WAGGONER

Off-System Highway Bridge Program
Angus Ave. Over Drainage Canal
East Baton Rouge Parish

LADOTD Contract No. 4400030642
State Project No. H.015975.5
Federal Project No. H015975

August 7, 2025

Submitted by:
Waggoner Engineering, Inc.

waggonereng.com

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

August 7, 2025

Louisiana Department of Transportation and Development
1201 Capital Access Road
Baton Rouge, LA 70802

WAGGONER
FORMERLY SIGMA CONSULTING GROUP

RE: Contract No. 4400030642, State Project No. H.015975.5, Federal Project No. H015975
Request for Qualifications for Engineering and Related Services for Off-System Highway Bridge Program for Angus Avenue over Drainage Canal in East Baton Rouge Parish, Louisiana

Waggoner Engineering, Inc. (Waggoner) is excited for the opportunity to work with the Louisiana Department of Transportation and Development (LADOTD) on this Off-System Bridge replacement project. Our team is fully prepared to bring our expertise and proven project delivery track record to support the infrastructure needs of East Baton Rouge Parish through LADOTD's Off-System Bridge Program for Angus Avenue over the Drainage Canal.

FIRM EXPERIENCE AND PAST PERFORMANCE: Waggoner, a leader in water resources engineering in the Gulf Coast region, expanded its footprint and technical practice expertise by joining forces with Sigma Consulting Group, Inc. (Sigma) in November 2022. Sigma's 35 years of transportation engineering expertise with the LADOTD now serves as Waggoner's transportation division headquarters. **While legacy Sigma now operates under the Waggoner name, the day-to-day management and operational structure remain unchanged.** The former owners and managing partners of Sigma are active leaders in Waggoner's management and operations, **ensuring that the firm experience and exemplary past performance provided by Sigma over our 30 plus years of service to the LADOTD remains intact** while offering the broader resources and capabilities of Waggoner.

LADOTD BRIDGE AND ROAD DESIGN EXPERIENCE: Waggoner (formerly Sigma) has an extensive tract record of successfully delivering projects to LADOTD's Bridge and Road Design section. We have held various contracts which includes a Rural Bridge Phase II bundle of projects, an IIJA Off-System Bridge Replacement bundle for District 62, and multiple Road Design IDIQ contracts. This valuable experience has positioned us to effectively manage and deliver a quality product to LADOTD and the Parish. Furthermore, Andrew Windmann, PE previously worked in Bridge Design section for 13 years, founding his experience deeply on LADOTD and, more specifically, Off-System Bridge program project delivery processes. Our project manager, Andrew Windmann, PE has 15 years of experience in bridge design on LADOTD projects. Our staff experience is founded on LADOTD project delivery processes and will be committed to this contract.

We have strategically partnered with ELOS Environmental, LLC (ELOS) to provide the necessary environmental services. The collaborative history between Waggoner and ELOS on multiple successful LADOTD projects under our District 62 IIJA Off-System Bridge Replacement bundle underscores our team's seamless integration and effectiveness to deliver this project.

PROJECT UNDERSTANDING: Waggoner understands that this project involves the replacement of a bridge on Angus Avenue over a drainage canal in the City of Zachary, East Baton Rouge Parish. The project is part of LADOTD's Off-System Highway Bridge Program and includes topographic survey, hydraulic analysis, and preliminary plan development. As part of our approach, we will ensure that survey data is collected in compliance with the LADOTD Location and Survey Manual, selected hydraulic structure and design follows Off-System Bridges Guidelines, and preliminary plans address all required roadway, bridge, and drainage elements.

We also recognize the importance of environmental clearance activities, including solicitation of views, wetland delineation, and the preparation of a Wetland Findings Report, all of which will be carefully coordinated with LADOTD and local stakeholders. Our understanding of the permitting process, including Corps of Engineers compliance and right-of-way coordination, positions our team to deliver an efficient and streamlined process for this project.

APPROACH AND METHODOLOGY: Our approach and methodology (Section 18) is grounded in a deep understanding of the LADOTD Off-System Bridge Design requirements, paired with innovative methodologies that ensure each project meets the highest standards of safety, efficiency, and sustainability. We plan to leverage our past experience in LADOTD project delivery, effective communication, rigorous QA/QC process, and commitment to partnership with LADOTD and East Baton Rouge Parish to fulfill your needs and expectations for this project.

Thank you for considering Waggoner for this opportunity. We are committed to delivering an Off-System Bridge Replacement project that benefits the residents and those traveling through East Baton Rouge Parish. If you require any additional information or have questions, please do not hesitate to contact me at 225.298.0800 or via email at robert.lear@waggonereng.com.

Sincerely,

Robert Lear, PE, LSI
Vice President, Senior Project Manager
Waggoner Engineering, Inc.

