




CONTRACT FOR OFF SYSTEM HIGHWAY BRIDGE PROGRAM | SOUTH TIGER BEND ROAD AND EAST ACHORD ROAD BRIDGES

Contract No. 4400024589

State Project Number H.014990.5

August 2, 2022

SECTION 01-13




Bayou Gardens Blvd. over St. Louis Bayou
Houma, LA
Engineer of Record: Dennis Hymel, Jr., PE

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 SOUTH TIGER BEND ROAD AND EAST ACHORD ROAD BRIDGES
2. Contract number(s) as shown in the advertisement	4400024589
3. State Project Number(s), if shown in the advertisement	H.014990.5
4. Prime consultant name (as registered with the Louisiana Secretary of State where such registration is required by law)	Crescent Engineering & Mapping, LLC 
5. Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	Engineering: EF-0007140 Surveying: VF-0000871
6. Prime consultant mailing address	PO Box 370, Vacherie, LA 70090
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	1815 LA 18, Vacherie, LA 70090
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Dennis M. Hymel, Jr., PE, President/Engineering Manager 225.329.1742 Dennis.Hymel@crescentengla.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Dennis M. Hymel, Jr., PE, President/Engineering Manager 225.329.1742 Dennis.Hymel@crescentengla.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.

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.

Signature (shall be the same person as #9):



Date: August 2, 2022

Firm(s):

Firm(s)' %:

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	Crescent	ELOS	Each Discipline must total 100%
Survey	18%	100%		100%
Road (Incl. Hydraulics)	42%	100%		100%
Bridge	32%	100%		100%
Environmental	8%		100%	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%	92%	8%	
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*The past performance evaluation disciplines are: Road, Bridge, Traffic, CE&I/OV, Geotech, Survey, Environmental, Data Collection, Planning, Right-of-Way, CPM, ITS, Appraiser and Other.

If sub-consultants are used, the prime consultant must perform greater than 50% of the work for the overall contract.

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)
Crescent Engineering & Mapping, LLC 	Supervisor Engineer	1	1
	Engineer	1	2
	Sr. Technician	1	1
	Surveyor	1	1
	Technician	1	2
ELOS Environmental, LLC 	Biologist/Wetlands	2	10
	Environmental Professional	2	11
	Environmental Manager	1	2
	GIS Analyst	1	6

A photograph of a concrete bridge spanning a body of water. The bridge has multiple concrete piers supporting the deck. The water is calm, reflecting the bridge and the surrounding trees. In the foreground, there is a rocky shoreline. In the background, there are dense trees and a small building.

SECTION 14-16

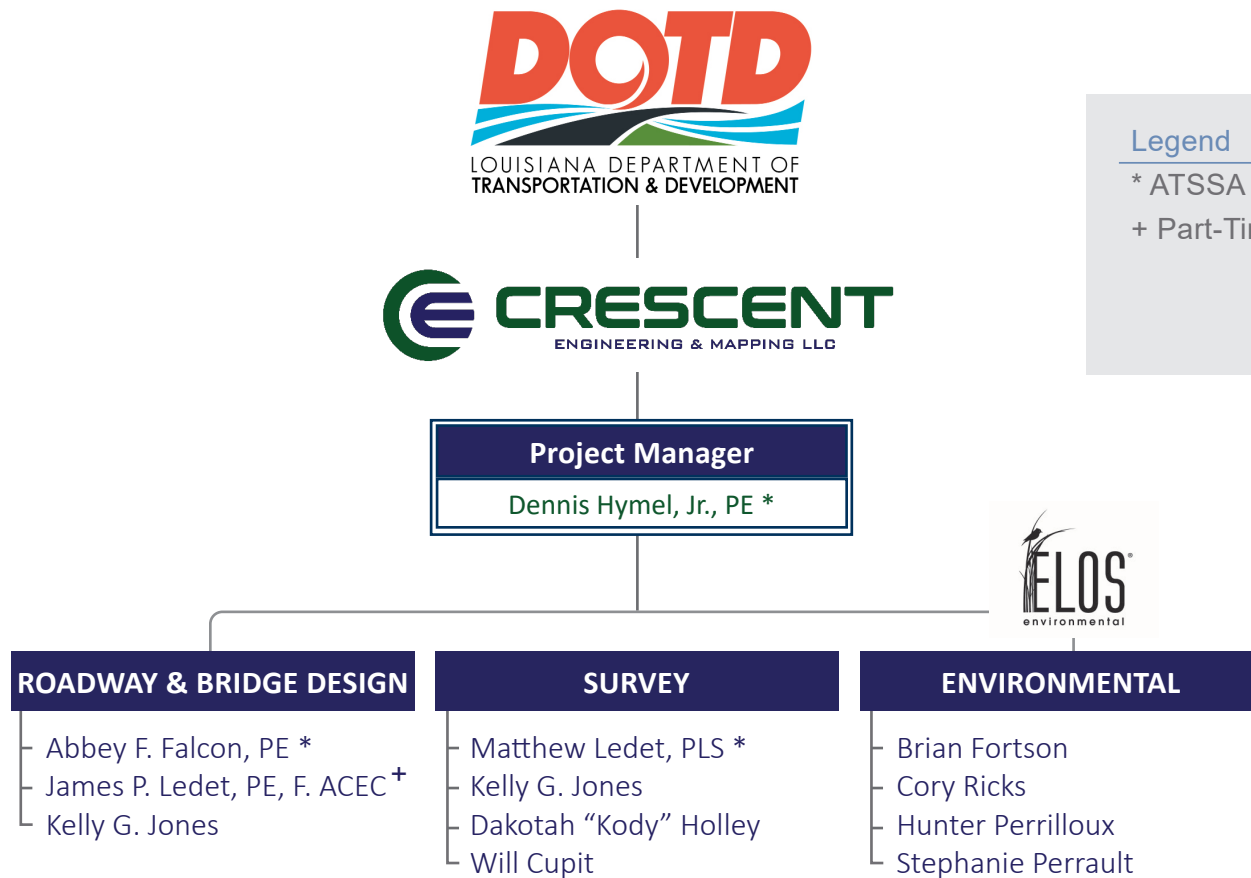
S.P. No. H.011806

Gracie Lane Bridge over Bayou Sorrel

Bayou Sorrel, LA



Engineer of Record: Dennis Hymel, Jr., PE

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 (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license / certification & number	State of license	License / certification expiration date
1	Dennis Hymel Jr., PE		Civil Engineer PE-38172	LA	09/30/2023
2	Dennis Hymel Jr., PE		Civil Engineer PE-38172	LA	09/30/2023
3	Dennis Hymel Jr., PE		Civil Engineer PE-38172	LA	09/30/2023
4	Matthew J. Ledet, PLS		LA Registered Surveyor PLS - 5104	LA	09/30/2022
5	Cory Ricks		5 years' wetland delineation		
	Brian Fortson		5 years' wetland delineation		
	Hunter Perrilloux		5 years' wetland delineation		

16. Staff Experience:

Firm employed by: **Crescent Engineering & Mapping, LLC**



 <div>Dennis M. Hymel, Jr., PE Engineering Manager</div>		Years of relevant experience with this employer	1
		Years of relevant experience with other employer(s)	17
Degree(s) / Years / Specialization		Bachelor of Science/2009/Civil Engineering	
Active registration number / state / expiration date		38172 / LA / 09/30/2023	
Year registered	2013	Discipline	PE/Civil Engineering
Contract role(s) / brief description of responsibilities		Project Manager/EOR. Dennis will serve as the Project Manager, oversee road and bridge design and plan production. His 18 years' of experience meet MPRs #1-#3.	
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the time specified in the applicable MPR(s).		
05/20 – 08/21 (previous employer)	Contract 44-17598 – Rural Bridge Replacement Initiative Phase I (47 bridge structures), Districts 04, 05, 08, 58 (LADOTD) – Project Manager/Engineer of Record. Performed QC review of topographic surveys, served as the EOR for roadway, geometrics, and bridge design elements including hydraulics analysis, scour, horizontal/vertical alignments, Level 1/2 TMP's, bridge design & LRFR (non-standard structures) including RC Slab Span and LG-25 girders, oversight of geotechnical services and environmental, SOV's, CE document preparation and permit applications for the spot replacement of 47 bridge structures in northern Louisiana containing nine (9) Off-System Bridges.		
03/18 – 04/21 (previous employer)	S.P. No. H.013080, McLemore Road/Bee Bayou, Richland Parish, LA (LADOTD) – Project Manager/Engineer of Record – Responsible for all roadway and bridge design including geometrics, bridge TS&L, SOV's, hydraulics, foundation layout, roadway and bridge plan production for the 6-span Off-System bridge replacement near Rayville, LA.		
03/22 – Ongoing	Tangipahoa Parish Off-System Bridge Replacement (4 Sites), Tangipahoa Parish (Tangipahoa Parish Government) – Project Manager/Lead Engineer. Responsible for all roadway horizontal/vertical alignments, roadway and bridge hydraulic analysis, retaining wall design, LRFD bridge design, oversight of plan preparation, geotechnical and environmental services for the replacement of four (4) Off-System Bridge replacements with RC Slab Span sites throughout Tangipahoa Parish on E. Lewiston Rd., Easley Rd. and Old Genessee Rd. (2) sites.		
05/15 – 03/18 (previous employer)	S.P. No. H.011788, Oak St. Bridge/Poydras Bayou, West Baton Rouge Parish, LA (LADOTD) – Project Manager & Engineer of Record. Responsible for topographic surveys, roadway and bridge design, special LRFD bent and span design to accommodate hydraulic conditions, 25' slab spans, LRFR, hydraulic analyses, steel bulkhead design and detailing, preliminary and final plans for the 3-span Off-System Bridge replacement.		
06/15 – 04/18 (previous employer)	S.P. No. H.011806, Gracie Lane Bridge, Iberville Parish, LA (LADOTD) – Project Manager/Engineer of Record – Responsible for all roadway and bridge design including geometrics, bridge TS&L, hydraulics, foundation layout, SOV's, guardrail layout, roadway and bridge plan production for the 7-span Off-System bridge replacement project.		

16. Staff Experience:

03/15 – 01/17 (previous employer)	S.P. No. H.011767, Bayou Crab Road Bridge, Assumption Parish, LA (LADOTD) – Project Manager/Engineer of Record – Responsible for all roadway and bridge design including geometrics, bridge TS&L, hydraulics, foundation layout, special bridge spans (25'), LRFR, roadway and bridge plan production for the 3-span Off-System bridge replacement project.
04/13 – 03/16 (previous employer)	S.P. No. H.010559, Bayou Mercier Road/Berard Canal Bayou, St. Martin Parish, LA (LADOTD) – Project Manager/Engineer of Record – Responsible for all roadway and bridge design including geometrics, bridge TS&L, SOV's, hydraulics, foundation layout, Quad-Beam Superstructure and Substructure, Bearing design, LRFR, roadway and bridge plan production for the 200' long, 5-span Quad Beam Off-System bridge replacement project near Catahoula, LA.
03/15 – 08/20 (previous employer)	S.P. No. H.010867, Jude & Placide Road Bridges, Vermilion Parish, LA (LADOTD) – Project Manager/Engineer of Record – Responsible for all roadway and bridge design including geometrics, bridge TS&L, hydraulics, SOV's, foundation layout, special guard rails, special bridge spans and bents (25'), LRFR, roadway and bridge plan production for the replacement of two (2) Off-System Bridges , 1 @ 50'; 1 @ 60' near Erath and Maurice, LA.
03/13 – 03/15 (previous employer)	S.P. No. H.010598, Derrick Road Bridge, Iberville Parish, LA (LADOTD) – Project Manager/Engineer of Record – Responsible for all roadway and bridge design including geometrics, bridge TS&L, SOV's, hydraulics, foundation layout, special bridge bents, LRFR, roadway and bridge plan production for the 3-span Off-System bridge replacement project.
03/13 – 03/18 (previous employer)	S.P. No. H.011524, Katie Ln. & Leo Morrow Rd. Bridges, Avoyelles Parish, LA (LADOTD) – Project Manager/Engineer of Record – Responsible for all roadway and bridge design including geometrics, bridge TS&L, SOV's, hydraulics, foundation layout, special bridge bents & spans, LRFR, roadway and bridge plan production for the replacement of two (2) Off-System Bridges near Plaquemine, LA.
09/16 – 08/21 (previous employer)	S.P. No. H.011152, I-12 Widening (US 190 to LA 59), St. Tammany Parish, LA (LADOTD) – Project Manager/Engineer of Record. Responsible for all roadway design including H&V geometrics and drainage, prepared Level 4 TMP and construction phasing plans; Quality Control & bridge design engineer for the widening of Pontchatolawa Creek and Tammany Trace bridges including AASHTO Type III prestressed girders with varying skewed, bobtail spans and LRFR. Performed Construction Support Services. Design completed under an accelerated project schedule .
01/12 – 08/15 (previous employer)	S.P. No. 713-29-0103, Tiger Drive Bridge over Bayou Lafourche, Lafourche Parish, LA (LADOTD) – Staff Engineer. Performed roadway and bridge design including special 23' spans for the three-lane, 210' long Off-System Bridge over Bayou Lafourche, LRFR of special bents and spans, prepared bridge plans and details.
09/18 – 08/21 (previous employer)	S.P. No. H.001344, US 190: LA 437 to US 190 BUS (Ph. 1), St. Tammany Parish (LADOTD) – Quality Control Manager. QC/QA of roadway design elements. Responsible for bridge design report, QC of bridge plan development for a horizontally curved, superelevated, 1400-foot-long bridge over the Bouge Falaya River using LG 36 and LG 54 prestressed concrete girders , 30' rectangular column bents, low water pier foundations.
12/18 – 02/20 (previous employer)	S.P. No. H.013144 Pine Bluff Rd./Drain to Cypress Creek; Tack Allen Rd./Drain to Cypress Creek, Ouachita Parish, LA (LADOTD) – QC Manager. Responsible for topographic surveys, performed oversight and QC reviews of roadway and bridge design including hydraulics, H&V geometry, bridge TS&L, roadway and bridge plan production for the replacement of two (2) Off-System Bridge sites in Ouachita Parish.
02/14 – 12/18 (previous employer)	S.P. No. H.010724, Pecan Island Road Bridge over The Chenal, Point Coupee Parish, LA (LADOTD) – Quality Control Engineer. Responsible for QC reviews of all roadway design and plan preparation, vertical and horizontal geometry, drainage and geometrics, hydraulics design; performed QC reviews of bridge design and bridge plan production for 150' long Off-System Bridge using special detail 25' precast deck and CIP substructure, design of steel pipe piles, anchored steel bulkhead.

