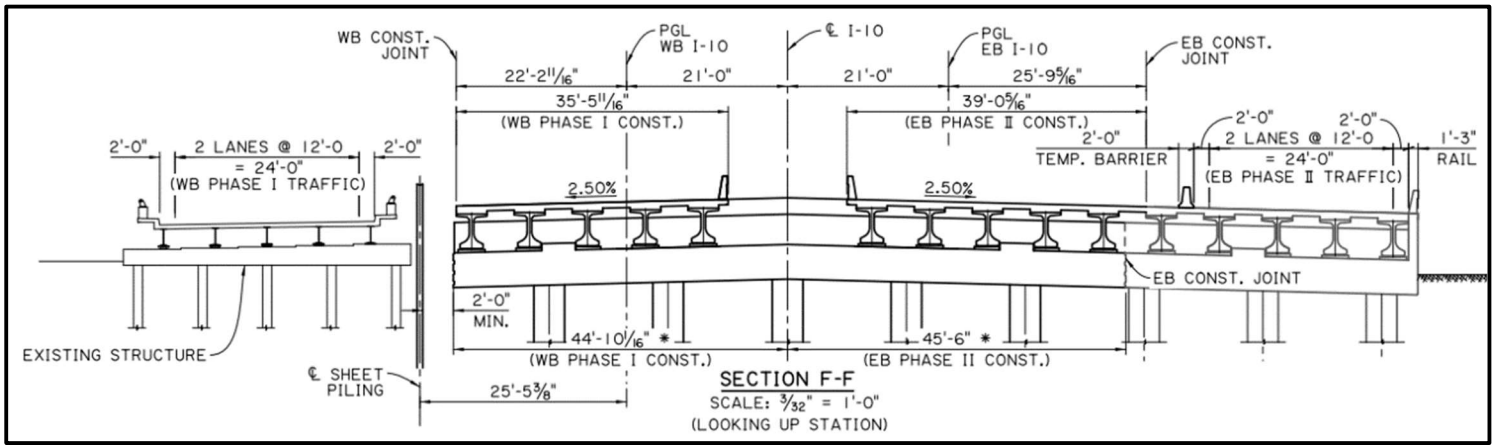
MacArthur Interchange Completion Phase II provides connections between the eastbound direction of the West Bank Expressway (US 90-Z) and the eastbound frontage road near Peters Road and the East Bound Harvey Tunnel. These ramp connections were proposed by the Crescent City Connection Division (CCCD) of the Louisiana Department of Transportation and Development (DOTD), Jefferson Parish, and LADOTD District 02 to provide access to the elevated West Bank Expressway for MacArthur Avenue and Destrehan Avenue traffic and to help alleviate traffic congestion at the West Bank Expressway/Manhattan Boulevard intersection.

The Project consisted of providing all necessary engineering design services required to construct two separate ramp structures and the relocation of the frontage road in the eastbound direction. Access to the West Bank Expressway from Peters Road and the Harvey Tunnel was to be provided by the proposed on-ramp 5M. To accommodate ramp 5M, the existing eastbound Manhattan Boulevard exit ramp is to be removed and a new relocated Manhattan Boulevard exit ramp 4M was provided. To make room for the proposed structures, the frontage road required relocation along with utilities while maintaining all business access. The hydraulic design of the new widened structures and ramps required matching the existing drainage systems and design for superelevation transitions over lengthy spans.

The team members involved in this project included: **Dr. Mohsen Shahawy, PE, Adnan El Saad, PE, Dr. Zhiyong Liang, PE, Dr. Hatem Seliem, PE, Dr. Amir Botros, PE, Gates Xie, PE, Dr. Sara Sotoud, EI, Mengqiu Ye, EI, Patrick Duffy, PE, James Fussell, PE, Osama El-Saad, PE.**

Firm name	SDR Engineering Consultants, Inc.		Past Performance Evaluation Discipline(s)*	Bridge
Project name	**I-10 Overpass Over US 165 & MP RR**		Firm responsibility (prime or sub?)	Prime
Project number	H.002980	Owner's name	LADOTD	
Project location	Jefferson Davis Parish, LA		Owner's Project Manager	Brian Delatte, PE
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, 225-379-1329, Brian.Delatte@la.gov			
Services commenced by this firm (mm/yy)	10/2016	Total consultant contract cost ($1,000's)		$609
Services completed by this firm (mm/yy)	8/2020	Cost of consultant services provided by this firm ($1,000's)		$609

SDR provided engineering services including bridge design and plans development for the bridge replacement of the I-10 overpass US 165 and MP Railroad. The bridge's total length is 765 ft. comprising seven spans. The spans were designed as continuous units, one consisting of four spans and the other consisting of three spans. The design included all elements of the bridge structure along with the required slope and embankment work.

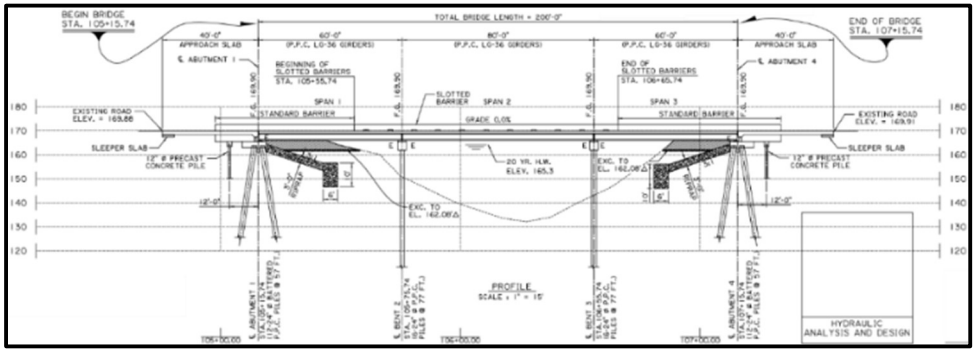


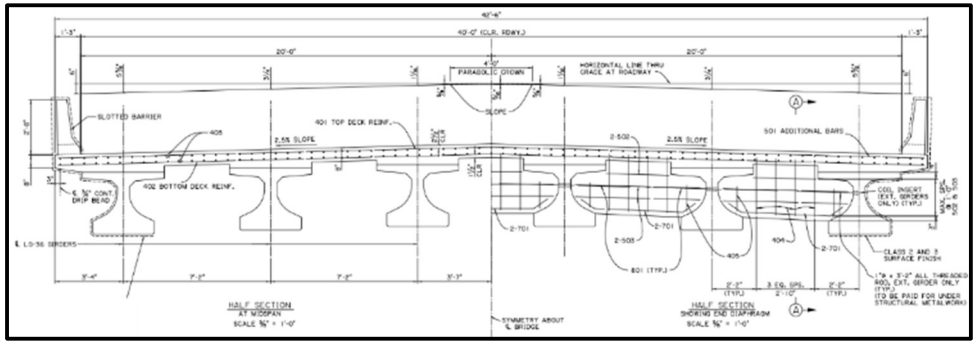
The replacement of the bridge involved complex construction phasing to maintain traffic on the interstate while removing the old structure and constructing the new bridge. Additionally, the railroad's right-of-way was to be maintained during construction with no interruption to the railroad's operation. DOTD standard precast prestressed concrete girders (LG Girders) were used for the superstructure to ensure design economy and accelerated construction. The hydraulic design was performed based on the provided LADOTD criteria and in accordance with the LADOTD Hydraulics Manual. SDR also provided construction support services included a review of shop drawings, and responding to RFIs.

The team members involved in this project included: **Dr. Mohsen Shahawy, PE, Dr. Zhiyong Liang, PE, Dr. Hatem Seliem, PE, James Fussell, PE, Feng Xie, PE, Dr. Sara Sotoud, EI, Patrick Duffy, PE Osama Elsaad, PE, Travis Honore, EI.**

Firm name	SDR Engineering Consultants, Inc.		Past Performance Evaluation Discipline(s)*	Bridge
Project name	**LA 10 Beaver Creek Bridge**		Firm responsibility (prime or sub?)	Prime
Project number	H.012699	Owner's name	LADOTD	
Project location	St. Helena Parish, LA		Owner's Project Manager	Stephanie Cavalier, PE
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, 225-379-1329, Stephanie.Cavalier@LA.GOV			
Services commenced by this firm (mm/yy)	9/2016	Total consultant contract cost ($1,000's)		$209
Services completed by this firm (mm/yy)	11/2016	Cost of consultant services provided by this firm ($1,000's)		$209

This project was an emergency design task for the replacement of a three-span prestressed concrete bridge that was damaged in a flood, which was completed in less than two months. The bridge has a total length of 200 ft. and a clear roadway width of 40 ft. The superstructure consists of six (6) simply supported LG-36 girders in each span, acting in composite action with an 8.5 in. continuous concrete deck. The substructure consists of cast-in-place concrete caps and precast concrete piles. SDR engineering services included construction support besides design and final plans preparation. Under an expedited work plan, a new survey and investigation of right-of-way and utility impact were performed due to the widening of the existing roadway. In consideration of the flooding, the bride was designed with horizontal drain slots in the barriers. Construction support services included a review of shop drawings, responding to RFIs, and regular site visits.





The team members involved in this project included: **Dr. Mohsen Shahawy, PE, Dr. Zhiyong Liang, PE, Adnan El Saad, PE, Feng Xie, PE, James Fussell, PE.**

Firm name	SDR Engineering Consultants, Inc.		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	**MacArthur Interchange Completion Phase IB**		Firm responsibility (prime or sub?)	Prime	
Project number	H.009933	Owner's name	LADOTD		
Project location	Jefferson Parish, LA		Owner's Project Manager	Chris B. Guidry, PE	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, 225-375-1328, Chris.Guidry@LA.GOV				
Services commenced by this firm (mm/yy)	6/2012	Total consultant contract cost ($1,000's)		$917	
Services completed by this firm (mm/yy)	7/2013	Cost of consultant services provided by this firm ($1,000's)		$917	

For MacArthur Interchange Phase IB (Evaluation and Redesign), a full technical evaluation of completed bridge widening plans was carried out under a task for peer review, where several constructability issues and detailing were discovered. In addition, the capacity of the existing bridge was questioned by LADOTD to the point of requiring posting of the bridge. SDR, under a separate task, carried out 3-D finite element (FE) modeling of the existing bridge including the inverted-T piers as well as a bridge load test. The results from the complex non-linear FE modeling and the load testing were used to determine the bridge's sufficiency. The bridge was found to be sound and a recommendation to proceed with the bridge widening project was made.

After further evaluation by LADOTD it was determined that the widening plans were deficient and a complete re-design of both Ramp 7 and Ramp 8 was required. The redesign task was carried out under an existing Retainer Contract with HUVAL, Inc. The redesign team consisted of HUVAL, SDR, and M&M. SDR was tasked with the design and final plans production of all complex superstructure elements consisting of the prestressed U-girders and LG girders, deck, inverted-T cap beams, and columns, and all complex columns with unbalanced loads. In addition, due to the structural complexity of the existing inverted-T piers, a unique complex analysis was required to evaluate and determine the cut lines for accommodating the widening which was also performed by SDR. In addition, the re-alignment of the new ramps was necessary to avoid major structural issues related to cutting existing piers and creating significant unbalanced loads. The evaluation of existing cut lines and new alignment was developed by SDR and later transferred to HUVAL. SDR's knowledge and experience were essential in unraveling the proposed non-constructible details; proposing an essentially new design that was simple and cost-effective while maintaining all aesthetic aspects of the original design. SDR, as a part of the redesign team, completed the alternative design for the MacArthur Bridge that eliminated many of the problems experienced in the previous design.

The team members involved in this project included: **Dr. Mohsen Shahawy, PE (PM), Adnan El Saad, PE, Brian Kever, PE, Dr. Zhiyong Liang, PE, Matt Hamby, EI, Tharu George, EI.**

Firm name	SJB Group, LLC			Past Performance Evaluation Discipline(s)*	Survey
Project name	MovEBR – Nicholson Segment 2 (Ben Hur to Bluebonnet)			Firm responsibility (prime or sub?)	Sub
Project number	20-CP-HC-0032	Owner's name		Volkert (Prime)	
Project location	East Baton Rouge Parish, Louisiana		Owner's Project Manager	Jan Evans	
Owner's address, phone, email	4141 Bienville Street, Suite 102, New Orleans, LA; 225-218-9440; Jan.Evans@volkert.com				
Services commenced by this firm (mm/yy)		03/21	Total consultant contract cost ($1,000's)		$723
Services completed by this firm (mm/yy)		2023	Cost of consultant services provided by this firm ($1,000's)		$723

Team Members Involved: Wilfred Barry, Karen Kennedy, Austin LaCombe, Tyler Foster, Matthew Estopinal, James Koontz, Charles Young, Colby Mire, Elvis Nguyen, Kyle Haigler

Firm's Role: Topographic Survey, Property Survey, Right-of-Way Maps, Subsurface Utility Engineering

SJB Group is performing a topographic survey, SUE, property surveys, and right-of-way mapping of a 4.1 mile stretch of Nicholson Drive (LA 30) from Bluebonnet Boulevard to Ben Hur Road in East Baton Rouge Parish for a City-Parish widening project.

The Topographic Survey was completed with all principles and objectives set forth in the latest LA DOTD Location and Survey Manual and MovEBR Design Guidelines. A complete inventory of drainage channels was included for preparation of an existing drainage map by Volkert. The property survey and right-of-way mapping will include two sets of maps as necessary because the project includes both LA DOTD and East Baton Rouge Parish rights of way. All property surveys and right-of-way mapping will be completed using the Standards of Practice for route surveys as outlined in the Laws and Rules of the LAPELS Board, and in accordance with both the MovEBR right-of-way guidelines and LA DOTD Location and Survey Manual.

This project includes Quality Level A and B SUE services within the project limits. Utilities located include water, gas, telephone, cable, and fiber optic. Appropriate geophysical methods were used to properly designate all underground utilities. The designations and above ground features were surveyed by SJB Group. This information and the utility records were used to complete the Quality Level B Drawings prepared in accordance with ASCE 38-02 standards. Any conflicts between records and geophysical markings were resolved through additional records research and engineering judgement. After completion of additional design, any potential conflicts were located with a Quality Level A test hole. The test hole will include precise information on the location, depth, size, and type of utility. A sealed and signed test hole data sheet will be provided in accordance with ASCE 38-02 standards.

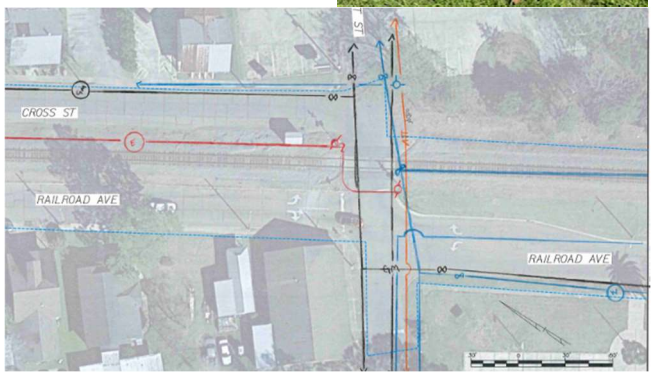
Firm name	SJB Group, LLC		Past Performance Evaluation Discipline(s)*	Survey	
Project name	UP RR Corridor (Plaquemine)		Firm responsibility (prime or sub?)	Prime	
Project number	H.012851.5	Owner's name	Louisiana Department of Transportation and Development		
Project location	Iberville Parish, Louisiana		Owner's Project Manager	Barrett Smith	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA; 225-379-1101; Barrett.Smith@la.gov				
Services commenced by this firm (mm/yy)	07/21	Total consultant contract cost ($1,000's)		$194.2	
Services completed by this firm (mm/yy)	02/22	Cost of consultant services provided by this firm ($1,000's)		$194.2	

Team Members Involved: Matthew Estopinal, Colby Mire, Karen Kennedy, Austin LaCombe, Tyler Foster, Elvis Nguyen, Kyle Haigler

Firm's Role: Topographic Survey and Subsurface Utility Engineering

SJB Group was tasked through a LA DOTD IDIQ retainer contract to provide subsurface utility engineering (SUE), utility surveying, and a topographic survey for this project in Iberville Parish. The project limits ran along the Union Pacific Railroad Corridor between the intersection of LA 1 and Bayou Road, and the intersection of Belleview Drive and Railroad Avenue. The project had a total linear distance of approximately 5,500 ft.

A complete topographic survey including all utilities with depths, all drainage, and finish floor elevations of all buildings that fell within the limits was completed in accordance with the Location and Survey Manual and all current accepted Location and Survey Automation procedures. A drainage map was required as part of the survey and was done in accordance of the LA DOTD Location and Survey Photogrammetry Manuel.



The SUE work was completed in accordance with CI/ASCE Standard 38-02. This project required ASCE 38-02 Quality Level B and C services within designed limits. The Quality Level C limits included a distance of 5,500 feet along Railroad Avenue. The Quality Level B designations were completed at the intersection of Bayou Road and LA 1 Intersection. To perform the work, an LA One Call Ticket was completed to initiate contact with all LA One Call Members. A site visit was conducted to investigate any other utility features that might identify a utility owner that was not included in the LA One Call locate and records were requested for all identified utility owners.