Sections 1-11

DOTD FORM: 24-102

(Revised December 12, 2024)

PROPOSAL TO PROVIDE CONSULTANT SERVICES

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

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

1. Contract Name as shown in the advertisement	Off-System Highway Bridge Program Angus Ave. Over Drainage Canal East Baton Rouge Parish
2. Contract Number(s) as shown in advertisement	LADOTD Contract No. 4400030642
3. State Project Number(s), if shown in the advertisement	State Project No. H.015975.5 Federal Project No. H015975
4. Prime Consultant Name (name must match exactly as registered with the Louisiana Secretary of State (SOS) where such registration is required by law; including punctuation; include screenshot from SOS at the end of Section 20)	**Waggoner Engineering, Inc.** (formerly Sigma Consulting Group, 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.0002553** **VF.0000457**
6. Prime Consultant Mailing Address	10305 Airline Highway Baton Rouge, LA 70816
7. Prime Consultant Physical Address (existing or to be established, if location is used as an evaluation criteria)	10305 Airline Highway Baton Rouge, LA 70816
8. Name, Title, Phone Number, and Email Address of Prime Consultant's Contract Point of Contact	**Robert J. Lear, Jr., PE, LSI** Vice President robert.lear@waggonereng.com 225.298.0800
9. Name, Title, Phone Number, and Email Address of the Official with Signing Authority for this Proposal	**Robert J. Lear, Jr., PE, LSI** Vice President robert.lear@waggonereng.com 225.298.0800

10. 10. This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response. **Pursuant to Act No. 581 of the 2024 Louisiana Legislature Regular Session, proposer further certifies that it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association based solely on the entity's or association's status as a firearm entity or firearm trade association. In addition, proposer certifies it will not discriminate against a firearm entity or firearm trade association during the term of the contract based solely on the entity's or association's status as a firearm entity or firearm trade association.**	 Signature above shall be the same person listed in Section 9 Date: August 7, 2025	
11. If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal and each firm(s)' percentage.	Firm(s)	Firm Percent
	Total DBE Participation	N/A

Sections 12-15

12. PAST PERFORMANCE EVALUATION DISCIPLINE TABLE:

Discipline(s)	% of Overall Contract	**Waggoner (formerly Sigma)**	**ELOS**	Each Discipline must total to 100%
Bridge	72%	100%	-	100%
Survey	20%	100%	-	100%
Environmental	8%	-	100%	100%
Identify the percentage of work for the **overall contract** to be performed by the prime consultant and each sub-consultant.				
Percent of Contract	**100%**	**92%**	**8%**	100%

13. FIRM SIZE:

Firm Name	LADOTD Job Classification	Number of Personnel Committed to this Contract	Total Number of Personnel Available in this LADOTD Job Classification (if needed)
WAGGONER FORMERLY SIGMA CONSULTING GROUP	Principal	1	2
	Supervisor - Engineer	1	6
	Engineer	1	9
	Engineer Intern	1	5
	CADD Technician	1	3
	Senior Technician	1	6
	Instrument Man	1	1
	Surveyor	1	2
	Party Chief	1	2
	Clerical	1	3
ELOS AN AVENTIA COMPANY	Principal	1	2
	GIS Analyst	1	2
	Environmental Professional	1	2
	Environmental Manager	1	2
	Biologist/Wetlands	1	5
	Technician	1	5

SIGMA CONSULTING GROUP, INC.

WAGGONER

SIGMA IS NOW WAGGONER... GREATER CAPACITY TO TRANSFORM COMMUNITIES

14. ORGANIZATIONAL CHART:

KEY
W Waggoner (formerly Sigma)
E ELOS
(#) Meets MPR Criteria
✪ Meets Work Zone Training Requirements
▶ Meets Traffic Engineering Process & Report Training Requirements
DISCIPLINE LEAD (CAPS & BOLD)

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

WAGGONER
FORMERLY SIGMA CONSULTING GROUP

PRINCIPAL-IN-CHARGE
MILES WILLIAMS, PE (W) (1)

QA/QC
ROBERT J. LEAR, JR., PE, LSI (W) (2) ✪

PROJECT MANAGER
ANDREW WINDMANN, PE (W) (3)

BRIDGE DESIGN SERVICES
JOSHUA GONYA, PE (W)
Andrew Windmann, PE **(W)**
Joshua Olivier, PE **(W)**

ROAD & DRAINAGE DESIGN
ALEX FARR, PE (W) ✪ ▶
Kelsie Bankston, PE **(W)**
Charlotte Gremillion, PE **(W)**

BRIDGE HYDRAULICS DESIGN
BRYAN HARMON, PE (W)
Gage Spell, LSI **(W)**

SURVEY & ROW SERVICES
JACE RICARD, PLS (W) (SURVEY) (4) ✪
Milan Lear **(W) (CREW)** ✪

ENVIRONMENTAL
LUCAS WATKINS (E) (5)
Brian Fortson **(E)**
Basile Dardar **(E)** ✪
Cory Ricks **(E)**

15. MINIMUM PERSONNEL REQUIREMENTS:

MPR # Do not insert wording from ad	Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license and discipline meeting MPR/ certification & number (Ex: PE # - Civil)	State of license	License/ certification expiration date
1	Miles Williams, PE	Waggoner	PE#23094 - Civil	LA	3/31/2026
2	Robert Lear, Jr., PE, LSI	Waggoner	PE#29394 - Civil	LA	3/31/2027
3	Andrew Windmann, PE	Waggoner	PE#39042 - Civil	LA	9/30/2026
4	Jace Ricard, PLS	Waggoner	PLS#5205	LA	9/30/2025
5	Lucas Watkins	ELOS	5+ years of wetlands		

* The Waggoner team has multiple personnel assigned to this contract who have the qualifications necessary to meet each minimum personnel requirements. Individuals listed are the key personnel for each MPR. Additional names were not added to keep the response clear and concise.