16. Staff Experience:

Firm employed by: **Crescent Engineering & Mapping, LLC**



	Abbey F. Falcon, PE Project Engineer			Years of relevant experience with this employer	<1
				Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization			Bachelor of Science/2017/Civil Engineering		
Active registration number / state / expiration date			46035 / LA / 03/31/2024		
Year registered	2021	Discipline	P.E./Civil Engineering		
Contract role(s) / brief description of responsibilities			Road & Bridge Project Engineer – Abbey will lead the road & bridge design, perform hydraulics analysis and assist with plan preparation and Inroads modeling.		
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).				
04/20 – 04/22 (previous employer)	S.P. No. H.013953, McManus Road Bridge/Cypress Creek, Richland Parish, LA (LADOTD) – Lead/Engineer of Record. Responsible for all roadway and bridge design, bridge hydraulics & scour analysis, developed roadway and bridge H&V alignments, drainage design, prepared bridge TS&L, prepared roadway and bridge plans, design report forms, design criteria for the eight (8) span Off-System bridge replacement .				
04/20 – 05/22 (previous employer)	S.P. No. H.013955, LA 507, 514, Local: Bayou and Cr BRs, Red River Parish, LA (LADOTD) – Lead/Engineer of Record. Responsible for all roadway and bridge design, bridge hydraulics & scour analysis, SOV’s developed roadway and bridge H&V alignments, drainage design, bridge TS&L, curved bridge sites, prepared roadway and bridge plans, design criteria for the replacement of five (5) LADOTD On-System bridges and one (1) Off-System Bridge .				
04/20 – 04/22 (previous employer)	S.P. No. H.013987, LA 521: Bridges Near Dykesville, Claiborne Parish, LA (LADOTD) – Lead/Engineer of Record. Responsible for all roadway and bridge design, bridge hydraulics & scour analysis, developed roadway and bridge H&V alignments, superelevation, drainage, bridge TS&L, prepared roadway and bridge plans, design report & criteria forms for the replacement of three (3) LADOTD On-System bridges .				
06/18 – 04/21 (previous employer)	S.P. No. H.013080, McLemore Road/Bee Bayou, Richland Parish, LA (LADOTD) – Project Engineer. Assisted with roadway and bridge design including Inroads modeling, geometrics, bridge TS&L, hydraulics, foundation layout, and bridge plan production for the 6-span Off-System bridge replacement near Rayville, LA.				
07/22-Ongoing	Old Genessee Rd. Bridges/Creeks, Tangipahoa Parish, LA (Tangipahoa Parish) – Lead Engineer – Responsible for roadway and bridge design including TS&L, bridge hydraulics and plan production for the replacement of two (2), 3-span Off-System bridges near Tickfaw, LA				
04/20 – 02/22 (previous employer)	S.P. No. H.013954, Pleasant Ridge/Rabbit Branch, LaSalle Parish, LA (LADOTD) – Lead/Engineer of Record. Responsible for all roadway and bridge design, bridge hydraulics & scour analysis, developed roadway and bridge H&V alignments, drainage design, prepared bridge TS&L, prepared roadway and bridge plans, design report forms, design criteria for the 3-span Off-System bridge replacement .				

16. Staff Experience:

05/17 – 08/21 (previous employer)	S.P. No. H.011152, I-12 Widening (US 190 to LA 59), St. Tammany Parish, LA (LADOTD) – Project Engineer. Assisted with all roadway design elements on the 4-mile Interstate widening project including geometrics, Level 4 TMP and drainage. Prepared quantities, Inroads roadway modeling, summary sheets, typical sections, detailing, Sequence of Construction sheets, prepared preliminary and final roadway plans. Accelerated project schedule.
04/18 – 10/21 (previous employer)	S.P. No. H.001344, US 190: LA 437 to US 190 BUS (Ph. 1), St. Tammany Parish (LADOTD) – Project Engineer. Assisted with all roadway design elements on the 1-mile Urban, multi-lane roadway widening project including geometrics and drainage. Prepared quantities, performed Inroads roadway modeling, prepared summary sheets, typical sections, detailing, assisted with the preparation of preliminary and final roadway plans.
03/21 – 07/22 (previous employer)	S.P. No. H.014233, LA 160: Cypress Bayou and Relief Bridges, Bossier Parish, LA (LADOTD) – Lead/Engineer of Record. Responsible for all roadway and bridge design, bridge hydraulics & scour analysis, developed roadway and bridge H&V alignments, drainage design, bridge TS&L, prepared roadway and bridge plans up to 60% Final Plans, design criteria for the replacement of two (2) LADOTD On-System bridges.
05/17 – 08/21 (previous employer)	S.P. No. H.004113, I-12 to Bush: LA 3241 (LA 435 to LA 40/41), St. Tammany Parish, LA (LADOTD) – Project Engineer. Assisted with all roadway design elements on the 5.5 rural, 4-lane corridor project including geometrics and drainage design. Prepared quantities, performed Inroads roadway modeling, prepared summary sheets, typical sections, detailing, Sequence of Construction sheets, prepared preliminary and final roadway plans.
03/21 – 07/22 (previous employer)	S.P. No. H.014217, LA 537: Bridges Near Plain Dealing, Bossier Parish, LA (LADOTD) – Lead/Engineer of Record. Responsible for all roadway and bridge design, bridge hydraulics & scour analysis, developed roadway and bridge H&V alignments, drainage design, bridge TS&L, prepared roadway and bridge plans up to 60% Final Plans, design criteria for the replacement of three (3) LADOTD On-System bridges.
03/21 – 07/22 (previous employer)	S.P. No. H.014231, LA 153: Topy Creek Relief & Drain Bridges, Bienville Parish, LA (LADOTD) – Lead/Engineer of Record. Responsible for all roadway and bridge design, bridge hydraulics & scour, developed roadway and bridge H&V alignments, drainage design, bridge TS&L, prepared roadway and bridge plans up to 60% Prelim Plans for the replacement of four (4) LADOTD On-System bridges.
07/17 – 06/21 (previous employer)	S.P. No. H.013116, LA 20 Widening (LA 307 to S. Vacherie), St. James & Lafourche Parishes (LADOTD) – Project Engineer. Assisted with H&V geometrics, roadway drainage design, roadway and bridge plan production, Inroads modeling, quantity calculations for the 2.7 mile rural safety widening project including split phased bridge construction of the RC slab span bridge over unnamed Bayou.
07/17 – 09/18 (previous employer)	S.P. No. H.011540, Babin Road Bridge/Bayou Narcisse, Ascension Parish, LA (LADOTD) – Engineering Support. Assisted with H&V geometrics, roadway drainage design, roadway and bridge plan production, Inroads modeling, quantity calculations for the 3-span Off-System bridge near Gonzales, LA.
12/18 – 07/19 (previous employer)	S.P. No. H.013144 Pine Bluff Rd./Drain to Cypress Creek; Tack Allen Rd./Drain to Cypress Creek, Ouachita Parish, LA (LADOTD) – Engineering Support. Assisted with roadway and bridge design including hydraulics, H&V geometry, assisted in preparation of roadway and bridge plan production for the replacement of two (2) Off-System Bridge sites in Ouachita Parish.
07/17 – 12/18 (previous employer)	S.P. No. H.010724, Pecan Island Road Bridge over The Chenal, Point Coupee Parish, LA (LADOTD) – Engineering Support. Assisted with roadway design and plan preparation, quantity calculations and summary sheets, assisted with bridge plan production and quantities for 150' long Off-System Bridge using special detail 25' precast deck and CIP substructure, steel pipe piles, and anchored steel bulkhead.

16. Staff Experience:

Firm employed by: Crescent Engineering & Mapping, LLC

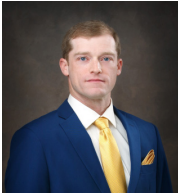

	James P. Ledet, PE, F. ACEC Quality Control Engineer			Years of relevant experience with this employer	<1
				Years of relevant experience with other employer(s)	44
Degree(s) / Years / Specialization			Bachelor of Science/1982/Civil Engineering		
Active registration number / state / expiration date			22428 / LA / 03/31/2024		
Year registered	1986	Discipline	P.E./Civil Engineering		
Contract role(s) / brief description of responsibilities			Bridge Quality Control Engineer – Jimmy will serve as the bridge Quality Control Manager		
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	E. Lewiston Rd. Bridge over Wilson Branch, Tangipahoa Parish, LA (Tangipahoa Parish) – Quality Control Engineer – Responsible for performing QC reviews of roadway and bridge design, hydraulics analysis and report, roadway and bridge plan reviews for the replacement of a 3-span Off-System bridge near Kentwood, LA.				
05/15 – 08/17 (previous employer)	S.P. No. H.004113, I-12 to Bush: LA 3241 (LA 435 to LA 40/41), St. Tammany Parish, LA (LADOTD) – Senior Supervising Engineer. Supervision and oversight of roadway design including QC of hydraulic analysis, geometrics and supervision of plan production for the new 5.5-mile, four-lane RA-3 roadway from LA 435 to Bush, LA.				
11/10 – 06/14 (previous employer)	S.P. No. 713-29-0103, Tiger Drive Bridge over Bayou Lafourche, Lafourche Parish, LA (LADOTD) – Engineer of Record. Responsible for topographic surveying, roadway design including approaches, utility relocations, bulkheads and drainage, and bridge design including special span lengths, curved spans, special bents and rail elements, oversight of construction support and shop drawing review for the 183’ long Off-System bridge replacement .				
11/13 – 11/18 (previous employer)	S.P. No. H.010557, Lajaunie Road/Lateral 1 Bridge over Bayou St. Clair, Lafayette Parish, LA (LADOTD) – Senior Professional/QA/QC. Supervision of topographic surveying and engineering design including roadway and bridge design for preliminary plans of the 80’ RC Slab and quad-beam, superelevated, curved Off-System bridge structure including roadway upgrades to RL-3 criteria.				
03/10 – 05/14 (previous employer)	SP 713-04-0002, LA 400 Bridge over Cancienne Canal, Assumption Parish, LA (LADOTD) – Engineer of Record. Responsible for topographic surveying, roadway design including approaches, and bridge design, supervised roadway and bridge plan production including bridge details, roadway details for the 7-span off-system bridge replacement.				
10/09 – 11/17 (previous employer)	07-EXT-22, Bayou Gardens Blvd. Extension: LA 660 to LA 316, Terrebonne Parish, LA (Terrebonne Parish Consolidated Government) – Engineer of Record (Ph. I)/Supervising Engineer (Ph. II). Responsible for topographic surveying, oversight of roadway design including drainage and geometrics, and oversight of 160’ Off-System RC Slab Span bridge design including special/curved spans for 1.6-mile, four-lane roadway extension (UA-2) including signal upgrades and turn lanes on state routes.				

16. Staff Experience:

1997-2011 (previous employer)	S.P. No. 713-55-0100, St. Ann Bridge Replacement, Terrebonne Parish, LA (LADOTD) – Engineer of Record. Responsible for topographic surveying and all roadway design aspects, bridge design and approaches for the Off-System moveable bridge replacement with a single-leaf, bascule span bridge.
02/05 – 05/08 (previous employer)	S.P. No. 246-01-0054, Route LA 57: Grand Caillou Road, Terrebonne Parish, LA (LADOTD) – Engineer of Record. Responsible for all roadway design aspects including and subsurface drainage design; construction support and topographic survey for two-mile long UA-2, five-lane widening project.
11/99 – 01/01 (previous employer)	S.P. No. 742-07-0019, Bayou Gardens Blvd. Widening: LA 659 to Alma St., Terrebonne Parish, LA (LADOTD) – Engineer of Record/Project Manager. Responsible for topographic surveying, roadway design including geometrics and intersection improvements and subsurface drainage design for the one-mile UA-2 widening project.
1994 – 1997 (previous employer)	S.P. No. 413-01-0011, Hollywood Rd./LA 311 Intersection Improvements/Bridge Replacement, Terrebonne Parish, LA (LADOTD) – Engineer of Record/Project Manager. Responsible for design of roadway, hydraulics, utility relocations, drainage improvements, bulkheads and bridge design services for intersection improvement and Off-System bridge replacement project.
1993 – 1997 (previous employer)	S.P. No. 065-91-0011; S.P. 855-04-0052; S.P. 855-08-00340, Howard Avenue Bridge and Approaches, Terrebonne Parish, LA (LADOTD) – Engineer of Record. Responsible for roadway design including subsurface drainage, geometrics, and bridge design of Off-System steel lift span bridge replacement (using towers from Pinhook Rd. bridge) for preliminary and final plans.
1985 – 1991 (previous employer)	S.P. No. 700-26-100, Off-System Bridge Replacement Program, Lafourche Parish, LA (LADOTD) – Engineer of Record/ Project Manager. Responsible for engineering design services for the replacement of four (4) Off-System bridges and associated roadway approaches: S.P. 713-46-98, Parish Road 16 (Choctaw Road) over St. James Canal; S.P. 713-53-93, Parish Road 18 (60 Arpent Road) over Bayou Boudreaux; S.P. 713-53-94, Parish Road 11 (Lepine Rd. #1) over unnamed canal; and S.P. 713-53-92 Parish Road 579 (Hamilton Road) over 40 Arpent Canal.
1994 – 1995 (previous employer)	S.P. No. 742-05-0042, Combon Bridge and Approaches, Terrebonne Parish, LA (LADOTD) – Project Manager. Responsible for EIS document and design supervision of the Off-System 100 Ft. vertical lift span across Grand Caillou including roadway approaches and shop drawing reviews during construction.
1984 – 1986 (previous employer)	S.P. No. 855-14-08 & 65-90-23, LA 3087: Bridge over Bayou Terrebonne at East Street, Terrebonne Parish, LA (LADOTD) – Project Manager. Responsible for the roadway and bridge design services to retrofit the existing Prospect Street bridge to be relocated to construct a vertical lift bridge at East Street, and associated intersection improvements at LA 24 and LA 659.

16. Staff Experience:

Firm employed by: **Crescent Engineering & Mapping, LLC**



 <div>Matthew Ledet, PLS Survey Manager</div>		Years of relevant experience with this employer	1
		Years of relevant experience with other employer(s)	16
Degree(s) / Years / Specialization		Bachelor of Science/2008/Manufacturing Engineering Technology Bachelor of Science/2010/Gemomatics	
Active registration number / state / expiration date		5104 / LA / 09/30/2022	
Year registered	2013	Discipline	PLS/Surveying
Contract role(s) / brief description of responsibilities		Lead Surveyor/Surveyor of Record – Matt will lead the survey effort and serve as the Surveyor of Record. His 17 years’ of experience meets MPR # 4 .	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the time specified in the applicable MPR(s).		
05/20 – 12/21 (previous employer)	Contract 44-17598 – Rural Bridge Replacement Initiative Phase I (47 bridge structures), Districts 04, 05, 08, 58 (LADOTD) – Lead Surveyor/Surveyor of Record. Led survey effort including GPS control establishment, topographic surveys, data processing, deliverable preparation, property surveys and Right of Way Mapping for the replacement of 47 bridge structures in northern Louisiana containing nine (9) Off-System Bridges .		
08/15 – 08/18 (previous employer)	S.P. No. H.011540, Babin Road Bridge/Bayou Narcisse, Ascension Parish, LA (LADOTD) – Lead Surveyor/Surveyor of Record. Responsible for topographic surveys, crew coordination, oversight of data processing, LiDAR processing for surface generation and use in existing drainage maps, deliverable preparation, title take off, property surveys, prepared base, and final right of way maps for the Off-System Bridge replacement project.		
11/13 – 05/14 (previous employer)	S.P. No. H.010557, Lajaunie Road/Lateral 1 Bridge over Bayou St. Clair, Lafayette Parish, LA (LADOTD) – Lead Surveyor/Surveyor of Record. Responsible for topographic surveys, crew coordination, oversight of data processing, LiDAR processing, existing drainage maps, deliverable preparation, title take off, property surveys, prepared base, and final right of way maps for the Off-System Bridge replacement project.		
03/22 – 07/22	Tangipahoa Parish Off-System Bridge Replacement (4 Sites), Tangipahoa Parish (Tangipahoa Parish Government) – Lead/Surveyor of Record. Responsible for topographic surveys, crew coordination, data processing, LiDAR processing for surface generation and use in existing drainage maps for the replacement of four (4) Off-System Bridge replacements with RC Slab Span sites throughout Tangipahoa Parish.		
04/14 – 12/18 (previous employer)	S.P. No. H.004113, I-12 to Bush: LA 3241 (LA 435 to LA 40/41), St. Tammany Parish, LA (LADOTD) – Surveyor of Record. Led survey, data processing and oversight of field crew coordination for the topographic surveys of 5.5 miles of virgin, wooded terrain with a 300’ wide .DTM, SUE locates and property surveys. Prepared base and final right of way maps including 101 parcels for the 5.5-mile, four-lane roadway from Talisheek to Bush, LA.		