Firm name	SJB Group, LLC			Past Performance Evaluation Discipline(s)*	Survey
Project name	MovEBR Jefferson at Bluebonnet			Firm responsibility (prime or sub?)	Sub
Project number	20-CP-HC-0046	Owner's name		City of Baton Rouge	
Project location	East Baton Rouge Parish, Louisiana		Owner's Project Manager	Tom Stephens	
Owner's address, phone, email	222 Saint Louis Street, 8th Floor, Baton Rouge, LA 70802; 225-389-3158; TStephens@brla.gov				
Services commenced by this firm (mm/yy)	03/21	Total consultant contract cost ($1,000's)			$62
Services completed by this firm (mm/yy)	2023	Cost of consultant services provided by this firm ($1,000's)			$62

Team Members Involved: Wilfred Barry, Matthew Estopinal, Tyler Foster, Elvis Nguyen

Firm's Role: Topographic Survey and Subsurface Utility Engineering (SUE)

The City-Parish of East Baton Rouge selected Meyer Engineers, Ltd. to perform the engineering design and SJB Group to perform the survey and Subsurface Utility Engineering for the MovEBR Jefferson at Bluebonnet intersection improvements project. SJB Group performed a topographic survey for preliminary design considerations, and prepared a set of plan and profile sheets of the topographic corridor survey.

SJB Group surveyed the tracts adjacent to the project limits, and prepared a property survey depicting the property lines of these tracts as well as the existing right-of-ways for Jefferson Highway and Bluebonnet Boulevard. SJB Group will prepare right-of-way maps for any required right-of-way based upon the final project design.

The Subsurface Utility Engineering was completed in accordance with CI/ASCE Standard 38-02, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data. The Subsurface Utility Engineering for this project includes Quality Level C & D mapping for the length of the project.

Firm name	Terracon Consultants, Inc.			Past Performance Evaluation Discipline(s)*	Environmental
Project name	SR 371 (Post Road) Widening Project			Firm responsibility (prime or sub?)	Sub
Project number	49157659A	Owner's name	Georgia Department of Transportation		
Project location	Cumming, Forsyth County, GA		Owner's Project Manager	Hannah Landis	
Owner's address, phone, email	600 W. Peachtree Street, Atlanta, GA 30308 404-631-1100 hlandis@dot.ga.gov				
Services commenced by this firm (mm/yy)	10/15	Total consultant contract cost ($1,000's)		$NA	
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)		$165	

Post Road Has grown in popularity as a bypass to the city of Cumming as the population in the area grew. This growth increased the need for schools in the area which ultimately led to the need for a wider roadway with assessable sidewalks.

The project consists of the proposed right-of-way (ROW) widening and roadway reconstruction area generally extending south along State Rouge (SR) 371 (Post Road) from its intersection with SR 20 (Canton Highway) approximately six miles to its intersection with SR 9 (Atlanta Highway) in Cumming, Forsyth County, Georgia.

Terracon was subcontracted by TY Lin International to assist with the environmental needs of this project. Over several years, Terracon has provided Phase I Environmental Assessment, NEPA, Air Quality, Noise Study, History, Wetland Delineation Permitting, Threatened & Endangered Species, and Archeology.

Project Team:
Jim Baxter

Firm name	Terracon Consultants, Inc.			Past Performance Evaluation Discipline(s)*	Environmental
Project name	**Carbon Plant Road over Bayou Boeuf**			Firm responsibility (prime or sub?)	Sub
Project number	SP H.013143	Owner's name	Avoyelles Parish Police Jury		
Project location	Avoyelles Parish, LA			Owner's Project Manager	Jacob Coco
Owner's address, phone, email	312 N. Main Street, Marksville, LA 71351, 318-305-9034, appj.dist9@outlook.com				
Services commenced by this firm (mm/yy)	07/19	Total consultant contract cost ($1,000's)			$N/A
Services completed by this firm (mm/yy)	12/19	Cost of consultant services provided by this firm ($1,000's)			$3.3

In 2019, Terracon was part of the team with Monroe & Corie, Inc. for the Carbon Plant Road over Bayou Boeuf Bridge Replacement Project in Avoyelles Parish. The bridge project was part of the Federal Aid Off-System Highway Bridge Program (H.013143) with the LADOTD. Terracon provided a wetland assessment and report for the bridge location.

Bayou Boeuf is considered a USACE Jurisdictional Water of the US and qualified for a NWP within the USACE's expedited program for transportation projects. No wetland habitat was identified in the vicinity of the project area. A report was provided which outlined the site reconnaissance and findings, referenced published maps (including National Wetland Inventory Maps, Topographic Maps, and historical aerial photographs).

Based on the lack of wetland habitat, and minimal impacts to the bayou from the proposed construction, it was recommended that a Nationwide Permit 14 – Linear Transportation Projects be obtained for the construction portion of the project.

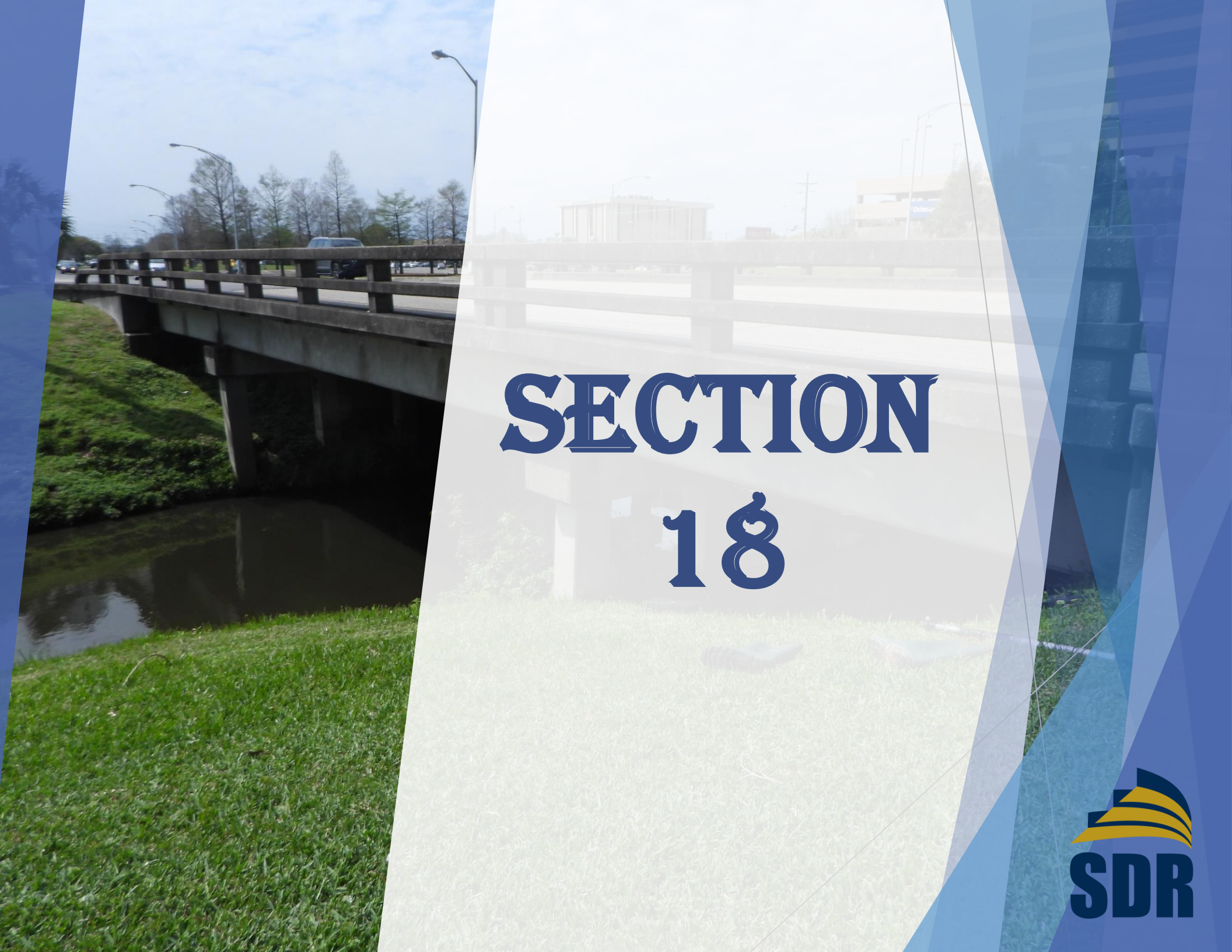
Project Team:
Jim Baxter

Firm name	Terracon Consultants, Inc.			Past Performance Evaluation Discipline(s)*	Environmental
Project name	**Ouachita Parish Bridge Replacement: Harrison Street and Collier Street Bridge/Drainage Canal**			Firm responsibility (prime or sub?)	Sub
Project number	SP H.013122	Owner's name	Louisiana Department of Transportation and Development		
Project location	Ouachita Parish		Owner's Project Manager	Noel Ardoin	
Owner's address, phone, email	1201 Capital Access Road, Baton Rouge, LA, 70802, 225-242-4201 Noel.Ardoin@la.gov				
Services commenced by this firm (mm/yy)	03/20	Total consultant contract cost ($1,000's)	$NA		
Services completed by this firm (mm/yy)	12/20	Cost of consultant services provided by this firm ($1,000's)	$2.8		

Terracon was subcontracted to perform environmental services including wetlands delineation and NEPA Environmental Clearance for an off-system bridge contract for LADOTD which included a threatened and endangered species and critical habitats survey, evaluation of potential requirements for Farmland Protection Policy Act (FPPA) as administered by the Natural Resources Conservation Service, and consultation with the State Historic Preservation Officer (SHPO). In addition, Terracon prepared and submitted Solicitation of Views (SOV) letters to numerous Federal, State, and Local agencies and government officials as well as Federal Tribal interests.

The project included replacement of an existing 64.3-foot wide, 21.3-foot-long clear opening concrete decked, steel girder single span bridge over a concrete paved drainage canal in Ouachita Parish, Louisiana. The recommended replacement bridge consisted of a 93.2-foot double reinforced concrete box girder bridge.

Project Team:
Jim Baxter
Rachel Keane



SECTION 18

18. Approach and Methodology:

PROJECT TEAM

SDR Engineering Consultants, Inc. (SDR) has been serving LADOTD as a prime contractor on multiple contracts over the past 18 years in addition to developing the DOTD Bridge Design and Evaluation Manual and the LG prestressed girder design standards. SDR's staff prepared plans for OSBR projects involving both standard plan and non-standard structures in accordance with all LADOTD procedures and manuals including roadway and bridge design, BDEM, BDTM's, environmental, and OSBR guidelines. SDR has developed plans for simple and complex bridges involving standard and non-standard structures in accordance with all LADOTD procedures and manuals.

SDR has put together an excellent team that has extensive experience in Off-System bridge design and replacement. SDR will provide bridge design, road design, and QC/QA in accordance with the aforementioned LADOTD procedures. In addition, SDR shall provide overall project coordination with subconsultants, LADOTD, and the Parish. Our subconsultants, **SJB** and **Terracon** will provide topographic surveys, hydraulic analysis, and environmental services.

SCOPE OF WORK

Hales Road Bridges (H.014986.5) are located in Richland Parish. The first Hales Road Bridge (RC#700009), built in 1966, is a 59'-0" precast concrete slab unit bridge that crosses over Hurricane Creek. The second Hales Road Bridge (RC#700011), built in 1966, is a 57'-0" precast concrete slab unit bridge that crosses over Creek.

The project consists of the replacement of the two bridges. As each bridge is similar in length and can accommodate a 24'-0" roadway, the proposed replacement option is to design the bridges in accordance with LADOTD Special Details PSS-90-24-20SL. By implementing these standards, SDR will ensure structural integrity, cost-effectiveness, and ease of construction. Alternatively, a single prestressed concrete girder span utilizing LG-25 girders could reduce construction cost and enhance water flow by eliminating the need of an intermediate bent. Close consideration will be made to confirm an appropriate and cost-effective replacement bridge.

KICKOFF MEETING

Upon receiving the NTP, SDR shall meet the LADOTD PM to discuss the work scope, schedule, any potential limitations that could impact the replacement project, and establish communication protocols throughout the project. Prior to the meeting, SDR will investigate the maintenance of traffic requirements, prepare a tentative work plan and critical path schedule, and draft/send an agenda for the kickoff meeting.

The kickoff meeting essentials include the following: 1) establishing a clear understanding of the project goals and discussing any concerns by DOTD or the Parish, 2) discussing design preferences and alternatives, 3) establishing preferred communication channels and frequencies, 4) hydraulics, structure preferences, 5) proposed methods to expedite project delivery, if needed and 6) finalizing the proposed work plan and schedule.

Based on the comments from the kickoff meeting, a refined work plan and task schedule will be submitted to LADOTD along with meeting minutes.

In addition, SDR will also meet with representatives of the Richland Parish prior to the start of topographic surveying as required by the OSBR Guidelines to discuss and obtain any available site-specific data, concerns, and planned corridor improvements.

TOPOGRAPHIC SURVEY

The topographic survey will be developed in accordance with the current Off-System Bridge Replacement (OSBR) survey guidelines and DOTD Location & Survey requirements. As soon as the NTP is received, prior to conducting the on-site survey, SJB will collect initial site data and conduct an extensive review of available maps and imagery to establish initial drainage patterns for further discussion as necessary with LADOTD or local parish staff. On-site evaluation will be performed to identify potential issues such as the collection of debris, right-of-way limitations, or maintenance of traffic issues.

The Project survey control and horizontal and vertical alignments will be based on the Louisiana State Plane Coordinate System, (NAD-83) and (NAVD-88), as determined by Static GPS observations. GPS control will be established using

at minimum four (4) control points set in concrete. Surveys will be extended beyond traditional limits to incorporate any curves or additional geometric elements needed for design. Any upstream or downstream structures in the channel/river within the topo limits will be surveyed. The survey will consist of complete coverage 500' before and after the existing bridge, and 25' past the apparent road right-of-way (R/W). The topographic survey will also include the road centerline alignment and complete terrain coverage including creek cross sections taken respectively at a minimum of 15' and 150' upstream and downstream of the bridge.

Field crews will use electronic data collectors with the DOTD Feature Code Library to enter unique codes for all surveyed features as they are collected. Office personnel will process and perform QA/QC steps to ensure that features were coded correctly, and then use Bentley InRoads Survey V8i to produce CAD survey graphics to LADOTD standards. A complete digital terrain model (DTM) will be created. The survey submittal will include all items required by the DOTD OSBR Guidelines including existing roadway cross-sections, existing channel cross-sections, survey point listing reports, and site photographs with legend. Surveys will undergo extensive QC/QA by both the survey and engineering teams prior to submittal to LADOTD.

Prior to starting the field survey, SJB will request the Dottie One Call for marking the location of existing utilities. SJB will prepare the Right of Way (R/W) Sketch per OSBR guidelines showing the required taking lines and anticipated parcels affected along with a draft of the R/W agreements. A draft utility conflict matrix will be provided to the Parish as a guide for relocating utilities. SJB has staff with extensive experience in monitoring utility relocation and installation work, ensuring compliance with construction plans and accurate as-built documentation on the final location of installed utilities.

HYDRAULIC ANALYSIS

The hydraulic and scour analysis will be conducted in accordance with the LADOTD Hydraulics Manual as modified by the Hydraulics Guidelines for Off-System Bridges. SDR will contact the Parish to collect site-specific information and determine whether the road and bridge were ever topped and the degree and frequency of this event. Hydraulics and scour analysis will begin by reviewing additional data including topographic maps, FEMA Firm maps, and USGS Quadrangle maps to delineate the site's drainage basin. The bridge Type, Size, and Location (TS&L), which will establish the appropriate bridge length, revetment slopes, and hydraulic opening will be developed at the start of the hydraulics analysis.

Peak discharges and water surface elevations will be developed using LADOTD's HYDRWIN Hydraulics Programs and U.S. Army Corps of Engineers HEC-RAS. Water level elevations and watershed areas will be determined to produce water surface profiles for the drainage map to be submitted in the Hydraulic Report.

WETLAND STUDIES

Terracon will perform wetland delineation services as needed in accordance with the standards of the United States Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual and the USACE Atlantic and Gulf Coastal Plain Regional Supplement. Terracon will review appropriate map information such as topographic maps, soil survey maps, national wetland inventory (NWI) maps, aerial photography, and Lidar information to determine which areas of a site could potentially qualify as a jurisdictional wetland. A map review of potential linear stream features and open water is performed as well. This review is performed on a desktop level prior to fieldwork services.

Upon initiation of fieldwork services, aquatic features that could potentially be considered federal waters of the United States (WOTUS) will be located with flagging tape in the field. Isolated aquatic features that may not qualify as WOTUS will also be delineated. These features will be located with a sub-meter GPS unit for mapping that is accepted by the USACE. A wetland delineation report with applicable maps will be provided. Shapefiles and/or CAD files of the GPS data will be provided upon request. Terracon can assist with a jurisdictional determination request (JDR) to the USACE and federal CWA Section 404 permitting as impacts to federal WOTUS are proposed.

PRELIMINARY BRIDGE DESIGNS

Design Criteria: The bridge type, size, and location will be developed at the start of the hydraulic analysis which will also establish the bridge length, revetment slopes, and hydraulic opening. Upon LADOTD review and approval of the survey and hydraulic report, SDR will develop and submit the design criteria and design report forms in accordance with DOTD Minimum Design Guidelines, Road Design Manual, and Bride Design and Evaluation Manual. The design criteria will be developed using the existing and projected traffic counts, the currently posted speed limit, and any geometric improvements. Any required design exceptions will be identified and included in the submittal.

The existing roadway for each bridge is an asphalt surface with an ADT of 230 for both Hales Road bridges. Both bridges are located on a local roadway with no superelevation. The proposed roadway design elements will be in accordance

with the 2017 DOTD Minimum Design Guidelines and the current Off-System Bridge Replacement (OSBR) Guidelines.

The Preliminary Plans will consist of three submittals to include 60% Preliminary Plans, Plan-in-Hand (95% Preliminary Plans), and Post Plan-in-Hand Prints (100% Preliminary Plans). Plans will be developed in accordance with LADOTD plan preparation and the Off-System Highway Bridge Program Guidelines. Required draft forms will be completed upon structure approval and submitted for review if design exceptions or waivers are needed.