Section 16

16. STAFF EXPERIENCE:

Firm Employed By: Waggoner Engineering, Inc. (formerly Sigma Consulting Group, Inc.)					
Name	**Andrew Windmann, PE**			Years of Relevant Experience with this Employer	2
Title	Senior Bridge Design Engineer			Years of Relevant Experience with Other(s) Employers	13
Degree(s)/Years/Specialization			BS, Civil Engineering, 2010		
Active Registration Number/State/Expiration Date			PE#39042/LA/09-30-26		
Year Registered	2014	Discipline	Civil Engineering		
Contract Role(s)/Brief Description of Responsibilities			Project Manager | **Meets MPR 3**		

Andrew is a licensed civil engineer with over 15 years of experience in bridge design, including **13 years with LADOTD**. As **an LADOTD Assistant Bridge Design Administrator (2021-2023),** he managed a $240 million statewide bridge program, overseeing planning and design for rehabilitation and replacement projects. He meets **MPR #3** with **over five years in responsible charge of bridge design**. For the Angus Avenue bridge replacement project, Andrew will serve as **Project Manager**, responsible for leading project coordination, ensuring compliance with LADOTD standards, managing schedule and deliverables, and overseeing the design team's execution of **bridge replacement, hydraulic coordination,** and **topographic survey integration**. His deep familiarity with **Off-System Bridge Program requirements** ensures efficient and responsive project delivery.

Experience Dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
5/23 - Ongoing SECTION 17 PROJECT	**Carroll Avenue over Middle Creek Colyell Creek, Livingston Parish, LA** **Project Manager/Bridge Design Lead.** Andrew coordinated the multidisciplinary effort to deliver the bridge replacement project, including all necessary engineering services, survey services, and environmental services. He also served as the technical lead, verifying the design and directing the creation of the construction plans for the new bridge structure. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 62-foot by 20-foot railcar bridge with a new 24-foot by 80-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of right-of-way (ROW) maps all while adhering to rigorous quality control measures.
5/23 - Ongoing SECTION 17 PROJECT	**Hood Road over Middle Colyell Creek, Livingston Parish, LA** **Project Manager/Bridge Design Lead.** Andrew coordinated the multidisciplinary effort to deliver the bridge replacement project, including all necessary engineering services, survey services, and environmental services. He also served as the technical lead, verifying the design and directing the creation of the construction plans for the new bridge structure. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 92-foot by 19-foot timber trestle bridge with a new 24-foot by 120-foot cast-in-place slab span bridge. The new bridge is entirely in a 420-foot radius curve on a new alignment that improves existing undesirable geometry in the roadway. Our team has performed the design and detailing for this non-standard case that meets all current LADOTD and AASHTO requirements. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
5/23 - Ongoing SECTION 17 PROJECT	**George Jenkins Road over Berrys Creek, Washington Parish, LA** **Project Manager/Bridge Design Lead.** Andrew coordinated the multidisciplinary effort to deliver the bridge replacement project, including all necessary engineering services, survey services, and environmental services. He also served as the technical lead, verifying the design and directing the creation of the construction plans for the new bridge structure. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 120-foot by 13-foot timber trestle bridge with a new 24-foot by 140-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width. Our team has modified the end bent detail to accommodate the taper-down bridge rail along the approach slab that was necessitated by the proximity of an existing driveway to the proposed bridge. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.