16. Staff Experience:

07/21 – 12/21 (previous employer)	Contract 44-19336 – Rural Bridge Replacement Initiative Phase II (40 bridge structures), Districts 04 & 05, (LADOTD) – Lead Surveyor/Surveyor of Record. Led survey effort including GPS control establishment, topographic surveys, data processing, deliverable preparation for the replacement of 40 bridge structures in northern Louisiana.
04/16 – 08/21 (previous employer)	S.P. No. H.013116, LA 20 Widening (LA 307 to S. Vacherie), St. James & Lafourche Parishes (LADOTD) – Surveyor of Record, Lead Surveyor. Led topographic survey effort for the 2.7 mile rural safety widening project including control establishment, topographic surveys, and property surveys. Performed field reconnaissance, prepared survey field crew packs, processed data and prepared deliverables. Prepared base and Final Right of Way Maps including 9 parcels.
03/10 – 10/10 (previous employer)	S.P. No. 713-04-0002, LA 400 Bridge over Cancienne Canal, Assumption Parish, LA (LADOTD) – Survey Support. Performed field topographic surveys, processed data and prepared topographic survey deliverables on field roll for the eight (8) span Off-System Bridge replacement project in Thibodaux, LA.
06/18 – 10/18 (previous employer)	S.P. No. H.013080, McLemore Road/Bee Bayou, Richland Parish, LA (LADOTD) – Lead Surveyor/Surveyor of Record. Responsible for topographic surveys, crew coordination, oversight of data processing, deliverable preparation for the 6-span Off-System bridge replacement near Rayville, LA.
04/13 – 08/13 (previous employer)	S.P. No. H.010559, Bayou Mercier Road/Berard Canal Bayou, St. Martin Parish, LA (LADOTD) – Lead Surveyor/Surveyor of Record. Responsible for topographic surveys, crew coordination, oversight of data processing, deliverable preparation for the 200' long, 5-span Quad Beam Off-System bridge replacement project near Catahoula, LA.
06/15 – 08/15 (previous employer)	S.P. No. H.011806, Gracie Lane Bridge, Iberville Parish, LA (LADOTD) – Lead Surveyor/Surveyor of Record. Responsible for topographic surveys, crew coordination, oversight of data processing, topographic survey deliverable preparation for the 7-span Off-System bridge replacement project near Bayou Sorrel, LA.
02/18 – 12/18 (previous employer)	ENG-17-013, LA 3127 Extension (LA 70 to LA 1), Ascension Parish, LA (Ascension Parish Government) – Lead Project Surveyor. Responsible for topographic surveys, crew coordination, oversight of data processing, deliverable preparation, title take off, title research reports, property surveys, prepared base right of way maps including 12 parcels for the 6.8-mile roadway extension project including several Off and On-System Bridges.
02/11 – 01/13 (previous employer)	S.P. No. 713-29-0103, Tiger Drive Bridge over Bayou Lafourche, Lafourche Parish, LA (LADOTD) – Survey Support. Performed field topographic and property surveys, prepared topographic survey deliverables, prepared base, and final right of way maps for the urban, 3-lane Off-System Bridge replacement project in Thibodaux, LA.
09/04 – 06/07 (previous employer)	S.P. No. 742-55-0102, Country Drive Widening, Terrebonne Parish, LA (LADOTD) – Survey Support. Assisted with calculating 107 parcels on base and final right-of-way maps; performing topographic survey; boundary survey for 2.7 miles roadway widening project.
04/05 – 03/07 (previous employer)	S.P. No. 246-01-0054, Route LA 57: Grand Caillou Road, Terrebonne Parish, LA (LADOTD) – Survey Support. Assisted with calculating 35 parcels on base and final right-of-way maps, performed topographic survey; boundary survey for two-mile, four-lane UA-2 roadway widening project.



16. Staff Experience:

Firm employed by: **Crescent Engineering & Mapping, LLC**

 <div>Kelly G. Jones Sr. Technician</div>		Years of relevant experience with this employer	<1
		Years of relevant experience with other employer(s)	3
Degree(s) / Years / Specialization		Bachelor of Arts/2012/Mathematics & English	
Active registration number / state / expiration date		N/A	
Year registered	N/A	Discipline	N/A
Contract role(s) / brief description of responsibilities		Sr. Technician – Survey & Engineering. Kelly will assist with the preparation of topographic surveys, roadway and bridge plans, detailing.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the time specified in the applicable MPR(s).		
02/19 – 04/20 (previous employer)	S.P. No. H.011152, I-12 Widening (US 190 to LA 59), St. Tammany Parish, LA (LADOTD) – Project Technician. Assisted with the preparation of roadway and bridge plans, temporary erosion control plans, summary of estimated quantities, quantity summary sheets, bridge quantity calculations, cost estimate preparation, title sheet and typical sections and details. Design completed under an accelerated project schedule.		
03/22 – Ongoing	Tangipahoa Parish Off-System Bridge Replacement (4 Sites), Tangipahoa Parish (Tangipahoa Parish Government) – Project Technician. Performed survey data processing, post-processing and topo survey deliverable preparation, assisting with roadway and bridge plan preparation including Inroads alignments, Plan/Profile sheets, Temporary Bench Marks, Erosion control plans, quantity summary sheets, quantity calculations, typical sections and drainage maps for the replacement of four (4) Off-System Bridge replacements with RC Slab Span sites throughout Tangipahoa Parish.		
11/19 – 09/20 (previous employer)	S.P. No. H.001344, US 190: LA 437 to US 190 BUS (Ph. 1), St. Tammany Parish (LADOTD) – Project Technician. Assisted with the preparation of roadway plans including utility relocation plans, detail sheets, summary of estimated quantities, quantity summary sheets, calculating roadway quantities, performing advanced plan checks of roadway plans vs. bridge plans, assisted with preparing cost estimates.		
01/22 – 03/22 (previous employer)	S.P. No. H.014238, LA 818: Barnet Springs & Creek Bridges, Lincoln Parish (LADOTD) – Project Technician. Assisted with the preparation of roadway and bridge plans including typical sections, plan/profiles, detail sheets, summary of estimated quantities, title sheet for the replacement of two (2) on-system bridges in Lincoln Parish.		
12/21 – 03/22 (previous employer)	S.P. No. H.014218, LA 2A: Thorny Branch & Indian Creek BRs, Webster Parish (LADOTD) – Project Technician. Assisted with the preparation of roadway plans including typical sections, plan/profiles, detail sheets, summary of estimated quantities, title sheet for the replacement of two (2) on-system bridge replacements in Webster Parish.		



16. Staff Experience:

Firm employed by: **Crescent Engineering & Mapping, LLC**

 <div>Dakotah “Kody” Holley Survey Technician</div> 	Years of relevant experience with this employer		<1
	Years of relevant experience with other employer(s)		3
Degree(s) / Years / Specialization			High School Diploma/2017
Active registration number / state / expiration date			N/A
Year registered	N/A	Discipline	N/A
Contract role(s) / brief description of responsibilities			Survey Field Technician – Mr. Holly will serve as a field survey technician for topographic surveys.
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the time specified in the applicable MPR(s).		
05/19 – 01/21 (previous employer)	Almonaster Bridge Rehabilitation and Approaches, Orleans Parish, LA (Port of New Orleans) – Survey Technician. Performed field topographic and boundary surveys as well as assist with 3D laser scanning of the existing single-leaf bascule bridge, railroad and roadway approaches using LADOTD procedures for the rehabilitation and reconstruction of the bridge approaches.		
10/20 – 03/21 (previous employer)	S.P. No. H.001399, Happy Jack – N. Port Sulphur, Plaquemines Parish, LA (LADOTD) – Survey Technician. Performed field topographic route surveys of the existing roadway sections including control and full .DTM survey using LADOTD procedures for the widening to 4 lanes.		
11/20 – 03/21 (previous employer)	Lapalco Bridge @ Harvey Canal, Jefferson Parish, LA (Jefferson Parish Government) – Survey Technician. Performed field topographic route surveys of the existing roadway sections and bridge including full .DTM survey and hydrographic survey using LADOTD procedures.		
06/22 – Ongoing	22-01, Roadway Rehabilitation Program, St. James Parish, LA (St. James Parish Government) – Survey Technician. Performed field topographic route surveys, control establishment, patch surveys and full .DTM topographic surveys of the existing roadways Parish-wide using LADOTD procedures for the reconstruction and rehabilitation project.		
09/21 – 02/22 (previous employer)	Lapalco Blvd. Phase II, Jefferson Parish, LA (Jefferson Parish Government) – Survey Technician. Performed field topographic route surveys of the existing roadway sections including full .DTM survey, patching locations, utilities and drainage using LADOTD procedures.		
07/22 – Ongoing	LA 3127 Widening (LA 20 to LA 3213), St. James Parish, LA (St. James Parish Government) – Party Chief/Survey Technician. Performed GPS static control establishment, digital levels, field topographic surveys of the existing roadway with a 350’ wide full .DTM survey using LADOTD codes and procedures for the 2.5 mile widening to 4 lanes.		
07/22 – Ongoing	22-084, Rousseau Rd. Bridge/Tchefuncte River, St. Tammany Parish, LA (St. Tammany Parish Government) – Party Chief/Survey Technician. Performed site reconnaissance, prepared field packs, field topographic survey including GPS control establishment and full .DTM topographic surveys (200’ x 2200’ .DTM) of the existing roadway, bridge and channel for the 6-span Off-System Bridge replacement near Covington, LA.		


16. Staff Experience:

Firm employed by: **Crescent Engineering & Mapping, LLC**

 <div>Will Cupit Survey Technician</div> 	Years of relevant experience with this employer		1
	Years of relevant experience with other employer(s)		1.5
Degree(s) / Years / Specialization			High School Diploma/2019
Active registration number / state / expiration date			N/A
Year registered	N/A	Discipline	N/A
Contract role(s) / brief description of responsibilities			Survey Field Technician – Mr. Cupit will serve as a field survey technician for topographic surveys.
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 – 07/22	E. Lewiston Rd. Bridge over Wilson Branch, Tangipahoa Parish, LA (Tangipahoa Parish Government) – Survey Technician. Performed GPS static control establishment, ran digital levels and performed field topographic surveys of the existing bridge, channel, and roadway for the Off-System Bridge replacement project near Kentwood, LA.		
03/22 – 05/22	Easley Rd. Bridge over Sweetwater Creek, Tangipahoa Parish, LA (Tangipahoa Parish Government) – Survey Technician. Performed GPS static control establishment, ran digital levels and performed field topographic surveys of the existing bridge, channel, and roadway for the Off-System Bridge replacement project near Loranger, LA.		
04/22 – 06/22	Old Genessee Rd. Bridge over Creek #1, Tangipahoa Parish, LA (Tangipahoa Parish Government) – Survey Technician. Performed GPS static control establishment, ran digital levels and performed field topographic surveys of the existing bridge, channel, and roadway for the Off-System Bridge replacement project near Tickfaw, LA.		
07/22 – Ongoing	LA 3127 Widening (LA 20 to LA 3213), St. James Parish, LA (St. James Parish Government) – Survey Technician. Performed GPS static control establishment, digital levels, field topographic surveys of the existing roadway with a 350’ wide full .DTM survey using LADOTD codes and procedures for the 2.5 mile widening to 4 lanes.		
09/21 – 02/22	Magnolia Heights Drainage Improvements, Vacherie, LA (St. James Parish Government) – Survey Technician. Performed GPS control establishment and field topographic surveys of over 2 miles of existing roadway, drainage structures, utilities.		
04/22 – 06/22	Old Genessee Rd. Bridge over Creek #2, Tangipahoa Parish, LA (Tangipahoa Parish Government) – Survey Technician. Performed GPS static control establishment, ran digital levels and performed field topographic surveys of the existing bridge, channel, and roadway for the Off-System Bridge replacement project near Tickfaw, LA.		
07/22 – Ongoing	22-084, Rousseau Rd. Bridge/Tchefuncte River, St. Tammany Parish, LA (St. Tammany Parish Government) – Survey Technician. Performed site reconnaissance, prepared field packs, field topographic survey including GPS control establishment and full .DTM topographic surveys (200’ x 2200’ .DTM) of the existing roadway, bridge and channel for the 6-span Off-System Bridge replacement near Covington, LA.		


16. Staff Experience:

Firm employed by: ELOS Environmental, LLC

Brian Fortson Senior Ecologist			Years of relevant experience with this employer		7
			Years of relevant experience with other employer(s)		30
Degree(s) / Years / Specialization			Juris Doctorate / 2006 / Civil Cum Laude BS / 1995 / Wetland Ecology		
Active registration number / state / expiration date			N/A		
Year registered	N/A	Discipline	N/A		
Contract role(s) / brief description of responsibilities			Brian will serve as the Senior Ecologist, providing his expertise for environmental permits and agency coordination. Brian meets MPR #5 .		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the time specified in the applicable MPR(s).				
Mr. Fortson has 30+ years of environmental experience in providing technical expertise and environmental knowledge to ELOS personnel through managing and permitting various complex developmental infrastructure projects. Mr. Fortson serves as the Senior Environmental Scientist at ELOS, working with regulatory agencies such as USDA, NRCS, FEMA, USACE, DNR, and LDEQ. Brian’s knowledge of state and federal environmental regulations and his years of experience enables him to navigate the permitting process. Mr. Fortson provides senior guidance to the environmental scientists at ELOS on plant identification and threatened and endangered species surveys.					
01/15 – 01/16	STATE PROJECT NO. STP-445-1(002), US 51 BUSINESS (LA 22 TO I-12) (LADOTD, N-Y ASSOCIATES) – Mr. Fortson supervised and participated in field investigations to support wetland delineations and findings reports, biological surveys, and threatened and endangered species reports. He also provided coordination among natural resource agencies, consultation with landowners, and outreach to public groups.				
08/17 – 07/18	S.P. H.972275, LAND USE AND TRANSPORTATION STUDY HARRISON AVE EXT (LADOTD, PROFESSIONAL ENGINEERING CONSULTANTS CORP.) – Senior Environmental Scientist. Assisted in the preparation of a DOTD Stage 0 Environmental Checklist for the extension of Harrison Avenue in Abita Springs from LA 59 to LA 36, a distance of 1.7 miles. Desktop and field data were collected to identify relevant resources in the project area. He assisted in the identification of land use, wetlands, community facilities, recreational assets, historic and cultural sites, and hazardous waste sites.				
09/17 – 02/21	S.P. H.008915.2, LA 3234 EXTENSION TO HAMMOND AIRPORT ENVIRONMENTAL ASSESSMENT (LADOTD, N-Y ASSOCIATES) – Senior Environmental Scientist. Responsible for the supervision of fieldwork, wetland delineations, biological surveys, and Section 404 application for three alternative alignments being studied for the extension of E. University Avenue from LA 1065 to the Hammond Airport. He provided the wetlands value assessment (WVA) to estimate mitigation costs for unavoidable impacts to wetlands.				
05/21 – 03/22	ST. TAMMANY TRACE BRIDGE REPLACEMENT – Senior Environmental Scientist. serves as a Project Manager overseeing the permitting process, coordinating with regulatory agencies, and providing senior-level insight for this project. ELOS is contracted to conduct a wetland delineation and obtain jurisdictional determination from the USACE, as well as submit a joint permit application to the LDNR OCM for the replacement of the Trace Bridge over Little Bayou Castine on Tammany Trace.				