The limits of construction and right-of-way will be established during the 60% Preliminary Plans. The plans will continue to be developed while internal and LADOTD comments are addressed from the previous plan submittals. Standard plan lists, cost estimates, and the Constructability and Biddability Review form will be provided during the Plan-in-Hand submittal. The preliminary plans will include the roadway horizontal and vertical geometries, guardrail and embankment widening, drainage maps, construction signing, cross-sectional geometrics for the mainlines and streams, plan and profiles, typical sections, general notes, and the summaries of estimated quantities.

A Plan-in-Hand meeting will be held between consultants, LADOTD, and Parish at their convenience.

SOLICITATION OF VIEWS AND CATEGORICAL EXCLUSION

After the replacement structure is determined and approved, along with a plan & profile sheet created to identify the limits of construction and required right-of-way, SDR will coordinate with the DOTD Environmental Section to submit project descriptions and maps to federal, state, and local agencies, organizations, and individuals to inform them of the proposed project. The environmental determination checklist will be prepared with supporting documentation to obtain environmental categorical exclusion clearance. These documents will be submitted to the DOTD Off-System Bridge staff for review and approval by the DOTD Environmental Section.

RIGHT-OF-WAY AGREEMENT/SKETCH

SDR will prepare the Right-of-Way (R/W) Sketch per OSBR Guidelines using the Post-Plan in-Hand drawings along with a draft of the R/W agreements. In addition to the 100% Preliminary Plans, environmental package, and R/W sketches, the Design Report forms will be finalized and sealed by SDR's Engineer of Record and submitted to the LADOTD Off-System Bridge staff.

FINAL PLANS

Upon approval of the environmental clearance and receiving the Notice to Proceed for Final Plans, SDR will immediately begin developing additional plan sheets including embankment widening details, geometric layouts (if necessary), erosion control plans, summaries of quantities sheets, pile data & elevations, concrete surface finishes, bridge railing, bridge joints, and bearing details. All bridge structures and pile elevations will be finalized along with any special design for the superstructure or substructure bridge elements or special approach slabs.

SDR will also provide the structural design, computation book, and bridge load ratings based on Load Resistance and Factor Rating (LRFR) for the structures. The drawings will be reviewed in accordance with LADOTD CAD standards, LADOTD Road Design and Bridge Design Manuals, and OSBR Guidelines.

The Final Plans will consist of four submittals including Pre-Advanced Check Prints (60% Final Plans), Advanced Check Prints (95% and 98% Final Plans), and Tracings (100% Final Plans). Additional details, notes, or changes will be added to the plans after the Pre-ACP and quantities are completed.

The Advanced Check Prints (ACP) Plans will be provided to the Plan Quality Unit (PQU), if necessary. An ACP review meeting will be held to ensure all comments are addressed. Upon resolution, a 98% Final Plan set will be prepared for review by the Chief Engineer and used by General Files to prepare the proposal. SDR will work with LADOTD to input pay items and quantities into AASHTOWARE to generate final cost estimates.

The 100% Final Plans (Tracings) will be prepared once all comments are addressed by task managers, PQU, and/or the Chief Engineer. Parish granted Design Exceptions will be noted on the Title Sheet. Necessary LADOTD Standard Plans and Special Details specific to each project site will be provided with the Final Tracings. Additionally, a detailed calculation book will be prepared and submitted with the original field books and an electronic copy of the Hydraulics Report.

ELECTRONIC DELIVERABLES

SDR's team is experienced in electronic plan delivery in conformance with DOTD Software and Deliverable Standards. SDR will ensure all electronic deliverables for sub-consultants involved are in conformance with the same standards. Necessary adjustments will be made by SDR in the case that indexing attributes and CAD standards are determined to be incomplete by the Project

Manager. All work shall be performed in accordance with all applicable DOTD policies, procedures, and manuals at each milestone of the project.

QUALITY CONTROL/QUALITY ASSURANCE (QC/QA)

SDR has established quality control procedures to ensure quality and adherence to established testing policies, procedures, standards, and guidelines in the preparation and review of all documents and plans at each phase. The QC/QA panel will consist of the Key team members. The QC/QA team will ensure that all project aspects and reports produced are of the highest quality, free of errors and omissions. Each submittal will be accompanied by LADOTD QC/QA certification forms. Design and plan comments, along with their resolutions, will be documented in SDR's Design Comment Review forms.

LETTING

SDR will assist the LADOTD in providing any needed information for responding to Falcon questions during letting.

STAGE 5: CONSTRUCTION

SDR will be available to provide LADOTD with Construction Support (as necessary) by assisting with RFI's, reviewing shop drawings, evaluating contractor submittals, attending meetings, providing design review assistance, and on-site construction support in the event of bridge component changes during construction.

PROJECT SCHEDULE

Tasks	Months											
	1	2	3	4	5	6	7	8	9	10	11	12
Stage 3, Part Ia - Topographic Survey												
NTP/Kickoff Meeting												
Topographic Survey												
Stage 3, Part III - Preliminary Plans												
Design Criteria, Hydraulics & 60% Preliminary Plans												
Solicitation of Views and Categorical Exclusion												
95% Preliminary Plans (Plan-in-Hand)												
Plan-in-Hand Meeting												
Right-of-Way Sketches & Legal Agreements												
Environmental & Wetlands Package												
100% Preliminary Plans (Plan-in-Hand Prints)												
Design Report Forms												
Environmental Clearance Review and Approval												
Stage 3, Part IV - Final Plans												
60% Final Plans (Pre-ACP)												
60% Final Plans Review												
95% Final Plans (ACP)												
Advanced Check Prints & PQU Review & Meeting												
98% Final Plans (ACP)												
100% Final Plans (Tracings) & Comp. Book												
Stage 5: Construction Support												
Construction Support						Length of Construction						

SECTION 19-23

SDR

19. Workload:

Firm(s)	Past Performance Evaluation Discipline(s)	State project number	Project name	Remaining unpaid balance**
SDR Engineering Consultants, Inc.	Bridge	H.014608.5	IDIQ Contract 4400021595, Task Order # 1	$5,500
		H.012485.5	IDIQ Contract 4400021595, Task Order # 3	$190,800
		H.009859.5	IDIQ Contract 4400021595, Task Order # 5	$1,321,900
SJB Group, LLC	Other (DBE)		DBE Supportive Services – Region A (2020 – 2023)	$55,955
	CPM	H.013579.6	Pecue Lane/I-10 Interchange II – East Baton Rouge Parish	$2,175
	CPM	H.001820.6	LA 485: Bridges Near Allen – Natchitoches Parish	$40,639
	CPM	H.001344.6	US 190: LA 437-US190 BUS (PH 1) – St. Tammany Parish	$53,180
	CPM	H.002375.6	Amite R. Br Near French Settlement – Livingston Parish	$996

	CPM	H.002980.6	I-10 Overpass over US 165 and MP R.R. – Calcasieu/Jefferson Parish	$138,304
	CPM	H.010018.6	I-10: NO East Drain Canal Bridge Replace – Orleans Parish	$25,315
	CPM	H.003184.6	I-10: Texas State Line – E. of Coone Gully – Calcasieu Parish	$131,752
	CPM	H.004634.6	Juban Rd Widening (I-12 – US 190) – Livingston Parish	$17,331
	CPM	H.012588.6	I-10: Atch Basin Br – W Baton Rouge P/L – Iberville Parish	$27,035
	CPM	H.001234.6	LA 1: Port Allen Canal Br Repl (Ph1) (HBI) – West Baton Rouge Parish	$26,885
	CPM	H.000665.6	UP R.R. Overpass Near Bonita (HBI) – Morehouse Parish	$36,496
	Other (SUE)	H.001820.6	LA 485: Bridges Near Allen – Natchitoches Parish	$78,839
	Survey	H.012685.5	LA 385: Ryan Street Intersection IMPRS – Calcasieu Parish	$34,363
	Survey/Road	H.013952; H.013963; H.013966; H.013968;	Contract No. 44-17597 16 State Project Numbers (33 Structures) Rural Bridge Replacement Initiative, Districts 03, 07, 61, and 62	$83,721

		H.013982; H.013984; H.013996; H.013976; H.013997; H.013970		
	Survey	H.013716.5	US 167: Camellia Blvd – Churchill Dr. (LAF) – Lafayette Parish	$39,953
	Survey	H.014886.5	US 90: Tulane Ave – Danzinger Bridge – Orleans Parish	$54,432
Terracon Consultants, Inc.	Environmental	H.004273.5	Lafayette Urban Section (I-49 Lafayette Connector) Phase II ESA, Lafayette Parish	$9,138
	Geotechnical	H.003931.5-2	I-10: Calcasieu River Bridge Additional Borings	$339,579
		H.002868	I-49 Frontage Road Bridges PDA Testing	$227,811
		H.005967	Nelson Road Extension and Bridge	$52,531
		H.012569	Little Sugar Creek Bridge	$5,419
		H.005121	LA-1 and LA-415 Connector	$227,167
		H.000385.5	US190: LA415 & RR Overpass	$213,763

		H.011670	Loyola Interchange Design-Build	$221,316
		H.012033	Cross Bayou and Caney Bayou	$20,420
		H. 002794.5	LA 308 – Canal Bridges Near Larose	$676

20. Certifications/Licenses:

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

Osama ElSaad, PE

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Osama Elsaad

has attended

Traffic Control Supervisor Refresher-LA State Specific

Training Course

8/7/2020 to 8/7/2020
Date

Vice President of Education and Technical Services

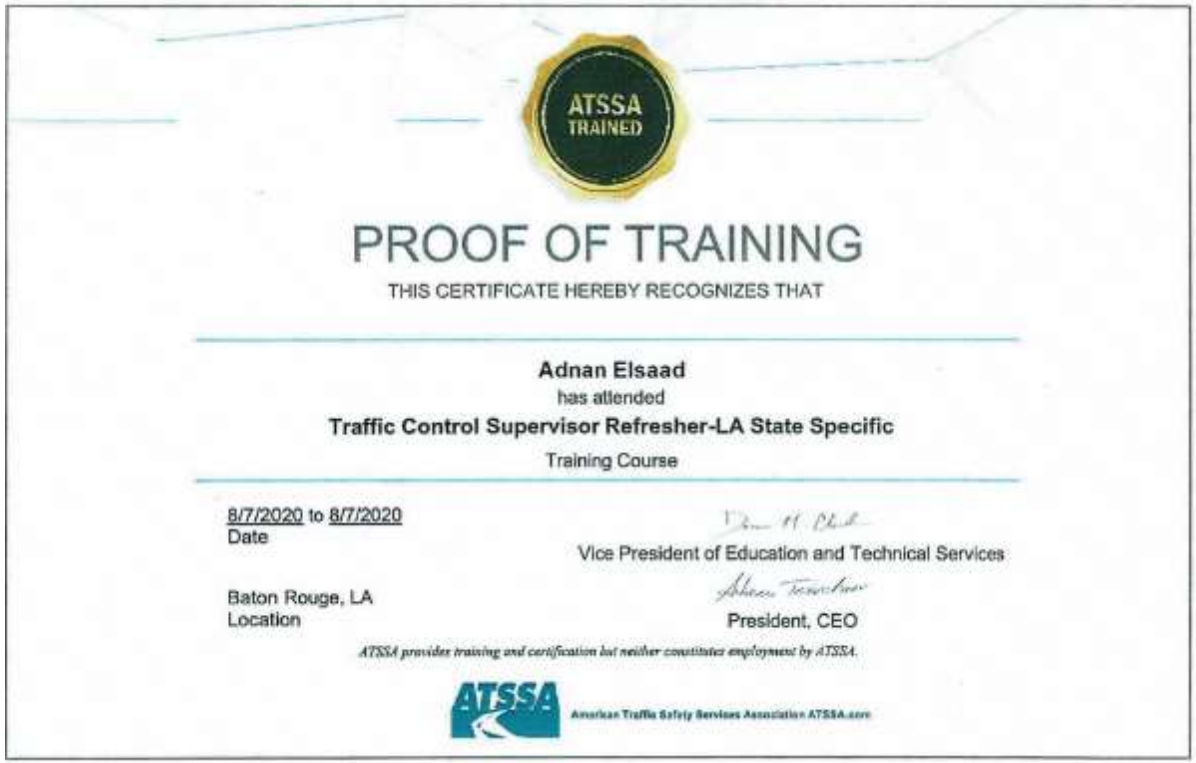
Baton Rouge, LA
Location

President, CEO

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

ATSSA American Traffic Safety Services Association ATSSA.com

Adnan Elsaad, PE



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ATSSA American Traffic Safety Services Association ATSSA.com

Wilfred Barry, PE, PLS SJB GROUP, LLC QUALITY BY DESIGN

LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

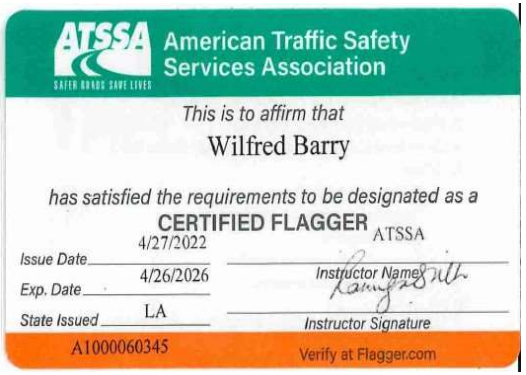
Mr. Wilfred B. Barry

License/Certificate Type - Number: PE.0017452
Expiration Date: 03/31/2024
Status: Active

LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Wilfred B. Barry

License/Certificate Type - Number: PLS.0004612
Expiration Date: 03/31/2024
Status: Active



ATSSA American Traffic Safety Services Association
SAFER ROADS SAVE LIVES

This is to affirm that
Wilfred Barry
has satisfied the requirements to be designated as a
CERTIFIED FLAGGER ATSSA

Issue Date: 4/27/2022
Exp. Date: 4/26/2026
State Issued: LA
A1000060345

Instructor Name
Instructor Signature
Verify at Flagger.com

ATSSA TRAINED

PROOF OF TRAINING
THIS CERTIFICATE HEREBY RECOGNIZES THAT

Wilfred Barry
has attended
Traffic Control Supervisor-LA State Specific
Training Course

4/7/2021 to 4/6/2025
Training Valid Through

Baton Rouge, LA
Location

Director of Training
President, CEO

ATSSA

ATSSA TRAINED

PROOF OF TRAINING
"TH S CERTIFICATE HEREBY RECOGNIZES THAT"

Wilfred Barry
has attended
Traffic Control Technician-LA State Specific
Training Course

4/6/2021 to 4/6/2025
Training Valid Through

Baton Rouge, LA
Location

Director of Training
President, CEO

ATSSA

U.S. Department of Transportation
Federal Highway Administration

Office of Technical Services

nhi national highway institute

CERTIFICATE OF TRAINING

Wilfred Barry

has participated in

NHI Course No. FHWA-NHI-134006A

Introduction to Utility Coordination for Highway Projects

Hosted by: **National Highway Institute**

Location: *Web-Based Course*
Date: *6/9/2021*

Hours of Instruction: *4 hours*

Thomas P. Harman
Acting Director | National Highway Instit

SDR

Matthew Estopinal, PE, PLS

SJB GROUP, LLC
QUALITY BY DESIGN

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Matthew Samuel Estopinal

License/Certificate Type - Number: PLS.0004955
Expiration Date: 03/31/2023
Status: Active

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Matthew Samuel Estopinal

License/Certificate Type - Number: PE.0039151
Expiration Date: 03/31/2023
Status: Active

ATSSA American Traffic Safety Services Association
SAFER ROADS SAVE LIVES

This is to affirm that
Matthew Estopinal
has satisfied the requirements to be designated as a
CERTIFIED FLAGGER ATSSA

Issue Date 4/25/2022
Exp. Date 4/24/2026
State Issued LA
A1000058046

Instructor Name Sam Smith
Instructor Signature
Verify at Flagger.com

ATSSA TRAINED

PROOF OF TRAINING
THIS CERTIFICATE HEREBY RECOGNIZES THAT

Matthew Estopinal
has attended
Traffic Control Technician-LA State Specific
Training Course

6/21/2022 to 6/21/2026
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA

ATSSA TRAINED

PROOF OF TRAINING
THIS CERTIFICATE HEREBY RECOGNIZES THAT

Matthew Estopinal
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Traffic Control Supervisor-LA State Specific
Training Course

6/22/2022 to 6/22/2026
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA

SDR

Charles Tim Brewer, PLS

SJB GROUP, LLC
QUALITY BY DESIGN

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Charles Timothy Brewer

License/Certificate Type - Number
PLS.0005009

Expiration Date
09/30/2023

Status: Active

*Charles Brewer is scheduled for Flagger, Traffic Control Technician, and Traffic Control Supervisor training November 29-December 1, 2022.