Andrew Windmann resume continued

5/23 - Ongoing SECTION 17 PROJECT	**Mitch Road over Peters Creek, Washington Parish, LA** **Project Manager/Bridge Design Lead.** Andrew coordinated the multidisciplinary effort to deliver the bridge replacement project, including all necessary engineering services, survey services, and environmental services. He also served as the technical lead, verifying the design and directing the creation of the construction plans for the new bridge structure. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 78-foot by 26-foot timber trestle bridge with a new 24-foot by 100-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width and skew. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
04/21 - Ongoing SECTION 17 PROJECT	**Rural Bridge Replacement Initiative Phase II (South), LA (16 Projects) (440001338), Various Locations, LA** **Project Manager.** Andrew was the project manager for this project. Waggoner is leading engineering design and coordination for the replacement of 29 state highway bridges across five LADOTD districts, organized into 16 concurrent projects. The team is responsible for preliminary and final roadway and bridge design, drainage and structural engineering (including reinforced concrete components and prestressed girders), ROW determination, and environmental coordination for NEPA compliance. Waggoner collaborates with subconsultants and maintains regular client communication to ensure timely submittals and effective project alignment.
02/24 - Ongoing	**BREC Scotlandville Parkway Bridge Replacements, East Baton Rouge Parish, LA** **Project Manager.** Andrew is the project manager and bridge engineer for designing three new bridge structures for pedestrian and small vehicle traffic. He is responsible for bridge design, geotechnical subconsultant management, construction and demolition plan development, site plans, quantities, construction cost estimates, and channel protection.
03/13 - 12/19	**I-10: I-49 E. Junction to LA 328 Widening Project, Lafayette, LA** **Lead Bridge Design Engineer.** Andrew led the bridge design on this project that included the widening or full replacement of 12 bridge structures (six unique sites) along the I-10 mainline. The scope of this project included the initial assessment of each bridge to provide recommendation on widening versus replacement, while factoring in current condition, load-carrying capacity, and feasibility of construction. During Stage 3 of the project, Andrew led the structural team, ensuring the design were performed with great quality following LADOTD's QC/QA plan.
02/16 - Ongoing	**Pecue Lane/I-10 Interchange, East Baton Rouge Parish, LA (H.003047)** **Bridge Design.** Andrew is performing bridge design for this project. East Baton Rouge Parish with assistance from LADOTD and the Federal Highway Administration (FHWA) is developing preliminary and final engineering plans for the construction of a diverging diamond interchange with multiple through and turn lanes on Pecue Lane, an entrance ramp and exit ramp on eastbound I-10, an entrance ramp and exit ramp on westbound I-10, replacing the current two lane overpass bridge, replacing the Pecue Lane/Wards Creek Bridge.
2010 - 2023	**LADOTD Bridge Design Section (Prior Firm)** **Engineer Intern to Assistant Bridge Design Administrator, 2010-2023).** Prior to joining Waggoner (Sigma), Andrew worked in the Bridge Design section at LADOTD for 13.5 years. Andrew gained a breadth and depth of organizational, procedural, and state-specific knowledge of LADOTD's design requirements, including internal policies, preferences, and intimate knowledge of the current standard plans. Immediately prior to joining Waggoner (Sigma), Andrew served as the state-wide Bridge Preservation program manager whose responsibility it was to understand the overall health of the over 7,000-bridge inventory as well as program bridge replacement, rehabilitation, and repair projects over a rolling eight-year program to spend an annual budget of $240 million. He has a unique understanding of the Department's need for practical design and getting the most efficient bridge replacements completed to get the most use of the insufficient funds received for bridge preservation across the state.

16. STAFF EXPERIENCE:

Firm Employed By: Waggoner Engineering, Inc. (formerly Sigma Consulting Group, Inc.)					
Name	**Robert J. Lear, PE, LSI**			Years of Relevant Experience with this Employer	26
Title	Vice President | Senior Project Manager			Years of Relevant Experience with Other(s) Employers	3
Degree(s)/Years/Specialization			BS/1996/Civil Engineering		
Active Registration Number/State/Expiration Date			PE#29394/LA/03-31-2027		
Year Registered	2001	Discipline	Civil Engineering		
Contract Role(s)/Brief Description of Responsibilities		QA/QC | **Meets MPR 2**			

Robert is a licensed civil engineer and land surveyor intern with over **25 years of experience** in **LADOTD project design and management,** specializing in **roadway design, technical reviews**, and **plan development**. He is proficient in **MicroStation and InRoads**, and has led quality control processes across numerous transportation projects. For the Angus Avenue bridge replacement, Robert will serve as the **QA/QC Manager**, responsible for developing and implementing the **Quality Assurance/Quality Control Plan** in accordance with **LADOTD's Bridge Design QA/QC Policy**. He will conduct **regular inspections, document reviews,** and **compliance audits** to ensure all deliverables meet LADOTD and program-specific standards. Robert meets MPR #2 as a registered civil engineer in Louisiana and brings a disciplined focus on schedule, quality, and design integrity.

Experience Dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
05/23 - Ongoing SECTION 17 PROJECT	**Carroll Avenue over Middle Creek Colyell Creek, Livingston Parish, LA** **QA/QC Engineer/ROW Support.** Robert is providing QA/QC oversight for the construction plan set, ensuring all Waggoner and LADOTD procedures are being implemented correctly and effectively. Robert uses his breadth of experience across the multiple disciplines on this project to verify that all collaboration has been adequately incorporated into the plans, with special attention to biddability and constructability. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 62-foot by 20-foot railcar bridge with a new 24-foot by 80-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
05/23 - Ongoing SECTION 17 PROJECT	**Hood Road over Middle Colyell Creek, Livingston Parish, LA** **QA/QC Engineer/ROW Support.** Robert is providing QA/QC oversight for the construction plan set, ensuring all Waggoner and LADOTD procedures are being implemented correctly and effectively. Robert uses his breadth of experience across the multiple disciplines on this project to verify that all collaboration has been adequately incorporated into the plans, with special attention to biddability and constructability. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 92-foot by 19-foot timber trestle bridge with a new 24-foot by 120-foot cast-in-place slab span bridge. The new bridge is entirely in a 420-foot radius curve on a new alignment that improves existing undesirable geometry in the roadway. Our team has performed the design and detailing for this non-standard case that meets all current LADOTD and AASSHTO requirements. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
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Robert Lear resume continued

