

CONTRACT NO. 4400025051 Submitted to:

Louisiana Department of Transportation and Development (DOTD)



Submitted by: Forte and Tablada, Inc.





# **DOTD FORM: 24-102**

# PROPOSAL TO PROVIDE CONSULTANT SERVICES

1.	Contract title as shown in the advertisement	Contract For Off System Highway Bridge Program
		Zeagler Cutoff over Creek
2.	Contract number(s) as shown in the advertisement	Contract No. 4400025051
3.	State Project Number(s), if shown in the advertisement	H.015015.5
4.	Prime consultant name (as registered with the Louisiana Secretary of State where such registration is required by law)	Forte and Tablada, Inc.
5.	Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	EF.0000330 – Engineering VF.0000055 – Surveying
6.	Prime consultant mailing address	Forte and Tablada, Inc. 9107 Interline Avenue Baton Rouge, LA 70809
7.	Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	Forte and Tablada, Inc. 9107 Interline Avenue Baton Rouge, LA 70809
8.	Name, title, phone number, and email address of prime consultant's contract point of contact	Russell "Joey" Coco, P.E., MBA – CEO/President (225) 927-9321 jcoco@forteandtablada.com
9.	Name, title, phone number, and email address of the official with signing authority for this proposal	Russell "Joey" Coco, P.E., MBA – CEO/President (225) 927-9321 jcoco@forteandtablada.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 Knull of Coc. Jr. 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 Signature (shall be the same person as #9): 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 Date: 12/20/2022 response. 11. If a Disadvantaged Business Enterprise (DBE) goal has Firm(s): Firm(s)' %: been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal and each firm(s)' N/A N/A percentage.





# 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.

Sub-consultants are allowed to be used for this proposal. Fill in the table by identifying only those evaluation disciplines consistent with the approach and methodology proposed in Section 18 of the DOTD Form 24-102\*, the name of each firm that is part of the proposal, and the percentage of work in each past performance evaluation discipline to be performed by that firm. The percentage estimated for each evaluation discipline is for evaluation purposes only and will not control the actual performance or payment of the work. The percentages for the prime and sub-consultants must total 100% for each past performance evaluation discipline, as well as the overall total percent of the contract.

Evaluation Disciplines	% of Overall Contract	FORTE & TABLADA  (Prime)	GEC (Sub)		
Bridge	85%	100%	N/A		
Environmental	5%	50%	50%		
Survey	10%	100%	N/A		

Identify the percentage of work for the overall contract to be performed by the prime consultant and each sub-consultant.

Percent of Contract	100%	97.5%	2.5%		

# 13. Firm Size:

Firm name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
	Administrative		3
	CADD Technician	2	8
	Clerical		4
	Engineer	1	4
	Inspector		3
	Instrument Man	1	1
FORTE &	Party Chief	1	6
TABLADA	Engineer Intern		9
	Principal	1	3
	Rodman	1	11
	Senior Technician		3
	Supervisor Engineer	2	4
	Supervisor Other		2
	Surveyor	1	5
	Environmental Manager	1	2
GEC	Biologist / Wetlands	2	2

## 14. Organizational Chart:



#### Owner

Louisiana Department of Transportation and Development



# Principal-in-Charge, QA/QC

Russell "Joey" Coco, Jr., PE, MBA 20 Years Professional Experience



# **Project Manager and Chief Design Engineer**

Adrian Boyd Holmes, PE 30 years Professional Experience



### Survey

# **Topographic Survey**

Brad Holleman, P.E., P.L.S. 10 Fully-equipped Survey Crews



# Design

# **Road and Bridge Design**

Joffrey Easley, P.E. Dexter Grogan, III, P.E. Cheryl Taylor, CADD Technician Warren Donaghey, CADD Technician



#### **Environmental**

# **Biologist/Wetlands**

Richard "Barry" McCoy Jason Avant

#### **Environmental Professional**

Nicole Forsyth, EI

# **Zeagler Cutoff over Creek Bridge Replacement Team**



Forte and Tablada, Inc., Prime Consultant, Baton Rouge, LA

G.E.C. Inc., Sub-Consultant, Baton Rouge, LA

# 15. Minimum Personnel Requirements:

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

MPR No. Do not insert wording from ad	Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license / certification & number	State of license	License / certification expiration date
1	Russell "Joey" Coco, P.E., MBA	FORTE & TABLADA	PE / 31337	LA	09/30/2024
2	Russell "Joey" Coco, P.E., MBA	FORTE & TABLADA	PE / 31337	LA	09/30/2024
	Adrian Boyd Holmes, P.E.		PE / 27452	LA	09/30/2023
3	Joffrey Easley, P.E.	FORTE & TABLADA	PE / 31542	LA	3/31/2023
	Dexter Grogan, P.E.		PE / 23431	LA	3/31/2024
	Pradlay C Hallaman DE DI C	FORTE &	PE / 47165	LA	03/31/2023
4	Bradley S. Holleman, P.E., P.L.S.	TABLADA	PLS / 5082	LA	09/30/2024
5	Richard "Barry" McCoy	GEC	N/A	N/A	N/A



# 16. **Staff Experience:**

Firm em	nployed by	FORTE & TA	ABLADA							
Name	Russell "	Joey" Coco, P.E., MB	A		Years of relevant experience with this employer	9	The same of the sa			
Title	Presiden	t/CEO, Principal-In-Cha	nrge		Years of relevant experience with other employer(s)	13				
Degree	(s) / Years	/ Specialization		BSCE / 2000 / LSU MBA / 2006 / LSU Coastal Engineering Certificate / 2008 / Old Dominion University						
Active r	egistration	number / state / expira	ation date	3133	7 / LA / 09/30/2024					
Year re	gistered	2004	Discipline	Civil	Engineering					
Contrac	Contract role(s) / brief description of responsibilities				cipal-in-Charge; Joey, who is a registered civil engineer, wedures are followed and that the project is delivered per					
•	nce dates -mm/yy)				o the proposed contract; i.e., "designed drainage", "d ld cover the time specified in the applicable MPR(s).	lesigned girder	s", "designed			
, , , , , ,	- 09/19	H.000303.6-Danzig	er Bridge Reha	habilitation - Orleans Parish, LA - Principal overseeing survey investigation of Danziger d comparison of actual conditions to original plans.						
10/18	- 12/18		vices for the LA	DOTE	<b>St. James Parish, LA- LADOTD-</b> Principal overseeing Sunshine Bridge Emergency Repair project following to bridge chord.		, ,			
11/19	- 11/20	S.P. No. H.012083.	.5- Calcasieu R	iver l	Bridge Investigation- Calcasieu Parish, LA- LADOTD	- Principal ove	erseeing laser			
05/17	7 -10/17	scanning services for the I-10/Lake Calcasieu bridge in Lake Charles, LA.  S.P. No. H.013052- LA 442 Tangipahoa River Bridge Replacement- Tangipahoa Parish, LA- LADOTD- Principal overseeing topographic surveying for the LA 442 bridge over the Tangipahoa River. The survey included numerous cross-section surveys upstream and downstream of the bridge, as well as the along the bridge fascia. The work was performed utilizing shallow, flat-bottomed boats as a result of the shallow and sandy river bottom and was provided to engineers for the purpose of hydraulic analysis and bridge preservation and replacement considerations.								
08/19	- 01/20	H.011670-I-10/Loyola Interchange Improvements - Kenner, LA – Principal-in-Charge overseeing Topographic Survey, Right-of- Way Survey, and Drainage Survey. The project stretches from the levee in Kenner to the Williams Blvd. off ramp, as well as Loyola Avenue and portions of Veterans Blvd.								
11/18	- 04/19	H.011684.5-LA 327 topographic surveying	H.011684.5-LA 327 Spur: Staring Lane Extension – East Baton Rouge Parish – Principal-in-Charge for comprehensive topographic surveying services and developing a drainage map for the Staring Lane Extension project for LA DOTD. Included in this work was a survey performed utilizing traditional methods and terrestrial laser scanning of roadway surfaces.							

09/17 - 12/19	<b>S.P. No. H.011808.5- Palmetto Co. Canal Bridge - St. Landry Parish, LA -</b> Principal-in-Charge to provide property surveys, title take-offs, and right-of-way map services for the removal and replacement of a timber trestle bridge that spans Bayou Des Glaises, located along La. Hwy. 10 in St. Landry Parish near the town of Palmetto, La.
06/18 - 12/19	LA 98: Roundabout at Mills St - Lafayette Parish, LA – Principal-in-Charge for right of way surveys for this project that requires construction of new roundabout at the intersection of Mills Street and W. Gloria Switch Road (LA Hwy 98) in Lafayette Parish, Louisiana.
05/17 - 10/18	H.004791.5-Belle Chasse Bridge and Tunnel Replacement Survey- Plaquemines Parish, LA- Principal-in-charge for comprehensive topographic surveying services for the Belle Chase Bridge and Tunnel Replacement project for LA DOTD. Included in this work was a survey performed utilizing traditional methods, terrestrial laser scanning of roadway surfaces, and multi-beam 3-D hydrographic surveying.
06/17 - 02/19	Amite River Basin Model- Hydrographic Survey - Livingston Parish, LA- Principal-in-Charge to provide hydrographic surveying of the Amite River and Comite River. Tasks included typical cross-sections of these rivers, as well as detailed 3-D bathymetric data collected with sonar equipment, ground control for LIDAR of the Amite River Basin, and a high- resolution survey of the Amite River Diversion Weir utilizing a variety of techniques including multi-beam sonar and traditional survey methods.
10/18 - 07/21	<b>East Baton Rouge Stormwater Masterplan - East Baton Rouge Parish, LA</b> - Principal-in-Charge for hydrographic surveying of bayous and creeks located within East Baton Rouge Parish for the EBR Stormwater Masterplan. The work consists of establishing cross-sections and stream bed profiles along their length.
02/17 - 03/18	H.010753.5 – US 90 / I-310 Interchange – St. Charles Parish, LA – LA DOTD – Principal-in-Charge responsible for topographic surveying and 3-D laser scanning at the intersection of US90 and I-310 in St. Charles Parish. This project will allow improvements for safety and efficiency. The complete topographic survey includes all utilities with depths and all drainage required along with finish floor elevations of all buildings that fall within the survey limits.
08/14 - Ongoing	H.004273.5 – I-49 Connector – Lafayette Parish, LA – LA DOTD – Principal-in-Charge responsible for providing topographic surveying services for the I-49 Connector. The project is in a dense urban area and is approximately 5 miles long. Forte and Tablada, Inc. completed laser scanning services for much of the congested corridor as a means to obtaining topographic data without endangering surveyors.
05/13 - Ongoing	Old Hammond Highway – Segment 1- East Baton Rouge Parish, LA- Principal-in-Charge for an environmental study and engineering services to design and construct a four-lane boulevard with a raised median and turn lanes and includes several roundabouts. The project will also include traffic signalizations, utility relocations, testing, lighting, landscaping, right-of-ways, and environmental mitigation. This project is part of the Green Light Plan.
05/17 - Ongoing	<b>S.P. No. H. 009859.5- Load Rating of Bridges – Statewide, LA – LA DOTD</b> – Served as a review engineer for load rating of statewide bridges.
01/10 - 12/12	S.P. No. 450-10-0159- I-10: Siegen Lane to Highland Road Design Build ITR — East Baton Rouge Parish, LA – LA DOTD – Served as leader of Independent Technical Review of all bridge structures.

Firm en	nployed by	■ FORTE & T	ABLADA							
Name	Adrian B	oyd Holmes, P.E.			Years of relevant experience with this employer	<1				
Title	Superviso	or Engineer			Years of relevant experience with other employer(s)	30				
Degree(s) / Years / Specialization				B.S. / 1992 / LSU / Civil Engineering ATSSA Traffic Control Technician & Supervisor Certification/ Oct 2009 ATSSA Traffic Control Supervisor Refresher Certification / Nov 2021 ATSSA Flagger Certification / Dec 2021						
Active re	egistration	number / state / expira	ation date	PE.27	7452 / LA / 09/30/2023					
Year reg	gistered	1997	Discipline	Civil	Engineering					
Contract role(s) / brief description of responsibilities				Project Manager/Chief Design Engineer, Boyd Holmes has served as a project manager/engineer on the Off-System Bridge Projects listed below and on the advertised project. Boyd, who is a registered civil engineer, will coordinate all project activities and schedule personnel for design, drafting, etc.						
	nce dates -mm/yy)			vant t	to the proposed contract; i.e., "designed drainage", "old cover the time specified in the applicable MPR(s).	designed girde	rs", "designed			
01/93 -	- Present	five (105) bridge site	s. Boyd also se	rved a	gn Engineer on fifty-one (51) Off-System Bridge Projects to s Project Manager/Design Engineer on five (5) bridge repe eplacement projects in Ascension Parish.					
11/18	- 03/21	Off-System Highwa	y Bridge Prog	ram, L	aSalle Parish – Responsibilities included topographic sur 3) One (1) Bridge. (2018)	rvey, preliminar	y and final			
11/18	- 11/20				Morehouse Parish – Responsibilities included topograph 013118) One (1) Bridge. (2018)	ic survey, prelin	ninary and			
11/18	- Present				<b>Duachita Parish</b> – Responsibilities included topographic s 37) Two (2) Bridges. (2018)	survey, prelimin	ary and final			
11/20 -	- Present	Off-System Highwa	y Bridge Prog	ram, V	<b>Vermilion Parish</b> – Responsibilities included topographic 23) One (1) Bridge. (2020)	survey, prelimi	nary and final			
11/20 -	- Present	Off-System Highwa	Off-System Highway Bridge Program, Rapides Parish – Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#(H.014261) One (1) Bridge. (2020)							
11/20	- Present	Off-System Highwa	y Bridge Prog	ram, E	<b>Fast Baton Rouge Parish</b> – Responsibilities included topo #(H.014318) Two (2) Bridges. (2020)	ographic survey	, preliminary			

Off-System Highway Bridge Program, Natchitoches Parish – Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#(H.010943) Three (3) Bridges. (2014)
Off-System Highway Bridge Program, Avoyelles Parish – Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#(H.011522) Two (2) Bridges. (2015)
Off-System Highway Bridge Program, Acadia Parish – Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#(H.011541) One (1) Bridge. (2015)
Off-System Highway Bridge Program, Iberia Parish – Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#(H.011542) One (1) Bridge. (2015)
Off-System Highway Bridge Program, Morehouse Parish – Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#(H.011532) One (1) Bridge. (2015)
Off-System Highway Bridge Program, West Carroll Parish – Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#(H.011529) Two (2) Bridges. (2015)
Off-System Highway Bridge Program, St. Bernard Parish – Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#(H.012305) One (1) Bridge. (2016)
Off-System Highway Bridge Program, Lafayette Parish – Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#(H.012880) One (1) Bridge. (2017)
Off-System Highway Bridge Program, Rapides Parish – Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#(H.009135) One (1) Bridge. (2011)
Off-System Highway Bridge Program, Bossier Parish – Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#(H.009945) One (1) Bridge. (2012)
Off-System Highway Bridge Program, West Carroll Parish – Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#(H.009981) Two (2) Bridges. (2012)
Off-System Highway Bridge Program, St. Landry Parish – Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#(H.010034 & H.010035) Four (4) Bridges. (2013)
Off-System Highway Bridge Program, Tangipahoa Parish – Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#(H.010061 & H.010062) Four (4) Bridges. (2013)
Off-System Highway Bridge Program, East Feliciana Parish – Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#(H.010562) Two (2) Bridges. (2013)
Off-System Highway Bridge Program, East Baton Rouge Parish – Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#(H.010660) Three (3) Bridges. (2013)
Off-System Highway Bridge Program, Tensas Parish - Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#700-54-0105 (H.005023) One (1) Bridge. (2010)
Off-System Highway Bridge Program, Concordia Parish - Responsibilities included topographic survey, preliminary and final plans, and hydraulic reports. S.P.#700-15-0109 (H.004010.5) One (1) Bridge. (2011)