Colby Mire, LSI

SJB GROUP, LLC
QUALITY BY DESIGN

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Colby Robert Mire

License/Certificate Type - Number: LSI.0000736
Expiration Date: 09/30/2024
Status: Active

ATSSA American Traffic Safety Services Association

This is to affirm that
Colby Mire
has satisfied the requirements to be designated as a
CERTIFIED FLAGGER ATSSA

Issue Date: 3/23/2022
Exp. Date: 3/22/2026
State Issued: LA
A1000054474
Instructor Name
Instructor Signature
Verify at Flagger.com

ATSSA TRAINED

PROOF OF TRAINING
THIS CERTIFICATE HEREBY RECOGNIZES THAT

Colby Mire
has attended
Traffic Control Technician-LA State Specific
Training Course

5/11/2021 to 5/11/2025
Training Valid Through

Baton Rouge, LA
Location

Director of Training
President, CEO

ATSSA American Traffic Safety Services Association ATSSA.com

ATSSA TRAINED

PROOF OF TRAINING
THIS CERTIFICATE HEREBY RECOGNIZES THAT

Colby Mire
has attended
Traffic Control Supervisor-LA State Specific
Training Course

5/12/2021 to 5/13/2025
Training Valid Through

Baton Rouge, LA
Location

Director of Training
President, CEO

ATSSA American Traffic Safety Services Association ATSSA.com

Elvis Nguyen

SJB GROUP, LLC
QUALITY BY DESIGN

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Elvis Nguyen
has attended
Traffic Control Technician-LA State Specific
Training Course

6/29/2021 to 6/29/2025
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA American Traffic Safety Services Association ATSSA.com

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Elvis Nguyen
has attended
Traffic Control Supervisor-LA State Specific
Training Course

7/1/2021 to 7/2/2025
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA American Traffic Safety Services Association ATSSA.com

SDR

James Duke Koontz SJB GROUP, LLC QUALITY BY DESIGN


ATSSA American Traffic Safety Services Association
SAFER ROADS SAVE LIVES

This is to affirm that

James Koontz

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Issue Date 3/17/2022 ATSSA *Instructor Name*

Exp. Date 3/16/2026

State Issued LA *Instructor Signature*

*James Koontz is scheduled for Traffic Control Technician training November 29, 2022.

Charles Paul Young

American Traffic Safety Services Association

SAFER ROADS SAVE LIVES

This is to affirm that

Charles Young

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER ATSSA

Issue Date 3/17/2022

Exp. Date 3/16/2026

State Issued LA

Instructor Name

Instructor Signature

*Charles Young is scheduled for Traffic Control Technician training November 29, 2022.

Karen Kennedy, PE SJB GROUP, LLC QUALITY BY DESIGN

LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mrs. Karen McCormick Kennedy

License/Certificate Type - Number	Expiration Date
PE.0028547	09/30/2023

Status: Active

Austin LaCombe, EI SJB GROUP, LLC QUALITY BY DESIGN

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Austin Wayne Lacombe

License/Certificate Type - Number: EI.0033659
Expiration Date: 09/30/2024
Status: Active

American Traffic Safety Services Association

This is to affirm that

Austin LaCombe

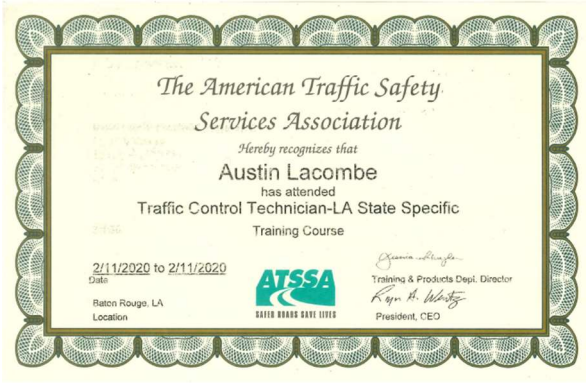
has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

ATSSA

Issue Date 3/9/2022
Exp. Date 3/8/2026
State Issued LA

Instructor Name
Instructor Signature



The American Traffic Safety Services Association

Hereby recognizes that

Austin Lacombe
has attended
Traffic Control Technician-LA State Specific
Training Course

2/11/2020 to 2/11/2020
Date

Baton Rouge, LA
Location

ATSSA
SAFER ROADS SAVE LIVES

Training & Products Dept. Director

President, CEO

The American Traffic Safety Services Association

Hereby recognizes that

Austin Lacombe
has attended
Traffic Control Supervisor-LA State Specific
Training Course

2/12/2020 to 2/13/2020
Date

Baton Rouge, LA
Location

ATSSA
SAFER ROADS SAVE LIVES

Training & Products Dept. Director

President, CEO

SDR

Kenneth Gaines

SJB GROUP, LLC
QUALITY BY DESIGN

*Kenneth Gaines is scheduled for Traffic Control Technician training November 29, 2022.

James White

SJB GROUP, LLC
QUALITY BY DESIGN

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.

See QC/QA Plan after Section 23.

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
SJB Group, LLC	SJB GROUP, LLC QUALITY BY DESIGN	PO Box 1751 Baton Rouge, LA 70821	Karen Kennedy, PE Karen.Kennedy@SJBGroup.com	225-769-3400
Terracon Consultants, Inc.	Terracon	2822 O'Neal Lane, Building B Baton Rouge, LA 70816	D'Juana Beason Djuana.beason@terracon.com	225-344-6053 225-614-0404 (mobile)

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.

SDR Engineering Consultants, Inc.

CONTRACT NO. 4400025036

HALES ROAD BRIDGES

SP NO. H.014986.5
RICHLAND PARISH

QUALITY CONTROL PLAN

REV. 00

Submitted to:

Louisiana Department of Transportation and Development

Submitted by: _____ Date: 12/6/2022
Zhiyong Liang, PhD, PE
SDR Engineering Consultants, Inc.

Approved by: _____ Date: 12/6/2022
Mohsen Shahawy, PhD, PE (Quality Assurance Manager)
SDR Engineering Consultants, Inc.

December 6, 2022

TABLE OF CONTENTS

List of Appendices

Appendix A **STRUCTURES SITUATION & LAYOUT DESIGN APPROVAL**

Appendix B **60% DESIGN REVIEW CHECKLIST**

Appendix C **CADD STANDARDS CHECKLIST**

Appendix D **FINAL DESIGN QA REVIEW CHECKLIST**

Appendix E **DESIGN CALCULATIONS CHECKLIST**

Appendix F **STRUCTURE DESIGN CERTIFICATION FOR DESIGN CALCULATIONS**

Appendix G **STRUCTURES COMMENTS AND RESOLUTION SHEET**

Appendix H **SAMPLE CERTIFICATIONS**

- **STRUCTURES DESIGN CERTIFICATION FOR DESIGN PLANS**
- **STRUCTURES FINAL DESIGN APPROVAL**
- **CERTIFICATE OF COMPLIANCE**

Appendix I **QC/QA FORMS FROM LADOTD BDEM**

- **DESIGN CRITERIA CHECKLIST**
- **FINAL CALCULATION BOOK CHECKLIST**
- **QC/QA CERTIFICATION**
- **CONSULTANT SUBMITTAL QC/QA CERTIFICATION**

1.0 INTRODUCTION

This Quality Control Plan (QCP) is for the replacement of the Hales Road Bridges crossing Hurricane Creek and Creek. The QCP has been prepared in accordance with LADOTD Bridge Design and Evaluation Manual (BDEM); Part I – Policies and Procedures; Chapter 3 – Policy for Quality Control and Quality Assurance (formerly Bridge Design Technical Memorandum No. 37 (BDTM.37)). SDR Engineering Consultants, Inc. (SDR) is committed to delivering services of the highest quality that conform to the most current quality control standards.

This QCP details the proposed methods of controlling and assuring quality on all work products. It also includes project team organization, methods for documentation of comments and responses and record keeping of the project. This QCP clearly defines the role and responsibility of each person involved with the project.

The QCP will be updated throughout the duration of the project as and when it becomes necessary due to staff changes or the scope of the work.

1.1 PROJECT DESCRIPTION

SDR Team shall provide all necessary engineering and related services required for design and developing plans for the replacement of each bridge in Rapides Parish, District 05. The project number, recall numbers, and details of the two (2) bridges are as follows:

SN	Project No.	Recall No.	Route	Crossing	Parish
1	H.014986.5	700009	Hales Rd.	Hurricane Creek	Richland
2		700011	Hales Rd.	Creek	

The services to be provided for replacing the two (2) bridges are as follows:

- Topographic Survey
- Property Survey
- Right of Way Maps
- Hydraulic Design and Drainage
- Roadway Design
- Bridge Design
- Construction Support Services (if required, supplemental agreement)

1.2 PROJECT GOVERNING STANDARDS AND CRITERIA

The Scope of Services requires that this contract shall be in compliance with the following standards, manual, specifications as applicable to the required services:

AASHTO

- LRFD Bridge Design Specifications, 9th Edition (2020)
- Manual for Bridge Evaluation, 3rd Edition (2018)

- Manual for Bridge Element Inspection, 2nd Edition (2019)
- A Policy on Geometric Design of Highways and Streets, 7th Edition (2018)
- Roadside Design Guide, 4th Edition (2015)
- Roadway Lighting Design Guide, 7th Edition (2018)
- LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signal, 1st Edition (2020 interim revisions)

Louisiana Department of Transportation and Development

- Project Delivery Manual (2013)
- Bridge Design and Evaluation Manual, Revision No. 9 (2020)
- Bridge Design Technical Memorandum, as applicable
- Engineering Directives and Standards Manual, as applicable
- Hydraulics Manual (2011)
- A Guide to Construction, Operating, and Maintaining Highway Lighting Systems (2017)
- Louisiana Standard Specifications for Roads and Bridges (2016)
- Real Estate Operations Manual (2018)

FHWA

- Hydraulic Engineering Circular No. 18, Evaluating Scour at Bridges, 5th Edition (2012)
- Manual on Uniform Traffic Control Devices, 2009 Edition

1.3 PROJECT SCHEDULE

Services will commence upon receipt of the Notice-to-Proceed (NTP) and as directed by the Department's Project Manager. **A detailed schedule will be prepared and submitted to LADOTD PM upon award of the project.** The schedule will reflect the dates for each submittal and will include all the tasks for coordination as well as DOTD review.

Our team is prepared to compress this schedule by fast-tracking to accelerate the plans development process without sacrificing quality. Our survey team is prepared to add additional crews as needed to accelerate delivery and all other members are prepared for accelerated delivery if required. Work performed will run concurrently and we do recognize the budgeting process and the immediate need to meet a certain delivery date. Our teamwork load will allow us to meet any accelerated delivery date as deemed appropriate by the DOTD PM. A proposed time schedule is shown below.

Design, calculation book, and load rating calculation will be submitted in PDF format along with the 100% Final Plans in accordance with "*Consultant Submittal Review Checklist*" (Appendix K of LADOTD BDEM).

PROJECT SCHEDULE

Tasks	Months											
	1	2	3	4	5	6	7	8	9	10	11	12
Stage 3, Part Ia - Topographic Survey												
NTP/Kickoff Meeting												
Topographic Survey												
Stage 3, Part III - Preliminary Plans												
Design Criteria, Hydraulics & 60% Preliminary Plans												
Solicitation of Views and Categorical Exclusion												
95% Preliminary Plans (Plan-in-Hand)												
Plan-in-Hand Meeting												
Right-of-Way Sketches & Legal Agreements												
Environmental & Wetlands Package												
100% Preliminary Plans (Plan-in-Hand Prints)												
Design Report Forms												
Environmental Clearance Review and Approval												
Stage 3, Part IV - Final Plans												
60% Final Plans (Pre-ACP)												
60% Final Plans Review												
95% Final Plans (ACP)												
Advanced Check Prints & PQU Review & Meeting												
98% Final Plans (ACP)												
100% Final Plans (Tracings) & Comp. Book												
Stage 5: Construction Support												
Construction Support						Length of Construction						

1.4 DEFINITION OF TERMS

The use of the terms *quality control (QC)* and *quality assurance (QA)* within the QCP have the following meanings:

- Quality Control refers to actions, procedures, and methods that are routinely employed at the production and administrative levels, and under the jurisdiction of the Project Manager (PM), to produce the desired result of quality professional services.
- Quality Assurance refers to actions, procedures, and methods employed at the management and senior technical levels to verify that prudent quality control procedures are in place, are being followed, and that the desired result of quality professional services is being achieved.

2.0 PROJECT ORGANIZATION

2.1 PROJECT TEAM

SDR Team members and the area of service to be provided by each member is as follows:

Consultant	Area of Service
SDR Engineering Consultants, Inc.	Bridge Design and Project Management
SJB Group, LLC	Survey
Terracon Consultants, Inc.	Environmental

Figure 1 shows the organizational structure of the team. Each member of the team shares the responsibility of ensuring that quality professional services are being achieved.

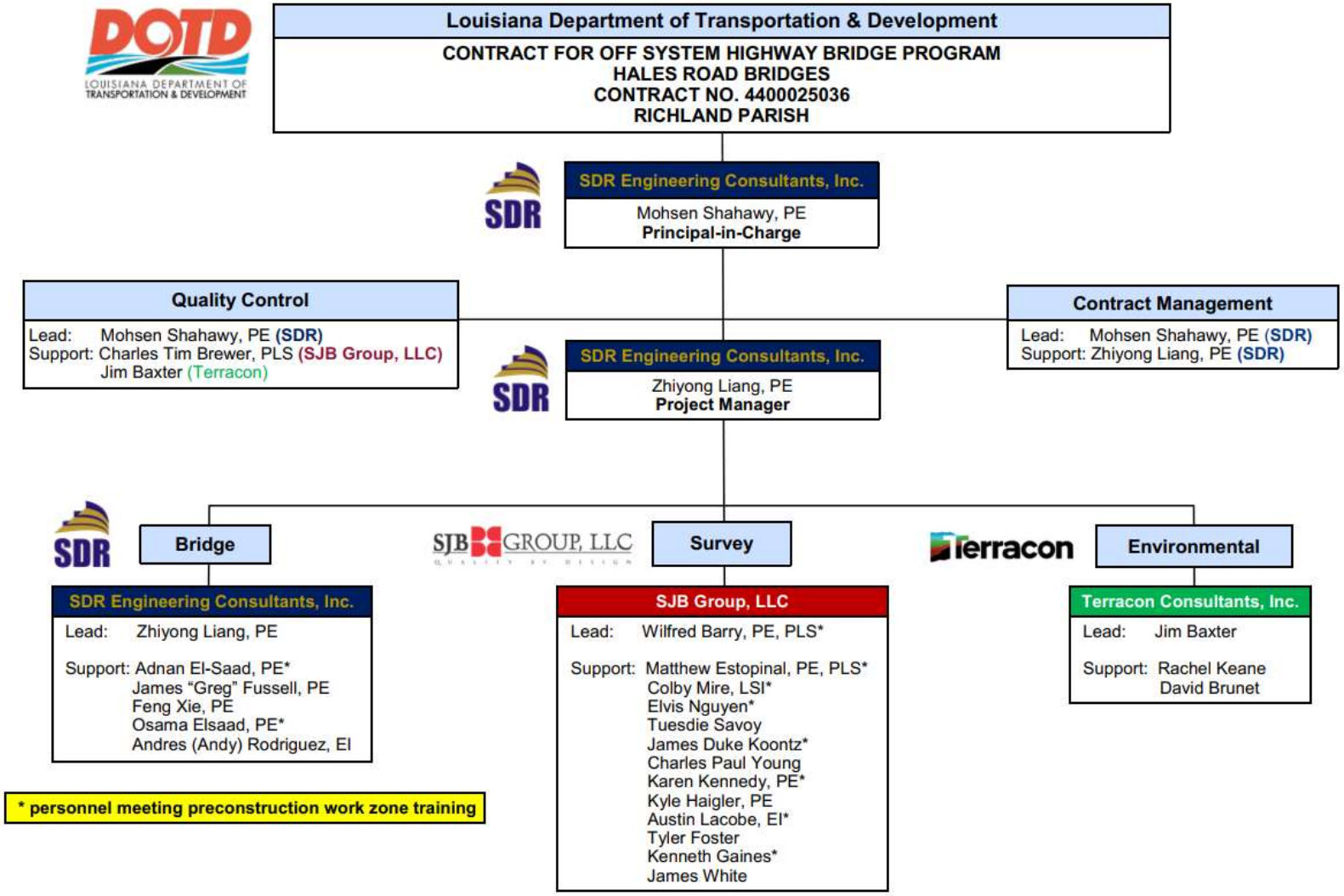


Figure 1: Organizational Chart

2.2 TEAM MEMBER QC/QA RESPONSIBILITIES

The main functions of key staff classifications in relation to quality control and quality assurance are described below.

- Engineering/Planning Technical Staff are responsible for planning and executing assignments so that the work is produced in accordance with the Scope of Services and in the format that LADOTD requests and expects. The most important place to ensure quality is at the technical staff production level where the work is planned and executed. This is accomplished by selecting the most experienced and skilled professionals to perform each specific task.
- Project Engineers/Planners/Scientists are highly experienced professionals who are responsible for directing a team of technical staff in performing a specific task of the project. They also establish quality control procedures for their responsible areas and assign quality control functions for their staff. The procedures must conform to QCP.
- Zhiyong Liang, PhD, PE, as Project Manager, is responsible for allocating resources to various elements of the work, preparing and implementing the QCP, scheduling the various activities and adjusting the plans as the work progresses to resolve identified potential problem areas in a timely manner. The PM, working together with the respective Project Engineer/Planner/Scientist, identifies the suitable persons/teams to perform QC reviews on each project element/deliverable. The PM is also responsible for maintaining records of all QC and QA reviews in the project files. The PM is also personally responsible for performing a final quality check of all work before it is submitted to LADOTD and ensuring that the procedures outlined in this document have been followed without exception. The PM will maintain communication with LADOTD to assure satisfaction with the project's progress and performance.
- Quality Control Reviewers are persons or teams responsible for performing independent technical reviews on specific project tasks, verifying the quality and technical adequacy of the project deliverables, and assuring their compliance with applicable standards and requirements. The QC Reviewers are not directly involved in the preparation of the documents/plans.
- Mohsen Shahawy, PhD, PE, as Principal-in-Charge (PIC), is responsible for allocating the required resources to perform the project and for monitoring the project to ensure adherence to the contractual terms and the QCP. The PIC provides periodic audits of technical performance of SDR staff. The PIC is also responsible for client interface and obtaining client feedback and input regarding the project and SDR's performance.
- Mohsen Shahawy, PhD, PE, as Quality Assurance Manager (QAM), is responsible for ensuring that all deliverables have entered the QC review process and that adequate time has been allowed to perform a complete QC review. The QAM has the authority to delay the submittal of a deliverable should he/she deem that this deliverable has not received a satisfactory QC review prior to its submittal. The QAM will not participate in the production of any elements of the project.