16. Staff Experience:

Firm employed by: ELOS Environmental, LLC


Cory Ricks Project Manager/ Environmental Scientist		Years of relevant experience with this employer		6
		Years of relevant experience with other employer(s)		2
Degree(s) / Years / Specialization		BS / 2015 / Biology		
Active registration number / state / expiration date		R-I-99273-17-01464		
Year registered	2017	Discipline	proActive Safety Services Renovator Initial	
Contract role(s) / brief description of responsibilities		Cory will serve as the Project Manager, providing his expertise for wetland delineations and jurisdictional determinations, as well as managing the collection of field data and the development of reports. Cory meets MPR #5 .		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the time specified in the applicable MPR(s).			
Mr. Ricks serves as ELOS’s wetland delineation specialist. Mr. Ricks has led wetland delineation efforts for multiple projects for local development, mitigation banks, and infrastructure developments. He has provided assistance with NEPA documentation, permitting, wetland delineations, GIS mapping, and cultural resources for a variety of projects. He currently manages a team of environmental scientists, field biologists, and data processors who all assist on a variety of environmental and debris monitoring projects.				
09-20 – In Progress	S.P. H.008915.2, LA 3234 EXTENSION TO HAMMOND AIRPORT EA (LADOTD, N-Y ASSOCIATES) – Environmental Scientist. Performed the wetland delineation for all three routes and provided a report of the findings. Provided assistance for GIS mapping of the Wetlands Findings Report, Phase 1 Environmental Assessment Survey, and the Biological Assessment Survey. Provided a report of the threatened and endangered species known in the project area. Lead efforts on providing stream and waterbody data for each report. This project included a wetland delineation, section 404 and 401 permit applications, cultural resources site visit and report, and a threatened and endangered species survey.			
08/20 – 7/21	S.P. H.013952, RURAL BRIDGE INITIATIVE - JESSE B ROAD OVER BAYOU MALLET (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation and permit applications.			
08/20 – 7/21	S.P. H.013955, RURAL BRIDGE INITIATIVE – SANDY CREEK BRIDGE (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation and permit applications.			
8/20 – In Progress	S.P. H.013956, RURAL BRIDGE INITIATIVE– BEAMOW RD. OVER BAYOU MARINGOUIN (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation and permit applications.			
8/20 – 7/21	S.P. H.013957, RURAL BRIDGE INITIATIVE – SLIGO RD. OVER WALTER CREEK (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation and permit applications.			
8/20 – In Progress	S.P. H.013958, RURAL BRIDGE INITIATIVE – CARPENTERS BR RD OVER WHISKEY CHITTO CR (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation, permit applications, and a threatened and endangered species survey.			

16. Staff Experience:

8/20 – 3/22	S.P. H.013959, RURAL BRIDGE INITIATIVE – REEDS BRIDGE ROAD OVER CALCASIEU RIVER RELIEF (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation, permit applications, and a threatened and endangered species survey.
8/20 – 1/22	S.P. H.013963, RURAL BRIDGE INITIATIVE – UNNAMED WATERWAY ROUTE (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation, permit applications, and a threatened and endangered species survey.
8/20 – 9/21	S.P. H.013966, RURAL BRIDGE INITIATIVE – LA 321: CREEK BRIDGES (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation, permit applications, and a threatened and endangered species survey.
8/20 – 9/21	S.P. H.013968, RURAL BRIDGE INITIATIVE – LA 404: BAYOU AND CANAL BRIDGES (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation and permit applications.
8/20 – 2/22	S.P. H.013970, RURAL BRIDGE INITIATIVE – LA 717: KLONDIKE CANAL AND BAYOU BRIDGES (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation, permit applications, and a threatened and endangered species survey.
8/20 – In Progress	S.P. H.013976, RURAL BRIDGE INITIATIVE – LA 376: BAYOU BRIDGES (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation, permit applications, and a threatened and endangered species survey.
8/20 – 1/22	S.P. H.013982, RURAL BRIDGE INITIATIVE – LA 10 SPUR, LA 1042: BRIDGES NEAR GREENSBURG (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation and permit applications.
8/20 – In Progress	S.P. H.013984, RURAL BRIDGE INITIATIVE – LA-0016/WRIGHT’S CREEK, HOLDEN’S CREEK, UNNAMED DRAIN, TALLEY’S CREEK, BERRY’S CREEK (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation, permit applications, and a threatened and endangered species survey.
8/20 – 1/22	S.P. H.013996, RURAL BRIDGE INITIATIVE – LA 1074, LA 1075: BRIDGES NEAR RIO (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation, permit applications, and a threatened and endangered species survey.
8/20 – 9/21	S.P. H.013989, RURAL BRIDGE INITIATIVE – GRAYBOW ROAD/PALMETTO CREEK (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation, permit applications, and a threatened and endangered species survey.


16. Staff Experience:

Firm employed by: ELOS Environmental, LLC

Hunter Perrilloux Environmental Scientist			Years of relevant experience with this employer		3
			Years of relevant experience with other employer(s)		1
Degree(s) / Years / Specialization			BS / 2018 / Biology		
Active registration number / state / expiration date			N/A		
Year registered	N/A	Discipline	N/A		
Contract role(s) / brief description of responsibilities			Hunter will serve as the Field Biologist, providing his expertise for collecting and analyzing data for wetland delineations and jurisdictional determinations. Hunter meets MPR #5 .		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the time specified in the applicable MPR(s).				
Mr. Perrilloux’s responsibilities at ELOS have included assisting with mitigation bank monitoring, endangered species monitoring, and performing wetland delineations. He has performed several field investigations to collect and process data. Mr. Perrilloux has also assisted with mitigation bank monitoring efforts as well as eagle nest monitoring.					
8/20 – 7/21	S.P. H.013952, RURAL BRIDGE INITIATIVE, JESSE B ROAD OVER BAYOU MALLET (LADOTD, BURK-KLEINPETER, INC.) – Field Biologist. This bridge replacement project included a wetland delineation and permit applications.				
8/20 – 7/21	S.P. H.013955, RURAL BRIDGE INITIATIVE, SANDY CREEK BRIDGE (LADOTD, BURK-KLEINPETER, INC.) – Field Biologist. This bridge replacement project included a wetland delineation and permit applications.				
8/20 – 7/21	S.P. H.013957, RURAL BRIDGE INITIATIVE, SLIGO ROAD OVER WALTER CREEK (LADOTD, BURK-KLEINPETER, INC.) – Field Biologist. This bridge replacement project included a wetland delineation and permit applications.				
8/20 – 9/21	S.P. H.013966, RURAL BRIDGE INITIATIVE, LA 321: CREEK BRIDGES (LADOTD, BURK-KLEINPETER, INC.) – Conducted fieldwork. This bridge replacement project included a wetland delineation, permit applications, and a threatened and endangered species survey.				
8/20 – 9/21	S.P. H.013968, RURAL BRIDGE INITIATIVE, LA 404: BAYOU AND CANAL BRIDGES (LADOTD, BURK-KLEINPETER, INC.) – Conducted fieldwork. This bridge replacement project included a wetland delineation and permit applications.				
8/20 – 1/22	S.P. H.013996, RURAL BRIDGE INITIATIVE, LA 1074, LA 1075: BRIDGES NEAR RIO (LADOTD, BURK-KLEINPETER, INC.) – Conducted fieldwork. This bridge replacement project included a wetland delineation, permit applications, and a threatened and endangered species survey.				
8/20 – 1/22	S.P. H.013963, RURAL BRIDGE INITIATIVE, UNNAMED WATERWAY ROUTE (LADOTD, BURK-KLEINPETER, INC.) – Field Biologist. This bridge replacement project included a wetland delineation, permit applications, and a threatened and endangered species survey.				
8/20 – 1/22	S.P. H.013982, RURAL BRIDGE INITIATIVE, LA 10 SPUR, LA 1042: BRIDGES NEAR GREENSBURG (LADOTD, BURK-KLEINPETER, INC.) – Conducted fieldwork. This bridge replacement project included a wetland delineation and permit applications.				
9/20 – In Progress	S.P. H.008915.2, LA 3234 EXTENSIONS TO HAMMOND AIRPORT ENVIRONMENTAL ASSESSMENT (LADOTD, N-Y ASSOCIATES) – Field Biologist. Project included a wetland delineation, section 404 and 401 permit applications, cultural resources site visit and report, and a threatened and endangered species survey.				

16. Staff Experience:

Firm employed by: ELOS Environmental, LLC

Stephanie Perrault Archaeologist/ Principal Investigator		Years of relevant experience with this employer	1
		Years of relevant experience with other employer(s)	25
Degree(s) / Years / Specialization		MA, Anthropology	
Active registration number / state / expiration date		33714583	
Year registered	N/A	Discipline	Professional Archaeologist
Contract role(s) / brief description of responsibilities		Ms. Perrault will serve as an Archaeologist, providing her expertise for cultural resource investigations, agency coordination, and tribal coordination.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the time specified in the applicable MPR(s).		
Ms. Perrault has 25+ years of experience in cultural resource management in providing technical expertise and historical knowledge to ELOS personnel through managing various complex projects. Ms. Perrault serves as the Archaeologist and Principal Investigator at ELOS, working with regulatory agencies such as HUD, USACE, FERC, LADOTD, SHPO, HRHP, THPO, and ACHP. Ms. Perrault provides senior guidance to the environmental scientists at ELOS on cultural resources investigations and historic structure surveys that comply with all state and federal standards. Ms. Perrault is an expert in artifact analyses, site mapping, and the evaluation of resource eligibility for listing in the National Register of Historic Places (NRHP) and state registry of historic properties.			
2/19 – 9/21	LAFITTE LEVEES SECTION 106 REVIEW, JEFFERSON PARISH, LA – Ms. Perrault was responsible for the Section 106 Review to determine the low and high probability areas for potential cultural resource findings. She performed 2 digs so far and based on her findings, Ms. Perrault offered suggestions for further investigation within the low and high probability areas within the Area of Potential Impact.		
8/20 – 9/21	S.P. H.013976, RURAL BRIDGE INITIATIVE – LA 376 BAYOU BRIDGES (LADOTD, BURK-KLEINPETER, INC.) – Ms. Perrault was the Archaeologist and responsible for the Cultural Resource Phase I Survey for the two-bridge replacement project totaling in 3.1 areas. The project included a wetland delineation, permit applications, cultural resource phase one survey, and a threatened and endangered species survey.		
6/21 – 9/21	PHASE I CULTURAL RESOURCES ASSESSMENT SURVEY, LACOMBE TRACE TRAILS AND NATURE PARK, ST. TAMMANY, LA – The entire 25.527 acre project area was situated between Bayou Lacombe and the St. Tammany Trace. Ms. Perrault provided guidance through the National Environmental Policy Act (NEPA) permitting process, assisted with an Environmental Assessment of the site, conducted a Phase I Cultural Resources Investigation, provided recommendations to St. Tammany Parish Planners based on the findings of the Cultural Resources investigation, provided consultation services and communication support between St. Tammany Parish, the Lead Federal Agency, Agency Reviewers (i.e. SHPO and THPOs), and other stakeholders, and ensured compliance with the NEPA and Section 106 of the National Historic Preservation Act (NHPA).		
6/21 – Present	ST. FRANCISVILLE WWTP RELOCATION, PHASE I SURVEY, WEST FELICIANA PARISH, LA – Ms. Perrault provided services for three tasks to fulfill the requirements of Section 106 of the NHPA. 1) Background research; 2) Terrestrial Phase I Cultural Resource Survey; 3) Cultural Resource Assessment Findings Report. Ms. Perrault and her team conducted a pedestrian survey, 63 shovel testing, and auguring on the 15.97-acre site.		

SECTION 17

SP No. H.011788

Oak Street Bridge over Poydras Bayou
Erwinville, LA

Engineer of Record: Dennis Hymel, Jr., PE

17. Firm Experience:

Firm name	Crescent Engineering & Mapping, LLC			Past Performance Evaluation Discipline(s)*	Survey, Bridge, Road
E. Lewiston Rd. Bridge over Wilson Branch				Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	Tangipahoa Parish Government		
Project location	Kentwood, LA		Owner's Project Manager	Misty Evans, P.E.	
Owner's address, phone, email	206 E. Mulberry St., Amite, LA 70422 985-244-6880 mevans@tangipahoa.org				
Services commenced by this firm (mm/yy)	03/22	Total consultant contract cost (\$1,000's)			\$190
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$131

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

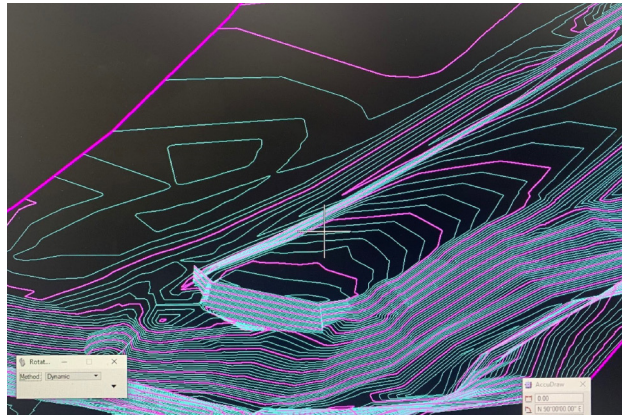
* If there is more than one past performance evaluation discipline included in the proposal, then indicate which past performance evaluation discipline(s) this project is being used to represent.