Firm emp	oloyed by	✓ ► FORTE & 1	ABLADA				
Name	Cheryl	l A. Taylor			Years of relevant experience with this employer	<1	
Title	CADD -	Гесhnician			Years of relevant experience with other employer(s)	39	
Degree(s	s) / Years	s / Specialization		N/A	/ LSU / General Studies		
Active re	gistratior	n number / state / expirat	tion date	N/A			
Year registered N/A Discipline				N/A			
Contract	Contract role(s) / brief description of responsibilities				D Technician, Cheryl has and will serve as Lead CADD Tec ge Projects listed below and on the advertised project	chnician on the C	Off-System
Experience dates (min/yy)					roposed contract; i.e., "designed drainage", "designed girespecified in the applicable MPR(s).	ders", "designed	intersection",
drainage, of digital (AutoCAE urban and for use w large-sca Prior to the Engineers	, and qua terrain r O) as we d rural ro ith data o le aerial p hat, she s. She wo echniciar	nntity calculations; drafting nodels (DTM); etc. A parall as ink/mylar drafting. It as ink/mylar should be as so worked six (6) years as Sonked two (2) years as Son for Pan American Engin	ng plan/profile sl rtial listing of LD Cheryl has broa ystems, wastewa d and reduced s pographic maps enior Design Tec enior Design Tec enior Design Tec neers-Baton Rou	heets, DOTD   Id bas ater sy survey s. For t chnicia chnicia	·	oridge detailing; or of computer-ain & rural drain ole for developing has worked extexclusively on LDO Technician for learning two (2) ye	development ided-drafting age systems, g field codes tensively with OTD projects. Evans-Graves ars as Senior
06/16 – 0	03/19		l(s), existing cros	s-sect	<b>Bernard Parish S.P.# (H.012305</b> ) - One (1) Bridge. tions, existing drainage maps, hydraulic report exhibits, tit tions, etc. (2016)	•	•
06/17 – 1	12/20		l(s), existing cros	s-sect	<b>Ifayette Parish S.P.# (H.012880) -</b> One (1) Bridge. tions, existing drainage maps, hydraulic report exhibits, tit tions, etc. (2017)	•	•
11/18 – (	02/21		l(s), existing cros	s-sect	angeline Parish S.P.# (H.013141) - One (1) Bridge. tions, existing drainage maps, hydraulic report exhibits, tit tions, etc. (2018)		

	Off-System Highway Bridge Program, LaSalle Parish S.P.# (H.013093) - One (1) Bridge. Cheryl was responsible for development						
11/18 – 03/21	of field roll(s), existing cross-sections, existing drainage maps, hydraulic report exhibits, title sheet, typical sections, plan profiles,						
	general bridge plans, template X-sections, etc. (2018)						
	Off-System Highway Bridge Program, Morehouse Parish S.P.# (H.013118) - One (1) Bridge. Cheryl was responsible for						
11/18 – 11/20	development of field roll(s), existing cross-sections, existing drainage maps, hydraulic report exhibits, title sheet, typical sections, plan						
	profiles, general bridge plans, template X-sections, etc. (2018)						
11/10	Off-System Highway Bridge Program, Ouachita Parish S.P.# (H.013137) - Two (2) Bridges. Cheryl was responsible for						
11/18 - Present	development of field roll(s), existing cross-sections, existing drainage maps, hydraulic report exhibits, title sheet, typical sections, plan						
Present	profiles, general bridge plans, template X-sections, etc. (2018)						
11/20 -	Off-System Highway Bridge Program, Vermilion Parish S.P.# (H.014223) - One (1) Bridge. Cheryl was responsible for						
Present	development of field roll(s), existing cross-sections, existing drainage maps, hydraulic report exhibits, title sheet, typical sections, plan						
11636110	profiles, general bridge plans, template X-sections, etc. (2020)						
11/20 -	Off-System Highway Bridge Program, Rapides Parish S.P.# (H.014261) - One (1) Bridge. Cheryl was responsible for development						
Present	of field roll(s), existing cross-sections, existing drainage maps, hydraulic report exhibits, title sheet, typical sections, plan profiles,						
Tresent	general bridge plans, template X-sections, etc. (2020)						
11/20 -	Off-System Highway Bridge Program, East Baton Rouge Parish S.P.# (H.014318) - Two (2) Bridges. Cheryl was responsible for						
Present	development of field roll(s), existing cross-sections, existing drainage maps, hydraulic report exhibits, title sheet, typical sections, plan						
- reserie	profiles, general bridge plans, template X-sections, etc. (2020)						
	Off-System Highway Bridge Program, East Baton Rouge Parish S.P.# (H.010660) - Three (3) Bridges. Cheryl was responsible for						
02/14 – 06/17	development of field roll(s), existing cross-sections, existing drainage maps, hydraulic report exhibits, title sheet, typical sections, plan						
	profiles, general bridge plans, template X-sections, etc. (2013)						
	Off-System Highway Bridge Program, Natchitoches Parish S.P.# (H.010943) - Three (3) Bridges. Cheryl was responsible for						
03/14 – 12/17	development of field roll(s), existing cross-sections, existing drainage maps, hydraulic report exhibits, title sheet, typical sections, plan						
	profiles, general bridge plans, template X-sections, etc. (2014)						
	Off-System Highway Bridge Program, Avoyelles Parish S.P.# (H.011522) - Two (2) Bridges. Cheryl was responsible for						
06/15 – 03/18	development of field roll(s), existing cross-sections, existing drainage maps, hydraulic report exhibits, title sheet, typical sections, plan						
	profiles, general bridge plans, template X-sections, etc. (2015)						
	Off-System Highway Bridge Program, West Carroll Parish S.P.# (H.011529) - Two (2) Bridges. Cheryl was responsible for						
09/15 – 01/18	development of field roll(s), existing cross-sections, existing drainage maps, hydraulic report exhibits, title sheet, typical sections, plan						
	profiles, general bridge plans, template X-sections, etc. (2015)						

Firm emp	oloyed by	FORTE & TA	ABLADA				
Name	Warren	Donaghey			Years of relevant experience with this employer	8	
Title	CADD Te	echnician			Years of relevant experience with other employer(s)	14	CONTRACTOR OF THE CONTRACTOR O
Degree(s	s) / Years / S	Specialization		A.S. /	/ 1999/ Computer Drafting and Design		
Active registration number / state / expiration date			on date	N/A			
Year regi	istered	N/A	Discipline	N/A			
Contract	role(s) / bri	ef description of respoi	nsibilities		D Technician, Warren will work with the engineers and p D drawings.	project manager to	o prepare
Experience (mm/yy-r					o the proposed contract; i.e., "designed drainage", "old cover the time specified in the applicable MPR(s).	designed girders	", "designed
	Ongoing	Caplis Sligo Road B	Bridge over Red e. New concret	d Chu	te Bayou, Bossier Parish, LA – CADD Technician to dege, 200' long, 30' clear roadway with (5) – 40' spans with	•	•
10/19 -	Ongoing		je. New concret	te brid	<b>cin Bayou, Bossier Parish, LA</b> – CADD Technician to doge, 140' long, 30' clear roadway with (7) – 20' precast co	•	•
01/17 -	Ongoing	Linton Road over B replacement of bridg	lack Bayou Res	<b>ervoi</b> -place	r, Bossier Parish LA - LADOTD - CADD Technician to d concrete bridge, 220' long, 40' clear roadway with (11) – lway embankment across reservoir, with concrete retaini	- 20' slab spans ar	nd pile bents
06/16	- 02/20		rete bridge, 180		<b>Bossier Parish LA</b> – CADD Technician to develop const , 30' clear roadway with (9) – 20' precast concrete slab sp	•	•
11/15	- 05/17	replacement of bridg	e over Shettlew	orth B	th Road – Caddo Parish, LA – CADD Technician to de ayou and Piney Bayou. Each bridge is 100' long, 28' clear pile bents with 16" PPC piles.	•	
concrete slab spans and precast concrete pile bents with 16" PPC piles.  Westdale Road Bridge over Bayou Pierre – DeSoto Parish, LA – CADD Technician to provide engineering support for repair. Project included the scanning, inspection, and analysis for the rehabilitation of the bridge. The project was gove the current edition of the LA DOTD Standard Specifications for Roads and Bridges.							

06/12 - 02/14	<b>I-220 Bridge Widening over Russell Road – Caddo Parish, LA – LA DOTD</b> – CADD Technician to develop construction plans for widening of two bridges (eastbound and westbound). Each bridge with steel plate girders, with (2)-89' spans, (1)-142'-6" center span, new column bents with 66" drilled shafts, extended end bents with 36" drilled shafts. Widened/replaced total width of 26'-6" for each bridge, for 53'-6" total clear roadway for each bridge.
05/10 - 09/10	<b>Poole Road Bridge Over Flat River – Bossier Parish, LA</b> – CADD Technician to develop construction plans for replacement of bridge. 262'-6" long, (2)-65'-6" spans with Type III girder, (1)-131-6" center span with Type BT-72 girders, 28' clear roadway, pile bents with 30" and 16" piles.
02/10 - 06/12	Murphy Street Bridge Over KCS Railroad – Caddo Parish, LA – LA DOTD – CADD Technician to develop construction plans for replacement of city street bridge over railroad tracks. One four (4) lane bridge with sidewalks, 257' long with steel beam girders, (2) – 77' spans, (1) –103' center span, 52' clear roadway, pile bents with 24" and 30" PPC piles, "pile bent" with 36" drilled shafts.
12/01 -10/04	Industrial Loop Overpass, Inner Loop Expressway (LA 3132) – Caddo Parish, LA – LA DOTD – CADD Technician to develop construction plans for extension of the Inner Loop. Included two bridges (eastbound and westbound), each 655'-6" long, (8) – 65'-6" spans with Type III girders, (1) – 131'-6" span with Type BT-72 girders, 40' clear roadway, pile bents with 24" PPC piles, column bents each side of 131' 6" span.
2005 – 2006	JCT. LA 822 – Dubach – Route 167 – Lincoln Parish, LA – CADD Technician to develop construction plans for bridges. LA DOTD – Design services for the reconstruction of a portion of US 167 and the replacement of two existing bridges. Main channel bridge – 225m long, (15) – 15m spans, Type II PPC girders, 12m clear roadway, and pile bents with 750mm PPC piles. Relief Bridge – 90m long, (6) – 15m spans, Type II PPC girders, 12m clear roadway, and pile bents with 600mm PPC piles.

Firm employ	ed by	<b>■FORTE</b> & T	ABLADA					
Name	Joffre	y E. Easley, P.E., M.S.			Years of relevant experience with this employer	14		
<b>Titl</b> e	Superv	visor Engineer			Years of relevant experience with other employer(s)	3	entent -	
Degree(s) / \	Degree(s) / Years / Specialization				BSCE / 2000 / Civil Engineering MSCE / 2003 / Civil Engineering			
Active registi	ration nu	umber / state / expiration	date	3154	42 / LA / 03/31/2023			
Year register	Year registered 2004 Discipline			Civil	Engineering			
Contract role(s) / brief description of responsibilities			bilities	Bridge Engineering, Joffrey will provide bridge design and load rating in support of the project manager and will coordinate with CADD Technicians.				
Experience o (mm/yy–mm/					he proposed contract; i.e., "designed drainage", "des over the time specified in the applicable MPR(s).	igned girdei	rs", "designea	
01/16 - 01	/21	Whittington Road Bridge Replacement – Livingston Parish, LA – Design engineer for the replacement of an existing timber bridge over Grays Creek with a new concrete slab span bridge through the LADOTD off-system bridge replacement program.						
01/14 - 01	/20	<b>Travis Street and George Mashon Road Bridge Replacement – Livingston Parish, LA –</b> Design engineer for the replacement of two (2) timber bridges with concrete box culverts (Travis Street) and a curved concrete slab span bridge (George Mashon Road) through the LADOTD off-system bridge replacement program.						
12/12 - 01	/22	Cook Road Expansion	– Designed and g center by exte	d prod	luced plans for new bridges over Gray's Creek to provid Cook Road off of Pete's Highway. Bridge includes specia			
01/15 - 09	9/17	Holly Drive Bridge Rep	lacement- St.		oad rating for the new design of the bridge.	f an existing	timber bridge	
01/14 - 01	/20	•			lacement – Livingston Parish, LA – Design engineer fo ear LA Highway 447 in Livingston Parish.	or the replac	cement of the	
01/14- 01	/21		•		<b>ridge Replacement – Livingston Parish, LA –</b> Design eng k on Forrest Delatte Road in Livingston Parish.	gineer for th	e replacement	
06/15 - 06	5/16	<b>East Baton Rouge Parish Bridge Replacements</b> – Provided design services and load rated multiple slab span bridges that incorporated sidewalks. Design services included determination of pile loads, superstructure and substructure design, and independent technical review of completed plans.						
04/13 - 06	5/14	Wax Road Bridge over bridge over Greys Creek			gston Parish, LA – Bridge design engineer for the repla	acement of	the Wax Road	