3.0 QUALITY CONTROL AND QUALITY ASSURANCE REVIEWS

3.1 GENERAL

Prior to submittal, each deliverable will undergo QC and QA reviews consistent with this QCP and LADOTD's quality control requirements. Where applicable, LADOTD's quality control checklists will be used to verify that each deliverable conforms to the current requirements and expectations. Appendix I from the LADOTD BDEM Chapter 3 will be included in every submittal, and Appendix D from the same chapter will be included in the final submittal (see Appendix I in this document for the forms).

The QC reviews of studies, reports, drawings, specifications, calculations, cost estimates, and/or other project-related deliverables will require a minimum of two individuals:

- The deliverable *Author* (for documents) or *Originator* (for plans and calculations). During the QC process, this individual will also function as the *Corrector* and *Back-checker.*
- The *QC Reviewer/Checker* who will also function as the *Verifier*.

All QC Reviewers/Checkers/Verifiers will be qualified Engineers/Planners/Scientists who are experienced in the discipline being checked and not actively involved in the preparation of the deliverable. No Author or Originator will perform a formal QC check on his/her own work.

QA reviews will be performed by the QAM.

A checkprint is a copy of a document (report/memorandum), drawing, or calculation in its pre-submission form used for the purpose of checking and marking comments, additions, deletions, and corrections. The checkprint is identified as such by being accompanied by a QC form (for documents) or bearing the specific QC stamp (for drawings, and calculations).

The checking procedures that will occur during the QC and QA reviews are discussed in the next section.

Table 1
Summary of Project Deliverables and Production Schedule

Deliverable	Responsible Engineer/Planner/Scientist Author/Originator	Responsible QC Reviewer	Anticipated QC Review Start Date	Anticipated QA Review Start Date	Anticipated Submittal Date
SDR Produced Deliverables					
			xx/xx/xx	xx/xx/xx	xx/xx/xx
Subconsultant Produced Deliverables					

3.2 DESIGN CHECKS AND REVIEWS

3.2.1 Design Review Requirements

Structure designs and drawings are subject to design and detailing reviews in accordance with the following table:

DESIGN REVIEW REQUIREMENTS								
	REVIEW TYPE							
	SITUATION & LAYOUT CHECK		60% REVIEW	CADD STDS CHECK	FINAL DESIGN CHECK			FINAL QA REVIEW
STRUCTURE TYPE	DESIGN	DRWG	DESIGN	DRWG	DESIGN	DRWG	SPECS & EST	ALL DOCS
Bridge	X	X	X	X	X	X	X	X
Drainage Structures	X	X		X	X	X	X	X
Retaining Wall	X	X		X	X	X	X	X
Overhead Signs			X	X	X	X	X	X
Bridge Widening	X	X	X	X	X	X	X	X
Structure Repair			X	X	X	X	X	X
Sound Wall *		X	X	X	X	X	X	X
Structural Barriers *			X	X	X	X	X	X

* Applies only to non-standard sound walls and structural barriers not covered by LADOTD standard drawings.

3.2.2 Structure Design Quality Process

The following chart illustrates the structure design quality process proposed for this project.

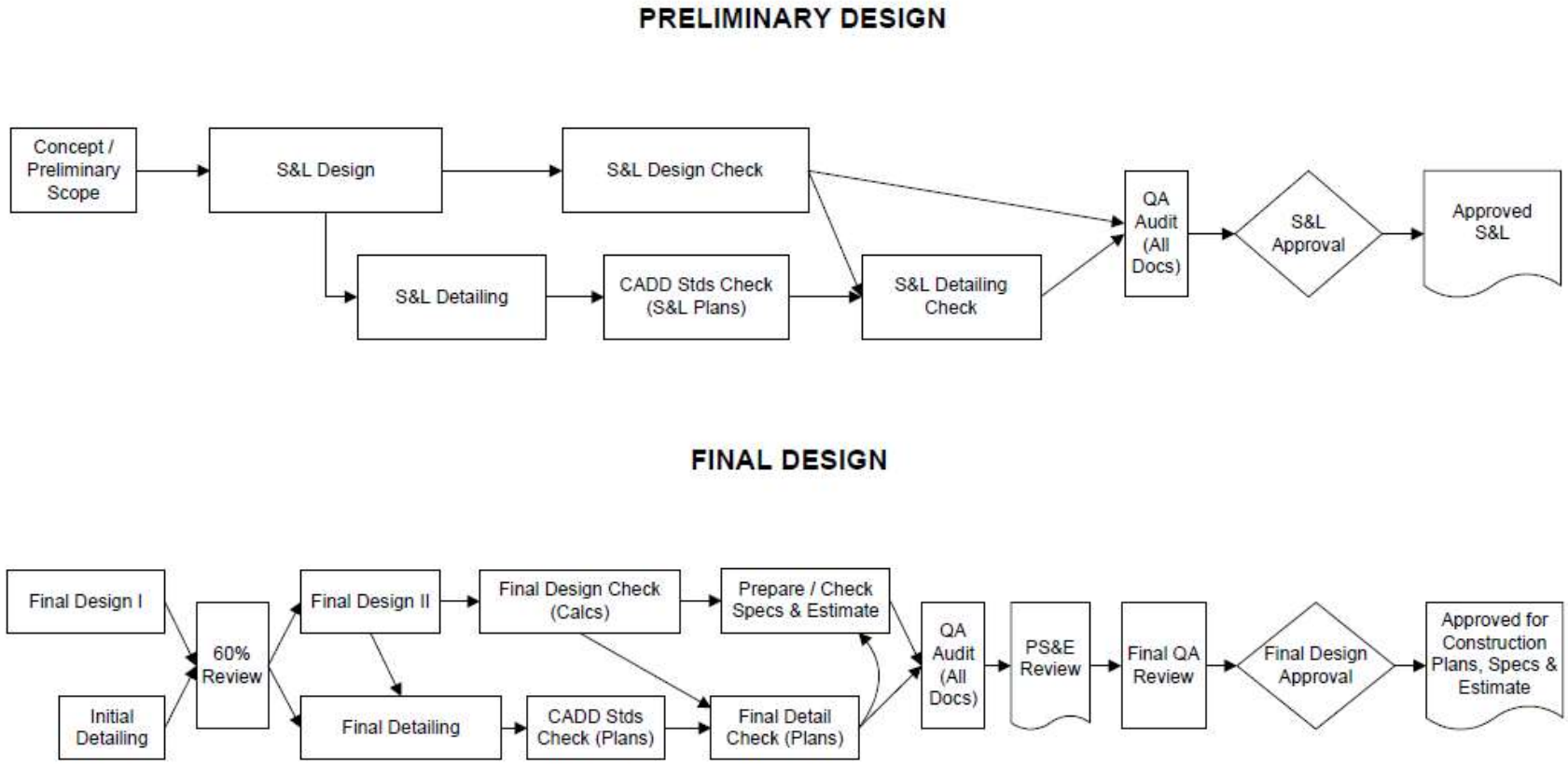


Figure 2: Preliminary and Final Design Quality Process

QC COLOR CODE

REMEMBER TO USE SIGN-OFF STAMP!

ORIGINATOR
(DESIGNER)

Typed Text, Blueline Prints, Calculations, Black/White Copy

NOT IN: RED, YELLOW, OR GREEN

CHECKER
(OTHER THAN DESIGNER)

Yellow for Correct

Red for "Corections"

"Additions or Deletions" changes

Use blue for notes to Originator

BACKCHECKER
(DESIGNER)

Green Check Mark for Agreement

"Corections" ✓

Green Stet and Crossout when it is agreed "No Changes"

Ok

"Additions or Deletions" changes

UPDATER
(ORIGINATOR/ DRAFTER)

Green Encirclement when Updated

"Corections" ✓

RECHECKER
(OTHER THAN DESIGNER)

Yellow over Red and Green to indicate updated correctly

✓

Ok

"Additions or Deletions" changes

REVIEWERS
(NOT INVOLVED IN ACTIVIITES LISTED ABOVE)

Insures QC process was followed.

Comments in Blue identified by initials and dates.

3.2.3 Situation & Layout (S&L) Check

The Situation & Layout Sheet(s) define(s) the general concept and geometry of the structure. The Situation & Layout Sheet(s) must be completed, checked, corrected and approved before the Designer begins the final design of the structure. The conceptual design of the structure is checked including the geometric layout, structure type, span length, support locations, girder type and spacing, horizontal and vertical clearances, expansion joints locations, aesthetic requirements, potential utility conflicts, context sensitivity, preliminary seismic strategy, and other items appropriate for the bridge under consideration.

The drawings are checked to verify compliance with the *Situation and Layout Detailing Checklist.* The checklist is completed by the Checker and becomes part of the QC documentation for the structure. The drawings are checked for agreement with the most current roadway drawings. Issues and discrepancies with the roadway information are identified and resolved prior to completing the S&L Check. The S&L drawings must detail any aesthetic and environmental requirements related to the structure as outlined in the appropriate documents.

After the Situation & Layout drawings are checked and issued, the roadway designer will immediately communicate any roadway changes to the bridge designer to prevent unnecessary re-design.

See Appendix A for "**STRUCTURES SITUATION & LAYOUT DESIGN APPROVAL**" Form.

3.2.4 60% Design Review

At or near 60% completion, structure plan sets are reviewed to verify concept and scope. This is not a detailed design or drawing check, but a review to validate the design direction and ensure that the design scope and intent on all project design criteria and requirements are being met. This review provides an opportunity to make changes in the design before it progresses to the point where design changes become prohibitive.

See Appendix B for a sample of the **60% DESIGN REVIEW CHECKLIST.**

3.2.5 CADD Standards Check

All drawings will be checked to verify compliance with correct drafting practices and CADD Standards. The CADD Standards Check occurs prior to the drawing QC check. If the drawing does not meet CADD Standards, it will be corrected before proceeding with the drawing QC check. The CADD Standards Check will be completed by a Senior Design Technician.

See Appendix C for a sample of the **CADD STANDARDS CHECKLIST**

3.2.6 Final Design Check

During the Final Design Review, all drawings are thoroughly checked as a complete package. Although previously checked, the latest S&L is once again checked during the Final Design Review to ensure compliance with the latest roadway plans and to verify that information and details not available at the S&L phase are included.

The entire set of design documents (plans, calculations, specifications, engineer's estimate, etc.) will be checked. All checking will be completed before the PS&E package is submitted. Changes to the design package after the QC process is complete will be checked by the same procedures.

See Appendix D for **FINAL DESIGN QA REVIEW CHECKLIST**.

3.2.7 LADOTD Oversight Reviews

LADOTD oversight reviews occur at the following design stages:

1. Preliminary Design Review
2. 60% Design Review
3. 95% Design Review
4. 98% Design Review
5. Review of Final Design (may occur in conjunction with the PS&E Review).

The LADOTD Structures Oversight Engineer assigned to the project may request additional oversight reviews if deemed necessary.

3.2.8 Design Approvals

Design approvals are required at specific design milestones.

DESIGN APPROVAL REQUIREMENTS		
	APPROVAL TYPE	
STRUCTURE TYPE	*SITUATION & LAYOUT*	*FINAL DESIGN*
Bridge	X	X
Drainage Structures	X	X
Retaining Wall	X	X
Overhead Sign Structure		X
Bridge Widening	X	X
Structure Repair		X
Sound Wall*		X
Structural Barrier*		X

*Applies only to non-standard sound walls and structural barriers not covered by LADOTD standard drawings.

3.2.9 Final Design QA Review

The Final Design QA Review is completed by SDR QCM or his/her designee. The Final QA Review takes place after the PS&E Review and just prior to the Final Design Approval. The submittal includes all design

documents as indicated on the Final Design QA Review Checklist. The following components are the subject of the final QC/QA checks:

1. Completed structure plan set (signed and sealed)
2. Specifications (Special Provisions)
3. Engineer's estimate
4. Design Certification Forms (Complete for Final Design)
5. Design Criteria Summary
6. Approved Design Exceptions
7. Computer Design Software List
8. Bridge Load Rating Report
9. Previous review comments with responses and final dispositions
10. Design Calculations
11. Independent Review Checklist, Letter Report and Calculations (when required)
12. Any other final design documents and reports, as appropriate

See Appendix D for the **FINAL DESIGN QA REVIEW CHECKLIST.**

4.0 QC CHECKING PROCEDURES

4.1 CHECKING OF DOCUMENTS

Each document developed for the project will undergo two QC reviews. Figure 3 provides a flow diagram of the QC and QA review processes for documents. The first QC review will be a technical review to check the technical accuracy of the document's content and its compliance with applicable guidelines, procedures, regulations, and standards. All review revisions will be completed prior to proceeding with the second QC review. The second QC review will occur on a clean copy of the revised document after the technical QC review is completed and is intended to check for spelling, grammar, formatting, readability, and consistency.

Upon completion of the document, the responsible Project Engineer/Planner/Scientist (Author) will initiate the technical and editorial QC reviews by filling out the top two sections and the "name" column of the third section of the QC form shown in Figure 4.

For both reviews, comments/corrections will be marked by the QC Reviewers on the checkprints in red. The QC Reviewers will initial the bottom right corner of each page of the checkprint. Upon completion of the reviews, the QC Reviewers will sign and date the QC form and return it along with the marked-up checkprint to the Author. The Author will confirm the corrections/comments, consult with the appropriate person(s) to resolve conflicts, and revise the document accordingly. Acting as the Corrector and/or the Back-checker, the Author will revise the document in accordance with the comments. Comments that are addressed, as suggested by the QC Reviewer, will be highlighted by the Author on the checkprint in yellow. Comments that, after discussion with the QC Reviewer, are deemed no longer valid, will be crossed by the Author in green on the marked-up document along with a brief note explaining the reason.

The Author will initial and date the QC form and return it along with the checkprint and a revised document to the QC Reviewer who, acting as the Verifier, will confirm with green check marks on the checkprint that each comment is addressed satisfactorily. Should any comments be improperly addressed, the QC Reviewer will return both documents to the Author for additional changes. When the QC Reviewer is satisfied with all corrections, he/she will initial and date the QC form and return it to the Author with the documents. This action completes the document's QC review process. At the end of this process, all comments on the checkprint must be either highlighted in yellow or crossed in green; each comment must bear the QC Reviewer's green check mark.

At the closing of the QC review process, the Author will deliver to the PM a clean copy of the submittal document, the technical review and editorial review checkprints, and the QC form. The PM will inspect the checkprints and submittal document to verify that the process has been adequately followed, all comments were properly addressed, and the deliverable meets LADOTD's expectations. After completing this inspection, the PM will initial and date the QC form and prepare and sign the Certificate of Compliance (see Appendix H). The PM will forward the checkprints, the submittal document, the completed QC form, and the signed Certificate of Compliance to the QAM.

As a final check, the QAM will verify that the QC process has been followed by reviewing the checkprints, the QC form, and the submittal document. If the QAM finds that the process was not adequately followed, he/she will return the documents to the PM with instructions for completing the missing elements. If the

QAM is satisfied that the process has been followed, he/she will sign the Certificate of Compliance and return it along with the submittal document to the PM for delivery to LADOTD.

After completion of the QC and QA review process, the PM will archive the technical and editorial QC review checkprints, the QC form, a record copy of the submitted document, and a copy of the Certificate of Compliance in the project's QC files for record keeping. An electronic file of these items will also be created and saved in the QC folder of the project's directory.