05/23 - Ongoing SECTION 17 PROJECT	**Mitch Road over Peters Creek, Washington Parish, LA** **QA/QC Engineer/ROW Support.** Robert is providing QA/QC oversight for the construction plan set, ensuring all Waggoner and LADOTD procedures are being implemented correctly and effectively. Robert uses his breadth of experience across the multiple disciplines on this project to verify that all collaboration has been adequately incorporated into the plans, with special attention to biddability and constructability. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 78-foot by 26-foot timber trestle bridge with a new 24-foot by 100-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width and skew. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
02/16 - Ongoing	**Pecue Lane/I-10 Interchange, East Baton Rouge Parish, LA (H.003047)** **Design Engineer.** Robert is providing the design of twin bridges along Pecue Lane over Wards Creek, and the widening of the I-10 bridges over Wards Creek to accommodate the on/off ramps. Both structures were widened under traffic. The design matched the existing structure type utilizing current AASHTO LRFD Bridge Design manual and design criteria. All four structures were evaluated for load-carrying capacity and as-designed load ratings were calculated and provided with the final deliverables.
06/23 - Ongoing	**Jones Creek Road Improvements Phases 1A & 1B, East Baton Rouge Parish, LA** **Design Engineer.** Robert is providing road design, ROW, and plan development support. Waggoner was contracted by the East Baton Rouge Parish Department of Transportation and Drainage through the MOVEBR Program to design the extension of Jones Creek Road from the existing Tiger Bend Road intersection to a new terminus point on Airline Highway. The project includes a two-mile, four-lane boulevard on new alignment, green infrastructure drainage features, a roundabout at Jefferson Highway, a new access point for an existing subdivision, a new bridge over Claycut Bayou, topographic and ROW mapping, and stormwater detention ponds.
10/16 - Ongoing	**I-10, Highland to LA 73 Design-Build Project, E. Baton Rouge and Ascension Parish, LA (H.009250)** **Senior Roadway Design Engineer.** Robert is the Senior Roadway Design Engineer for this LADOTD Design Build Project. The project includes widening I-10 for 6.6 miles to three-lanes in each direction from the Highland Road Interchange to the LA 73 Interchange. The I-10 bridges over Highland Road and approaching roadway are being replaced with a new structure and profile grade. Adjustments to the ramp gore areas were required to accommodate the new profile. A 54" median barrier is included for 3.6 miles, with additional detail required for super elevated curves through flat profile grades to ensure adequate drainage. Also, design considerations were necessary to minimize tree clearing through the three-mile wooded median section of the freeway. A double exit with two dedicated exit lanes was design at the I-10 EB exit at Highland Road and a double exit with one dedicated exit lane and one shared exit lane was designed at the I-10 EB exit at LA 73. Existing ramp acceleration and deceleration lanes were lengthened to address traffic queuing problems at the Highland Road Interchange.
06/13 - Ongoing	**I-10, East Jct. I-49 to LA 328, Lafayette & St. Martin Parishes, LA (H.003003)** **Project Manager and Lead Roadway Engineer.** Robert was the project manager and lead roadway engineer for capacity and pavement replacement for 6.7 miles of I-10 in Lafayette, LA. He was responsible for all roadway design components of the project including typical sections, plan profiles, geometric details, sequencing and cross sections. The project included median barrier divided interstate with superelevation, bridge replacement and widening, and local road pier protection. Robert also coordinated the roadway lighting and utility conflicts with subconsultants, bridge design with LADOTD Bridge section and attended public meetings/prepared exhibits for environmental approval.
06/13 - Ongoing	**I-10, LA 347 to Atchafalaya Floodway Bridge, St. Martin Parish, LA (H.003014)** **Project Manager and Lead Roadway Engineer.** Robert was the project manager and lead roadway engineer for pavement replacement for 2.7 miles of I-10 and intersection safety improvements near Henderson, LA. He was responsible for all roadway design components of the project including typical sections, plan profiles, geometric details, sequencing, level 4 TMP, and cross sections. The project scope also included two roundabouts at the ramp termini points and intersection improvements to LA352/LA347 based on traffic data and access management. Robert was the road design engineer for these one-lane roundabouts and intersection improvements and attended public meetings for DOTD environmental clearance. Robert also coordinated the roadway lighting and utility conflicts with subconsultants, and bridge design with DOTD Bridge section.