05/13 - 12/14	Musson Lane Bridge Replacement, Iberville Parish, LA- Performed a detailed structural inspection and load rating of the existing bridge constructed of precast concrete spans and timber caps and piles. Developed plans and specifications for the
03, 13 12, 11	replacement of the existing bridge with a new precast concrete slab span bridge.
10/18 - 05/19	H.000445.1-1- US 190 over UPRR and Little Teche Bayou, St. Landry Parish, LA - Project Engineer for this project that developed a scoping document for the replacement or rehabilitation of the EB and WB US 190 bridges over the Union Pacific Railroad (UPRR) near I-49 and over Little Teche Bayou in St. Landy Parish, LA. Based on the findings, a Bridge Evaluation Report outlining the feasibility and preliminary cost estimates for several construction phasing alternatives, as well as a recommended scope of work, was developed.
03/18 - Ongoing	LA DOTD Retainer Contract for Off-System Bridge Load Rating – Statewide, LA – Project Manager, Load Rating Engineer, and Team Leader for a retainer contract that includes multiple Task Orders to inspect and load rate off-system bridges and culverts across the state. Task Order 1 – Inspection and load rating of 12 complex off-system bridges, including lift spans, swing spans, bascule spans, ferry landings, and truss bridges; Task Order 2 – Inspection and load rating of approximately 200 off-system bridges, consisting primarily of slab spans; Task Order 4 – Inspection and load rating of approximately 300 off-system bridges, consisting primarily of slab spans, but also including concrete and steel girder spans.
08/19 - 02/20	LA DOTD Retainer for In-Depth Bridge Inspections – Simmesport, LA – Inspection of the approach spans, consisting of rolled steel and plate girder spans supported by column bents, of the LA 1 bridge over the Atchafalaya River.
01/21 – 09/21	Retainer for Bridge Preservation – US90Z: Westbank Expressway Rehab, Jefferson Parish, LA- Project Manager to develop plans for the rehabilitation of the nearly 6-mile long Westbank Expressway in Jefferson Parish, LA.
10/15 - 04/19	LA DOTD Retainer Contract for Bridge Preservation – Atchafalaya Floodway- Project Manager to provide engineering services for the rehabilitation of multiple bridges along I-10 between Baton Rouge and Lafayette. Bridge types included PPC and steel girder spans, steel grid deck, and slab spans. Scope of work included performing a detailed inspection, documenting deficiencies, and preparing rehabilitation plans for all bridges.
05/16 - 10/19	Retainer Contract for Complex Bridge Rating, Statewide, LA- LA DOTD- Project Manager to perform a load rating for the US 90 West Middle River Bridge near the Louisiana/Mississippi border.
11/14 - 08/16	Westdale Road over Bayou Pierre Repairs – DeSoto Parish, LA – Inspected, laser scanned, developed plans, and provided construction administration services for the repairs of a timber bridge that had been closed due to its deteriorated condition. Provide a load rating following the completion of the repairs. Repairs allowed the bridge to be re-opened to vehicular traffic.
06/16 - 04/20	<b>St. Tammany Parish Off-System Bridge Load Ratings, St. Tammany Parish, LA</b> - Project Manager to collect all available bridge files from all available resources, including LADOTD and Parish records, for numerous slab span, girder, and railcar bridges in St. Tammany Parish and perform inspections and load ratings for the bridges.
11/16 - 10/20	<b>Livingston Parish Off-System Bridge Load Ratings – Livingston Parish, LA</b> – Inspection and load rating of numerous existing slab span bridges and culverts so that Livingston Parish would follow FHWA Metric 13, which requires all Off-System bridges to be load rated.

Firm em	nployed by	FORTE & T	ABLADA								
Name	Dexter L.	. Grogan, III, P.E.			Years of relevant experience with this employer	8					
<b>Titl</b> e	Engineer				Years of relevant experience with other employer(s)	23					
Degree(	(s) / Years	/ Specialization		BSCE	/ 1981 / LA Tech	_					
Active re	egistration	number / state / expir	ation date	2343	1 / LA / 03/31/2024						
Year reg	Year registered 1989 Discipline			Civil	Engineering						
Contrac	et role(s) / b	rief description of res	ponsibilities	Bridg	ge Engineer, Dexter will provide road and bridge design ager and will coordinate with CADD Technicians.	in support of th	e project				
	nce dates -mm/yy)				o the proposed contract; i.e., "designed drainage", "d d cover the time specified in the applicable MPR(s).	designed girdei	rs", "designed				
08/20 -	Ongoing	off-System Bridge Load Rating Retainer – LA DOTD State-Wide Contract - Assisting with Load Rating Reports for slab span bridges and determining factored moment capacity of tee beam bridges.									
07/19 -	Ongoing				<b>e Bayou, Bossier Parish, LA</b> – Roadway and bridge desi O' clear roadway with (5) – 40' spans with Type LG-25 gird	•					
10/19 -	Ongoing		te bridge, 140' lor		in Bayou, Bossier Parish, LA – Roadway and bridge des of clear roadway with (7) – 20' precast concrete slab span	•					
01/17	7 - 7/22	<b>Linton Road over Black Bayou Reservoir, Bossier Parish LA - LADOTD</b> - Roadway and bridge design for replacement of bridge. New cast-in-place concrete bridge, 220' long, 40' clear roadway with (11) – 20' slab spans and pile bents with 24" PPC piles. Widened 1,030' of roadway embankment across reservoir, with concrete retaining walls each side.									
06/16	- 02/20		Sligo Road Bridge over Foxskin Bayou, Bossier Parish LA – Roadway and bridge design for replacement of bridge. New concrete bridge, 180' long, 30' clear roadway with (9) – 20' precast concrete slab spans and precast concrete pile bents with 16" PPC piles.								
11/15	- 05/17	over Shettleworth B	ridge Replacement on Blanchard-Furrh Road – Caddo Parish, LA – Roadway and bridge design for replacement of bridges wer Shettleworth Bayou and Piney Bayou. Each bridge is 100' long, 28' clear roadway, with (5)-20' precast concrete slab spans and precast concrete pile bents with 16" PPC piles.								

02/15 - 09/15	Westdale Road Bridge over Bayou Pierre – DeSoto Parish, LA – Project included the scanning, inspection, and analysis for the rehabilitation of the bridge. The project was governed by the current edition of the LA DOTD Standard Specifications for Roads and Bridges.
06/12 - 02/14	<b>I-220 Bridge Widening over Russell Road – Caddo Parish, LA – LA DOTD</b> – Bridge Design for widening of two bridges (eastbound and westbound). Each bridge with steel plate girders, with (2)-89' spans, (1)-142'-6" center span, new column bents with 66" drilled shafts, extended end bents with 36" drilled shafts. Widened/replaced total width of 26'-6" for each bridge, for 53'-6" total clear roadway for each bridge.
05/10 - 09/10	<b>Poole Road Bridge Over Flat River – Bossier Parish, LA</b> – Roadway and bridge design for replacement of bridge. 262'-6" long, (2)-65'-6" spans with Type III girder, (1)-131-6" center span with Type BT-72 girders, 28' clear roadway, pile bents with 30" and 16" piles.
02/10 - 06/12	Murphy Street Bridge Over KCS Railroad – Caddo Parish, LA – LA DOTD – Roadway and bridge design for replacement of city street bridge over railroad tracks. One four (4) lane bridge with sidewalks, 257' long with steel beam girders, (2) – 77' spans, (1) –103' center span, 52' clear roadway, pile bents with 24" and 30" PPC piles, "pile bent" with 36" drilled shafts.
12/01 - 10/04	Industrial Loop Overpass, Inner Loop Expressway (LA 3132) – Caddo Parish, LA – LA DOTD – Roadway and bridge design plans for the extension of the Inner Loop. Included two bridges (eastbound and westbound), each 655'-6" long, (8) – 65'-6" spans with Type III girders, (1) – 131'-6" span with Type BT-72 girders, 40' clear roadway, pile bents with 24" PPC piles, column bents each side of 131' 6" span.

Firm employ	irm employed by FORTE & TABLADA		ABLADA				
Name	Bradley	S. Holleman, P.E., P.L	S.		Years of relevant experience with this employer	1	
Title		/ice President, Survey/A ements & Modeling	Advanced		Years of relevant experience with other employer(s)	14	
Degree(s) /	Years / S	Specialization		BSCE	: / 2009 / Civil Engineering		
Active regis	tration nu	ımber / state / expiratio	n date	5082	/ LA PLS / 9/30/2024 ; 47165 / LA PE / 3/31/2023		
Year registe	Year registered 2012; 2022 Discipline			Land	Surveying/Civil Engineering		
Contract role(s) / brief description of responsibilities			sibilities	Surveyor, Brad will coordinate with survey crews to capture the site information, establish control, and deliver a surveying CADD drawing for the engineers and technicians to perform road and bridge design services.			
	xperience dates Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed mn/yy—mm/yy) intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).					s", "designed	
05/12 – 0	9/12	H.009456 – Tchefuncte River Bridge – Surveyor-in-Charge for the topographic survey and existing drainage map. This project was for a bridge replacement over the Tchefuncte River in Tangipahoa Parish. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along					
01/13 – 0	99/13	with finished floor elevations of all building that fall within the survey limits.  H.009489 Jefferson Highway Overpass - Surveyor-in-Charge for the bridge monitor survey, topographic survey and existing drainage map. This project was monitoring and the overpass replacement of Jefferson Highway over Airline Highway in East Baton Rouge Parish. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.					
09/13 – 0	)3/14	H.002375 Amite River Bridge Near French Settlement – Surveyor-in-Charge for the topographic survey, 3D laser scanning and existing drainage map. This project was for constructing a new bridge over Amite River in French Settlement Louisiana to the replace the existing swing bridge. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.					
09/14 - 0	2/15	H.011158 LA 3139 – Surveyor-in-Charge for the topographic survey, 3D laser scanning and existing drainage map. This project was for constructing a replacement span because of a damaged girder on the LA 3139 overpass over I-10. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.					

12/14 – 03/16	H.011137 & H.011152 I-12 (LA 21 to LA 59), St. Tammany Parish, LA— Surveyor-in-Charge for the topographic survey, 3D laser scanning and existing drainage map. This project was for widening of Interstate 12 from LA 21 to La 59 in St. Tammany Parish. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
06/16 - 02/17	<b>H.000263 Chef Menteur Pass Bridge</b> - Surveyor-in-Charge for the topographic survey, 3D laser scanning and existing drainage map. This project was for the design of new bridge to replace the existing swing bridge on US 90 over Chef Menteur Pass. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
03/17 - 03/18	<b>H004987 US 190 Collins Blvd, St. Tammany Parish, LA</b> - Surveyor-in-Charge for the topographic survey, 3D laser scanning and existing drainage map. This project was for the design of capacity improvements on US 190 in Covington. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
05/18 - 11/18	<b>I-10: Loyola Interchange Improvements, Kenner, LA</b> - Surveyor-in-Charge for the control survey, utility survey and 3D mobile laser scanning. This project was for the design of new exit for the New Orleans Airport. The work consisted of completing a utility and control survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths that fell within the survey limits.
01/19 - 04/19	H.012735 La 182 Barrow Street Bridge - Surveyor-in-Charge for the topographic survey, 3D Mobile laser scanning and existing drainage map. This project was for the design of a new bridge on La 182 in Houma. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
06/19 - 08/19	<b>H.004791 La 232 Belle Chasse Bridge</b> - Surveyor-in-Charge for the topographic survey and laser scanning. This project was additional work for the design of a bridge near the Belle Chasse Tunnel. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
02/20 - 06/20	<b>H.000284 US 90 Pearl River Bridges</b> - Surveyor-in-Charge for the 3D Mobile laser scanning. This project was for the design of improvements to US 90 over Pearl River tributaries. The work consisted of completing mobile lidar scan and delivering a point cloud for DOTD use and extraction.
06/20 - 12/20	<b>4400017597 DOTD Rural Bridge Replacement</b> - Surveyor-in-Charge for the topographic survey. This project was for design of multiple bridge replacements throughout south Louisiana. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.

Firm employ	yed by	GEC								
Name	Nicole Forsyth, EI  Years of relevant experience with this employer		6							
Title	Environr	mental Engineer			Years of relevant experience with other employer(s)	14				
Degree(s) /	Years / S	pecialization		B.S. /	/ 2001 / Civil Engineering					
Active regis	tration nu	mber / state / expiration	n date	1984	11 / Louisiana / 09-30-2023					
Year registe	ered	2001	Discipline	Civil	Engineering					
Contract role(s) / brief description of responsibilities				Envir	ronmental Professional					
Experience (mm/yy–mn					the proposed contract; i.e., "designed drainage", "designed the time specified in the applicable MPR(s).	gned girder	s", "designed			
(EISs, EAs, C	Es). Her e: invironme	xpertise also lies in multintal Section for approxi  La 1/I-10 Connect  Transportation): W  connector route betwinclude an additional due to the proposed supervised contracte	ti-agency permi mately 6 years, tor Environmo lest Baton Rou ween LA 1 and 1 I crossing over to d project. Ms. I d employees ar	where ental uge Pa i-10 we the Inter- Forsyth	n the overall project management, preparation and review Noise and Air Studies, and Section 10/404/408 compliance she managed the environmental phase of numerous hig Assessment (Federal Highway Administration/Lou arish, La. Project Manager - The LADOTD and FHWA est of the Mississippi River in West Baton Rouge Parish. To racoastal Waterway (ICWW). The EA analyzed the potential managed day to day operations for this EA for the Leewed all NEPA documents prepared by the contractors, co	e. She serve hway project isiana Dep proposed he connecte al environm ADOTD and -hosted a p	ed as an EI in ets.  partment of to develop a per would also ental impacts of FHWA. She			
2007 -	meeting and hearing for the project, and ensured that the project was kept on time and within budget.  Noise Study And Air Quality Analysis, La 22 Road Widening: St. Tammany Parish, LA. Project Manager LADOTD and Greater New Orleans Expressway Commission proposed to widen LA 22 in St. Tammany Parish, Louisiana. Ms. Forsyth managed and prepared the noise study and air quality analysis for this proposed project. The noise study addressed the potential noise impacts from the proposed project. Ms. Forsyth used the Federal Highway Administration's (FHWA) Traffic Noise Model (TNM) to model the noise impacts and possible noise barriers for the proposed project. She performed a field noise survey and all related data collection for the noise analysis including site visits, traffic counts and field measurements of actual noise levels. Ms. Forsyth also performed an air quality analysis to determine the conformity of the project and addressed the Section 4(f) issues associated with this project.  H 204987 ( U.S. HWY, 190 ( Colling Reviewerd Widening (US-1908 - LA 25); Covington LA NEDA Specialist. Ms.									
10/15 -	05/17	Forsyth participated	<b>I.004987 / U.S. HWY. 190 / Collins Boulevard Widening (US-190B – LA 25): Covington, LA</b> . NEPA Specialist – Ms. orsyth participated in the preparation of an Environmental Assessment (with Finding of No Significant Impact) and Line and Grade Study to widen approximately three miles of U.S. 190 in Covington, a project which will include the construction of							

I	
I	new bridges across the Bogue Falaya River. Notably, the project proposed the elimination of all signalized intersections within
1	the project corridor and replacement with roundabouts.
	S.P. H.004983 / U.S. HWY. 11 Widening (Lake Pontchartrain to Spartan Drive): Slidell, LA. NEPA Specialist – Ms. Forsyth
	prepared an EA for the New Orleans Regional Planning Commission (NORPC) in compliance with FHWA NEPA requirements
1	for the widening of US Highway 11 in Slidell, LA. Her tasks included interagency coordination and analyses of project impacts
10/15 - 05/16	on wetlands, land use and community character, economic activities, cultural and recreational resources, Sections 4(f) and
	6(f), noise and air impacts, floodplains, demographics and environmental justice, relocations of homes and businesses, and
	endangered or threatened species and their habitat. Required environmental studies included, among other tasks, wetlands,
1	threatened and endangered species, floodplains, and a Phase I ESA.
	Third Party EIS for the Mid-Barataria Sediment Diversion (MBSD): Plaquemines Parish, LA. Project Manager – Ms.
	Forsyth served as project manager on the GEC Team leading development of a Third-Party EIS for the MBSD Project proposed
	by CPRA. The EIS was prepared under the direction of USACE, New Orleans District, to aid in their decision-making regarding
	CPRA's permit application pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors
2017 - Present	Act, and permissions under 33 U.S.C. Section 408. The Third-Party EIS assessed the potential adverse and beneficial impacts
;	associated with the construction and operation of the project. In addition to informing USACE decisions, the EIS was used to
i	inform decisions that the DWH NRDA LA TIG may make regarding restoration planning under OPA. This highly publicized
;	and controversial project included seven cooperating agencies, 10 commenting agencies, and 11 consulting tribes for the
	EIS and was placed on the Permitting Dashboard under the FAST-41 process.
	Supplemental EIS for the Inner Harbor Navigation Canal (IHNC) Lock Replacement Project (U.S. Army Corps of
	Engineers, New Orleans District): New Orleans, LA. Project Technical Assistant – A 1997 EIS evaluated replacement of the
1	IHNC Lock. In 2007, the Federal District Court, Eastern New Orleans District, enjoined the project and required preparation
2008 - 2009	of a supplemental EIS to describe changes in existing conditions after Hurricane Katrina and to analyze impacts from the
1	recommended plan and alternatives on these existing conditions. Ms. Forsyth prepared the PowerPoint Presentation for the
	public hearing. Ms. Forsyth was also part of a team that addressed over 415 public and agency comments. The accelerated
	project schedule required a two-week turnaround of responses following closing of the public comment period.