The E. Lewiston Rd./Wilson Branch Bridge Replacement project involves the replacement of 4-span structurally deficient timber trestle bridge in Tangipahoa Parish near Kentwood, LA. The project includes topographic surveys, property surveys, bridge design, roadway design, geotechnical, environmental and contract management. Project scoping and design is per LADOTD requirements including plan production.

Crescent Engineering & Mapping, LLC is the prime consultant for the project and is responsible for the topographic surveys, hydraulic analyses and modeling, roadway design, bridge design, utility surveys and roadway/bridge plan production. The project's topographic survey (140' x 1500' DTM) was conducted to LADOTD standards and processed in Bentley Microstation/Inroads. Hydraulic analysis was performed using GEO HEC-RAS and HYDR1130 as well as LADOTD HYDRWIN programs for roadside drainage. LADOTD design criteria are being followed and design drawings are also being developed as traditional LADOTD plans using Bentley Microstation/Inroads due to anticipated federal funding.

Crescent has completed the topographic surveys and hydraulics report. Preliminary plans are currently underway along with environmental and geotechnical services.

Team Members Highlighted in this Proposal: Dennis M. Hymel Jr., PE, Matthew J. Ledet, PLS, James Ledet, PE, F. ACEC, Kelly Jones, Will Cupit



17. Firm Experience:

Firm name	Crescent Engineering & Mapping, LLC			Past Performance Evaluation Discipline(s)*	Survey, Bridge, Road
Old Genessee Rd. Bridge over Creek #1				Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	Tangipahoa Parish Government		
Project location	Tickfaw, LA		Owner's Project Manager	Misty Evans, P.E.	
Owner's address, phone, email	206 E. Mulberry St., Amite, LA 70422 985-244-6880 mevans@tangipahoa.org				
Services commenced by this firm (mm/yy)	03/22	Total consultant contract cost (\$1,000's)			\$149
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$105

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

* If there is more than one past performance evaluation discipline included in the proposal, then indicate which past performance evaluation discipline(s) this project is being used to represent.

The Old Genessee Rd./Creek #1 Bridge Replacement project involves the replacement of a structurally deficient, 2-span timber trestle bridge in Tangipahoa Parish near Tickfaw, LA. The project includes topographic surveys, property surveys, bridge design, roadway design, geotechnical, environmental and contract management. Project scoping and design is per LADOTD requirements including plan production.

Crescent Engineering & Mapping, LLC is the prime consultant for the project and is responsible for the topographic surveys, hydraulic analyses and modeling, roadway design, bridge design, utility surveys and roadway/bridge plan production. The project's topographic survey (140' x 2200' DTM) was conducted to LADOTD standards and processed in Bentley Microstation/Inroads. Hydraulic analysis was performed using GEO HEC-RAS and HYDR1130 as well as LADOTD HYDRWIN programs for roadside drainage. LADOTD design criteria are being followed and design drawings are also being developed as traditional LADOTD plans using Bentley Microstation/Inroads due to anticipated federal funding.

Crescent has completed the topographic surveys. Preliminary plans are currently underway along with environmental and geotechnical services.

Team Members Highlighted in this Proposal: Dennis M. Hymel Jr., PE, Abbey Falcon, PE, Matthew J. Ledet, PLS, Kelly Jones, Will Cupit



17. Firm Experience:

Firm name	Crescent Engineering & Mapping, LLC			Past Performance Evaluation Discipline(s)*	Survey, Bridge, Road
Easley Rd. Bridge over Sweetwater Creek				Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	Tangipahoa Parish Government		
Project location	Loranger, LA		Owner's Project Manager	Misty Evans, P.E.	
Owner's address, phone, email	206 E. Mulberry St., Amite, LA 70422 985-244-6880 mevans@tangipahoa.org				
Services commenced by this firm (mm/yy)	03/22	Total consultant contract cost (\$1,000's)			\$187
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$129

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

* If there is more than one past performance evaluation discipline included in the proposal, then indicate which past performance evaluation discipline(s) this project is being used to represent.

The Easley Road over Sweetwater Creek Bridge Replacement project involves the replacement of a 3-span structurally deficient timber trestle bridge in Tangipahoa Parish near Loranger, LA. The project includes topographic surveys, property surveys, bridge design, roadway design, geotechnical, environmental and contract management. Project scoping and design is per LADOTD requirements including plan production.

Crescent Engineering & Mapping, LLC is the prime consultant for the project and is responsible for the topographic surveys, hydraulic analyses and modeling, roadway design, bridge design, utility surveys and roadway/bridge plan production. The project's topographic survey (140' x 1600' DTM) was conducted to LADOTD standards and processed in Bentley Microstation/Inroads. Hydraulic analysis was performed using GEOHEC-RAS and HYDR1130 as well as LADOTD HYDRWIN programs for roadside drainage. LADOTD design criteria are being followed and design drawings are also being developed as traditional LADOTD plans using Bentley Microstation/Inroads due to anticipated federal funding.

Crescent has completed the topographic surveys and hydraulics report. Preliminary plans are currently underway along with environmental and geotechnical services.

Team Members Highlighted in this Proposal: Dennis M. Hymel Jr., PE, Matthew J. Ledet, PLS, James Ledet, PE, F. ACEC, Kelly Jones, Will Cupit



17. Firm Experience:

Firm name	Crescent Engineering & Mapping, LLC			Past Performance Evaluation Discipline(s)*	Survey, Bridge, Road
Rousseau Rd. Bridge over Tchefuncte River				Firm responsibility (prime or sub?)	Prime
Project number	22-084	Owner's name	St. Tammany Parish Government		
Project location	Covington, LA		Owner's Project Manager	Daniel Hill, P.E.	
Owner's address, phone, email	21454 Koop Drive, Building B, Mandeville, LA 70471, 985-898-2552, dphill@stpgov.org				
Services commenced by this firm (mm/yy)	07/22	Total consultant contract cost (\$1,000's)			\$220
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$134

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

* If there is more than one past performance evaluation discipline included in the proposal, then indicate which past performance evaluation discipline(s) this project is being used to represent.

The Rousseau Road Bridge over Tchefuncte River project involves the replacement of a structurally deficient, 5-span pre-cast concrete bridge founded on timber piles in St. Tammany Parish near Covington, LA. The project includes topographic surveys, property surveys, bridge design, roadway design, geotechnical, environmental and contract management. Project scoping and design is per LADOTD requirements including plan production. Rousseau Rd. services the only access to a residential/commercial area and a detour bridge is necessary across the scenic river system of the Tchefuncte.

Crescent Engineering & Mapping, LLC is the prime consultant for the project and is responsible for the topographic surveys, hydraulic & scour analyses, hydraulics and HEC-RAS modeling, roadway design, bridge design, utility surveys and roadway/bridge plan production. The project's topographic survey is enlarged (200' x 2200' DTM) due to the detour bridge and is being conducted to LADOTD standards and processed in Bentley Microstation/Inroads. Hydraulic analysis will be performed using GEOHEC-RAS and HYDR1130 as well as LADOTD HYDRWIN programs for roadside drainage. LADOTD design criteria are being followed and design drawings are also being developed as traditional LADOTD plans using Bentley Microstation/Inroads due to anticipated federal funding.

Crescent is currently performing the topographic surveys and will soon begin the preliminary plans.

Team Members Highlighted in this Proposal: Dennis M. Hymel Jr., PE, Abbey Falcon, P.E., Matthew J. Ledet, PLS, Dakota Holley, Will Cupit



17. Firm Experience:

Firm name	Crescent Engineering & Mapping, LLC			Past Performance Evaluation Discipline(s)*	Survey, Bridge, Road
Old Genessee Rd. Bridge over Creek #2				Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	Tangipahoa Parish Government		
Project location	Tickfaw, LA		Owner's Project Manager	Misty Evans, P.E.	
Owner's address, phone, email	206 E. Mulberry St., Amite, LA 70422 985-244-6880 mevans@tangipahoa.org				
Services commenced by this firm (mm/yy)	03/22	Total consultant contract cost (\$1,000's)			\$148
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$104

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

* If there is more than one past performance evaluation discipline included in the proposal, then indicate which past performance evaluation discipline(s) this project is being used to represent.

The Old Genessee Rd./Creek #2 Bridge Replacement project involves the replacement of a 2-span structurally deficient timber trestle bridge in Tangipahoa Parish near Tickfaw, LA. The project includes topographic surveys, property surveys, bridge design, roadway design, geotechnical, environmental and contract management. Project scoping and design is per LADOTD requirements including plan production.

Crescent Engineering & Mapping, LLC is the prime consultant for the project and is responsible for the topographic surveys, hydraulic analyses and modeling, roadway design, bridge design, utility surveys and roadway/bridge plan production. The project's topographic survey (140' x 1600' DTM) was conducted to LADOTD standards and processed in Bentley Microstation/Inroads. Hydraulic analysis was performed using GEOHEC-RAS and HYDR1130 as well as LADOTD HYDRWIN programs for roadside drainage. LADOTD design criteria are being followed and design drawings are also being developed as traditional LADOTD plans using Bentley Microstation/Inroads due to anticipated federal funding.

Crescent has completed the topographic surveys. Preliminary plans are currently underway along with environmental and geotechnical services.

Team Members Highlighted in this Proposal: Dennis M. Hymel Jr., PE, Abbey Falcon, PE, Matthew J. Ledet, PLS, Kelly Jones, Will Cupit



17. Firm Experience:

Firm name	ELOS Environmental, LLC			Past Performance Evaluation Discipline(s)*	Environmental
LA 10 SPUR, LA 1042 Bridges Near Greensburg Rural Bridge Initiative				Firm responsibility (prime or sub?)	Sub
Project number	H.013982	Owner's name	LADOTD		
Project location	St. Helena Parish, LA		Owner's Project Manager	Andrew Ranck, P.E.	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA, (225) 379-1232, dotdcs@la.gov				
Services commenced by this firm (mm/yy)	08/20	Total consultant contract cost (\$1,000's)			\$16
Services completed by this firm (mm/yy)	01/22	Cost of consultant services provided by this firm (\$1,000's)			\$16

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

* If there is more than one past performance evaluation discipline included in the proposal, then indicate which past performance evaluation discipline(s) this project is being used to represent.

Services Provided: wetland delineations, preliminary jurisdictional determination, United State Army Corps of Engineers (USACE) nationwide permit applications, threatened and endangered species research, Categorical Exclusions checklist (CE), and solicitation of views (SOV).

ELOS was contracted by Burke-Kleinpeter to provide environmental services for H.013982. The Louisiana Department of Transportation and Development (LADOTD) proposed the replacement of four existing bridges including one site at LA 1042 over Choctaw Creek, one site at LA 1042 over an unnamed creek, one site at LA 10 Spur over Raby Branch, and one site at LA 10 Spur over St. Joseph Branch in St. Helena Parish. **This project is one of many bridges part of the DOTD Rural Bridges Phase I projects, for which ELOS was the environmental consultant conducting the environmental reviews and documentation.** This project primarily involved wetland delineations and a wetlands finding report. Evidence observed and documented indicates that approximately 0.22 acre of the site location meets the established criteria to be considered "Section 404 wetlands." In addition, approximately 2.19 acre of this site meet the established criteria to be considered "other waters of the U.S." The DOTD will mitigate the wetlands impacted by construction activities for this project by minimizing impacts as listed in the Louisiana Standard Specifications for Roads and Bridges, 2016 edition, and mitigate for lost wetland habitats by reseeding with appropriate plants and seedlings. No threatened and endangered species surveys were required for this project.

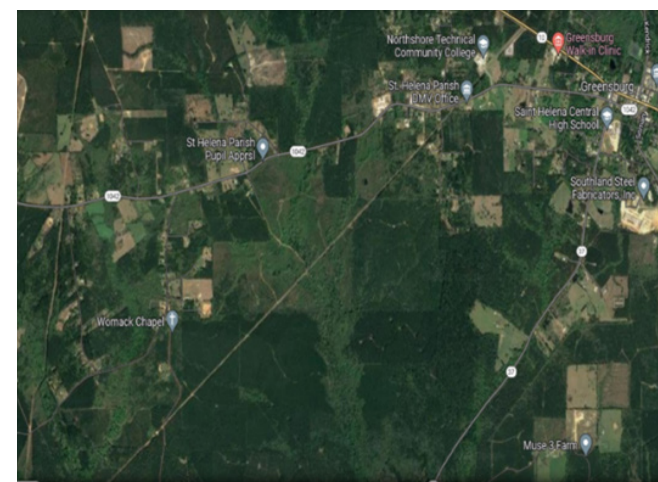
Site 1. LA 1042/ Choctaw Creek: Recall No. 058492)

Site 2. LA 1042/ unnamed creek: Recall No. 058494

Site 3. LA 10 Spur/ Raby Branch: Recall No. 620045

Site 4. LA 10 Spur/ St. Joseph Branch: Recall No. 620046

Team Members Highlighted in this Proposal: Cory Ricks, Hunter Perrilloux, Mike Hill, and Basile Dardar



17. Firm Experience:

Firm name	ELOS Environmental, LLC			Past Performance Evaluation Discipline(s)*	Environmental
LA-4 Rural Bridge Initiative				Firm responsibility (prime or sub?)	Sub
Project number	H.014268	Owner's name	LADOTD		
Project location	Jackson and Caldwell Parish		Owner's Project Manager	Andrew Ranck, P.E.	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA, (225) 379-1232, dotdcs@la.gov				
Services commenced by this firm (mm/yy)	09/21	Total consultant contract cost (\$1,000's)			\$16
Services completed by this firm (mm/yy)	N/A	Cost of consultant services provided by this firm (\$1,000's)			\$16

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

* If there is more than one past performance evaluation discipline included in the proposal, then indicate which past performance evaluation discipline(s) this project is being used to represent.

Services Provided: wetland delineations, preliminary jurisdictional determination, United State Army Corps of Engineers (USACE) nationwide and Department of Natural Resources CUP/Consistency Determination permit applications, threatened and endangered species research, Categorical Exclusion checklist (CE) and solicitation of views (SOV).

ELOS was contracted by Burke-Kleinpeter to provide environmental services for H.014268. The Louisiana Department of Transportation and Development (LADOTD) proposed the replacement of 8 separate bridges located on LA-4 in Jackson and Caldwell Parishes. **This project is one of many bridges part of the DOTD Rural Bridges Phase II projects, for which ELOS was the environmental consultant conducting the environmental reviews and documentation.** This project involved surveys for threatened and endangered species, including investigations for the Northern Long-eared Bat, Louisiana Pine Snake, and the Red Cockheaded Woodpecker. Evidence observed and documented indicates that approximately 17.40 acres of these sites meet the established criteria to be considered "wetlands" and approximately 6.05-acres of these sites meet the established criteria to be considered "other waters of the U.S.".