16. STAFF EXPERIENCE:

Firm Employed By: Waggoner Engineering, Inc. (formerly Sigma Consulting Group, Inc.)					
Name	**Miles Williams, PE**			Years of Relevant Experience with this Employer	35
Title	Senior Vice President/Transportation Market Section Lead			Years of Relevant Experience with Other(s) Employers	8
Degree(s)/Years/Specialization			BS/1983/Civil Engineering		
Active Registration Number/State/Expiration Date			PE#23094/LA/03-31-26		
Year Registered	1988	Discipline	Civil Engineering		
Contract Role(s)/Brief Description of Responsibilities		Principal-in-Charge | **Meets MPR 1**			

Miles is a licensed professional engineer with extensive experience in **traffic engineering** and **transportation project delivery**. He has served as a **design engineer and project manager** on a wide range of **signal system, traffic control,** and **transportation infrastructure** projects for both public and private clients. His work has included the design of **roadway and bridge capacity and preservation projects, creating complex maintenance of traffic plans, and coordinating construction phasing strategies,** all developed in compliance with LADOTD standards. Miles will serve as **Principal-in-Charge**, providing **high-level oversight**, guiding the project team, and ensuring compliance with all applicable **LADOTD and AASHTO standards**. He will be responsible for the final approval of deliverables, support coordination with **LADOTD's Chief Engineer**, and ensure that all services are completed in accordance with **contract requirements and LADOTD's quality expectations**. Miles meets **MPR #1** as a principal of the prime consultant and a registered PE in Louisiana.

Experience Dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
05/23 - Ongoing SECTION 17 PROJECT	**Carroll Avenue over Middle Creek Colyell Creek, Livingston Parish, LA** **Principal-in-Charge.** Miles is providing support to the project team during project development as necessary, including final review of deliverables for overall conformity to the contract and governing design codes and construction specifications. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 62-foot by 20-foot railcar bridge with a new 24-foot by 80-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
05/23 - Ongoing SECTION 17 PROJECT	**Hood Road over Middle Colyell Creek, Livingston Parish, LA** **Principal-in-Charge.** Miles is providing support to the project team during project development as necessary, including final review of deliverables for overall conformity to the contract and governing design codes and construction specifications. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 92-foot by 19-foot timber trestle bridge with a new 24-foot by 120-foot cast-in-place slab span bridge. The new bridge is entirely in a 420-foot radius curve on a new alignment that improves existing undesirable geometry in the roadway. Our team has performed the design and detailing for this non-standard case that meets all current LADOTD and AASSHTO requirements. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
05/23 - Ongoing SECTION 17 PROJECT	**George Jenkins Road over Berrys Creek, Washington Parish, LA** **Principal-in-Charge.** Miles is providing support to the project team during project development as necessary, including final review of deliverables for overall conformity to the contract and governing design codes and construction specifications. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 120-foot by 13-foot timber trestle bridge with a new 24-foot by 140-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width. Our team has modified the end bent detail to accommodate the taper-down bridge rail along the approach slab that was necessitated by the proximity of an existing driveway to the proposed bridge. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.

Miles Williams resume continued

05/23 - Ongoing SECTION 17 PROJECT	**Mitch Road over Peters Creek, Washington Parish, LA** **Principal-in-Charge.** Miles is providing support to the project team during project development as necessary, including final review of deliverables for overall conformity to the contract and governing design codes and construction specifications. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 78-foot by 26-foot timber trestle bridge with a new 24-foot by 100-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width and skew. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
04/21 - Ongoing SECTION 17 PROJECT	**Rural Bridge Replacement Initiative Phase II (South), LA (16 Projects) (440001338), Various Locations, LA** **Principal-in-Charge.** Waggoner is leading engineering design and coordination for the replacement of 29 state highway bridges across five LADOTD districts, organized into 16 concurrent projects. The team is responsible for preliminary and final roadway and bridge design, drainage and structural engineering (including reinforced concrete components and prestressed girders), ROW determination, and environmental coordination for NEPA compliance. Waggoner collaborates with subconsultants and maintains regular client communication to ensure timely submittals and effective project alignment.
03/13 – 07/22	**I-10: East Jct. I-49 to LA 328, Lafayette and St. Martin Parishes, LA (H.003003)** **I-10: LA 328 to LA 347, St. Martin Parish, LA (H.003014)** **I-10: LA 347 to Atchafalaya Floodway Bridge, St. Martin Parish, LA (H.003014)** **Principal-in-Charge and Road Design Engineer.** Miles served as the principal-in-charge and road design engineer for capacity and pavement preservation improvements for I-10 in Lafayette. These three projects were designed concurrently under a road design retainer and constructed under three separate construction contracts. He provided overall contract management, designed sequence of construction plans, and mentored the roadway design calculation and plan preparation process. He played a supportive role in construction support as well. This project included both pavement preservation and capacity functional classifications.
10/16 - Ongoing	**I-10: Highland to LA 73 Design-Build Project, East Baton Rouge and Ascension Parish, LA (H.009250)** **Project Design Manager.** Miles is serving as the Project Design Manager for all design efforts on the project. As such, he is responsible for leading and coordinating all disciplines: road design; bridge design; lighting; geotechnical investigation; and traffic control. He also is the responsible engineer for geometric design, roadway construction and traffic control plans. During construction, he is interacting with both the Contractor and the designers of various temporary components to ensure that all project requirements are being met.
12/14 – 04/19	**South Acadian Thruway (Perkins Road - LA 73), East Baton Rouge Parish, LA (H.011261)** **Principal-in-Charge.** Miles was the principal-in-charge for the safety project designed to reduce the number of accidents along the stretch of Acadian Thruway. The project includes replacing the asphalt overlay and improving the intersection design at Claycut Road. Miles reviewed proposed safety and sidewalk improvements as they were implemented in the project. This project included both pavement preservation and capacity functional classifications.
08/21 – 05/23	**LA 73: US 61 (Airline Highway) – LA 426 (Essen Lane), East Baton Rouge Parish, LA (H.010652)** **Road Design Engineer.** Miles was the road design engineer-of-record and was responsible for all roadway design and plan preparation tasks. Waggoner was contracted by LADOTD to engineer the reconstruction of LA 73, covering full pavement replacement, curbs, gutters, and sidewalks from Airline Highway to the I-12 on-ramp, and repairs from the I-12 on-ramp to Essen Lane. The project included a 2.3-mile roadway with quantity summaries, cost estimates, and plans to minimize traffic impacts.
05/20 - Ongoing	**I-10: LA 415 to Essen Lane on I-10/I-12 (CMAR), East Baton Rouge Parish, LA (H.004100)** **Road Design Lead.** Miles is the road design lead professional for the replacement of I-10, interchange improvements, and surface street improvements through Metro Baton Rouge. His responsibilities include road and drainage design, complex interchange geometric design, maintenance of traffic/sequencing plans, coordinating with the CMAR contractor, design and constructability reviews, value engineering assessments, cost estimating, project phasing for GMP limit determination, proposed ROW and control-of-access limit determination, utility coordination, and public involvement.
01/13 - Ongoing	**I-49 South: US 90 and Ambassador Caffery Interchange, Lafayette Parish, LA (H.002868)** **Road Design Engineer.** Miles is the road design engineer-of-record for a new interchange on future I-49 at Ambassador Caffery Parkway in Lafayette, LA. He is responsible for the horizontal and vertical geometric design, subsurface and open ditch drainage design, and road plan production of a four-tiered interchange, eight-lane mainline, two-lane one way frontage roads, and u-turns. He also is responsible for coordinating the frontage road extensions and interchange alternative design for future/interim condition implementation.