Firm emp	loyed by	GEC						
Name	Richard	l "Barry" McCoy			Years of relevant experience with this employer	31		
Title	Wetland	ds Biologist			Years of relevant experience with other employer(	s) <sub>1</sub>		and the second second
Degree(s)	) / Years /	Specialization		B.S.	1989 / Wildlife Conservation			
Active reg	gistration n	umber / state / expiratio	n date	N/A				
Year regis	stered	N/A	Discipline	Civil	Engineering			
Contract role(s) / brief description of responsibilities					gist / Wetlands			
Experienc (mm/yy–n					he proposed contract; i.e., "designed drainage", "ocover the time specified in the applicable MPR(s).	lesigned	girders'	", "designe
Louisiana provided t Course ald	State Univ through th ong with a	versity. He has also atte e Wetland Training Insti	ended the Wetla tute. Other classe . Having comple	nd Des inc ted n	Identification Workshop conducted by the Wetland Delineation Preparatory course for the Wetland Deliude a Habitat Evaluation Procedures Course, and a 40 merous projects as lead biologist and/or wetland sy field work.	neator Ce )-Hour W	ertification aste Site	on Prograr Operatior
04/19 -	- 12/21	was responsible for co Determination from th assisted in preparing t	nducting a wetla e New Orleans D he necessary Cor	and d istric ps of	Replacements: East Baton Rouge Parish, LA. Welineation, preparing a wetland report, and requestire, Corps of Engineers for both of the bridge replacem Engineers permit applications for projected impacts t projects. (Bridge Recall No(s). 800541 and 80056	g a Prelir ent locatio to wetlan	minary Ju ons. Mr. nds and o	urisdictional McCoy als other water
02/07 -	Highland Road (La 42) Improvements (Perkins to Airline): Baton Rouge, LA. Wetland Scientist - For this Green Light P project, GEC designed additional lanes and a raised median for Highland Road from Perkins Road to Airline Highway. McCoy conducted a wetland delineation in accordance with Section D, Subsection 2 of Technical Report Y-87-1, Corps Engineers Wetlands Delineation Manual as well as the Atlantic and Gulf Coastal Plains Regional Supplement. The results of delineation were compiled in a formal report and submitted to the New Orleans District, Corps of Engineers for an approx Jurisdictional Determination.							

11/18 - 02/21	<b>I-10 Service Road Bridge Replacements: Slidell, LA.</b> Wetland Scientist - Mr. McCoy was the lead Wetland Scientist responsible for the wetland delineation within the proposed project area. Mr. McCoy oversaw the field efforts associated with the project and the preparation of the wetland delineation report. Mr. McCoy coordinated with the New Orleans District, Corps of Engineers to request a Preliminary Jurisdictional Determination and assisted in preparing the joint permit application for Louisiana Department of Natural Resources, Coastal Use Permit and the Corps of Engineers Wetland Permit.
12/16 - 12/19	Cleveland Street Bridge Replacement: Covington, Louisiana. Biologist - Mr. McCoy was responsible for conducting a wetland delineation at the project site and obtaining a jurisdictional determination from the New Orleans District, Corps of Engineers. He utilized this information to apply for a Section 10/404 Corps permit as well as a Louisiana Department of Wildlife and Fisheries, Natural and Scenic Rivers System permit.
09/2019 - present	LA SAFE-Airline and Main Complete Streets: LaPlace, LA. Wetland Scientist - Mr. McCoy conducted the field surveys for a wetland delineation within the project footprint, prepared a wetland delineation report that was submitted to the New Orleans Corps of Engineers to request a Preliminary Jurisdictional Determination (JD). Mr. McCoy also prepared and submitted the Corps of Engineers Section 404 Wetland permit application, the Louisiana Department of Natural Resources Coastal Use permit application, and requested a Letter of No Objection from the Pontchartrain Levee Board for activities proposed within 1500 feet of the Mississippi River Main Line Levee. He coordinated with all three agencies through the completion of each permit or request.
01/11 - 06/14	<b>US 190 Collins Blvd. Right Turn Lane at Lee Road: Covington, LA</b> . Wetlands Scientist - GEC designed the extension of the existing U.S. Hwy. 190 (Collins Blvd.) northbound right turn lane to the LA Hwy. 437 (Lee Road) intersection, from 200 feet to approximately 2,300 feet. Mr. McCoy performed wetland delineations.

Firm emplo	yed by	GEC							
Name	Jason	Avant			Years of relevant experience with this employer	15			
Title	Enviro	nmental Scientist			Years of relevant experience with other employer(s)	0	_		
Degree(s) /	Degree(s) / Years / Specialization			B.S.	/ 2004 / Natural Sciences				
Active regis	stration r	number / state / expiration	n date	N/A					
Year registe	ered	N/A	Discipline	Lanc	d Surveying				
Contract ro	le(s) / br	ief description of respons	sibilities	Biolo	ogist / Wetlands				
•					ne proposed contract; i.e., "designed drainage", "designer the time specified in the applicable MPR(s).	ned girder	s", "designed		
		ronmental scientist and le field research.	ead botanist at	GEC.	He has over 15 years of experience in coastal plant comm	nunities, and	d has		
02/07 - 0	Highland Road (La 42) Improvements (Perkins To Airline): Baton Rouge, LA. Biologist - For this Green Light Plan p GEC designed additional lanes and a raised median for Highland Road from Perkins Road to Airline Highway. GEC condu wetland delineation in accordance with Section D, Subsection 2 of Technical Report Y-87-1, Corps of Engineers We Delineation Manual as well as the Atlantic and Gulf Coastal Plains Regional Supplement. The results of the delineation compiled in a formal report and submitted to the New Orleans District, Corps of Engineers for an approved Jurisdic Determination.					Conducted a ers Wetlands ineation were			
11/18 - 0	2/21		-		idell, LA. Biologist - Mr. Avant participated in the wetland forts associated with the project and the preparation of				
04/19 - 1	2/21	Chevelle Drive and Sarasota Drive Bridge Replacements: East Baton Rouge Parish, LA. Biologist - Mr. Avant participated in a wetland delineation, preparing a wetland report, and requesting a Preliminary Jurisdictional Determination from the New Orleans District, Corps of Engineers for both of the bridge replacement locations. Mr. Avant also assisted in preparing the necessary Corps of Engineers permit applications for projected impacts to wetlands and other waters within the project area for both replacement projects. (Bridge Recall No(s). 800541 and 800561; City Parish Project No. 18-BRUS-0016)							
01/14 - 0	5/17	S.P. H.004987 / U.S. HWY. 190 / Collins Boulevard Widening (US-190B – LA 25): Covington, LA. Biologist – Mr. Avant participated in the preparation of an EA (with FONSI), Line and Grade Study to widen approximately three miles of U.S. 190 in Covington, a project which will include the construction of new bridges across the Bogue Falaya River. Notably, the project proposed the elimination of all signalized intersections within the project corridor and replacement with roundabouts.							

04/17 - Present	LA 66: Big Bayou Sara Bridge Rehabilitation: West Feliciana Parish, LA. Field Inspector – Mr. McCoy was responsible for monitoring the nesting activities of cliff swallows under the bridge on a weekly basis while contractors were conducting rehabilitation tasks on the bridge. He was tasked with keeping records of active and inactive nests, number of birds present at the site, nesting activities, and behavior of the birds while construction activities were conducted. If construction activities disrupted the normal activities of the nesting cliff swallows, he was responsible for informing the contractor and suspending those tasks until nesting was complete. Weekly reports were submitted to U. S. Fish and Wildlife Service to provide a summary of the nesting activities.
04/07 - Present	<b>GNOEC, Lake Pontchartrain Causeway: St. Tammany and Jefferson Parishes, LA.</b> Biologist – Mr. Avant serves as Biologist for improvements to the Causeway. GEC prepares and conducts regulatory Solicitations of Views, prepares responses to regulatory comments/guidance, conducts wetland delineations, prepares wetland/water body survey reports and prepares Coastal Use Permit applications.



# SECTION

17



# 17. Firm Experience:

Firm name	► FORTE & TABLADA					Past Performance Evaluation Discipline(s)*				Bridge, Survey, Env.	
Project name	Off-System Brid	ge Replaceme	nts Whitti	ngton Rd	d over Grays Creek Firm responsibility (prime or su				ime or sub?)	Prime	
Project number	H.016166	Owner's	name	Livingston Parish							
Project location	Livingston Parish	n, LA			Owner's Project Manager Sam Digirolam				Digirolamo		
Owner's address	, phone, email	20399 Gover	nment Blv	/d, Livings	ston, LA 7	0754, 225-686	5-3062, sdigirolan	no@lp	gov.com		
Services commenced by this firm (mm/yy) 07/17 Total					Total consultant contract cost (\$1,000's)					\$176.2	
Services complet	12/20	Cost of consultant services provided by this firm (\$1,000's)					00's)	\$134.4			

Forte and Tablada provided surveying, engineering, and hydraulic analysis services required for the replacement of this timber bridge in Livingston Parish. The existing timber bridge on Whittington Road over Grays Creek was replaced with a six-span concrete slab span bridge. As this road is the only access to dozens of homes and a temporary crossing was not feasible due to site constraints, a temporary access road was constructed to provide access to the residents while the bridge was out of service. This required an agreement between the landowners and the Parish, which was facilitated by Forte and Tablada. This work included the following tasks:

- Topographic Survey
- Hydraulic Analysis
- Civil Design & Construction Plans Preparation
- Wetlands/Environmental Services
- Property Surveys and ROW Agreements
- **Construction Phase Services**

**Project Team:** Joffrey Easley, P.E. - Project Manager Jason Fennell, P.E. – Project Engineer Jennifer Whipple, E.I. – Pre-Professional



Whittington Road Bridge over Grays Creek



Firm name	FORTE & TAB	LADA			Past Performance Evaluation Discipline(s)* Bridge				Bridge, Surv	e, Survey, Env.	
Project name	Off-System Brid	ge Replaceme	nts Georg	e Mashor	n Rd. and Travis St. Firm responsibility (prime or sul					Prime	
Project number	H.021528		Owner's	name	Livingston Parish						
Project location	Livingston Parisl	h, LA			Owner's Project Manager Sam Digirolam			Digirolamo			
Owner's address	, phone, email	20399 Gover	nment Blv	/d, Livings	ston, LA 7	0754, 225-686	5-3062, sdigirolam	no@lp	gov.com		
Services commenced by this firm (mm/yy) 04/15 Total c					al consultant contract cost (\$1,000's)					300.5	
Services completed by this firm (mm/yy) 10/2				Cost of consultant services provided by this firm (\$1,000's)					00's)	5284.0	

Forte and Tablada provided surveying, engineering, and hydraulic analysis services required for the replacement of two timber bridges in Livingston Parish. The existing bridge on George Mashon Road over the Little Natalbany River was replaced with a curved slab span bridge, while the Travis Street over Dumplin Creek bridge was replaced with concrete box culverts. This work included the following tasks:

- Topographic Survey
- Hydraulic Analysis
- Civil Design & Construction Plans Preparation
- Bridge Design and Load Rating for a Curved Bridge
- Geotechnical Services
- Wetlands/Environmental Services
- Property Surveys ROW Agreements
- Construction Phase Services

Project Team:
Joffrey Easley, P.E. – Project Manager
Jason Fennell, P.E. – Project Engineer
Jennifer Whipple, E.I. – Pre-Professional

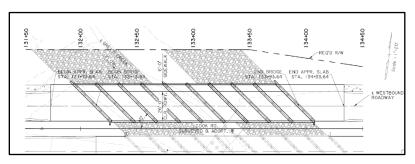


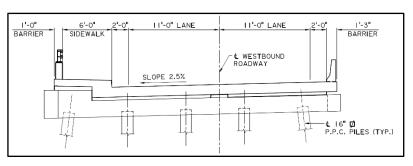
George Mashon Road Bridge over Little Natalbany River

Firm name	FORTE & TABI		Past Performance Evaluation Discipline(s)* Road, Su				Road, Surve	rvey, Bridge, Env.		
Project name	Cook Road Impr	ovements			Firm responsibility (prime or sub?)				Prime	
Project number			Owner's nan	ne	Livingston Parish Council					·
Project location	Livingston Parish			Owner's Project Manager Layton Ricks, P			n Ricks, Pari	Parish President		
Owner's address	, phone, email	P.O. Box 42	27, Livingston,	LA 707	754, 225-6	86-2266; Irick	s@lpgov.com			
Services commenced by this firm (mm/yy) 01/12 Total				Total	tal consultant contract cost (\$1,000's)					\$2,833
Services completed by this firm (mm/yy)  Ongoing  Cost				Cost	of consult	ant services pi	rovided by this firr	n (\$1,	000's)	\$2,833

Forte and Tablada performed comprehensive engineering services for this project that designed improvements to an existing section of two-lane roadway and an unimproved area with the construction of a four (4) lane boulevard section from LA Hwy 16 (Pete's Hwy) to LA Hwy 1026 (Juban Road), along with several bridges. The project typical section will include a grass median (includes turn lanes) with lighting and sidewalks on both sides of the road. Due to other projects and anticipated growth in the project area this project also includes a multi-lane roundabout at the intersection of Cook Road and Pete's Hwy to serve the needs of this area. Urban Systems completed a traffic analysis for the roundabout as a sub consultant. Services provided for this project include project management, a Line and Grade Study, Topographic Surveying, Environmental Services, Right-of-Way Surveying, Right-of-Way plans, Title Take Offs, Design Engineering, Construction Engineering, and Resident Project Representative Services for the proposed construction. The engineering design was completed January 2022, and construction phase is currently underway.