- Site 1. Unnamed Creek: Recall No. 021100
- Site 2. Unnamed Creek: Recall No. 021120
- Site 3. Bear Creek: Recall No. 021130
- Site 4. Squirrel Creek: Recall No. 046750
- Site 5. Sugar Creek: Recall No. 046760
- Site 6. Bill's Creek: Recall No. 046782
- Site 7. Lost Creek Relief: Recall No. 046786

Team Members Highlighted in this Proposal: Cory Ricks, Hunter Perrilloux, Mike Hill, and Basile Dardar



17. Firm Experience:

Firm name	ELOS Environmental, LLC			Past Performance Evaluation Discipline(s)*	Environmental
Savanne Road Bridge Over Hanson Canal				Firm responsibility (prime or sub?)	Sub
Project number	H.014267	Owner's name	LADOTD		
Project location	Terrebonne Parish, LA		Owner's Project Manager	Andrew Ranck, P.E.	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA, (225) 379-1232, dotdcs@la.gov				
Services commenced by this firm (mm/yy)	08/20	Total consultant contract cost (\$1,000's)			\$16
Services completed by this firm (mm/yy)	N/A	Cost of consultant services provided by this firm (\$1,000's)			\$16

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

* If there is more than one past performance evaluation discipline included in the proposal, then indicate which past performance evaluation discipline(s) this project is being used to represent.

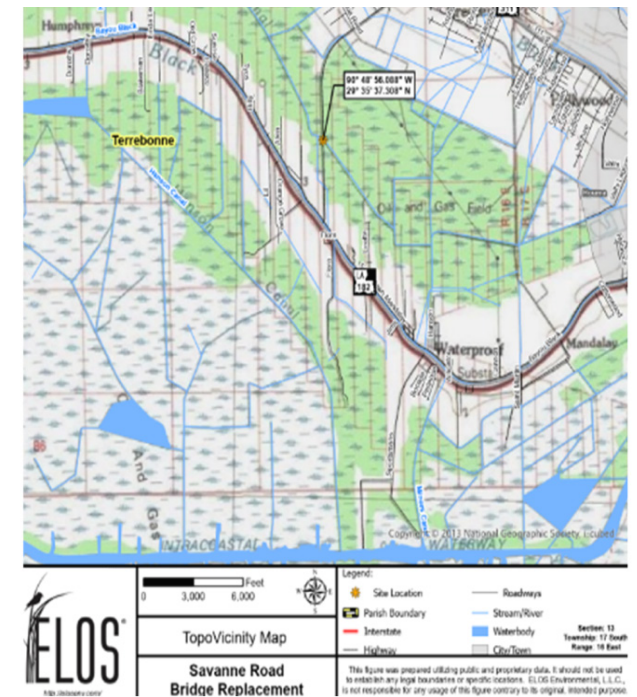
Services Provided: Scenic Rivers and Streams Permits, USACE Permits, Wetland Delineation and Jurisdictional Determination, Threatened and Endangered Species, Solicitation of Views, and Categorical Exclusion Checklist.

ELOS was contracted by Infinity to provide environmental services for the improvement of DOTD Bridge Replacement projects. LADOTD proposed the replacement of the existing Savanne Road Bridge over Hanson Canal (**Recall No. 020165**) with a new concrete reinforced bridge at approximately 90° 48' 56.088" West and 29° 35' 37.308" North.

The existing bridge, located approximately 0.82 miles north of LA 182 in Terrebonne Parish, was recommended for replacement by the Louisiana Department of Transportation and Development (LA DOTD). The existing structure was a 4-span, 57-foot-long, and 24-foot-wide concrete bridge. The proposed action was to replace the existing bridge with three 20-foot spans, totaling 60 feet, with 3:1 riprap abutments and a proposed finished grade at branch crossing at 5.51 in accordance with current LADOTD and AASHTO guidelines.

This project included a wetland delineation and jurisdictional determination from the USACE, a Section 404 permit from the USACE, a scenic rivers and streams permit from the LDWF, and a threatened and endangered species survey for West Indian Manatees (*Trichechus manatus*). ELOS was also tasked with preparing and mailing the solicitation of views letters to the relevant agencies and responding to comments. This project qualified for a categorical exclusion (CATEX), meaning a detailed environmental analysis was not required. ELOS prepared and submitted the CATEX documentation.

Team Members Highlighted in this Proposal: Cory Ricks, Hunter Perrilloux, Mike Hill, and Claire LaBarbera



SECTION 18

S.P. No. H.010559

Bayou Mercier Rd. over Berard Canal

Catahoula, LA

Engineer of Record: Dennis Hymel, Jr., PE

18. Approach and Methodology:

INTRODUCTION

The staff provided by the Crescent Engineering & Mapping (Crescent) team offer a combined over **80 years' of LADOTD Off-System Bridge Replacement (OSBR)** experience with a proven record of project delivery for the OSBR program. Our staff has surveyed and 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.

Crescent's team is led by **Dennis Hymel, Jr., PE** who has served in various roles on over **100 LADOTD bridge replacements**, including both On and Off-System bridges. Crescent's survey manager, **Matthew J. Ledet, PLS** has led the survey effort on over **80 LADOTD bridge replacements** and our QC Manager, **James "Jimmy" Ledet, PE** has been involved in the OSBR program **since 1986**. Crescent's team includes **ELOS Environmental** who has a long history of performing environmental services for LADOTD.



PROJECT UNDERSTANDING & SITE VISIT

Crescent visited the South Tiger Bend and East Achord Bridge sites on 6/17/2022 to assess the project conditions and identify potential design challenges. Items which will need particular attention early in the design of this project include **horizontal geometry and superelevation** at the S. Tiger Bend Site and the **channel alignment and existing utilities** at the East Achord site. The Tiger Bend site is located in a short tangent between two superelevated curves. The final geometry and superelevation transitions will affect the bridge structure and may require a non-standard bridge. East Achord's channel runs parallel to the roadway and is separated by a steel bulkhead. Structure size and the condition of the bulkhead will drive many aspects of this site as well as the accommodation of utilities located near the bridge. It appears both sites can be closed to vehicular traffic.



S. Tiger Bend & East Achord Site Visits (6/17/2022)

LADOTD & PARISH KICKOFF MEETING

Following the NTP, Crescent will meet with the OSBR Program Manager and staff to discuss the project, review the schedule, receive LADOTD field books, review any program guideline changes, invoice requirements, and establish communication protocols. Our project schedule will be based on critical path items with concurrent items being utilized to **expedite project delivery**.

Crescent will also meet with **East Baton Rouge Parish** representatives prior to the start of topographic surveys as required by the OSBR Guidelines. Additional items such as planned corridor improvements, hydraulics, structure preferences and corridor users will be discussed. Previous 5-years crash history will also be requested at this meeting. Meeting minutes for both meetings will be provided within 3 days of the meeting for review.

18. Approach and Methodology:

TOPOGRAPHIC SURVEY

Crescent will perform the topographic survey for the project. Providing the **topographic surveys in-house** offers a distinct advantage for scheduling and delivery of these services. Crescent's engineering staff works closely with survey staff during this phase to ensure that all required data is collected. Surveys will be completed in accordance with LADOTD Off-System Bridge Guidelines and LADOTD Location & Survey requirements. GPS control will be established using at minimum four (4) control points set in concrete with digital levels run between these points.

Crescent Engineering & Mapping ADVANTAGE

Crescent owns the latest in Trimble® Survey equipment, operated by our in-house survey crews for roadway and bridge projects. Providing surveys in-house allows for seamless coordination and communication of survey needs directly from our engineering staff to the field. Additionally, in-house survey services allow for immediate deployment of survey crews and near instantaneous data review, eliminating missing data and ensuring the most expedient project delivery. Lastly, should additional data be required during design, these services can be immediately performed, eliminating costly delays caused by subconsultant coordination.



Once control is established and sketches complete, the topographic surveys will continue for the existing roadway, bridge, and channel/river. Surveys will be extended beyond traditional limits to incorporate any curves or additional geometric elements needed for design. Additional data points needed to show .DTM break lines and surface anomalies will be collected, and any upstream structures in the channel/river will be surveyed.

Bridge sketches will be provided and the channel/river traverses shown on the field roll. Survey data will be processed in Inroads daily and reviewed by the project's engineering staff for completeness prior to preparation of survey deliverables and field rolls. The survey submittal will include all items required by the LADOTD OSBR Guidelines including photographs, point listing and plotted cross sections. Surveys will undergo extensive QC/QA by both the survey and engineering teams prior to submittal to LADOTD.

50% PRELIMINARY PLANS & HYDRAULICS ANALYSIS

After surveys are reviewed and approved by LADOTD, Crescent will begin the hydraulics analysis and preparation of 50% Preliminary Plans.

Design Criteria

Crescent will review the 5-year crash history of the site provided by the Parish to determine the roadway's performance and if any geometric improvements should be considered. Poor roadway performance may be justification for addressing geometric issues within the project limits per Section 1.2 of A Policy on *Geometric Design of Highways and Streets*, AASHTO, 7th Edition (Green Book). S. Tiger Bend Road has a posted speed limit of 45 MPH, a high ADT and located between two superelevated curves. The superelevation transitions will affect the bridge structure, especially longitudinal grade through the transition. Design Exceptions and Waivers may be required if substandard geometry is to remain.



*Looking north from
S. Tiger Bend Bridge
- showing existing
horizontal geometry
and superelevation*

After the disposition of any substandard geometry is determined, bridge design criteria and LADOTD Design Report Forms will be submitted for review and approval, guiding the remainder of plan development. If needed, a special design meeting will be called to discuss special geometric situations.

Hydraulics & Scour Analysis

Crescent will begin the hydraulics and scour analysis by reviewing additional data including topographic maps, FEMA Firm maps, USGS Quadrangle maps and LiDAR to delineate the site's drainage basin. Peak discharges and water surface elevations will be developed using a suite of software including LADOTD's HYDR1130 and GeoCivil's GeoHECRAS. Hydraulic design will be conducted in accordance with the LADOTD Hydraulics Manual and the results prepared in report format along with the Hydraulic Data table.. Both channels are tributaries of Clay Cut Bayou and may require No-Rise Certificates.

18. Approach and Methodology:

Bridge TS&L

The bridge Type, Size and Location (TS&L), which will determine the appropriate bridge length, revetment slopes and hydraulic opening for each site will be developed at the start of the hydraulics analysis. A **non-standard bridge with superelevation transitions may be required** for South Tiger Bend Road. Crescent's staff has the experience and design tools to perform the design of a non-standard bridge structure in-house per LRFD methodology.

50% Preliminary Plans

Once hydraulics is completed, the remainder of the 50% PP will be developed including the roadway horizontal and vertical geometry, guardrail and embankment widening, roadside drainage, cross-sectional geometrics and transitions. The roadway will be modeled in Bentley Inroads to determine the limits of construction at this early stage. **Superelevation and transitions will be critical** to establishing the bridge geometry for the South Tiger Bend site. Accommodation of the **channel, bulkhead and utilities** are critical components for the East Achord site. Plans will be developed in accordance with LADOTD plan preparation and OSBR Guidelines. If Design Exceptions or Waivers are needed, Draft forms will be completed upon structure approval and submitted for review by DOTD and/or the Parish.

Crescent Engineering & Mapping ADVANTAGE

- ✓ Extreme familiarity with OSBR Program
- ✓ In-house survey resources
- ✓ Extensive staff history with LADOTD
- ✓ Commitment to LADOTD Processes
- ✓ Extensive ATSSA & NHI Training
- ✓ Project Specific QC/QA Manager

75% PRELIMINARY PLANS (PRE-PIH) & SOLICITATION OF VIEWS (SOV's)

After review of the 50% Preliminary Plans, Crescent will address all comments, and if necessary, will prepare the Pre-PIH plans. Crescent's staff have historically been allowed to proceed to Plan in Hand without the submittal of Pre-PIH plans, aiding in project delivery. Upon approval of the replacement structure, Crescent and ELOS Environmental will prepare the Solicitation of Views (SOVs), receive LADOTD approval thereof and mail these to the recipient list provided by LADOTD Environmental Section. Responses will be logged and loops closed to all SOV responses.

95% PRELIMINARY PLANS (PLAN IN HAND)

Comments from the 50% PP or, 75% PP (if necessary) will be addressed in the Plan in Hand submittal. The roadway model, typical sections, plan & profiles, general notes, bridge GPE, summary of estimated quantities, and construction signing will continue to be developed from the previous plan submittal(s). If superelevation is required, the superelevation diagrams will be further developed and completed by the end of preliminary plans along with the foundation layouts. Standard Plan lists, cost estimate and the Constructability & Biddability Review form will be provided. Crescent will attend the Plan in Hand meeting onsite with LADOTD and Parish representatives. Meeting notes will be provided within 3 days.

100% PRELIMINARY PLANS (POST PLAN IN HAND PRINTS)

Plan development will continue to progress as comments are addressed and major design elements are completed. Items discussed at the PIH meeting will be addressed and added to the plans per the PIH Meeting Memorandum.

Environmental

The wetland delineation will be conducted onsite and a wetland findings report prepared in accordance with US Army Corps of Engineers (USACE) guidelines. A Preliminary Jurisdictional Determination (PJD) will be requested from the USACE upon report completion. Permit sketches sized 8.5"x11" will be prepared to accompany the wetlands report, SOV packet, and Environmental Determination Checklist.

R/W Sketches & Other Documents

Crescent will prepare the Right of Way Sketch per OSBR guidelines showing the required taking lines and anticipated parcels affected along with a draft of the R/W agreements for both sites. A draft utility conflict matrix will be provided to the Parish to aide in their responsibility to relocate utilities. **Underground telephone, water and overhead power** are present at the South Tiger Bend bridge site. **Sewer, water, telephone and power** are present at the East Achord site.

In addition to the 100% Preliminary Plans, environmental package and R/W sketches, the Design Report forms will be finalized and sealed by Crescent's Engineer of Record. The Level 1 or Level 2 TMP checklists will also be prepared and submitted. Pile length requests with all supporting documentation will be submitted at this stage for use by the geotechnical engineer.

18. Approach and Methodology:

60% FINAL PLANS (PRE-ADVANCED CHECK PRINTS)

Following the environmental approval and receipt of the Notice to Proceed for Final Plans, Crescent will immediately begin the development of additional plan sheets required including embankment widening details, geometric layout (if necessary), erosion control plans, quantity summary sheets, Pile Data & Elevation, and concrete surface finish. All bridge structure and pile elevations will be finalized. Any special design superstructure or substructure bridge elements or special approach slabs will be fully detailed and placed on bridge sheets. Bridge Railing, joint and bearing details will also be completed. If a non-standard structure is chosen for the site, a draft of the bridge calculations and Load Resistance and Factor Rating (LRFR) will be prepared at this stage to ensure adequacy of reviews.

95% & 98% FINAL PLANS (ADVANCED CHECK PRINTS)

Comments from the 60% Final Plans (Pre-ACP) will be reviewed with LADOTD and addressed. Additional details, notes or changes will be added to the plans and quantities will be completed. The ACP Plans will be provided to the Plan Quality Unit (PQU), if necessary. Crescent's staff have **received few comments from PQU** on previous OSBR projects. 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 use by General Files to prepare the proposal. Crescent will work with LADOTD staff to input pay items and quantities into AASHTOWARE and generate final cost estimates.