16. STAFF EXPERIENCE:

Firm Employed By: Waggoner Engineering, Inc. (formerly Sigma Consulting Group, Inc.)					
Name	**Joshua Gonya, PE**			Years of Relevant Experience with this Employer	1
Title	Senior Bridge Design Engineer			Years of Relevant Experience with Other(s) Employers	15
Degree(s)/Years/Specialization			BS/2008/Civil Engineering		
Active Registration Number/State/Expiration Date			PE#40859/LA/09-30-26		
Year Registered	2016	Discipline	Civil Engineering		
Contract Role(s)/Brief Description of Responsibilities		Bridge Design Services Lead			

Joshua is a licensed **Professional Engineer** and **NHI-Certified Bridge Inspector** with extensive experience in **civil and structural engineering**. His expertise includes the design of **prestressed and reinforced concrete, steel superstructures, foundations,** and **sign trusses**, and he is proficient in national and state standards including **AASHTO, LADOTD,** and **ACI**. For the Angus Avenue bridge replacement, Joshua will **lead bridge design services**, **responsible for the design** and **analysis of the proposed structure,** ensuring conformance with **LADOTD's Bridge Design & Evaluation Manual** and **Off-System Bridge Program guidelines**. He will also support coordination with the hydraulics and roadway teams to integrate structure-specific needs into the overall project design. Joshua is proficient with **OpenBridge, AASHTOWare BrR, StaadPro**, and **MicroStation**, ensuring efficient and accurate structural modeling and plan production.

Experience Dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
05/23 - Ongoing SECTION 17 PROJECT	**Carroll Avenue over Middle Creek Colyell Creek, Livingston Parish, LA** **Bridge Design Engineer.** Joshua provided structural design for the cast-in-place slab superstructure and bent cap. He ensured the design met applicable LADOTD Bridge Design Section requirements as stipulated in the Bridge Design and Evaluation Manual (BDEM) and published Bridge Design Technical Memoranda (BDTM). He also directed the development of corresponding construction plans that provide sufficient detail for complete construction of the new bridge. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 62-foot by 20-foot railcar bridge with a new 24-foot by 80-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
05/23 - Ongoing SECTION 17 PROJECT	**Hood Road over Middle Colyell Creek, Livingston Parish, LA** **Bridge Design Engineer.** Joshua provided structural design for the cast-in-place slab superstructure and bent cap. He ensured the design met applicable LADOTD Bridge Design Section requirements as stipulated in the BDEM and published BDTM. He also directed the development of corresponding construction plans that provide sufficient detail for complete construction of the new bridge. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 92-foot by 19-foot timber trestle bridge with a new 24-foot by 120-foot cast-in-place slab span bridge. The new bridge is entirely in a 420-foot radius curve on a new alignment that improves existing undesirable geometry in the roadway. Our team has performed the design and detailing for this non-standard case that meets all current LADOTD and AASSHTO requirements. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.