# **Project Team:** Chad Bacas, P.E., Project Manager Allison Schilling, P.E., Project Engineer Kresten Brown, P.E., Project Engineer Mark Kessler, Senior Technician Joffrey Easley, P.E., Project Engineer





Plans developed for Cook Road Slab Span Bridge Prepared by Forte and Tablada

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Firm name	FORTE & TAB		Past Performance Evaluation Discipline(s)* Bridge, Su					vey, Env.		
Project name	Holly Drive Bridg	ge Replaceme	nt				Firm responsibility (prime or sub			Prime
Project number			Owner's n	ame	St. Tammany Parish Government					
Project location	St. Tammany Pa	rish, LA			Owner's Project Manager Jason Cambre,			n Cambre, P.I	Ξ.	
Owner's address	, phone, email	21454 Koop	Drive, Suite	2F, Ma	ndeville, l	_A 70471, 985-	898-2552, jpcamb	ore@s	tpgov.org	
Services commenced by this firm (mm/yy) 01/15 Total					al consultant contract cost (\$1,000's)					\$261
Services completed by this firm (mm/yy) 02/17				Cost	et of consultant services provided by this firm (\$1,000's)				000's)	\$261

Forte and Tablada provided all necessary engineering and related services required for the replacement of a timber bridge on Holly Drive over the Little Bogue Falaya River in St. Tammany Parish. Due to the location of the bridge, it was important to the community that the bridge maintain the "feel" of a timber bridge as much as possible. Through public meetings and close coordination with the Parish, it was decided that the replacement bridge would be a precast concrete bridge composed of a stained concrete deck with a stamped driving surface to mimic the look and feel of driving over a timber bridge. The bridge contained a sidewalk and a crash-tested timber barrier rail. Tasks for this project included topographic and right of way survey, bridge design preliminary and final plans, hydraulic analysis, wetlands study, environmental clearance, a ROW map, a LRFR load rating, and shop drawing review, and construction inspection.

# **Project Team:**

Joey Coco, P.E., MBA, Principal-in-Charge Joffrey Easley, P.E., MSCE, Project Manager Chad Bacas, P.E., MBA, Project Engineer Todd Harris, P.L.S., Survey Manager

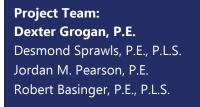


Aesthetic Concrete Slab Span Bridge designed by Forte and Tablada

Firm name	FORTE & TAB		Past Performance Evaluation Discipline(s)* Bridge, St				Bridge, Surv	vey, Env.		
Project name	Linton Road Brid	dge Over Black	Bayou Rese	ervoir		Firm responsibility (prime or sub				Prime
Project number	S.P. No. H.01312	29	Owner's n	ame	Bossier Parish Police Jury					
Project location	Bossier Parish, L	A			Owner's Project Manager  Joe E. Ford, P.E.			E. Ford, P.E.		
Owner's address	, phone, email	P.O. Box 70,	Benton, LA	71006, 2	225-965-3	3709, jefbossei	ng@aol.com			
Services commenced by this firm (mm/yy) 11/16 Total					tal consultant contract cost (\$1,000's)					\$260
Services completed by this firm (mm/yy) 07/22 Co				Cost	st of consultant services provided by this firm (\$1,000's)			.000's)	\$220	

Forte and Tablada provided surveying, engineering, and hydraulic analysis services required for improvements of the bridge on Linton Road over Black Bayou Reservoir. This work included the following tasks:

- Topographic Survey
- Hydraulic Study/Report
- No Rise Certification
- Civil Design & Construction Plans Preparation
- Geotechnical Services
- Environmental Services
- Utility Relocation
- Property Surveys & Right-of-Way Maps
- Pre-Cast Concrete Slab Span Bridge (140' Long)
- Construction Phase Services





Linton Road Bridge/Embankment at Black Bayou Reservoir designed by Forte and Tablada

Firm name	GEC				Past Performance Evaluation Discipline(s)* Environm			Environmer	ntal	
Project name	Highland Road	Highland Road (LA 42) Improvements (Perkins t				Airline) Firm responsibility (prime or sub?)		Prime		
Project number	06-CS-HC-0026 Owner's name			ame	City-Parish of East Baton Rouge					
Project location	Baton Rouge, LA					Owner's Proj	iect Manager	Tom 9	Stephens	
Owner's address, phone, email P.O. Box 1471, Baton Rouge, LA 70821, (225) 389-3186, TStephens@brla.gov										
Services commenced by this firm (mm/yy)			02/07	Total consultant contract cost (\$1,000's)				\$1,213		
Services completed by this firm (mm/yy)			07/11	Cost of consultant services provided by this firm (\$1,000's)			000's)	\$1,213		

GEC served as the prime consultant, providing all environmental investigations, preliminary plans, and final plans for the widening, new bridge crossing, and raised medians along Highland Road from Perkins Road to Airline Highway. The new bridge crossings at both Ward's Creek and Old Ward's Creek tied to completed intersection improvements at Perkins Road and at Airline Highway. GEC's contract responsibilities included the design and detail of the roadway and bridges, topographic survey, right-of-way maps, environmental permitting, coordinating with railroad, utilities, and stakeholders, and hydraulic analysis.

GEC conducted an Environmental Site Assessment (ESA) and a wetland delineation. The ESA was performed in accordance with the scope and limitations of ASTM E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. In order to characterize environmental conditions for the project GEC: (1) reviewed federal, state, and local environmental databases; (2) conducted historical research; (3) interviewed pertinent personnel; and (4) performed a site investigation. This assessment revealed no recognized environmental conditions (RECs) on or in the vicinity of this project.

The wetland delineation was conducted in accordance with Section D. Subsection 2 of Technical Report Y-87-1, Corps of Engineers Wetlands Delineation Manual as well as the Atlantic and Gulf Coastal Plains Regional Supplement. The results of the delineation were compiled in a formal report with permit drawings and submitted to the New Orleans District, Corps of Engineers for an approved Jurisdictional Determination.



**Project Team: Jeff Robinson Barry McCoy** Jason Avant Will Grant

Firm name	GEC				Past Per	formance Eva	luation Discipline	(s)*	Environmen	tal
Project name	Chevelle Drive a	Chevelle Drive and Sarasota Drive Bridge Replac					Firm responsibil	ity (pr	ime or sub?)	Prime
Project number	H.013542 Owner's name			ame	City-Parish of East Baton Rouge					
Project location	Baton Rouge, LA					Owner's Proj	ect Manager	Tom	Stephens, PE	
Owner's address	Owner's address, phone, email P.O. Box 1471, Baton Rouge, LA 70821, (225) 389-3186, tstephens@brla.gov									
Services commenced by this firm (mm/yy)			04/19	Total consultant contract cost (\$1,000's)			4	3319		
Services completed by this firm (mm/yy)			12/21	Cost	of consult	ant services pi	rovided by this firr	n (\$1,	000's)	5271

GEC served as a prime consultant, providing all environmental investigations, preliminary plans, and final construction contract plans for the replacement of the Off-System Bridges at Chevelle Drive and Sarasota Drive in East Baton Rouge Parish. GEC's preliminary and final design study tasks included planning, field investigations, permitting, and related environmental tasks, which ultimately resulted in a Categorical Exclusion. GEC provided the following environmental tasks as a part of this project:

- **Alignment Study** The study was done to determine detour routes, typical sections, horizontal and vertical alignments, bridge site/watershed/wetland evaluations to determine the area of potential affect.
- **Solicitation of Views (SOV)** SOVs were distributed to participating agencies and responses were documented appropriately.
- **Wetland Delineation** GEC conducted a wetland delineation at the project sites in accordance with Section D, Subsection 2 of Technical Report Y-87-1, Corps of Engineers Wetlands Delineation Manual as well as the Atlantic and Gulf Coastal Plains Regional Supplement. Aerial photography, Natural Resources Conservation Service (NRCS) EBR Parish soil survey map, and U.S. Geological Survey (USGS) topographic quadrangle maps were reviewed prior to the initiation of field work to identify the potential extent of wetlands present on the subject property. A final wetland delineation report was developed and approved. GEC also provided USACE Permitting services including permit drawings and a Pre-



Project Team: Barry McCoy Jason Avant

- Construction Notification (PCN) packet, requesting a preliminary jurisdictional determination from the New Orleans District.
- **Hydraulic Analysis** GEC provided a hydraulic analysis using HEC-RAS, following LADOTD's Guidelines for Off System Bridges. This included an analysis of alternate replacement structures, based on flow and compared replacement alternates to the existing structure, along with recommendations for replacement and scour analyses. GEC prepared a final report summarizing findings.
- Categorical Exclusion (CE) The investigations culminated into a final CE report, including the LADOTD Environmental Checklist. As a part of the CE, the following resources were analyzed: Section 4(f), cultural resources, biological resources, wetlands and waters of the U.S., navigable waters/scenic streams, coastal use, floodplains, farmland, noise and air, agriculture and forestry, oil and gas wells, waste/contaminated sites, and environmental justice.

Firm name	GEC				Past Performance Evaluation Discipline(s)* Environ		Environme	ntal			
Project name	I-10 Service Road Bridges					Firm responsibility (prime or sub?)			Prime		
Project number	Owner's name				St. Tammany Parish Government						
Project location	Slidell, Louisiana					Owner's Proj	iect Manager	Christ	opher Coer	ers/	
Owner's address	Owner's address, phone, email 21490 Koop Drive, Mandeville, LA 70471, (985) 898-2552, cjcorvers@stpgov.org										
Services commenced by this firm (mm/yy)			11/18	Total consultant contract cost (\$1,000's)				\$248	8		
Services completed by this firm (mm/yy)			06/21	Cost of consultant services provided by this firm (\$1,000's)			,000's)	\$248	8		

GEC served as the prime consultant, providing all environmental investigations, preliminary plans, final plans, and construction engineering and inspection for improved drainage, new approach roads, and upgrades to two bridges to meet current standards with increased life-span. For the project, part of a \$30M Bond Package, GEC completed preliminary and final plans with LRFR as-designed bridge rating for two (2) bridge sites in accordance with the LADOTD Bridge Design and Evaluation Manual on the I-10 Service Rd. in Slidell, Louisiana – one at Reine Canal and one at French Branch.

GEC performed a hydrologic and hydraulic analysis, including viable drainage alternates for the site. The design was in compliance with the LADOTD Hydraulics Manual as modified by the LADOTD's Hydraulics Guidelines for Off-System Bridges.

GEC provided all environmental and permitting services for Wetland permits (404 and Nationwide) and Section 10 permits from USACE, in addition to a Coastal Use Permit from Louisiana Department of Natural Resource and permit drawings. A preliminary Jurisdictional Determination was approved by the USACE New Orleans District. Construction was completed in summer 2021.



**Project Team: Barry McCoy** Jason Avant



# SECTION 18



#### 18. Approach and Methodology:

#### Synopsis and Boyd Holmes Engineering, Inc. Acquisition

Forte and Tablada, Inc. recently acquired Boyd Holmes Engineering, Inc., which has more than twenty (20) years of Off-System Bridge (OB) experience throughout the State of Louisiana. Forte and Tablada, Inc. and Boyd Holmes Engineering, Inc. have a long history of working together and mutual friendships which ultimately culminated in the acquisition. The two firms have an impeccable track record for delivering Off-System Bridges for DOTD and municipalities, and worked closely together to share knowledge and experience for successful projects. With the acquisition, the firm principal Boyd Holmes, P.E., serves as a Forte and Tablada senior project manager and leads a team focused on Off-System Bridge projects. The acquisition allows Boyd Holmes to provide laser focus on delivering projects for DOTD while leveraging a deep bench of administrative and project resources at Forte and Tablada, Inc. He is backed with the experience of other professionals, Joffrey Easley, P.E. and Dexter Grogan, P.E. who also have a long history of working with DOTD and the Off-System Bridge program staff.

The combined Forte and Tablada/Boyd Holmes Engineering project resumes have provided engineering and design related services for approximately 150 Off-System bridge sites in 38 different parishes throughout the state as part of 51 DOTD and 37 parish/municipal projects. For perspective, of all Off-System Bridge Projects advertised between 2010-2020, Boyd Holmes Engineering, Inc. submitted on 75 projects and was shortlisted for all 75 projects. Prior to the change from numerical consultant past performance ratings in July 2020, Boyd Holmes Engineering, Inc. maintained the highest (4.8 on a 5.0 scale) composite Off-System Bridge (OB) Past performance rating in the State of Louisiana.

Forte and Tablada, Inc. has put together an excellent team that has extensive experience on Off-System Bridge Projects. Forte and Tablada will provide bridge and road design, topographic surveys, hydraulic analysis, and overall coordination with the DOTD and the Parish. GEC, Inc., our sub-consultant, will provide environmental services.



#### **Approach**

The existing Zeagler Cutoff Road Bridge Over Creek consists of a 3-span timber bridge with timber caps, piles, headwalls, and wingwalls on a 2-lane asphalt road. The bridge is 22.4' wide x 44' long and is currently posted with a 15-ton weight limit. The site is wooded on all 4 corners of the bridge with the bridge being located in a short tangent with reverse horizontal curves on each end with no superelevation in either curve. The creek is relatively shallow with evidence of downed trees and erosion in the vicinity of the bridge. There are wooded areas on the upstream side of the bridge and along the creek, which could cause debris problems for reinforced concrete box culverts or circular culverts. The Parish's input will be needed to determine the recommended replacement structure. Since the creek is relatively small with a small drainage area, the probable replacement structure will be either a 3-span slab span bridge or multiple

reinforced concrete box culverts, if debris is not a problem. There appears to be overhead utility lines on one side of the bridge that could cause problems with construction of the bridge if located along the alignment of the new bridge. There are houses located on the northwest and southeast corners of the bridge, but it appears the driveways will be located far enough away from the bridge not to cause possible guard rail alignment problems. The bridge can be closed during construction since there are multiple existing roads that can be used for detour routes.

#### Methodology

The general scope of work for the project will consist of performing topographic surveys, hydraulic analysis and design, preliminary roadway and bridge design, solicitation of views and categorical exclusion clearance documentation required for environmental clearance, wetlands studies, wetlands permitting, right-of-way sketches and agreements for Parish acquisition, and final roadway and bridge design. The detailed descriptions of how the various tasks will be performed and their schedules are described below.

#### **Topographic Surveys**

Upon execution of the contract and issuance of the Notice to Proceed (NTP), Boyd Holmes will collect the initial project information (location map, project number request form, traffic counts, and survey field books) from the DOTD Off-System Bridge staff and proceed with data collection for the bridge sites. Prior to performing the on-site topographic survey work, a desktop review of available aerial imagery, street view imagery, property maps and data, topographic maps, elevation data (Light Detection and Ranging [LiDAR] and Digital Elevation Models [DEM]), and Natural Resource Conservation Service (NRCS) parish soil data will be performed. The information will be used to define drainage areas and flow patterns to identify potential questions to discuss with Parish personnel and local residents familiar with drainage at the bridge sites.