Crescent uses all **LADOTD** approved software including: *Microstation/Inroads, Open Roads Designer, ProjectWise, Interplot Organizer, CADConform, BlueBeam Revu.*

100% FINAL PLANS (TRACINGS)

Crescent will provide the 100% Final Plans (Tracings) as per OSBR Guidelines with the Title Sheet on Mylar for Chief Engineer signature. This submittal will be prepared once all comments are addressed from task managers, PQU and/or the Chief Engineer. Parish granted Design Exceptions will be noted on the Title Sheet. A bound calculations book will be prepared and submitted with the original field books and an electronic copy of the Hydraulics Report.

QUALITY CONTROL AND QUALITY ASSURANCE (QC/QA)

A project specific QC/QA plan has been included Section 21. Proper QC/QA is a critical component of any successful bridge project and Crescent has designated a QC/QA manager for the project, James "Jimmy" Ledet, PE, with **45 years of experience** involving LADOTD projects and specifically Off-System Bridges. Each submittal will be accompanied by LADOTD QC/QA certification forms. Design and plan comments, along with their resolutions will be documented in Crescent's Design Comment Review forms.

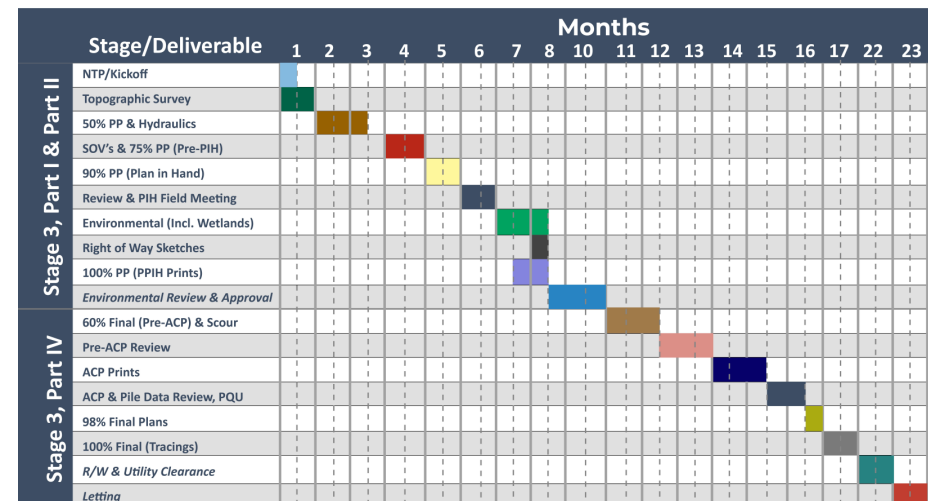
LETTING

Crescent will respond to Falcon questions and assist LADOTD during letting. Upon receiving the bid results and tabulations, Crescent will provide additional information to LADOTD as needed regarding contract award, etc.

STAGE 5: CONSTRUCTION

Crescent's staff will be available to provide LADOTD with Construction Support (if necessary) by assisting with RFI's, reviewing shop drawings, evaluating contractor submittals, attending meetings, and providing design review assistance in the event of bridge component changes during construction such as bent modifications due to pile misalignment.

PROPOSED PROJECT SCHEDULE



SECTION 19-23

S.P. No. H.006147

Tiger Drive Bridge over Bayou Lafourche
Thibodaux, LA

Engineer of Record: James P. Ledet, PE, F. ACEC

19. Workload:

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

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

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

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

Firm(s)	Past Performance Evaluation Discipline(s) *	State project number	Project name	Remaining Unpaid Balance**
Crescent Engineering & Mapping, LLC	Road	N/A	No current projects	\$0
Crescent Engineering & Mapping, LLC	Survey	N/A	No current projects	\$0
Crescent Engineering & Mapping, LLC	Bridge	N/A	No current projects	\$0
ELOS Environmental, LLC	Environmental	H.013958	Carpenters Br Rd over Whiskey Chitto	\$842
ELOS Environmental, LLC	Environmental	H.013970	LA 717 Klondike Canal & Bayou Bridges	\$279
ELOS Environmental, LLC	Environmental	H.013976	LA 376: Bayou Bridges	\$4,681
ELOS Environmental, LLC	Environmental	H.013984	LA 16 Bridges (Isabel to Sun)	\$241
ELOS Environmental, LLC	Environmental	H.014242	LA 124: Big Branch, Sandy, Godfrey, Beech Creeks	\$3,685
ELOS Environmental, LLC	Environmental	H.014243	LA 472: Indian Creek and Big Bear Creek	\$30
ELOS Environmental, LLC	Environmental	H.014245	LA 119: Creeks & Bayou Pierre	\$30
ELOS Environmental, LLC	Environmental	H.014246	LA 1199: Creeks & Spring Creek	\$30
ELOS Environmental, LLC	Environmental	H.014247	LA 399: Creeks, Little 6 Mile, Relief & Flat Branch	\$164
ELOS Environmental, LLC	Environmental	H.014248	LA 124: Creeks, Broke Leg Bayou, Boggy Bayou	\$30
ELOS Environmental, LLC	Environmental	H.014249	LA 126: Creek	\$221
ELOS Environmental, LLC	Environmental	H.014250	LA 577: Creek & Bull Bayou	\$298
ELOS Environmental, LLC	Environmental	H.014268	LA 4: Creeks, Bear, Sugar	\$1,342
ELOS Environmental, LLC	Environmental	H.014267	Savanne Road over Hanson Canal	\$5,668
ELOS Environmental, LLC	Environmental	H.014265	N. River Road Bridge	\$5,943

20. Certifications/Licenses:



Certificate of Professional Development Hours
presented to

Dennis M. Hymel, Jr.

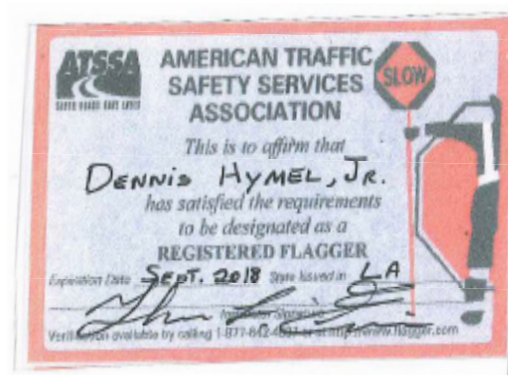
for attending the

**Highway Safety Manual Workshop
12.0 PDHs**

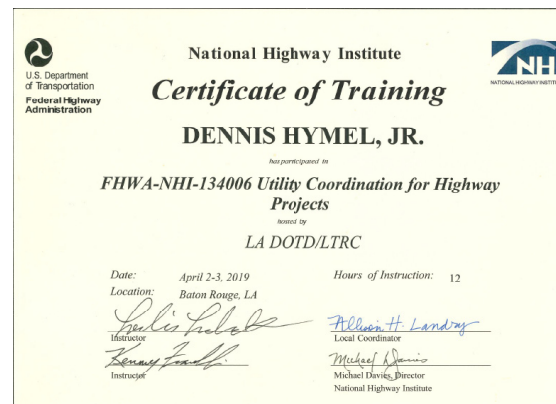
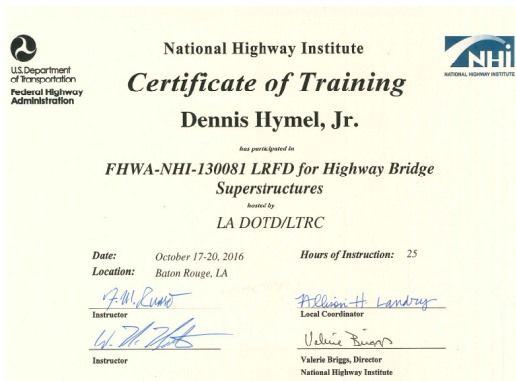
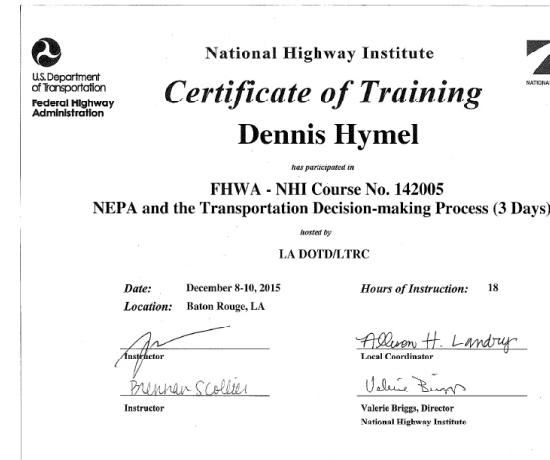
on

December 3-4, 2014 Baton Rouge, Louisiana

Authorized By



20. Certifications/Licenses:



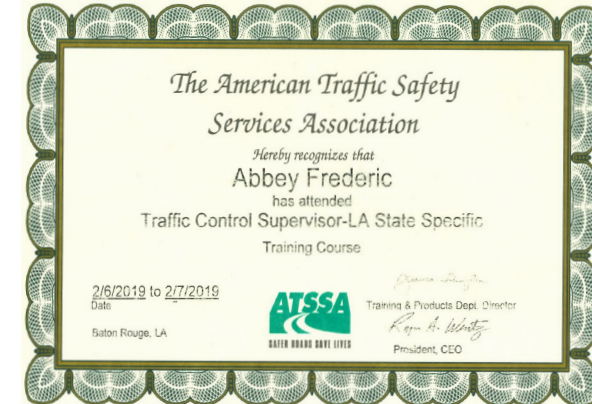
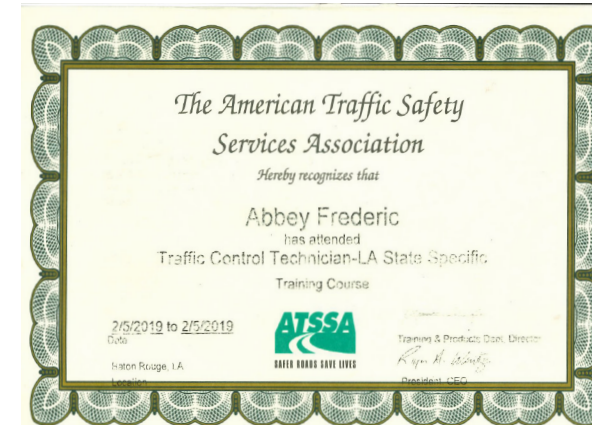
Certificate of Attendance Dennis Hymel

has participated in
AASHTOWare Bridge Rating Fundamentals Training
hosted by
LA DOTD/LTRC

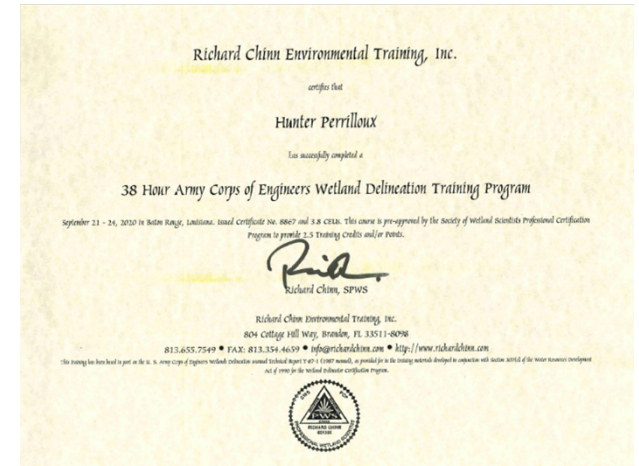
Date: August 1st-2nd, 2017
Location: Baton Rouge, Louisiana
Herman Lee, P.E., PMP
Michael Baker International

Professional Development
Hours (PDHs) Awarded: 12
Michael S. Pickens, P.E.
Michael Baker International

20. Certifications/Licenses:



20. Certifications/Licenses:





LADOTD CONTRACT No. 4400024589

S.P. No. H.014990.5

F.A.P. No. H014990

SOUTH TIGER BEND ROAD AND EAST ACHORD ROAD BRIDGES

BRIDGE DESIGN QC/QA PLAN

"Committed to Excellence, Focused on Delivery"

August 2022

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

Table of Contents

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Appendix A	LADOTD Checklists & Worksheets
Appendix B	Crescent Design Comment Review Forms
Appendix C	LADOTD QC/QA Submittal Certifications

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

Introduction

Crescent Engineering & Mapping, LLC (Crescent) understands that proper QC/QA is vital to the success of any bridge project. When a clearly outlined, known and repeatable process is followed by a team of bridge designers and technicians, design errors are eliminated, and plan accuracy is greatly enhanced. These QA/QC procedures and guidelines have been developed to ensure that bridge design team develops and accurately confirms that the project's design and resulting drawings meet LADOTD and AASHTO criteria and are in accordance with the requirements of the Contract. LADOTD's Bridge Design and Evaluation Manual requires that the Department's Policy for Quality Control and Quality Assurance is followed for all LADOTD projects. This QC/QA plan establishes the basis for Crescent to continue to be Committed to Excellence and Focused on Delivery.

This QC/QA plan has been developed consistent with LADOTD and Crescent policies specially for:

Contract No. 4400024589

S.P. No. H.014990.5

South Tiger Bend Road and East Achord Road Bridges

Crescent will manager design and design quality control/quality assurance program throughout the development of bridge design and production of bridge plans and specifications for this project. Our designated QC/QA manager for this project will be responsible for overseeing the overall quality program, performing independent Quality Assurance reviews as well as the preparation and implementation of the QC/QA plan. Crescent fully understands that it is the LADOTD's expectation that it's consulting engineers take full responsibility for their design and bridge plan submittals throughout the design process. We further understand that review and comments by LADOTD does not relieve Crescent of this responsibility.

This QA/QC plan has been prepared in accordance with the requirements set forth in "Guidance on QC/QA in Bridge Design in Response to NTSB Recommendation (H-08-17)," FHWA, AASHTO, August 2011. Additionally, requirements of BDTM.37 and "Policy on Quality Control and Quality Assurance," Louisiana Department of Transportation and Development, Bridge Design Section, October 2012, as amended and the requirements of the LADOTD's Bridge Design and Evaluation Manual will be followed throughout the project.

Crescent has committed to this process and has dedicated resources to deliver bridge design projects for LADOTD. We strive for continuous improvement to our processes to the benefit of our team members, the clients we serve and the public as a whole. We are committed to partnering with our clients by properly planning our work efforts to achieve a repeatable, consistent and a seamless delivery of our bridge projects. Crescent is committed to continuing education, offering our employees ample opportunities to remain on the leading edge of technology, bridge modeling and design methodology improvements, changes and innovation.

Definitions

Quality Control (QC): This process involves the procedures of checking the accuracy of the calculations and consistency of the drawings, detecting and correction design omission and errors before the design plans are finalized, and verifying that bridge components are adequately designed for the requirements of the AASHTO LRFD Bridge Design Specifications, LADOTD Bridge Design and Evaluation Manual and other technical memoranda.

Quality Assurance (QA): This process involves the procedures of reviewing the work to ensure the quality control procedures and processes are in place and effective in preventing mistakes, and consistency in the development of bridge design plans.

Designer: An individual directly responsible for the development of design calculations, drawings, specifications, and contract documents and, potentially, in the review of shop drawings related to a specific bridge design with a level of technical skills and experience commensurate with the complexity of the subject structure or structures being designed. A designer shall be either a Professional Engineer licensed in the State of Louisiana or certified as an Engineer Intern under the direct supervision of a licensed Professional Engineer. The designer's experience should be commensurate with the complexity of the structure being designed.