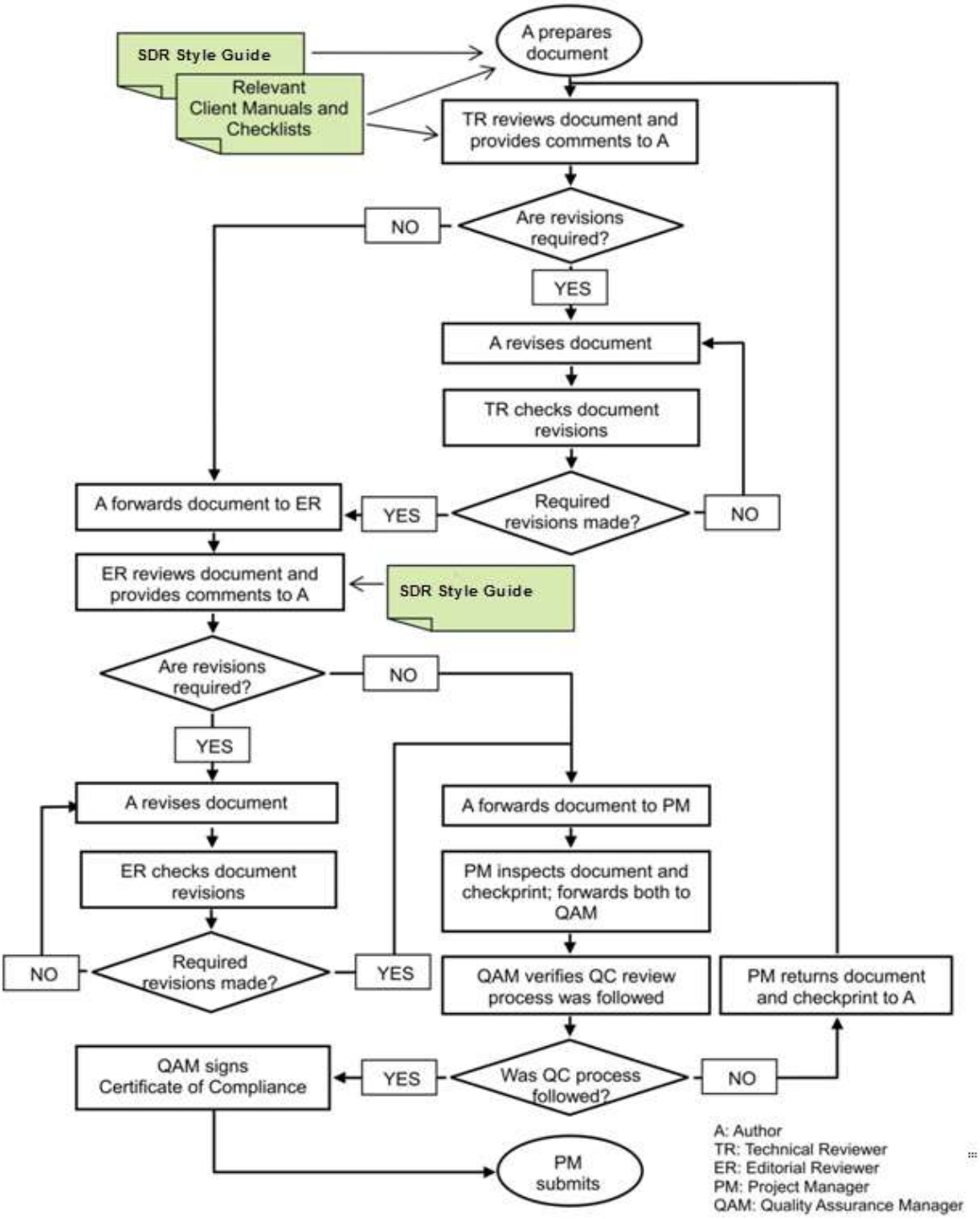


Figure 3: Document Quality Control and Quality Assurance Process

DOCUMENT QUALITY CONTROL FORM

Labor Charge Number	Project #		Task #	
Budget/Hours			Due Date	

PROJECT INFORMATION

Project Name	
Document Title	
Document Date	
Electronic File Name	
File Number	
Document Author(s)	
Project Manager	

TECHNICAL/EDITORIAL REVIEW

			NAME	INITIALS	DATE
TECHNICAL REVIEW	Primary Review (red=correction)	TR			
	Revised (yellow over red)	A			
	Revisions Reviewed (green check=OK green circle = additional correction)	TR			
EDITORIAL REVIEW	Primary Review (red=correction)	ER			
	Revised (yellow over red)	A			
	Revisions Reviewed (green check on revision=OK green circle = additional correction)	ER			
PM Approval					
QAM Approval					

SPECIAL INSTRUCTIONS FOR REVIEWER (IF ANY)

A = Author, Responsible for following document through process
TR = Technical Reviewer
ER = Editorial Reviewer
PM = Project Manager
QAM= Quality Assurance Manager

Figure 4: Quality Control Form for Documents

4.2 CHECKING OF DRAWINGS

Drawings are prepared by teams of staff, under the direction of Project Engineers/ Planners/Scientists assigned by the PM. The drawings are developed progressively by an iterative process using provided sources of information, such as reports, record data, preliminary sketches, samples, and workups, in conformance with the requirements, design criteria, and standards and guidelines provided by LADOTD. Before a drawing is considered as a completed deliverable, it will be independently checked by a qualified QC Reviewer for:

- Conformance with the design criteria and project requirements.
- Completeness and clarity.
- Coordination with other aspects of the project, i.e., structural, civil, traffic, right-of-way, etc., and with other associated project documents.
- Compatibility of notes and references.
- CADD standards, graphic standards, and proper plans preparation practice.
- Coordination with adjacent projects.

The checking process used for drawings is described below and shown in Figure 5. The first formal issue of a drawing is the checkprint and is routed by its Originator (the responsible Project Engineer/Planner/Scientist) to the assigned QC Reviewer(s)/Checker(s). Multiple copies of checkprints may be routed to several QC Reviewers/Checkers of different departments with interfacing project responsibilities. The Originator will place the QC stamp, shown in Figure 6, on the first page/sheet of the checkprint and fill in the first line. The QC Reviewers/Checkers will inspect the project drawings to determine if they meet the objectives of the task and are complete, accurate, and suitable for their intended use.

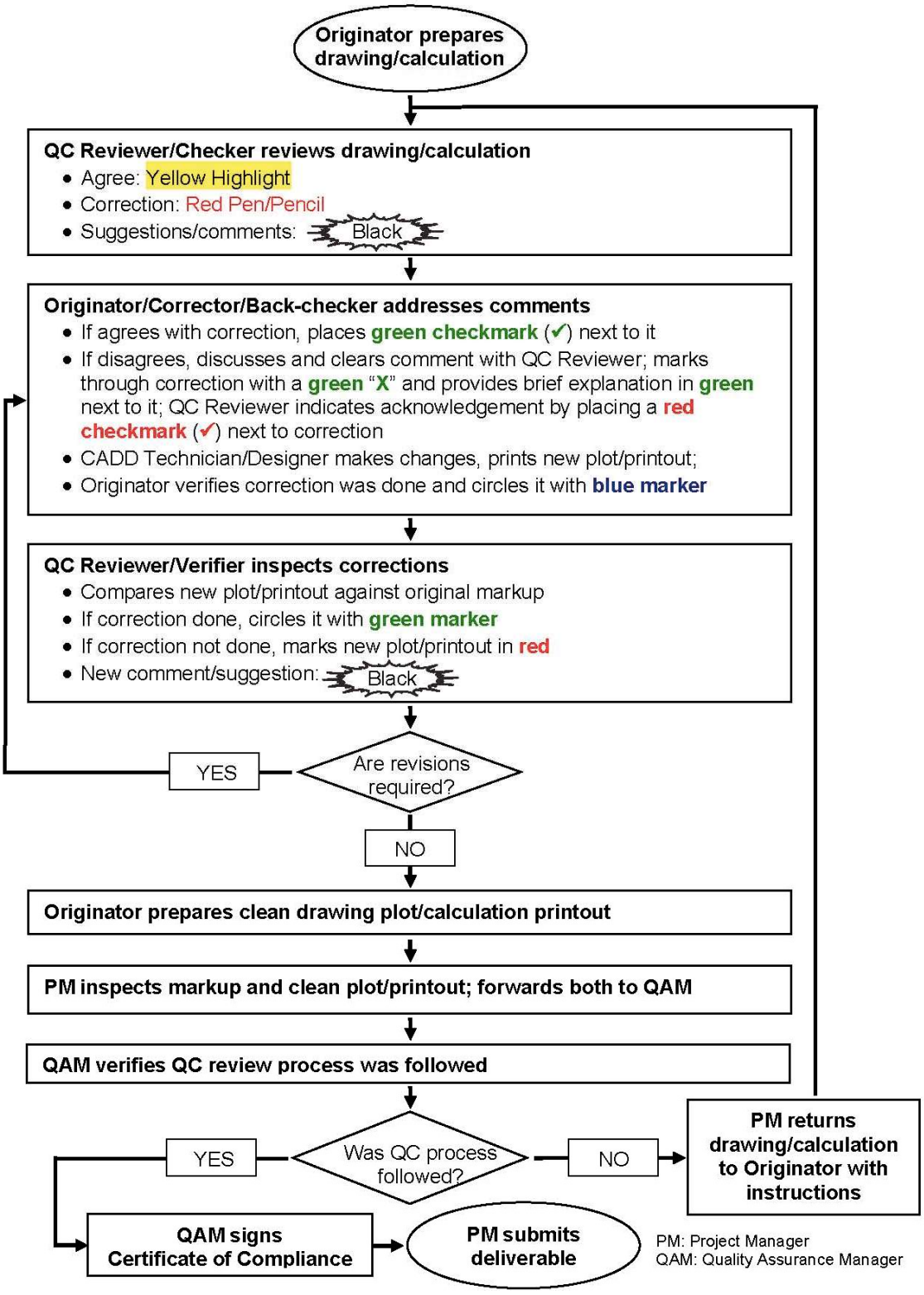


Figure 5: Drawing and Calculations Quality Control and Quality Assurance Process

(Ready for Checking)	*Signature*	*Date*
Originator		

No. _____ Date _____

CHECKPRINT

Dwg. Checked against calcs. and calc. check confirmed.

By _____ Date _____

Checked _____ Date _____
Backchecked _____ Date _____
Corrected _____ Date _____
Verified _____ Date _____

QC Process Approved By: _____

Date

Figure 6: Drawing and Calculations QC Stamp

All items on the drawing(s) must be marked by the QC Reviewer/Checker to indicate either agreement or disagreement. The following colors will be used:

- **Yellow highlight**: QC Reviewer/Checker agrees with the drawing or element.
- **Red marking**: area requiring correction.
- **Blue/Black marking**: relative comments noted by the QC Reviewer/Checker.

As the QC Reviewers/Checkers inspect and mark each drawing, they will initial in the bottom right corner of every page/sheet of the checkprint and will fill in the second line of the QC stamp. Following their review, the QC Reviewers/Checkers will return the checkprints to the Originator.

The Originator, acting as the Back-checker, will inspect and confirm the suggested corrections/comments, consolidate and coordinate comments from different QC Reviewers/Checkers, and (if needed) consult with

the Checkers and other appropriate person(s) to resolve any conflicts. A green check mark will be placed on the checkprint next to the comments that need to be addressed. Comments that are no longer valid, based on discussions between the Originator and the QC Reviewer(s)/Checker(s), will be crossed out with a green "X." A brief explanation will be written in green next to the comment. The QC Reviewer/Checker who made the comment will indicate his/her concurrence by placing a red check mark next to the comment. As the Originator/Back-checker reviews and addresses the comments on each drawing, he/she will also fill-in the third line of the QC stamp.

The Originator, acting as the Corrector, will decide on the proper follow-up actions for each comment and direct the CADD staff to perform the required changes on the CADD files. Once the CADD staff makes the corrections to the original CADD file(s), they will plot a clean set of the revised drawing(s). The Originator/Corrector will verify the corrections and, if satisfied, will mark with a blue circle the QC Reviewer's comment on the checkprint. After this task is completed, the Originator/Corrector will fill in the fourth line of the QC stamp and return both the checkprint and the clean drawing(s) to the QC Reviewer.

The QC Reviewer, acting as the Verifier, will back-check the revised drawing(s) against the checkprint. If the comment has been properly addressed, the QC Reviewer/Verifier will circle the comment in green. If a comment is not satisfactorily addressed and/or has new comments, the QC Reviewer/Verifier will mark the clean drawing and return both sets (revised drawings and original checkprints) to the Originator and the process will be repeated. The newly marked checkprints will be attached to the original checkprint set for record keeping. At the end of this process, all comments on the checkprints will be either circled in blue and green or crossed out in green. After all corrections are acceptably verified by the QC Reviewer/Verifier, he/she will fill in the fifth line of the QC stamp.

At the closing of the QC review process, the Originator will deliver to the PM the checkprint(s) and clean copies of the submittal drawing(s). The PM will inspect the checkprint(s) and submittal drawing(s) to verify that the process has been adequately followed, all comments were properly addressed, and the drawing(s) meet LADOTD's expectations. After completing this inspection, the PM will fill in the sixth line of the QC stamp and prepare and sign the Certificate of Compliance. The PM will forward the checkprint(s), the submittal drawing(s), and the signed Certificate of Compliance to the QAM.

As a final check, the QAM will verify that the QC review process has been followed by inspecting the checkprint, the QC stamp, and the submittal drawing(s). If he/she is satisfied that the process has been followed, the QAM will also sign the Certificate of Compliance, which will be submitted by the PM to LADOTD with the submittal drawing(s). If the QAM finds that the process was not adequately followed, he/she will return the drawing(s) to the PM with instructions for completing the missing elements.

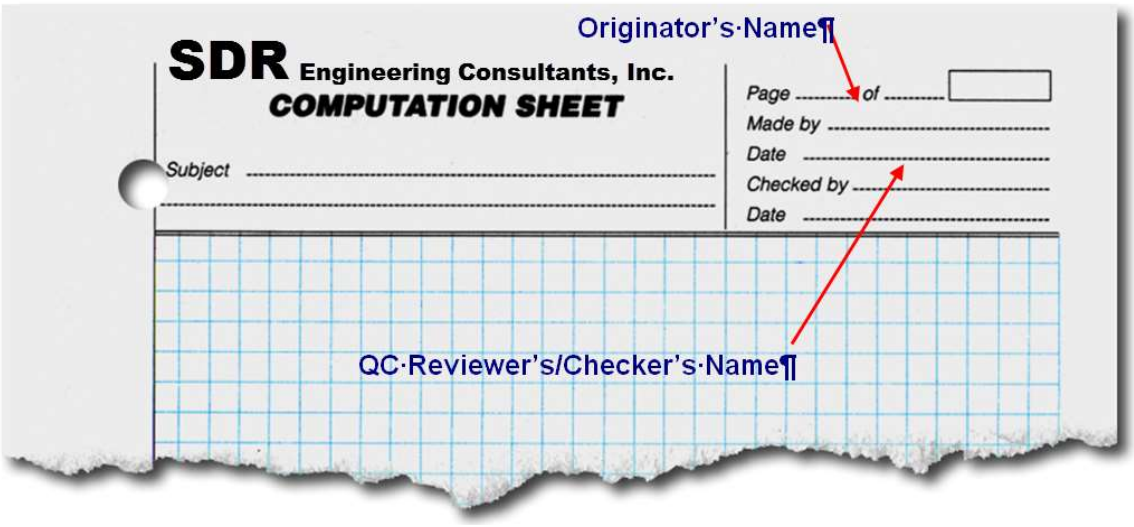
After completion of the QC and QA processes, the PM will archive the checkprint(s), a record copy of the submitted drawings, and a copy of the Certificate of Compliance in the project's QC files for record keeping. An electronic file of these items will also be created and saved in the QC folder of the project's directory.

4.3 CHECKING OF CALCULATIONS

Calculations can be either manual or computer generated printouts. Manual calculations will be prepared in pencil on the standard SDR computation sheets, shown in Figure 7. A calculation may also include

supporting information – such as forms, charts, graphs, data sheets, and others, which must be attached to the computation sheets. Assumptions upon which calculations are based will be stated in the calculations. Assumptions with limited application should immediately precede the calculations to which they apply.

Figure 7: SDR Manual Computation Sheet



The Designer is responsible for creating and maintaining the design calculations for the assigned structure in a neat and logical manner which is conducive to checking and in accordance with this policy.

1. Title page with Structure Drawing Number, Structure Name, Design Calculations title, and Designers names.
2. Table of Contents.
3. Design Criteria Summary (include a list of applicable AASHTO and LADOTD design specifications used in the design).
4. Design Criteria Exceptions (a list of any deviations from the project design criteria, along with the approval documentation).
5. List of computer programs and spreadsheets used in the design.
6. Completed Design & Detailing Progress Form.
7. Use standard letter-sized paper for computer generated calculations.
8. Number all pages with a numbering scheme that covers the entire set of calculations.
9. Identify the appropriate code references in the right hand column of the calculations.
10. Reference computer programs and indicate appropriate code section. Computer documentation includes: name of program, vendor, version, and release date.
11. Include Bridge Type Selection Report and Seismic Strategy Report.
12. Bridge Load Rating Report and Calculations.

After completion of his/her task, the Originator (the designer/analyst responsible for the calculations) will create a checkprint consisting of copies of all computation sheets, computer printouts and any other related support attachments. He/she will place the QC stamp, shown in Figure 6, on the first page of the checkprint, or, if necessary, on the back of the first page to avoid clutter, and will fill in the first line of the QC stamp.

The Originator will review the data and the Scope of Services with the assigned QC Reviewer/Checker. The Originator will provide the QC Reviewer/Checker with design criteria, copies of pertinent information, and related documents and calculations.

The QC review will include verification of the introductory material on the calculation sheet, the assumptions, and the calculations. The QC Reviewer/Checker will verify that all information is appropriate, correct, complete, consistent, legible, and reproducible. The QC Reviewer/Checker will mark all items on the calculation sheets and all printouts to indicate his/her agreement or disagreement and initial the bottom right corner of each inspected page/sheet. The following is the color code to be used for marking calculations:

- **Yellow highlight**: QC Reviewer/Checker agrees with the calculation, assumption, etc.
- **Red marking**: calculation, assumption, etc., requiring correction.
- **Black marking**: relative comments noted by the QC Reviewer/Checker.

Following his/her review, the QC Reviewer/Checker will fill in the second line of the QC stamp and return the checkprint to the calculations Originator. The Originator, acting as the Back-checker, will inspect and confirm the suggested corrections/comments, consolidate and coordinate comments from different QC Reviewers/Checkers, and (if needed) consult with the QC Reviewers/Checkers and other appropriate person(s) to resolve any conflicts. Green check marks will be placed on the checkprint next to the comments that need to be addressed. Comments that are no longer valid, based on discussions between the Originator and the QC Reviewer(s)/Checker(s), will be crossed out with a green "X" and a brief explanation will be written in green next to the comment. After completion of this task, the Originator/Back-checker will fill in the third line of the QC stamp.

The Originator, acting as the Corrector, will make the necessary revisions to the calculation sheets and/or printouts to address the comments. As each comment is addressed, the Originator/Corrector circles the comment in blue on the checkprint. After completion of this task, the Originator/Corrector will fill in the fourth line of the QC stamp and print a revised, clean calculations set. Both the checkprint and the clean calculations set will be then returned to the QC Reviewer(s).