Upon completion of the data collection from the desktop review, Boyd Holmes will coordinate with Forte and Tablada's survey team leader, Brad Holleman, PLS, to schedule the topographic survey field work. Brad will schedule the field crew, submit utility locate notification requests, and collect and establish GPS survey control information to be used for the horizontal control tied to the Louisiana State Plane Coordinate System in North American Datum (NAD-83) and the vertical control tied to the North American Vertical Datum (NAVD-88). Boyd will also contact Parish personnel to meet at the bridge sites to verify the correct bridges to be replaced and to obtain information to be used to design the replacement structures. Boyd will also contact adjacent property owners to discuss drainage at the bridge sites to determine possible drainage structure alternates based on potential problematic issues such as debris problems, maintenance problems, alignment problems, right-of-way constraints, etc. Boyd will meet with the survey crew to establish horizontal and vertical control points and to layout the survey alignment to be used for data collection and preparation of fieldrolls. Boyd will take photographs of the roadway, bridge, channel, and other topographic features at the site to be used throughout the project design and permitting processes. The survey crew will survey the roadway and channel in accordance with the in the latest edition of the DOTD Location and Survey Manual subject to the Off-System Highway Bridge Program survey procedures.

Upon completion of the survey field work, Brad will process the field data and prepare the survey point listings and the CAD drawing files to prepare the topographic fieldroll drawings. Cheryl Taylor, together with Forte and Tablada technicians, will then develop the field roll drawings, existing roadway cross-section drawings, existing channel cross-section drawings, existing drainage maps, survey point listing reports, and site photographs with legend. Boyd Holmes will review these drawings and reports for conformance with the Off-System Highway Bridge Program Guidelines and submit them to the DOTD Off-System Bridge staff for review and approval. It is anticipated the topographic survey work will be completed within 30 days of a notice to proceed by DOTD.

#### Hydraulic Analysis, Design, and Report

After the survey submittal is reviewed and approved, Boyd Holmes will send Notice of Inquiry Letters and Maps to the U.S. Army Corps of Engineers, the NRCS (Soil Conservation Service), the Parish Department of Public Works Office, and the Parish Floodplain Administrator to determine if any of the agencies may

Prime Consultant Name: FORTE & TABLADA

have planned or pending projects or developments that could affect the proposed bridge replacement project. Boyd will perform a hydraulic analysis of the existing bridge structure and determine viable drainage structure alternates for replacement. Boyd will contact Parish personnel to discuss the viable drainage structure alternates and the pros and cons of each alternate with regard to potential debris and maintenance issues, alignment issues, access issues to adjacent properties, right-of-way issues and the Parish's ability to acquire additional right-of-way, safety issues, estimated construction cost, and the need for potential design exceptions and/or waivers (if required based on project constraints). Boyd will coordinate with the DOTD Off-System Bridge Manager to discuss the Parish's preferred replacement structure and any potential issues. Boyd will finalize the hydraulic calculations and report based on these discussions. The hydraulic analysis and report for the site will be performed in accordance with the DOTD Hydraulics Manual as modified by the Hydraulic Guidelines for Off-System Bridges. The hydraulic calculations will be performed using the DOTD HYDRWIN Hydraulics Programs and the U.S. Army Corps of Engineers HEC-RAS program to model the water surface profiles along the channel and bridge structures. The hydraulic report and calculations will be submitted to the DOTD Off-System Bridge staff for review and approval by the DOTD Hydraulics Section. It is anticipated the hydraulics study work will be completed within 45 days of a notice to proceed by DOTD.

#### **Preliminary Roadway and Bridge Design**

Upon approval of the hydraulics report, Boyd Holmes will establish the design criteria for the bridge site using the existing and projected traffic counts, roadway posted speed limit, existing and proposed roadway elements, and consideration of any future roadway or channel improvements. The design criteria will be established using the 2017 DOTD Minimum Design Guidelines, the AASHTO Policy on Geometric Design of Highways and Streets, the DOTD Road Design and Bridge Design Manuals, and the Federal Aid Off-System Highway Bridge Program Guidelines. Boyd will prepare the Design Report documenting the design criteria and identify any elements that require design exceptions or waivers. Boyd will coordinate with Cheryl Taylor or Warren Donaghey to layout the horizontal and vertical alignments for the project using the design structure and the roadway transitions in accordance with the design criteria. Cheryl or Warren will then create digital terrain models using the alignments and the design cross section templates. Cheryl or Warren and Boyd will then establish the limits of construction and required right-of-way for the project. Once set, Cheryl or Warren will prepare the set of preliminary plan drawings consisting of the title sheet with layout map, typical section sheets, plan profile sheets, general bridge plan sheets, roadway and channel cross section sheets, construction signing sheets, and the drainage map. Boyd Holmes will review these drawings for conformance with the Off-System Highway Bridge Program Guidelines and submit them with Constructability/Biddability forms to the DOTD Off-System Bridge staff for review and approval. It is anticipated the preliminary plans will be completed within 60 days of a notice to proceed by DOTD.

#### Solicitation of Views and Categorical Exclusion Clearance Documentation Required for Environmental Clearance

After the replacement structure is determined and a plan profile sheet is created identifying the limits of construction and required right-of-way, Boyd Holmes will coordinate with the DOTD Environmental Section to submit project descriptions and maps to federal, state, and local agencies, organizations, and individuals to inform them of the proposed project and to solicit views for possible adverse economic, social, or environmental effects on local resources. Boyd will collect the comments received and prepare the environmental determine checklist with supporting documentation to obtain environmental categorical exclusion clearance. These documents will be submitted to the DOTD Off-System Bridge staff for review and approval by the DOTD Environmental Section. It is anticipated the time required from submittal of the solicitation of views to submittal of the environmental determine checklist with supporting documentation will be completed within approximately 90 days of a notice to proceed by DOTD. This timeframe will occur simultaneously with the Plan-in-Hand and Post Plan-in-Hand phases of work.

#### **Wetlands Studies**

GEC first approaches wetland delineations with a desktop review of available imagery, topographic maps, elevation data (LIDAR and DEM) and NRCS parish soil data prior to on-site work. Once the limits of construction are provided by Boyd Holmes, GEC will mobilize a field crew to perform a transect evaluation of

Page 37 of 48 Prime Consultant Name: FORTE & TABLADA

the area to be delineated collecting data on vegetation abundance and species composition, soil characteristics, and the presence or absence of wetland hydrology. GEC will conduct the on-site wetland delineation in accordance with the 1987 United States Army Corps of Engineers (USACE) Wetland Delineation Manual, associated regional supplement and recent New Orleans District (NOD) wetland delineation report requirements. The boundaries of Waters of the U.S., including wetlands, will be mapped using Differential Global Positioning System technology (DGPS), utilizing real-time position corrections resulting in sub-meter accuracy. Data points will be established within dominant plant communities. Data sheets (as approved by the USACE) will be completed at each data point location and will include all information necessary for the USACE to make a preliminary jurisdictional determination (PJD).

Following completion of the field work, GEC will prepare a Wetland Finding Report using the latest FHWA criteria with wetland maps, wetland determination data forms (data sheets), and site photographs from our investigation and submit to Boyd Holmes for review. This report will contain all USACE NOD required information and formatting. The Wetland Finding Report will be prepared by Barry McCoy, Jason Avant, or Nicole Forsyth and reviewed by a certified Professional Wetland Scientist (PWS).

Once the limits of construction are provided by Boyd Holmes, GEC will initiate the desktop review and schedule the field work within 1 to 2 weeks. Field work is anticipated to take 1 day to complete and the Wetland Findings Report will be provided to Boyd within 1 week following the completion of field work. Boyd will then submit to the USACE the Wetland Findings Report with a request for a preliminary jurisdictional determination. This information will also be submitted to the DOTD Off-System Bridge staff for review and approval by the DOTD Environmental Section as part of the environmental clearance process. This timeframe will occur simultaneously with the Plan-in-Hand and Post Plan-in-Hand phases of work.

#### **Wetlands Permitting**

Cheryl Taylor will create wetlands permit drawings using the Post Plan-in-Hand drawings and the boundaries of Waters of the U.S., including wetlands. Boyd Holmes will review these drawings for conformance with the Off-System Highway Bridge Program Guidelines and the USACE requirements and submit them to the DOTD Off-System Bridge staff for use by the DOTD Environmental Section to obtain the USACE permit. This timeframe will occur simultaneously with the Plan-in-Hand and Post Plan-in-Hand phases of work.

#### **Right-of-way Sketches and Agreements for Parish Acquisition**

Cheryl Taylor will create right-of-way sketches and agreements using the Post Plan-in-Hand drawings. Boyd Holmes will review these sketches and agreements for conformance with the Off-System Highway Bridge Program Guidelines and submit them to the DOTD Off-System Bridge staff for use by the Parish to acquire the required right-of-way, drainage servitudes, and construction servitudes. This timeframe will occur simultaneously with the Plan-in-Hand and Post Plan-in-Hand phases of work.

#### **Final Roadway and Bridge Design**

Upon receipt of the environmental clearance for the project, Boyd Holmes, Joffrey Easley, Cheryl Taylor, and Warren Donaghey will prepare the Final Plans for the project, which will include the summary of estimated quantities, standard plans and details, and special plans and details specific to the project sites. Joffrey will provide the structural design, calculations, and bridge load ratings for the structures that require special designs. Boyd and Joffrey will review these drawings for conformance with the DOTD Road Design and Bridge Design Manuals subject to the Federal Aid Off-System Highway Bridge Program Guidelines. The final plan drawings will be submitted with a bound copy of all design computations and reports to the DOTD Off-System Bridge staff for review and approval. It is anticipated the final plans will be completed within 60 days of a notice to proceed by DOTD.

#### **Quality Assurance (QA) / Quality Control (QC)**

Throughout every phase of this project, Boyd Holmes and Joffrey Easley will perform a QA/QC review of each submittal in accordance with the QA/QC program included in this proposal.

Page 38 of 48 Prime Consultant Name: FORTE TABLADA



#### 19. Workload:

Firm(s)	Past Performance Evaluation Discipline(s) *	State project number	Project name	Remaining Unpaid Balance**
	Survey	H.011965.6	IWGO Bridge Rehabilitation	\$55,218
	Survey	H.011684	LA 327 Spur: Staring Lane Extension Route LA 327-S	\$40,402.80
	Survey	H.012072	LA 60 Drain Bridge	\$1,278
	Survey	H.014560	LA 94: Vermillion River Bridge	\$3,439
	Survey	H.014416	LA 3125 at LA 3274 Roundabout	\$4,800
	Survey	H.004273.5	DOTD I-49 Connector (Lafayette Regional Airport to I-10/US 167 Interchange	\$120,644
FORTE & TABLADA	Survey	H.011670	I-10/Loyola Additional Topo and ROW	\$43,811
IABLADA	Survey	H.003931.5	Calcasieu River Bridge Phase 4	\$187,695
	Bridge	H.009859.5	Task Order 1 Load Ratings Due to Condition Drop	\$875,307
	Bridge, Survey, Environmental	H.013137.5	Off-System Highway Bridge Program, Ouachita Parish	\$92,995
	Bridge, Survey, Environmental	H.014261.5	Off-System Highway Bridge Program, Rapides Parish	\$12,546
	Survey	H.014591.5	Airline at I-12 Overpass Analysis	\$1,665
	Bridge, Survey, Environmental	H.014981.5	DOTD OSBR Hosston River Road over Kelly Bayou	\$88,870

FORTE &	Bridge, Survey, Environmental	H.014989.5	DOTD OSBR Neff Lane over Wind Creek	\$92,309
TABLADA	Bridge, Survey, Environmental	H.014990.5	DOTD OSBR South Tiger Bend Road and East Achord Road Bridges	\$173,570

Firm(s)	Past Performance Evaluation Discipline(s) *	State project number	Project name	Remaining Unpaid Balance**
	Other (Program Management)	SP# 4400016958	Road Transfer Program Management, Statewide (NOTE: The Average Annual billing is approximately \$290,000/year. This billing represents 1 person stationed at DOTD. Thus, unlikely to bill this entire remaining balance. Program Management ONLY – NO Planning, Road or Bridge Design work)	\$1,556,853
	Road, Bridge, ITS,Environmental, Other	SP# H.004273.5	I-49 Connector (Lafayette Regional Airport to I-10/I-49/US 167 Interchange) (Sub to Stantec) (NOTE: Work limited to project control scheduling, environmental and structural work performed to support the supplemental Environmental Assessment) (Environmental Balance = \$17,626)	\$540,360
GEC	Bridge, ITS & Other	S.P.# H.004100	I-10 Baton Rouge Widening CMAR Segment 1 (Sub to Huval)	\$1,149,198
	Road, Bridge, ITS, & Other	S.P.# H.013897	I-10 & I-12 College Drive Flyover Ramp Design-Build Project (Sub to Boh Bros.) Road (\$209,160), Bridge (\$174,800), ITS (\$10,885), Sound Walls (\$44,640) & Electrical (\$34,115)	\$473,600
	Bridge	SP# H.008145.5	Leeville to Golden Meadow, Route LA 1 Relocated, Const. Engineering Services (Sub to HNTB)	\$219,878
	Bridge & Other	SP# H.003074.5	Williams Blvd – Veterans Blvd., Route I-10, Jefferson Parish, LA Bridge (\$148,795) & Electrical (\$54,012)	\$202,807

Firm(s)	Past Performance Evaluation Discipline(s) *	State project number	Project name	Remaining Unpaid Balance**
	Bridge	Contract # 4400010099	Retainer Contract for Off-System Complex Bridge Load Rating (Sub to Forte & Tablada)	
		TO# H.012485.1	Rating of Off-system Bridge Structures	\$19,056
		TO# H.092481.5	Off-System Load Testing and Evaluation	\$14,800
	Bridge	Contract # 4400025040 S.P. H.015342	Infrastructure Investment and Jobs Acts (IIJA), Off-System Bridge Program, District 61	\$14,602
		Contract # 4400011354	IDIQ Contract for Electrical Statewide	
		TO# H.013442.6	I-10: Crowder Boulevard Interstate Lighting	\$47,103
GEC		TO# H.013617.5	I-10: I-610E Interchange Lighting	\$37,334
		TO# H.013617.6	I-10: I-610E Interchange Lighting	\$188,429
		TO# H.014552.5	I-49: LA 31 Interchange Lighting (Opelousas) Task Order No. 2	\$307,724
		TO# H.014556.5	I-49: US 190 Interchange Lighting (Opelousas) Task Order No. 3	\$332,407
		TO# H.014557.5	I-49: Judson Walsh Drive Interchange Lighting (Opelousas) Task Order No. 4	\$326,898
	Other (Electrical)	S.P. # H.004774.5 & H.007300.6	Kansas Lane - Garrett Road Connector and I-20 Improvements, Ouachita Parish (Sub to Lazenby & Associates, Inc.)	\$40,816
	Other (Electrical)	Contract # 4400005660	Retainer Contract for Electrical Services (Sub to Buchart-Horn)	
		TO# H.012874.6	I-55: LA 22 Interstate Lighting	\$20,153