Design Checker: An individual responsible for performing full technical review of the structural calculations, drawings, specifications and contract documents. A Design Checker shall be a Professional Engineer licensed in the State of Louisiana or certified as an Engineer Intern under the direct supervision of a licensed Professional Engineer. If the Designer is an Engineer Intern, the Design Checker should be a Professional Engineer. The checker's experience should be commensurate with the complexity of the structure being designed/checked.

Detailer: An individual responsible for the necessary Microstation/CAD duties of producing bridge design plans which reflect the designer's intentions and calculations. The Detailer shall be competent in operating Microstation/CAD software, able to read design sketches and drawings and shall communicate with the designer throughout the development of bridge design plans.

Reviewer: An individual responsible for performing QA procedures for assuring that QA/QC procedures have been performed.

Engineer of Record: A Licensed Professional Engineer responsible for all bridge structural aspects of the design of the structure including the design of all the bridge's systems and components. This individual is responsible for sealing and signing the final project plans.

QC/QA Roles and Responsibilities

The following tables outline the team members who have been selected to perform the individual QC/QA assignments for this project's bridge elements. These assignments are subject to change with comparable personnel depending upon contract execution and timeline.

Bridge Structural Design*		Construction Support & Shop Drawings	
Designer:	Dennis M. Hymel, Jr., P.E.	Drawing Review:	Dennis M. Hymel, PE.
Design Checker:	Abbey F. Falcon, P.E.	Review Checker:	Abbey F. Falcon, P.E.
Detailer:	Kelly G. Jones	QA Review:	James P. Ledet, P.E.
Detail Checker:	Abbey F. Falcon, P.E.		
QA Review:	James P. Ledet, P.E.		

Hydraulics Design & Scour Analysis		Bridge Geometric Design	
Designer:	Abbey F. Falcon, P.E.	Designer:	Dennis M. Hymel, PE.
Design Checker:	Dennis M. Hymel, Jr., P.E.	Design Checker:	Abbey F. Falcon, P.E.
Detailer:	Kelly G. Jones	Detailer:	Kelly G. Jones
Detail Checker:	Abbey F. Falcon, P.E.	Detail Checker:	Abbey F. Falcon, P.E.
QA Review:	James P. Ledet, P.E.	QA Review:	James P. Ledet, P.E.

*For Non-Standard Structure Elements

Bridge Engineer of Record: Dennis M. Hymel, Jr., P.E.

QC/QA Manager: James P. Ledet, P.E.

QC/QA Procedures

1. CALCULATIONS

INTRODUCTION

Calculations are to be done on calculation tablet sheets for each design organization. Calculation tablets shall bear the name and address of the firm preparing the design. Calculations shall include sketches which are legible to detailers which may augment or clarify the calculations, list all assumptions, references, units, and conclusions. The calculations shall reference the specific component for which they apply and shall cite specific AASHTO codes being used for specific calculations being made.

RESPONSIBILITIES

Engineer of Record – Ensures that staff assigned to the project are capable of performing the analysis and calculations and that their experience is commensurate with the complexity of the structure or component being tasked. Responsible for direct oversight and supervision of the design of the bridge components and structure. Assembles or assigns personnel to assemble and maintain original calculations and calculation checks for the project.

Designers – Prepare all calculations in a neat and logical manner which is conducive to checking. Provide the calculations to the Checker in a timely fashion with time to properly and adequately check calculations prior to detailing.

Checkers – Thoroughly check the design calculations starting with assumptions, mandated parameters, references, given values and formulas, AASHTO codes, omissions, and correctness of arithmetic. The Checker is responsible for asking questions of the Designer in areas that are not clear or seeking technical advice if warranted for a particular element of the calculation.

QC/QA Manager – Performs independent review of the checked calculations and random audits to ensure that QC procedures are being followed for checking of calculations.

PROCEDURES

1. Identify each sheet of calculations with designer's initials, date, project name, and sheet number. Indicate portion of project being designed in the upper right corner of each sheet below the title block. For example: Bent 5 Design, Intermediate Bent Design, Span 3 Design, etc. A component of a project shall be checked promptly upon completion of calculations. Normally, design and quantity calculations are not combined.
2. The Designer shall make a copy (checking copy) of the calculation set and give to the checker. The originals shall then be placed in a designated binder or folder, in a convenient location, which can be accessed by the entire design team.
3. The checker shall fill in the checking copy headings with initials and date in red. All errors and disagreements shall be marked in red. Yellow shall be used to indicate information that has been checked is correct.
4. The checker shall promptly return the checking copy to the Designer for review. If the Designer agrees with the checker's markup then the Designer shall put a green check on red marks. When the Designer and Checker disagree, then the Engineer of Record shall resolve the dispute.
5. The Designer shall change the originals and return the originals and the checking copy to the checker for the checker's initials and date to be placed on the original.
6. The originals shall immediately be placed back into the calculation folder or binder. The checking copy shall be kept as required.

2. DRAWINGS

INTRODUCTION

Timely checking of drawings is important for efficient performance of plan producing and to minimize errors and prevent compounded error. A drawing used as a base file by several disciplines (road, bridge, hydraulics) should be checked and corrected before further additions are made; this will eliminate the need to check and correct the same items on subsequent drawings.

RESPONSIBILITIES

The Engineer of Record, with the help of the QC/QA Manager, will ensure that this procedure is implemented on all project drawings and that the check prints are assembled and available for audit for each submittal milestone during project delivery.

The Designer of the structure or the bridge element on the drawing has the primary responsibility for accuracy and adequacy. It is not intended that the Designer rely upon the checking system to complete the drawing.

The Designer of each drawing or set of drawings is responsible for making the Check Print, stamping and dating it, following that Check Print through the process, and obtaining the required sign-offs.

Checkers are responsible for checking the drawings, independent of the Designer, for accuracy and adequacy of all the information shown, including geometrics, reinforcing and quantities.

QA/QC Manager performs particular QA reviews and audits to ensure that procedures are being followed in regard to the checking of drawings.

PROCEDURES

1. As each drawing individually is completed and deemed ready for checking, the Designer signs or initials the title block of drawings, makes a Check Print copy, and affixes, numbers, and dates the Check Print stamp on the print of each drawing. This is to be done on each drawing print separately, not on the set of prints as a whole, even if the same information is put on the check print stamp.
2. The Checker checks the Check Print of the drawing for technical adequacy and conformance to any applicable standards and format, and performs specific accuracy checks required for that type of drawing. Checking activity is recorded directly on the Check Print. The Checker is responsible for ascertaining that the drawing is consistent with the corresponding calculations, and signing off that those calculations have been properly checked. In order to document the checking process, the Checker highlights in yellow on the Check Print each part checked that is found to be correct and marks in red on the Check Print corrections, additions, or deletions.

Use of Colors

Instrument	Use For	User
Yellow Highlight	Checker confirmation	Checker
Red Pen	Correction to be made	Checker
Blue Pen	Discussion Item, Design Issue	Checker
Green Pen	Concur or Alternate Resolution	Designer
Orange Highlight	Confirmation of Correction	Detailer
Pink Highlight	Verification of Corrections Made	Designer/EOR

The Checker signs and dates the Check Print stamp upon completion of the checking. The Checker completes the Design Review Form concurrently with the checking of the Check Prints in order to augment suggested corrections, provide additional information or suggestions.

In the case where no corrections, additions or deletions are found, there is no need for backchecking or further signatures on the Check Print stamp. The Check Print and original drawing, signed in the appropriate checked block, should be returned to the Designer for placement in the projects file.

3. The Designer (or designee, as Backchecker) reviews the Checker's marks on the Check Print as well as the Design Review Form with the Checker to ensure that comments are conveyed accurately and to discuss suggestions or other issues. The Designer then personally makes or supervises the update of the Drawing Original.

To document the backchecking process, the Designer:

- 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.
- Crosses out in green each of the Checker's red-marked changes that both the Designer and the Checker agree should not be changed. The Backchecker should not obliterate the Checker's marks.

NOTE: The Backchecker and Checker should resolve differences encountered during the checking process so they are not repeated. If resolution cannot be achieved by the two individuals, the appropriate Design Unit Engineer or Design Manager should be requested to resolve the differences.

- Signs and dates the Check Print stamp.

4. Correction of the Drawing Original should be supervised by (or drafted by) either the Designer or Checker, since both are familiar with the changes to be made.

When making the Check Print corrections to the Drawing Original, the engineer, draftsman, or CADD operator highlights in orange each correction as incorporated. The person correcting the drawing signs and dates the Check Prints stamp upon completion of the corrections.

5. When corrections are made by a third party (not the Designer or checker), the Check Print should be verified by the Checker or Designer to assure that the agreed-to corrections have been incorporated without error. If the corrections are not made or are erroneous, the Check Print with penciled instructions is returned to the corrector. The Verifier puts a pink check mark next to or pink highlight over the item after reviewing its incorporation on the Original Drawing.

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.

6. The completed original (or CADD file) is put under the control of the Engineer of Record or a designee in order to prevent further changes in the drawing that could invalidate the checking which has been done. The Engineer of Record or a designee releases the checked drawing to other disciplines to use as a baseline for their input, or to the client.

NOTE: When there is a change 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.

7. If changes mandated by the client at the final review are simple in nature, the Engineer of Record or a designee may abbreviate the checking process by noting the changes in red on a new Check Print (which should be sequentially numbered) and signing the Check Print as the Backchecker, indicating that the changes do not materially affect the design. Then the normal correcting and verifying processes should be utilized.

Exceptions to the procedural documentation of the Check Prints can be given only by the QC/QA Manager based upon the size, character and complexity of the project.

Description of Appendices:

The following review forms, checklists and certifications within the Appendices will be used during the project's QC/QA process as required by LADOTD's Bridge Design Section BDTM.37. The checklists and certification forms are included in the Appendices for reference.

Appendix A

- LADOTD Design Criteria Worksheet
- LADOTD Project Activity Log Sheet
- LADOTD Consultant Project Bridge Design Kick-Off Meeting Agenda Checklist
- LADOTD Consultant Submittal Review Checklist
- Final Calculation Book Index Checklist

Appendix B

- Crescent Design Comment Review Forms

Appendix C

- LADOTD QA Information Package Checklist
- LADOTD QC/QA Certification
- LADOTD Consultant Submittal QC/QA Certification

The Consultant Submittal QC-QA Certification will accompany all submittals as required by the Bridge Design Section QC-QA Policy. Additional checklist(s) may be added by the QC/QA Manager based upon the scope, character and complexity of the project, should this change throughout the course of design.

Design Criteria Checklist

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

— Cover Sheet

The following information must be included on the cover sheet:

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

— Governing Design and Construction Specifications and Other References

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

— Design Assumptions and Design Exceptions

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

— General Information

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

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

— Hydraulic Design Criteria

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

— Design Factors

The ductility factor 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 railing 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.

Project No.:
Project Name:
Bridge Task Manager:

[illegible]

APPENDIX H—CONSULTANT PROJECT BRIDGE DESIGN KICK-OFF MEETING AGENDA CHECKLIST

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

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

APPENDIX K—CONSULTANT SUBMITTAL REVIEW CHECKLIST

Items	Submittals												Final Calculations Book	Plan Revisions	Change Orders
	Design Criteria	TS&L	30% FP	60% FP	90% FP	100% FP	30% FP	60% FP	90% FP	100% FP					
Consultant Submittal QC/QA Certification			R	R	R	R	R	R	R	R		R		R	
Design Criteria	C														
TS&L		C													
Bridge Index			D	D	D	D	D	D	C	S					
General Notes			D	D	D	D	D	D	C	S					
Summary of Estimated Quantities			D	D	C	C	D	D	C	S					
General Plans			D	D	C	C	C	C	C	S					
Typical Sections			D	D	C	C									
Superelevation Diagram				D	D	C	C	C	C	S					
Construction Phasing Details				D	D	C	C	C	C	S					
Traffic Controls Details				D	D	C	C	C	C	S					
Foundation/Pile Layout				D	D	C	C	C	C	S					
Pile Loads/Details					D	D	D	C	C	S					
Pile Data Tables							D	D	C	S					
Bent Details							D	D	C	S					
Fender Details							D	D	C	S					
Girder Details							D	D	C	S					
Span Details							D	D	C	S					
Joint Details								D	C	S					
Bearing Details								D	C	S					
Approach Slab								D	C	S					
Guardrail Details								D	C	S					
Bridge Barrier/Railing Details								D	C	S					
Bridge Drainage Details								D	C	S					
Detour Bridge Details								D	C	S					
Revestment Details								D	C	S					
Signage/Lighting Details								D	C	S					
Year Plate								D	C	S					
Rebar Support								D	C	S					
Misc. Details								D	C	S					
Project Specific Standard Plans								D	C	S					
Electrical/Lighting Details								D	C	S					
Mechanical Details								D	C	S					
As-Built Plans								D	C	C					
Special Provisions/NS- Items							D	D	C	C					
Cost Estimate					D	D	D	D	C	C					
Final Calculations											S				
Revised Plans/Calculations												S		S	

Legend:

- "R" = The item is required and shall be included in the submittal.
- "C" = The item shall be complete and shall be included in the submittal.
- "D" = The item shall be in development and shall be included in the submittal.
- "S" = The item is stamped by the EOR and shall be included in the submittal.

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 and include the following information:

___ A PDF File of the Calculation Book

___ All Electronic Design Files

___ A PDF File of the As-Designed Rating Report Only

QC/QA REVIEW COMMENT SUMMARY AND RESOLUTION SHEET		
Project Name: XXX	 Engineer: Dennis Hymel, Jr., P.E.	Date: XXXXXX
Project Number: H.0XXXX		
Submittal: 60% Preliminary	Reviewer: XXX	Page: 1 of 1

RESPONSE CODE
1. Concur / Accept comment
2. Non-Concur / Disagree with comment
3. Conflicts with previous directive
4. For Information Only
5. Clarify or discussion required
6. Delete comment
7. Resolution of comment in next phase
8. See additional comment

• GENERAL USE (THIS SECTION)								
Item No.	Date	(1)Source	Reviewer Comments	(2)Code	(2)Date	(3)Responses	(4)Final Resolution	
							Code	Date
1	8/31	2a	Revise typical section to include X.	1	9/10	Will Incorporate.	1	9/15

If no comment, write "NO COMMENT"	Signature of Reviewer	Agency/Company Sign-off
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(1) Indicates the document / model , or use "G" for General Comment
(2) Design Firm/Agency response code & date to reviewer comment

(3) Design Firm/Agency response to reviewer comment
(4) To be filled out during back check / subsequent meeting/discussion

QA Information Package Checklist

Project No.:

Project Description:

- _____ Calculation Book
- _____ Plans
- _____ Special Provisions
- _____ Cost Estimate
- _____ Other Documents _____

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						

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

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
ELOS Environmental, LLC	607 W. Morris Avenue Hammond, LA 70403	Drake Arnone President Business Development darnone@elosenv.com	985-662-5501

23. Location:

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



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