The QC Reviewer(s), acting as the Verifier(s), will compare the revised calculations set against the original checkprint. If he/she finds that the comment has been properly addressed, the QC Reviewer/Verifier will circle the comment in green on the original checkprint. If he/she finds that a comment is not satisfactorily addressed and/or has new comments, the QC Reviewer/Verifier will mark the revised calculations set, return both sets to the Originator, and the process will be repeated. The newly marked checkprints will be attached to the original checkprint set for record keeping. At the end of this process, all comments on the checkprints will be either circled in green and blue or crossed out in green. After all corrections are acceptably verified by the QC Reviewer/Verifier, he/she will fill in the fifth line of the QC stamp.

At the closing of the QC review process, the Originator will deliver to the PM the checkprint(s) and a clean copy of the submittal calculations. The PM will inspect the checkprint(s) and submittal calculations to verify that the QC process has been adequately followed, all comments were properly addressed, and the calculations meet LADOTD's expectations. After completing this inspection, the PM will fill in the sixth line of the QC stamp and prepare and sign the Certificate of Compliance. The PM will forward the checkprint(s), the submittal calculations, and the signed Certificate of Compliance to the QAM.

As a final check, the QAM will verify that the QC review process has been followed by inspecting the checkprint, the QC stamp, and the submittal calculations set. If he/she is satisfied that the process has been followed, the QAM will also sign the Certificate of Compliance, which will be submitted by the PM to LADOTD with the submittal calculations. If the QAM finds that the process was not adequately followed, he/she will return the checkprint and final calculations set to the PM with instructions for completing the missing elements.

After completion of the QC and QA processes, the PM will archive the checkprint(s), a record copy of the submitted calculations, and a copy of the Certificate of Compliance in the project's QC files for record keeping. An electronic file of these items will also be created and saved in the QC folder of the project's directory.

See Appendix E for the **DESIGN CALCULATIONS CHECKLIST** and also Appendix F for **STRUCTURE DESIGN CERTIFICATION FOR DESIGN CALCULATIONS.**

4.4 60% DESIGN REVIEW

When the structure drawings have progressed to the point where the design of major structure elements are adequately illustrated (at or near 60% completion), the Senior Design Engineer will conduct a 60% Design Review. The purpose of this review is to identify any design flaws that will significantly affect the design before significant work effort is performed to the point where it becomes prohibitive to modify the design. The 60% Design Review is not a detailed check of the design or the drawings, but a check of the general concept and functionality of the structure. This review occurs prior to the final drawing check. Scheduling the 60% Design Review as early in the design process as possible will improve the opportunity to incorporate quality, efficiency, and economics into the design without significant redesign. This review may also identify structural elements that require special design procedures. For unusual or complicated structures, the Senior Design Engineer may organize a review team to participate in this review. The review team may include representatives from the LADOTD bridge group, inspection group, construction, maintenance, and other design disciplines.

The Reviewer will check the design for constructability, maintainability, and inspectability, and that the standard details are correctly applied. The Reviewer will verify that the design matches the project criteria and scope and that all aesthetic and environmental requirements are being incorporated into the structure. The final seismic strategy report will also be reviewed.

The 60% Design Review submittal will typically include the following unchecked drawings:

60% REVIEW PLAN SUBMITTAL CONTENT		
BRIDGE	OVERHEAD SIGN STRUCTURE	OTHER STRUCTURE TYPES
Situation & Layout Soil Data Sheets Pile Details Foundation Plan Abutment Details Bent Details Framing Plan Girder Details Camber Diagrams Diaphragms / Cross-frames Bearings Post-Tensioning and/or Prestressing Details Deck Details Screed Elevations Parapet Details Other Major Element Details	Sign Location Sign Panel Geometry Sign Support Geometry Roadway Typical Sections Foundations	All Details (unchecked)

The 60% Design Review includes the following elements:

1. **Standard Details.** Verify that standard details are used appropriately. Ensure that any nonstandard details are appropriate.
2. **Constructability.** Check the plans for problems that would impact construction. Identify details that would require the Contractor to do the impossible or near impossible. Identify details or construction sequencing that can be modified to improve constructability without impacting the quality or design life of the completed structure.
3. **Inspectability.** Verify that all major components of the completed structure are accessible for inspection.
4. **Maintainability.** Check the major elements of the bridge for built-in problems that would impact bridge maintenance. For instance, verify that the deck drains will not soak the girders or substructure. Identify potential problems that can be avoided.
5. **Compatibility** with the surrounding environment and adjacent project elements, compliance with project aesthetics and environmental requirements, etc.
6. **Significant Design Flaws.** Identify any design flaws that will significantly affect the design and construction.

Each Reviewer fills out and signs the 60% Design Review Checklist and gives it to the Designer who places a copy with the QC documentation and a copy in the design calculations.

See Appendix B for **60% DESIGN REVIEW CHECKLIST.**

4.5 CADD STANDARDS DRAWING CHECK

The Originator of the work has the primary responsibility for compliance with LADOTD Structures CADD Standards. The Originator should not rely upon the checking process to find and correct his/her mistakes.

All completed drawings will be checked to verify compliance with correct drafting practices and LADOTD CADD Standards. This will provide consistency of structures plan drawings and ensure that proper CADD procedures are followed. The CADD Standards Check occurs prior to the drawing QC check. If the drawing does not meet CADD Standards, it will be corrected before proceeding with the drawing QC check.

The CADD Standards Drawing Check is completed by a Senior Design Technician, as assigned by the Senior Design Engineer, to check MicroStation data for compliance to Standards and Procedures. This check is performed on all files that will be released for construction.

The CADD Standards Check will check for the following:

1. All CADD contract drawings are produced in the current MicroStation format according to LADOTD CADD Standards.
2. Proper file naming conventions are followed. File names reflect the nature of their contents.
3. Correct line styles are used and are on the correct levels. Correct text size and type are used.
4. All details are drawn to scale.
5. Reference files (stored as read only) are used, as opposed to the copying of existing data (as appropriate).
6. Correct seed files or libraries of standard features/details (stored as read only) are used. No changes to an existing approved standard may be made without the approval of the Senior Design Engineer.
7. All CADD-produced prints will automatically produce the date, time and filename printed outside the left border.
8. When the CADD Standards Check is complete, fill out and sign the CADD Standards Drawing Review Checklist. The checklist will be kept with the QC documentation for the structure. Also, place a copy in the Design Calculations.

See Appendix C for **CADD STANDARDS CHECKLIST.**

4.6 CHECKING STRUCTURE DRAWINGS

The checking of structure drawings requires a minimum of two individuals: a checker/ verifier, and an originator/back checker. In most cases, the Originators of the drawing are the Designer and the Detailer. The Checker/Verifier is a designer not involved in the original design. Do not begin the final drawing check until the design calculations are complete and checked and the CADD Standards Check is complete.

4.6.1 Completing the Drawing

A drawing is considered complete and ready for checking when the Originator certifies that the content is complete and accurate and that the detailing and CADD work follow all applicable standards. The Originator is responsible for the completeness and accuracy of the drawing, and should not rely on the checking process to correct errors in content and format.

As each drawing is completed in final format and deemed ready for checking, the Originator initials the title block of the drawing, makes a Check Print copy, affixes numbers, and dates the Check Print stamp on the print of each drawing. When all drawings for the structure are complete and stamped, the Designer gives them as a complete package to the Checker.

4.6.2 Checking

The Checker checks the Check Prints of the drawings for completeness, consistency throughout the plan set, technical adequacy and conformance to any applicable standards and format, and performs specific accuracy checks required for that type of drawing. In cases where individual drawings are checked (not as a complete plan set), the Checker must check the completed plan set for completeness and consistency between drawings before the checking is considered to be complete.

The Checker checks each drawing to ensure that it accurately represents the design as described in the corresponding design calculations, and verifies that those calculations have been properly checked. This includes the checking of quantities. The Checker should not proceed with the drawing check unless the calculations have been checked. The Checker documents the checking process by highlighting in **yellow** on the Check Print each part checked that is found to be correct, and marking in **red** on the Check Print any required corrections, additions, or deletions.

NOTE: *Red or yellow should not be used to note comments or instructions. These colors are reserved for the checking process. Write comments or instructions in blue.*

The Checker will check all details on the drawing for adequacy, completeness, correctness, clarity, appropriate proportions, and proper dimensioning. All text and notes will be checked for correctness and applicability. The quantity subtotals and totals will be checked. The completed check print will show that all drawing elements (details, text, notes, etc.), without exception, have been checked by being marked either in yellow or red. The Checker will also compare the details and information on each sheet with the same or similar information on other sheets to ensure that there are no conflicts and that all elements fit together properly.

When the checking is complete, the Checker signs and dates the Check Print stamp and returns it to the Originator.

NOTE: *In the case where no corrections, additions or deletions are found, there is no need for back checking or further signatures on the Check Print stamp. The Check Print and original drawing, signed in the appropriate checked block, is returned to the Originator for placement in the project file.*

4.6.3 Back Checking

The Originator (acting as Back Checker) reviews the Checker's marks on the Check Print and personally makes or supervises the update of the Drawing Original. To document the back checking process, the Originator:

a. Check marks in **green** each of the Checker's red-marked changes if in agreement that the Original should be changed, and adds in **green**, with the concurrence of the Checker, any additional changes not picked up by the Checker.

b. Crosses out and marks OK in **green** each of the Checker's red-marked changes that both the Originator and the Checker agree should not be changed. The Back Checker should not obliterate the Checker's marks.

NOTE: The Back Checker and Checker should resolve differences encountered during the checking process so they are not repeated over and over again. If resolution cannot be achieved by the two individuals, the Senior Design Engineer should be requested to resolve the differences.

c. Signs and dates the Check Print stamp.

4.6.4 Correcting the Drawing Original

The Drawing Original is corrected by the Detailer under the supervision of the Designer (Originator). As Check Print corrections are made to the Drawing Original, the person making the changes circles in **green** each correction as incorporated. When all corrections are complete, the person correcting the drawing signs and dates the Check Print stamp.

4.6.5 Verifying the Corrected Check Print

The Verifier (usually the Checker) verifies the corrected drawing against the Check Print to assure that the agreed-upon corrections have been incorporated without error.

If the corrections are not made or are made incorrectly, the Check Print with penciled instructions is returned to the corrector. The Verifier marks in **yellow** each green-circled item after reviewing its incorporation on the Original Drawing. At the conclusion of the checking process, everything on the drawing should be marked in yellow.

The Verifier signs and dates the Check Print stamp, as applicable.

After the corrections have been verified, the Checker initials the "Checked by" block on the title block of the Drawing Original.

At the completion of the QC Review, all check boxes in the drawing title block should be initialed. The Design and Detailing Progress form will also be completely filled out (hand initialed) at this time.

To complete the checking process, the Designer of Record fills out the project information on the Design Certification for Design Plans form and seals and signs the Design Certification section. The Checker seals and signs the Design QC Certification section.

4.6.6 Disposition of the Checked Drawing

The completed original (or CADD file) is placed under the control of the Senior Design Engineer to prevent further changes to the drawing that could invalidate the checking which has been done.

4.6.7 Additional Changes or Corrections

When a change is made to a checked drawing, a new Check Print must be made to check the area that has been changed. The Check Print is stamped and labeled Check Print 2, 3, 4, etc., as applicable, and attached to the previous check print(s). The checking follows the same procedure as that of the original Check Print, except that only the portions that changed are marked up as having been checked.

4.6.8 Preparing Technical Special Provision

Specifications define work items that are not and/or cannot be defined completely in the plans. For the purpose of this document, the term *specification* refers to a *Special Provision*.

A qualified engineer/designer composes and drafts the specification under the direction of the Senior Design Engineer. The Originator verifies that the new special provision will not duplicate or inadvertently supersede other specifications.

Complete all specifications and special provisions prior to the PS&E review to allow other design and construction disciplines to review the changes or additions prior to release for construction.

4.6.9 Engineer's Estimate

Ensure that the Engineer's Estimate is complete and accurate by doing the following:

1. List each bid item and quantity exactly as shown in the plans.
2. Match the bid item numbers and names with the applicable specifications and plan quantities.
3. When a specification defines a new bid item, add it to the project estimate and to the Measurement and Payment specification.
4. Provide the quantity and unit price for each item.
5. Verify that the unit costs are reasonable for the bridge type and location.

4.6.10 Measurement and Payment Specification

Check the Measurement and Payment document for correctness and completeness of structure items. Add additional items and information as necessary.

4.7 QC FOR ELECTRONIC DELIVERY

For the required electronic delivery process to be implemented, SDR will produce electronic deliverables in conformance with the LADOTD Software and Deliverable Standards for Electronic Plans document. The SDR team will follow LADOTD procedures and requirements in the Professionals Electronic Delivery System for complete electronic delivery (ED) of the project. SDR will upload (or check in) electronic deliverables directly into the LADOTD ProjectWise repository at each plan delivery milestone.

4.8 RESOLUTION OF TECHNICAL DIFFERENCES

During the QC review process; there may be differences in opinions between the QC Reviewer and the Originator on whether a comment is valid or how it should be addressed. If the QC Reviewer does not agree with the way his/her comment was addressed, he/she will first discuss the matter with the Originator. If the difference in opinion cannot be resolved through the discussion, the QC Reviewer will inform the PM on the issue, who will then seek the assistance of a senior technical expert to resolve the difference. If necessary, the issue will be taken to the Department Manager and/or Principal-in-Charge for resolution.

See Appendix G for **STRUCTURES COMMENTS AND RESOLUTION SHEET**.

5.0 DOCUMENTATION OF COMMENTS/RESPONSES AND QUALITY

5.1 DOCUMENTATION OF COMMENTS AND RESPONSES

All comments made by external reviewers will be recorded either by memos, letters or marked plans received from the reviewers. In the event that comments are received through meetings with reviewers, minutes summarizing the comments received will be prepared. Comments received by a project team member other than the PM will be forwarded to the PM. Where it is necessary to discuss and clarify the comments with the reviewer(s) prior to responding, the PM will arrange for the meeting.

The Project Engineers/Planners/Scientists, who are responsible for the deliverable on which comments were received, will prepare responses to the comments. The responses will be written in a memorandum format and, at minimum, will include the deliverable's review date, the reviewer's name, the responder's name, the reviewer's comments and the responses to the comments. The PM will review all comments and responses before submitting them to the LADOTD. The comments/responses memorandum is considered a project deliverable and will undergo the document QC and QA review processes. The PM will be responsible for the submittal of the comments/responses memorandum to the appropriate reviewing entity of the LADOTD.

Electronic Review Comments (ERC) will be responded to via the internet using the format integrated into the ERC system and responded to in a manner similar to that described above. The ERC review comments and responses will be posted on the LADOTD internet address and will be checked monthly following each phase submittal.

After submittal of the comments/responses memorandum to the LADOTD and verification by the PM that the responses are acceptable, the Project Engineers/Planners/Scientists responsible for the deliverable will make necessary revisions in accordance with the responses. Each comment/response on the memorandum will be initialed by the appropriate Project Engineer/Planner/Scientist, indicating that they have verified that the comment response has been implemented.

5.2 QUALITY ASSURANCE RECORDS

The PM will be responsible for maintaining copies of the submitted comments/responses memorandums, the QC review checkprints and forms of the memorandums, and the initialed memorandums in the project files.

6.0 CONTROL OF SUBCONSULTANT QC PROCESS

Coordination will be maintained with all subconsultants throughout the project. Attention will be placed on critical path activities involving subconsultants. The subconsultants will be provided with the information they need in a timely manner to help them accomplish their tasks. Regular meetings will take place to facilitate this coordination and give them direction on the expected deliverables.

As part of their QC plans, the subconsultants will conduct quality reviews of their submittals to SDR. The subconsultants will provide evidence of their QC reviews to SDR, which the PM will archive within the project's QC files. Prior to the use of each subconsultant's deliverable or its incorporation into other project work, and/or its submission to LADOTD, the PM will check this work for technical adequacy, consistency with the Scope of Services, and for meeting the project's quality requirements. This review, however, will not substitute for the QC and QA review process that each subconsultant must implement in accordance with their QC plans.

7.0 QUALITY RECORDS AND AUDITS

7.1 QUALITY RECORDS

The PM is responsible for maintaining QC and QA records for all project deliverables. At a minimum, the following items will be archived in the project's files for each submitted deliverable:

- The QC review checkprint(s); the checkprints can be in various formats:
  - Paper format with hand written markups.
  - Electronic .pdf files produced from scanning paper copies and saved in the project's directory (drawings or documents).
  - Electronic Microsoft Word file using the track changes feature and saved in the project's directory (documents).
- A record hard copy of the submitted deliverable; record copies will be stamped as such.
- The QC form (for documents only).
- The Certificate of Compliance.

7.2 INTERNAL QUALITY AUDITS

In accordance with our QC/QA policy, SDR conducts annual quality audits for a sampling of projects at each office location. The project quality audits are conducted by certified internal auditors who are independent of the projects.

Appendix A

STRUCTURES SITUATION & LAYOUT DESIGN APPROVAL

SDR Engineering Consultants, Inc.

STRUCTURES SITUATION & LAYOUT DESIGN APPROVAL

Project Number: _____ Project Name: _____

PIN: _____ Structure No.: _____ Structure Type: _____

Structure Description: _____

ATTACHED ITEMS:

The following items are completed and attached:

- ☐ Situation & Layout sheet (s)
- ☐ Design Plan Design Quality Certification (completed for S& L plan sheets)
- ☐ Bridge Type Selection Report
- ☐ Preliminary Seismic Strategy Report
- ☐ List of Computer Software to be used in Final Design
- ☐ Design Criteria
- ☐ Design Exceptions Approval Form (if applicable)

LEAD STRUCTURAL DESIGNER

I certify that the attached Situation & Layout plans for the specified structure are complete, meet all applicable design requirements, and are ready for approval.