Firm(s)	Past Performance Evaluation Discipline(s) *	State project number	Project name	Remaining Unpaid Balance**
	CE&I/OV	Contract # 440013710	Retainer Contract for CE&I, Statewide with the Majority of Work in District 03	
		TO# H.003014.6	I-10 Widening and Reconstruction (LA 37 to ATCR BR.) St. Martin and Lafayette Parishes	\$6,697
	CE&I/OV	Contract # 4400023074	IDIQ for CE&I Services and Staff Augmentation, District 61	
		TO# H.010724.6	Pecan Island Road Over the Chenal, Pointe Coupee Parish	\$4,065
		TO# H.012465.6	Dist 61 Flashing Yellow Arrow Part 3	\$427,335
		TO# H.010960.6	LA 30 Roundabouts at Tanger Mall and I-10	\$675,975
GEC		TO# H.014694.6	LA 426: LA 73 - Sherwood Forest	\$246,338
	CE&I/OV	S.P. # H.011670.6	I-10/Loyola Interchange Improvements, Jefferson Parish	\$106,638
	CE&I/OV	Contract # 4400019950	IDIQ for CE&I, Statewide, with Majority of Work in District 03	
		TO# H.002735.6	Bayou Vermillion Bridge	\$32,209
		TO# H.003003.6	I-10: I-49 - LA 328	\$302
		TO# H.002151.6	Bayou Parc Perdue and Creek Bridges	\$0
		TO# H.010601.6	I-10 Widening and Reconstruction (LA 328 - LA 347)	\$0
		TO# H.002868.6	I-49 S: Amb Caffery / US 90 Interchange	\$950,367

Firm(s)	Past Performance Evaluation Discipline(s) *	State project number	Project name	Remaining Unpaid Balance**
	CE&I/OV	Contract #	Retainer Contract for Painting Inspection & Environmental	
		440014315	Monitoring with CE&I, Statewide (Sub to GPI)	
		TO# H.003370.6	I-220/I-20 Interchange IMP & BAFB Access	\$0
GEC		TO# H.010000.6	US 171: Calcasieu River Bridge Repairs	\$144,096
	Other (DOTD	Contract #	Retainer Contracts for Innovative Procurement and Alternative	N/A
	Support	4400017329	Delivery Support	
	Services)		Services	
			(Sub to HNTB Corporation) (No Task Orders Issued) (NOTE: No	
			work expected for GEC under this Contract.)	

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

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

#### 20. Certifications/Licenses:

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

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

Public Address: Name:

Ms. Ann Forte Trappey Forte and Tablada, 9107 Interline Avenue

Inc. Baton Rouge, LA 70809-1999

License/Certificate Information w/ Supervision

Expiration License Status Supervisor(s) Date

Mr. Bradley Scott Holleman # PLS.0005082 -VF.0000055 ACTIVE 06/26/1979 03/31/2023

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

Public Address: Name:

Ms. Ann Forte Trappey9107 Interline Avenue

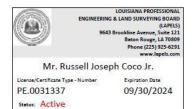
Forte and Tablada, Inc

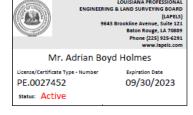
Baton Rouge, Louisiana 70809-1999

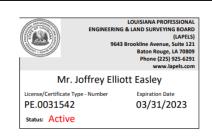
License/Certificate Information w/ Supervision

License Status First Issuance Date Expiration Date Supervisor(s)

Active 09/02/1976 Mr. Chad Anthony Bacas # PE.0028786 - Active EF.0000330 09/30/2023

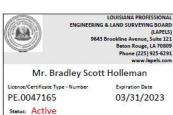


















#### Dear Certified Flagger:

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

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

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

Sincerely,

Gessica Sphuzler Director of Training





American Traffic Safety Services Association 15 Riverside Parkway, Suite 100 • Fredericksburg, VA 22406-1077 Office: 540-358-1701 • Toll-Free: 800-272-8772 • Fax: 540-368-1717





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

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





## Bridge Department Quality Assurance/Quality Control Manual



#### **Overview**

#### **Goals and Objectives**

The Bridge Department of Forte and Tablada, Inc. has developed and implemented this Quality Assurance/Quality Control (QA/QC) guide in accordance with FHWA and state requirements. The QA/QC process applies to all types of bridge projects. In addition, the QA/QC process applies to the development of design guidelines, design examples, spreadsheets, and other design aides. Modifications to the QA/QC process and procedures may be required for large or complex structures.

The Quality Assurance/Quality Control (QA/QC) program establishes the following goals:

- Communicate openly to address concerns and solve problems immediately.
- Plan, coordinate, supervise, and provide technical direction.
- Employ skilled personnel who perform their work with care to produce a quality product.
- Produce quality work through review and checking by individuals not directly responsible for the initial work product.
- Take responsibility for the QA/QC of a project, regardless of role.

The objectives of the QA/QC program are to endeavor to produce products that:

- Are **Designed and Detailed** in accordance with the policies and procedures defined in the Bridge Design Manual, all applicable technical memorandums, and to the relevant guidelines on the Department website.
- Clearly define the sources of information for the calculations and the interface with related documents.
- Result in **constructible plans**.

#### **Bridge Design and QA/QC Process**

As part of the QA/QC process, this document will serve as a template to follow for every bridge project. The process can be summarized as follows:

- Step 1 Selection of the Project Team
- Step 2 Development of Design Criteria
- Step 3 Design and Development of Details
- Step 4 Quality Control (QC) of Design and Details
- Step 5 Quality Assurance (QA) of Design and Details
- Step 6 Peer Review (if requested by the Bridge Design Engineer Administrator)
- Step 7 Sealing of Design Calculation Book and Plans by the EOR
- Step 8 QC/QA for Design Activities after Final Plans
- Step 9 Archiving Bridge Design Files





#### Step 1 – Selection of the Project Team

At the beginning of each project, a project team will be selected commiserate with the complexity of the project. Team member responsibilities are as outlined below.

- Supervisor/Group Leader A licensed professional engineer who manages a group of Engineers and Detailers. The supervisor/group leader is responsible for assigning work to Engineers and Detailers based on their level of experience and the complexity of the project. In addition, a supervisor/group leader is responsible for internal Quality Assurance reviews.
- Design Engineer A licensed professional engineer or engineering assistant working under the direct supervision
  of a licensed professional engineer. The Design Engineer provides the data, such as design sketches, necessary for
  detail drawing development. In addition, the Design Engineer checks the details for errors, completeness,
  conformity, and consistency.
- Checker A licensed professional engineer or engineering intern working under the direct supervision of a licensed professional engineer. The Checker thoroughly reviews the calculations or detail drawings for the purpose of reducing errors and omissions and increasing completeness, applicability, and conformance.
- Detailer A drafter or engineer who generates and revises details, plan sheets, and drawings in electronic format.
- Engineer-of-Record A licensed professional engineer who is responsible for supervision and/or preparation of plans, sealing calculations, signing and sealing the final plan set, and special provisions if required. This may be the Design Engineer or Supervisor.

#### <u>Step 2 – Development of Design Criteria</u>

Design criteria must be established at the beginning of each project and submitted to the Department for review and approval prior to before the design process is initiated. The design criteria shall be included in the final calculation book and updated as appropriate throughout the project. All design assumptions and any design exemptions that are granted are to be included in the design criteria. The design criteria is to include at least the following sections with a minimum of the information indicated in each section.



### QA/QC Manual for LA DOTD Bridge Projects • Limit States

#### **Design Criteria Checklist**

LADOTD project number   Project name   Revision date   The Supervisor or Team Leader's signature and date   The Supervisor or Team Leader's signature and date   The Supervisor or Team Leader's signature and date   Design criteria/test levels   List standard plans and special details utilized.   List standard plans and special details utilized.   List standard plans and special details utilized.   Design criteria/test levels   List standard plans and special details utilized.   Design criteria/test levels   List standard plans and special details utilized.   Design Assumptions and Design Exceptions   Design Assumptions and Design Exceptions   Design Assumptions and design exceptions received must be included in this section along with supporting documents.   Approach Slab   Type(s)   Design criteria/test levels   List standard plans and special details utilized.   Poek and Deck Drainage   List standard plans and special details utilized.   Design criteria   List standard plans and special details utilized.   Design criteria   List standard plans and special details utilized.   Design criteria   List standard plans and special details utilized.   Design criteria   List standard plans and special details utilized.   Design criteria   List standard plans and special details utilized.   Design criteria   List standard plans and special details utilized.   Design criteria   List standard plans and special details utilized.   Design criteria   List standard plans and special details utilized.   Design criteria   List standard plans and special details utilized.   Design criteria   List standard plans and special details utilized.   Design criteria   List standard plans and special details utilized.   Design criteria   List standard plans and special details utilized.   Design criteria   List standard plans and special details utilized.   Design criteria   List standard plans and special details utilized.   Design criteria   List standard plans and special details utilized.   Design criteria   List standard plans a	• Co	ver Sheet	<ul> <li>All applicable limit states shall be listed in this section.</li> </ul>
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General Information			☐ Design criteria
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$\square$ Thermal loads $\square$ List standard plans and special details utilized.		Thermal loads	<ul> <li>List standard plans and special details utilized.</li> </ul>
□ Vessel collision loads			
□ Seismic loads			
□ Wave loads			
□ Other applicable loads			

•	Piles and Drilled Shafts  ☐ Type(s)  ☐ Design criteria  ☐ List standard plans and special details utilized.
•	Geotechnical Design – to be provided by the Geotechnical Engineer  ☐ Design criteria ☐ List standard plans and special details utilized.
•	Mechanical Design  ☐ Design criteria ☐ List standard plans and special details utilized.
•	Electrical/Lighting Design  ☐ Design criteria ☐ List standard plans and special details utilized.
•	As-Designed Bridge Rating Criteria  Design criteria
•	Software  List all software used for design and checking.





#### Step 3 - Bridge Design and Development of Details

#### **Bridge Design**

The Design Engineer is responsible for the development of the design calculations, details, cost estimate, and any special provisions that may be required. Prior to beginning the design process, confirm that the bridge type, size, location, and design criteria have been established and approved by the Supervisor/Team Leader.

The design calculations are to be organized and maintained by the Design Engineer in a Calculation Book that includes, but is not limited to, the following sections.

	Cover Sheet – include the following information:  LADOTD project number  Project name  The title of "Final Calculation Book"  The EOR's seal with signature and date
	Design Criteria
	Superstructure Design Calculations
	Substructure Design Calculations
	Quantity Calculations
	QC/QA Certifications  Refer to Appendix A
	Final Hydraulic Analysis Report from Hydraulic Engineer
	Final Geotechnical Analysis Report from Geotechnical Engineer
	Special Provisions/NS-Items
	Construction Cost Estimate
	As-Designed Rating Report
	List of All Final Electronic Design Files and File Locations (ProjectWise directory name)
to	e Final Calculation Book is to be submitted to the LADOTD bridge task managers. Consult with the Bridge Task Manager determine if submittal shall be on a CD, a Flash Drive, or placed to a designated ProjectWise folder. Include the owing:
	A PDF File of the Calculation Book All Electronic Design Files A PDF File of the As-Designed Rating Report





#### **Development of Details**

The Design Engineer must work together with the Detailer on the establishment of the bridge details and supervise the detailing work to verify that the details represent the bridge type, size, location, and design criteria that have been established.

Submittals of bridge details are to follow Department requirements. Typical submittals and their order are as follows:

- 1. Design Criteria
- 2. Bridge Type, Size, and Location (TS&L)
- 3. 30% Preliminary Plans
- 4. 60% Preliminary Plans
- 5. 90% Preliminary Plans
- 6. 100% Preliminary Plans
- 7. 30% Final Plans
- 8. 60% Final Plans
- 9. 90% Final Plans
- 10. 100% Final Plans
- 11. Final Calculation Book
- 12. Plan Revisions (if required)
- 13. Change Orders (if required)

Use the template on the following page as an outline for sheet order and plan development for each submittal to the Department.



Table 1. Typical Submittals and Associated Design and Detail Progress.

	Submittals								
Item	Preliminary Plans				Final Plans				
	30%	60%	90%	100%	30%	60%	90%	100%	
QC/QA Certification	R	R	R	R	R	R	R	R	
Bridge Index	D	D	D	D	D	D	С	S	
General Notes	D	D	D	D	D	D	С	S	
Summary of Estimated Quantities	D	D	С	С	D	D	С	S	
General Plans	D	D	С	С	С	С	С	S	
Typical Sections	D	D	С	С					
Superelevation Diagram		D	D	С	С	С	С	S	
Construction Phasing Details		D	D	С	С	С	С	S	
Traffic Controls Details		D	D	С	С	С	С	S	
Foundation/Pile Layout		D	D	С	С	С	С	S	
Pile Loads/Details			D	D	D	С	С	S	
Pile Data Tables					D	D	С	S	
Bent Details					D	D	С	S	
Fender Details					D	D	С	S	
Girder Details					D	D	С	S	
Span Details					D	D	С	S	
Joint Details						D	С	S	
Bearing Details						D	С	S	
Approach Slab						D	С	S	
Guardrail Details						D	С	S	
Bridge Barrier/Railing Details						D	С	S	
Bridge Drainage Details						D	С	S	
Detour Bridge Details						D	С	S	
Revetment Details						D	С	S	
Signing/Lighting Details						D	С	S	
Year Plate						D	С	S	
Rebar Support						D	С	S	
Misc. Details						D	С	S	
Project Specific Standard Plans						D	С	S	
and Special Details						U	C	<u> </u>	
Electrical/Lighting Details						D	С	S	
Mechanical Details						D	С	S	
As-Built Plans						D	С	S	
Special Provisions/NS-Items					D	D	С	С	
Cost Estimate			D	D	D	D	С	С	

#### Legend:

<sup>&</sup>quot;R" – The item is required and shall be included in the submittal.

<sup>&</sup>quot;D" – The item shall be in development and included in the submittal.

<sup>&</sup>quot;C" – The item shall be complete and included in the submittal.

<sup>&</sup>quot;S" – The item is stamped by the EOR and shall be included in the submittal.





#### Step 4 – Quality Control (QC) of Design and Details

Quality Control is the process of checking the accuracy of calculations and consistency of the drawings, detecting and correcting design omissions and errors prior to finalizing design plans and specifications.

At the beginning of each project, design engineers and calculation checkers are to be assigned to the design of each component. Likewise, detailers will be assigned to the detailing and checking of each component to be detailed.

The Engineer-of-Record will sign and seal all final details and modified standards.

#### **Quality Control of Calculations**

This process applies to calculations, reports, studies, design spreadsheets and any other documents that are not details, plan sheets, or drawings. The process and responsibilities of all team members to confirm that calculations are prepared and checked are as provided in the following section and summarized in the Quality Control of Calculations flow chart shown in Figure 1.

#### **Preparation (Design Engineer)**

- Prepare relevant, appropriate calculations and sketches containing all information (input, basis, comments, references and sketches) necessary to convey the purpose and nature of the calculations. Calculations are standalone, to the extent reasonably possible.
- Present the calculations and sketches in a neat and logical manner that is conducive to checking.
- Conform the calculations and design sketches to the policies and procedures defined in the Bridge Design Manual and all relevant Technical Memorandums. Review the Department website as additional directives and modifications to the information provided in the Bridge Design Manual are posted frequently.
- Perform all calculations on Forte and Tablada, Inc. calculation sheets, on spreadsheet equivalents (i.e. personal spreadsheets or design spreadsheets), or with Department approved software.

#### Checking (Checker)

- Check each component to ensure compliance with the policies and procedures defined in the Bridge Design Manual and all relevant Technical Memorandums and the Department website.
- Check the calculations for internal consistency and traceability of sources. Thoroughly check the calculations, including assumptions, given values, formulas, omissions, and accuracy of arithmetic.
- Check methodology, reasonableness of results, and constructability. If necessary, ask for clarification from the Design Engineer, request additional calculations, and if unsure of any particular element, seek technical advice.
- Check the calculations by the method shown in the Quality Control of Calculations flowchart provided in Figure 4.1. Alternatively, check the calculations by providing independent calculations. Keep the alternate, independent calculation with the original. Indicate on the original that an alternate calculation was used for checking.
- When an error in computer input, assumptions, or load calculations is found, consider what that error will do to the outcome before redesigning the member. If the error has a negligible impact to the final design, it may not be necessary to redo the calculation. For instance, it may be unnecessary to re-run a program for a 0.1 k difference in load or a 1-foot station difference in geometry.



• When an error is found that will have impact on the remainder of the calculations, return the calculations to the Design Engineer for correction prior to completing checking of the calculations. Such an error is one leading to a design result that is more than 5 percent un-conservative or more than 15 percent conservative.

#### Correcting (Design Engineer)

• Revise the calculations and sketches based on the mark-ups. If not in agreement with a mark-up, discuss it with the Checker. Come to an agreement on whether to incorporate the mark-up. If unable to come to a resolution, consult the supervisor/group leader.

#### Verifying (Checker)

•	Back check	the revised	calculations	and	sketches	against	the	mark-ups	to	confirm	all	corrections	have	been
	incorporated	d or otherwis	e addressed.											

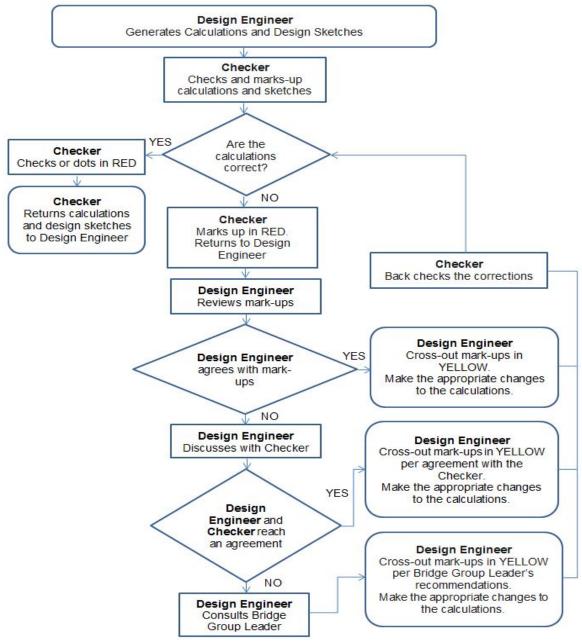


Figure 1. QC for Calculations Flowchart





#### **Quality Control of Details**

This process applies to details, plan sheets, and drawings. The Quality Control of Details flow chart included as Figure 2 provides the process for the checking of the drawings.

#### Preparation (Detailer)

• Develop all details in accordance with the Bridge Design Manual and applicable Department policies and practices.

#### Checking (Design Engineer or Checker)

- Check the details for completeness of the plan set for design intent, technical adequacy and conformity to applicable standards, and for consistency with the corresponding calculations.
- Check individual drawings using appropriate guidelines from the Bridge Design Manual for errors, completeness, conformance, and consistency.

#### Correcting (Detailer)

• Revise the details based on the mark-ups. If not in agreement with a mark-up, discuss it with the Checker. Come to an agreement on whether to incorporate the mark-up. If unable to come to a resolution, consult the supervisor/group leader. Mark any additional revisions on the originals.

#### Verifying (Design Engineer or Checker)

 Back check the revised details against the marked ups to confirm all corrections have been incorporated or otherwise addressed.

#### **Addendum and Change Orders**

It is sometimes necessary to submit revised plan sheets to address a change order or an addendum. For change orders and addendum, follow the Department policy and procedures. Remember to update all relevant calculations and details.



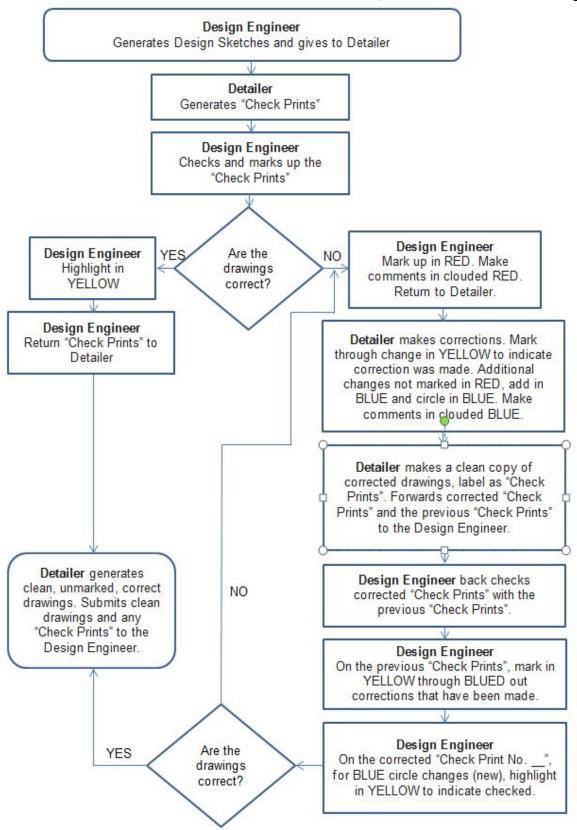


Figure 2. QC for Details Flowchart





#### Step 5 – Quality Assurance (QA) of Design and Details

Quality Assurance is the process of reviewing the quality control process for use and effectiveness at preventing mistakes and ensuring compliance. The Quality Assurance process varies depending on the stage of plan development and who develops the plans. The Quality Control Plan is to be maintained such that it can be submitted to the Department if requested.

#### **During Plan Development**

The Supervisor/Group Leader is responsible for Quality Assurance. The Supervisor/Group leader determines the level and complexity of the Quality Control process, assigns the Design Engineer, Checker, and Detailer. The Supervisor/Group Leader confirms the Quality Control process by reviewing that the details indicate the correct Design Engineer, Checker, and Detailer. In addition, the Supervisor/Group Leader completes a review of the details for constructability, applicability, completeness, and conformity.

Upon completeness of the QA process (no later than the 98% final plans stage) the design calculations, details, special provisions, and cost estimate are considered final and the QC/QA Certificate included in Appendix A is to be signed by members of the project team.

#### **During Construction**

During construction, Department engineers assume the role of Engineer-of-Record and complete field-engineering reviews. If a complex problem occurs, the Department may contact the original Engineer-of-Record, who will determine a solution and if necessary, provide calculations and revised details.

#### Step 6 - Peer Review (if required)

Typically, a peer review will not be required. For more complex projects; however, the Bridge Design Engineer Administrator may request a peer review. The peer review process is to be in accordance with the requirements specific to the project. At the conclusion of the review, a Peer Review Resolution Agreement may be required.

#### Step 7 - Sealing of the Calculation Book and Plans by EOR

Near the completion of the project, it is the responsibility of the Engineer of Record (EOR) that all calculations, details, QC/QA requirements, and all other department requirements are substantially complete. At this stage, the following items are to be verified.

- Confirm that the QC/QA certification has been signed by all responsible parties.
- Confirm that the Geotechnical Engineer has co-stamped the geotechnical design information shown on the bridge plans.
- Confirm that the Hydraulic Engineer has co-stamped the hydraulic information shown on the bridge plans.
- Assemble final Geotechnical Report and Hydraulic Report.
- Finalize calculation book and seal the cover sheet.
- Verify that the names of the designer, design checker, detailer, detail checker, and reviewer are all correctly shown on the title block of each plan sheet.



- Stamp the General Notes sheet. EOR may sign the remaining sheets or designate qualified Professional Engineers to stamp the sheets developed under their supervision.
- Verify that all special provisions are accurately shown on the construction proposal. The special provisions are typically stamped by the Specification Engineer as part of the construction proposal; however, if the Specification Engineer is not qualified or not willing to stamp the special provisions, the EOR must stamp these provisions.

#### Step 8 – QC/QA for Design Activities After Final Plans

The previously established QC/QA process and procedures are to be utilized for all plan revisions, change orders, etc.

#### Step 9 – Archiving Bridge Design Files

The EOR is responsible for archiving all bridge design files including calculation books, plans, special provisions, cost estimate, and other pertinent documents in accordance with the Department records retention policy. It is also to responsibility of the EOR to deliver all bridge design files to the Bridge Task Manger no later than 30 calendar days after the stamped final plans are delivered. Any revisions made to these documents due to plan revisions and change orders must be delivered with the signed plan revisions or change order sheets.

#### Notebook/File

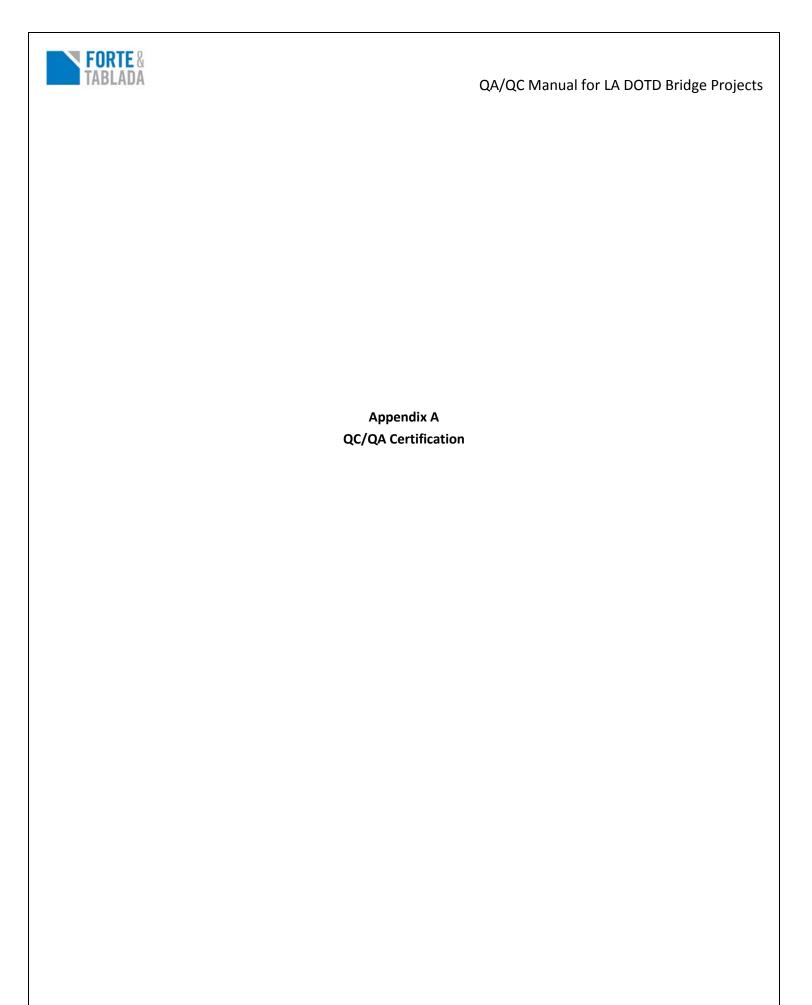
The Design Engineer keeps a binder or folder clearly labeled with the Structure Name, Parish (or County), and State Project Number that contain the following:

- Request for Qualifications Keep a record of the original advertisement, addendums, Q&A, and the shortlist and award as determined by the Project Evaluation Team.
- Correspondence Correspondence includes emails, memos, or other documents that affect the design of the structure or clarify design requirements.
- Calculations Calculations generated and reviewed in accordance with the Quality Control Program. Calculations include hand-written documents, spreadsheets, and output from software. Convert the calculations to PDF for archive purposes. Figure 6.1 contains guidance on the calculations to be included as part of the PDF.
- Details Check Prints and Final Plan Sets generated and reviewed in accordance with the Quality Control Program.
- Any other documents required for design, such as existing plan sheets and review comments.

The Design Engineer documents any changes that occur after the Plan Review, such as Addendum, and post-letting, such as Change Orders and RFIs by including correspondence, calculations, check prints, and details that relate to the change or request in the electronic Notebook/File for the project.

Design Notes Required	Design Notes NOT Required
Calculations and other documentation establishing the bridge's superstructure design satisfies controlling load cases and limit states, for the following elements:	Decks, if per current Department Manuals and standard drawings
<ul><li> Girders or beams</li><li> Stringers</li></ul>	Bearings, if per current Department Manuals and standard drawings
<ul> <li>Floor beams</li> <li>Trusses, including secondary elements such as bracing and gusset plates</li> </ul>	Railings, if per current Department Manuals and standard drawings
<ul> <li>Arches and hangers, including secondary elements such as bracing and gusset plates</li> <li>Cable stays</li> </ul>	Expansion joints, if per current Department standard drawings
<ul> <li>Cable stays</li> <li>Other elements not specifically excluded</li> <li>Calculations and other documentation establishing the bridge's substructure design satisfies controlling load cases and limit states, for the following elements:         <ul> <li>Cap beams</li> <li>Columns, Towers, and Pylons</li> <li>Other elements not specifically excluded</li> </ul> </li> <li>Calculations and other documentation establishing the bridge's foundation design satisfies design requirements, for the following elements:         <ul> <li>Piling</li> <li>Drilled shafts</li> <li>Spread footings</li> <li>Other elements not specifically excluded</li> </ul> </li> </ul>	Standard round columns if column height and diameter is within prescribed limits of acceptability in Department Manuals  Abutment design, if details follow current Department Manuals and standard drawings  Pile and/or Footing design, if details follow current Department standard drawings  Other structural items from current Department standard drawings such as diaphragms/cross-frames for steel girders and beams, transverse posttensioning of box beam spans, etc.

Figure 3. Guidance for Calculation Retention





Number	
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	P.E. Reg. #	Responsible Plan Sheets	Responsible Special Provisions	Construction Cost Estimate	Signature
Designers						
Design Checkers						
Detailers						
Detail						
Checkers						
Reviewers						
Peer						
Reviewer						
Geotechnical						
Engineer						
Hydraulic						
Engineer						
Engineer-of-						
Record (EOR)						

#### 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
G.E.C., Inc.	8282 Goodwood Blvd. Baton Rouge, LA 70806	Laura Carnes lcarnes@gecinc.com	(225) 612-4287

(Add rows as needed)

#### 23. Location:

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