Signature: _____ Date: _____

Design Firm: _____

APPROVAL

I approve the submitted Situation & Layout plans for the specified bridge.

Date: _____

Signature: _____

Note: Approval of Situation & Layout plans is required prior to beginning the final design. Approval requires the submittal of all items listed in the Attached Items box.

Appendix B

60% DESIGN REVIEW CHECKLIST

SDR Engineering Consultants, Inc.

60% DESIGN REVIEW CHECKLIST

Project Number: Project Name:

Structure No.: Structure Type:

Structure Description:

Inc.	N/A	TASK	PHASE
☐	☐	Design Criteria Summary	
☐	☐	Consultant Submittal QC/QA Certification	
☐	☐	Design Calculations	
☐	☐	Flexural Design	
☐	☐	Shear Design	
☐	☐	Bearing Design	
☐	☐	Development of Special Details	
☐	☐	General Notes	
☐	☐	Girder Properties and Strand Pattern Template	
☐	☐	Girder Details	
☐	☐	Girder End Details	
☐	☐	Build-Up and Deflection Diagrams	
☐	☐	Miscellaneous Details	
☐	☐	Bearing Details	
☐	☐	Transportation and Handling Guidelines	
☐	☐	Girder Span Details	
☐	☐	Typical Span Details	
☐	☐	Data Tables	
☐	☐	Girder Data Table	
☐	☐	Build-Up and Deflection Data Sheet	

Reviewer's Signature: _____ Date: _____

Appendix C

CADD STANDARDS CHECKLIST

SDR Engineering Consultants, Inc.

CADD STANDARDS CHECKLIST

Project Number: _____ Project Name: _____

PIN: _____ Structure No.: _____ Structure Type: _____

Structure Description: _____

Plan Sheet Number: _____ Plan Sheet Name: _____

Filename: _____ Directory: _____

AT A MINIMUM, CHECK THE FOLLOWING:

Drawing Organization:

- ☐ All CADD contract drawing are produced in MicroStation format according to LADOTD CADD Standards
- ☐ File directory structure matches CADD Standards requirements
- ☐ File names comply with CADD Standards requirements. File names reflect the nature of their contents
- ☐ Reference files (stored as read only) are used instead of copying existing data into file
- ☐ Drawings/Details are referenced properly
- ☐ Correct seed files or libraries of standard details (stored as read only) are used
- ☐ Any changes to seed files are approved by the Senior Design Engineer
- ☐ All unnecessary (temporary) files are deleted from all directories

Drawing Content:

- ☐ Drawing is flattened (Drawn 2D)
- ☐ All details are drawn to scale
- ☐ Correct line styles are used and are on the correct levels
- ☐ Text is correct size and type
- ☐ All CADD-produced prints automatically produce the date, time, and filename printed
- ☐ Drawing compiles with LADOTD Structures Division Drafting Standards
- ☐ All dimensions are auto-dimensioned & auto-annotation is used as appropriate
- ☐ Use of tags and file referencing is used appropriately

REVIEWER

Signature: _____ Date: _____

Note: Record any comments on the Structures Review Comment Form.

Appendix D

FINAL DESIGN QA REVIEW CHECKLIST

SDR ENGINEERING

FINAL DESIGN QA REVIEW CHECKLIST

Project Number: _____ Project Name: _____

PIN: _____ Structure No.: _____ Structure Type: _____

Structure Description: _____

ATTACHED ITEMS:

The following items are completed and attached:

- ☐ 100% Structure Plan Set
- ☐ Special Provisions
- ☐ Engineer's Estimate
- ☐ Electronic Design Files (MicroStation)
- ☐ Completed Design Certifications Forms
- ☐ Final Bridge Design Calculations
- ☐ Independent Review Documentation (when required)
- ☐ 60% Design Review Checklist
- ☐ Design Criteria Summary
- ☐ Approved Design Exceptions
- ☐ Computer Design Software List
- ☐ Final Seismic Strategy Report
- ☐ Bridge Load Rating Report
- ☐ Geotechnical Report
- ☐ Previous Review Comments With Response & Dispositions

AT A MINIMUM, CHECK THE FOLLOWING:

Completeness:

- ☐ Plans are complete, sealed and signed by Louisiana PE
- ☐ Special Provisions included for all work/bid items
- ☐ Engineer's Estimate complete
- ☐ Bid costs are reasonable
- ☐ Calculations are complete and organized
- ☐ Previous comments addressed
- ☐ Design Approvals
- ☐ Load Rating complete and summarized properly
- ☐ Design Checklists complete & included with calculations

General:

- ☐ Design Meets Design Intent
- ☐ Seismic Strategy implemented appropriately
- ☐ Design software acceptable
- ☐ Detailing matches standards
- ☐ Standard Details are used appropriately
- ☐ Plan Quantities match Engineer's Estimate
- ☐ Compiles with Aesthetic requirements
- ☐ Significant design issues noted (Use comment form)

Constructability:

- ☐ Design accommodates constructability
- ☐ Horizontal and Vertical clearances accommodates constructability
- ☐ Constructible details are used
- ☐ Construction sequencing is adequately addressed
- ☐ Shoring/Temporary Supports are adequately addressed
- ☐ Assess need for Contractor to submit Erection Plan

Maintainability:

- ☐ Appropriate materials used
- ☐ Maintenance-friendly details used
- ☐ Maintenance access provided as necessary

Inspectability:

- ☐ Inspection access is provided to all necessary components (bearings, expansion joints, closed sections, abutment backwalls, etc.)
- ☐ Inspection access meets safety requirements

Security:

- ☐ Public access to sensitive areas is prevented

REVIEWER

The specified bridge design documents are complete and recommended for approval.

Signature: _____ Date: _____

Note: Record any comments on the Structures Review Comment Form.

Appendix E

DESIGN CALCULATIONS CHECKLIST

SDR Engineering Consultants, Inc.

DESIGN CALCULATIONS CHECKLIST

Project Number: _____ Project Name: _____

PIN: _____ Structure No.: _____ Structure Type: _____

Structure Description: _____

INCLUDE THE FOLLOWING:

Organization:

- ☐ Title page with Structure Drawing Number, Structure Name, Design Calculations title, Designer's name
- ☐ Table of Contents
- ☐ Uses standard Structures Division letter-sized calculation sheets for handwritten calculations and sketches
- ☐ Uses standard letter-sized paper with standard Structures heading for computer generated calculations
- ☐ All pages numbered with numbering scheme that covers entire set of calculations
- ☐ Identifies appropriate code references in right hand column
- ☐ Computer documentation includes: name of program, vendor, version number, and release date
- ☐ Calculations cross-reference computer output as appropriate
- ☐ Stored in three-ring binder
- ☐ Check calculations stored in separate three-ring binder

Content:

- ☐ Complete Final Calculations
- ☐ All Design Certifications (place at beginning of calculations)
- ☐ All Design Approvals
- ☐ Design Criteria Summary
- ☐ Design Criteria Exceptions
- ☐ List of Computer Programs and Spreadsheets
- ☐ Bridge Type Selection Report
- ☐ Seismic Strategy Report (includes calculations)
- ☐ Load Rating Report
- ☐ Alternate Design Quality Plan Approval
- ☐ Completed Design Checklists
- ☐ Review Comments with Responses and Dispositions

REVIEWER

Signature: _____ Date: _____

Note: Record any comments on the Structures Review Comment Form.

Appendix F

STRUCTURE DESIGN CERTIFICATION FOR DESIGN CALCULATIONS

6/30/11 FORM SQ-1

SDR STRUCTURE DESIGN CERTIFICATION FOR DESIGN CALCULATIONS

Project Number: _____ Project Name: _____

PIN: _____ Structure Number: _____ Structure Type: _____

Structure Description: _____

Type: ☐ Design Calculations ☐ Design / Field Change

Certification For: ☐ Complete Design ☐ Partial Design. Specify: _____

Structures Quality Plan: ☐ SDR Structures QP ☐ Modified SDR Structures QP
☐ Approved Alternate

DESIGN CERTIFICATION (Designer of Record)

By stamping and signing this section, I certify that the design documents specified comply with the requirements of the Project Design Criteria, including applicable AASHTO design specifications, and the Structures Design Quality Plan specified.

Print Name: _____ Date: _____

Design Firm: _____

PE Stamp (signed & dated)

DESIGN QC CERTIFICATION

By stamping and signing this section, I certify that the design calculations have been checked in accordance with the requirements of the Structures Design Quality Plan specified.

Print Name: _____ Date: _____

Design Firm: _____

PE Stamp (signed & dated)

DESIGN QA CERTIFICATION

By stamping and signing this section, I certify that I have verified that the QC for the design calculations specified above has been completed in accordance with the requirements of the Structures Design Quality Plan specified.

Print Name: _____ Date: _____

Design Firm: _____

PE Stamp (signed & dated)

Notes: *1. Design Certification is required for permanent structures of all types, including Bridge, Box Culvert, Multi-Plate Arch, Retaining Walls, Overhead Sign Structures, and Traffic, Signal, and Camera poles.*
2. Attach signed approval forms for any approved modifications to the Structures Design Quality Plan.
3. Maintain all QC/QA records for a minimum of 3 years after project completion.

Appendix G

STRUCTURES COMMENTS AND RESOLUTION SHEET

PAGE 1 OF 1

SDR STRUCTURES COMMENTS AND RESOLUTION SHEET

CODES:
A. ACCEPT COMMENT—WILL BE CORRECTED, ADDED, OR CLARIFIED.
B. DESIGNER WILL EVALUATE.
C. DELETE COMMENT
D. DEPARTMENT TO EVALUATE.

DOCUMENT CONTROL NUMBER: | REVIEW TYPE: | REVIEWER(S): | DATE:

DESCRIPTION: | DESIGNER: | DISCIPLINE: STRUCTURES | CRM:

ITEM NO.	DWG. NO.[1]	COMMENTS	CODE[2]	RESPONSE[2]	FINAL DISPOSITION[3]
1					

(1) Indicate drawing no./page no. or use "G" for general comment.
(2) To be filled out by Designer.
(3) To be determined in subsequent comment resolution meeting/discussion (list date).

Note: The intended use of this form is to provide a means for the Department to comment on submitted structural design plans and calculations. All comments must be satisfactorily resolved and incorporated into the contract documents before the design can be approved.

QUALITY PLAN\STRUCTURES COMMENT FORM_ 4/04/11

Appendix H

SAMPLE CERTIFICATIONS

STRUCTURES DESIGN CERTIFICATION FOR DESIGN PLANS

6/30/11 FORM SQ-2

SDR STRUCTURE DESIGN CERTIFICATION FOR DESIGN PLANS

Project Number: _____ Project Name: _____

PIN: _____ Structure Number: _____ Structure Type: _____

Structure Description: _____

Submittal Type: ☐ S&L ☐ Final Design ☐ Design / Field Change ☐ As-Builts

Certification For: ☐ Complete Design ☐ Partial Design. Specify: _____

Structures Quality Plan: ☐ SDR Structures QP ☐ Modified SDR Structures QP
☐ Approved Alternate

DESIGN CERTIFICATION (Designer of Record)

By stamping and signing this section, I certify that the design plans specified above comply with the requirements of the LADOTD Structures Design & Detailing Criteria.

Print Name: _____ Date: _____

Design Firm: _____

PE Stamp (signed & dated)

DESIGN QC CERTIFICATION

By stamping and signing this section, I certify that the design documents specified have been checked in accordance with the requirements of the Structures Design Quality Plan specified.

Print Name: _____ Date: _____

Design Firm: _____

PE Stamp (signed & dated)

DESIGN QA CERTIFICATION

By stamping and signing this section, I certify that I have verified that the QC for the design documents specified above has been completed in accordance with the requirements of the Structures Design Quality Plan specified.

Print Name: _____ Date: _____

Design Firm: _____

PE Stamp (signed & dated)

CADD STANDARDS CERTIFICATION

By signing this section, I certify that the structure plans specified above comply with the UDOT Structures CADD Standards.

Signature: _____ Design Firm: _____ Date: _____

Notes: (1) Design Certification is required for permanent structures of all types, including Bridge, Box Culvert, Multi-Plate Arch, Retaining Walls, Overhead Sign Structures, and Traffic, Signal, and Camera poles. (2) Attach signed approval forms for any approved modifications to the Structures Design Quality Plan. (3) Maintain all QC/QA records for a minimum of 3 years after project completion.

STRUCTURES FINAL DESIGN APPROVAL

6/30/10 FORM SA-3

SDR STRUCTURES
FINAL DESIGN APPROVAL

Project Number: _____ Project Name: _____

PIN: _____ Structure Number: _____ Structure Type: _____

Structure Description: _____

ATTACHED ITEMS

The following items are completed and attached:

- ☐ Completed Structure Plans (Signed & Sealed)
- ☐ Specifications (Special Provisions)
- ☐ Engineer's Estimate
- ☐ Final QA Review Checklist
- ☐ All Design Certification Forms (for Final Design)
- ☐ Design Criteria Summary
- ☐ Approved Design Exceptions
- ☐ Computer Design Software List
- ☐ Final Seismic Strategy Report
- ☐ Geotechnical Report
- ☐ Bridge Load Rating Report
- ☐ Structure Design Calculations*
- ☐ Independent Review Checklist, Letter Report and Calculations (when required)
- ☐ Previous Review Comments With Responses & Final Dispositions
- ☐ Any other final design documents and reports, as appropriate

LEAD STRUCTURAL DESIGNER

I certify that the attached Final Design Plans, Specifications and Estimate for the specified structure are complete, meet all applicable design requirements, and are ready for approval.

Signature: _____ Date _____

Design Firm: _____

APPROVAL

The submitted Final Design Plans, Specifications and Estimate for the specified structure are Approved for Construction.

Signature: _____ Date: _____

Note: Approval of Final Design plans is required prior to advertising the project. Approval requires the submittal of all items listed in the Attached Items box. *Design calculations are required for all structure designs.

CERTIFICATE OF COMPLIANCE

CERTIFICATE OF COMPLIANCE

TO: LADOTD Project Manager
Project Manager
LADOTD

DATE: Month XX, Year XXXX

RE: QUALITY ASSURANCE REVIEW

PROJECT IDENTIFIER #:	**XXXXXXXXXXXXXXXX**
PROJECT NAME:	**XXXXXXXXXXXXXXXX**
COUNTY:	**XXXXXXXXXXXXXXXX**
SUBMITTED DOCUMENT(S):	**XXXXXXXXXXXXXXXX**
CONSULTANT:	**SDR Engineering Consultants, Inc.**
SUBCONSULTANTS :	**XXXXXXXXXXXXXXXX**

This is to certify that I have monitored the Quality Control (QC) process and I have completed and documented the required Quality Assurance (QA) review during production of the above noted submittal. Draft writings, associated production and review check prints, and quality control documents for the referenced elements (including those of the sub-consultants) have been evaluated, initialed, and are available in our project files for review upon request.

This certificate is issued to document our reviews and to confirm that "due or ordinary care" processes were followed in producing the submittal documents. In our professional opinions, these documents meet the standards and requirements and are ready for your review. These requirements include those stipulated in the project Scope of Services performance criteria and the LADOTD policies, standards and preferences.

SIGNED: _____ Date: _____
Name, P.E.
SDR Project Manager

SIGNED: _____ Date: _____
Name, P.E.
Quality Assurance Manager

APPENDIX I

QC/QA FORMS FROM LADOTD BDEM

(To be included in submittals)

(LADOTD BDEM Chapter 3 - Appendix A)
Design Criteria Checklist

Design criteria for each project shall include, but not limited to, the following sections:

- **Cover sheet**

The following information must be included on the cover sheet:

— LADOTD project number
— Project name
— Revision date
— The Supervisor or Team Leader's signature and date

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

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

- **Design Assumptions and Design Exceptions**

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

- **General Information**

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

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

- **Hydraulic Design Criteria**

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

- **Design Factors**

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

- **Design Loads**

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

- **Limit States**

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

- **Bridge Barrier Railing**

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

- **Guardrail**

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

- **Approach Slab**

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

- **Deck and Deck Drainage**

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

- **Bearing**

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

- **Joint**

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

- **Superstructure**

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

- **Substructure**

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

- **Piles and Drilled Shafts**

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

- **Geotechnical Design**

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

- **Mechanical Design**

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

- **Electrical/Lighting Design**

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

- **As-Designed Bridge Rating Criteria**

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

- **Software**

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

(LADOTD BDEM Chapter 3 - Appendix B)
Final Calculation Book Checklist

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

__ Cover Sheet

The following information must be included on the cover sheet:

- LADOTD project number
- Project name
- The title of "Final Calculation Book"
- The EOR's seal with signature and date

— **Final Calculation Book Check List**
— **QC/QA Certifications**
— **Peer Review Resolution Agreement (if peer review is performed)**
— **Design Criteria**
— **Final Hydraulic Analysis Report from Hydraulic Engineer**
— **Final Geotechnical Analysis Report from Geotechnical Engineer**
— **Superstructure Design Calculations**
— **Substructure Design Calculations**
— **Quantity Calculations**
— **Special Provisions/NS-Items**
— **Construction Cost Estimate**
— **As-Designed Rating Report**
— **List of All Final Electronic Design Files and File Locations (ProjectWise directory name)**

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

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

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

(LADOTD BDEM Chapter 3 - Appendix D)
QC/QA Certification

Project No.:

Project Name:

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

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

(LADOTD BDEM Chapter 3 Appendix I)
Consultant Submittal QC/QA Certification

Project No.:
Project Name:

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

_____
Submittal Description

_____ _____ _____
Supervisor or Team Leader Name Signature Date