Josh Gonya resume continued

05/23 - Ongoing SECTION 17 PROJECT	**George Jenkins Road over Berrys Creek, Washington Parish, LA** **Bridge Design Engineer.** Joshua provided structural design for the cast-in-place slab superstructure and bent cap. He ensured the design met applicable LADOTD Bridge Design Section requirements as stipulated in the BDEM and published BDTM. He also directed the development of corresponding construction plans that provide sufficient detail for complete construction of the new bridge. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 120-foot by 13-foot timber trestle bridge with a new 24-foot by 140-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width. Our team has modified the end bent detail to accommodate the taper-down bridge rail along the approach slab that was necessitated by the proximity of an existing driveway to the proposed bridge. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
05/23 - Ongoing SECTION 17 PROJECT	**Mitch Road over Peters Creek, Washington Parish, LA** **Bridge Design Engineer.** Joshua provided structural design for the cast-in-place slab superstructure and bent cap. He ensured the design met applicable LADOTD Bridge Design Section requirements as stipulated in the BDEM and published BDTM. He also directed the development of corresponding construction plans that provide sufficient detail for complete construction of the new bridge. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 78-foot by 26-foot timber trestle bridge with a new 24-foot by 100-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width and skew. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
04/21 - Ongoing SECTION 17 PROJECT	**Rural Bridge Replacement Initiative Phase II (South), LA (16 Projects), Various Locations, LA** **Bridge Designer.** Waggoner is leading engineering design and coordination for the replacement of 29 state highway bridges across five LADOTD districts, organized into 16 concurrent projects. The team is responsible for preliminary and final roadway and bridge design, drainage and structural engineering (including reinforced concrete components and prestressed girders), ROW determination, and environmental coordination for NEPA compliance. Waggoner collaborates with subconsultants and maintains regular client communication to ensure timely submittals and effective project alignment.
09/19 - 09/21	**Morgan County Bridge #52 Replacement, Morgan County/INDOT, Morgan County, Indiana** **Project Manager and Lead Bridge Designer.** Joshua was the Project Manager and Lead Designer for this project. He completed the design of a three span AASHTO Type 1 beam bridge to replace the existing structure. The superstructure was supported by semi-integral end bents and wall piers which were both founded on steel H-piles. This bridge was in a rural area so considerations were taken to account for drainage of fields at all the corners.
05/14 - 05/15	**Essen Lane over Wards Creek Bridge Widening, East Baton Rouge Parish, LA** **Lead Bridge Designer.** Joshua was responsible for initial bridge evaluations and widening of the existing Essen Lane bridge over Wards Creek. This project involved utility relocations, extending and matching existing substructures, extending, and matching existing slab span bridge elements. The bridge was evaluated in all temporary structural layouts with temporary traffic conditions.
05/19 - 08/20	**SR15 over Eagle Creek Bridge Replacement, Kosciusko County/INDOT | Kosciusko County, Indiana (previous firm)** **Project Manager and Lead Bridge Designer.** Joshua completed the design of a custom three-span slab superstructure supported by integral end bents and interior open pile bents found on steel shell piles. Hydraulic design and site visits concluded that drift and debris are a major factor for Eagle creek and the open pile bents were used in order to minimize the amount of drift present at the structure. The bridge was designed to accommodate phased construction so that one lane of heavy truck traffic could be maintained at all times during construction. This bridge was in an urban area and required a large effort for utility coordination and local business coordination.
05/18 - 05/20	**Worthsville Road over Tracy Ditch Bridge Replacement, Greenwood, Greenwood, Indiana (previous firm)** **Project Manager and Lead Bridge Designer.** Josh completed the design of a 72'-6" single-span, Hybrid Bulb-Tee Beam bridge to replace the existing three-sided culvert over Tracy Ditch. Bridge Hydraulic design was completed to size the bridge and provide Q100 roadway serviceability. The bridge was designed to accommodate phased construction so that one lane of traffic could be maintained in each direction during construction. The end bents and bridge piling were spaced and designed to span an existing sanitary force main that could not be relocated. The bridge cross section includes four travel lanes, a striped median, two raised sidewalks, and bridge railing.

16. STAFF EXPERIENCE:

Firm Employed By: Waggoner Engineering, Inc. (formerly Sigma Consulting Group, Inc.)					
Name	**Joshua Olivier, PE**			Years of Relevant Experience with this Employer	7
Title	Project Engineer			Years of Relevant Experience with Other(s) Employers	0
Degree(s)/Years/Specialization			BS/2017/Civil Engineering		
Active Registration Number/State/Expiration Date			PE#46498/LA/9-30-26		
Year Registered	2022	Discipline	Civil Engineering		
Contract Role(s)/Brief Description of Responsibilities		Bridge Design Services			

Joshua is a licensed **Professional Engineer** with experience in **bridge and structural design, geometric roadway design,** and t**ransportation-related studies.** He contributes to the preparation of **structural analyses, detailed drafting,** and **design calculations**, supporting safe and efficient bridge construction. Joshua is skilled in tools such as **AutoCAD, Civil 3D,** and **LEAP Bridge Concrete,** which he applies to plan preparation and structural modeling. For the Angus Avenue project, Joshua will support the **bridge design team,** assisting with **design calculations, plan development,** and **structural detailing** to ensure conformance with **LADOTD and AASHTO standards**. His role includes collaboration with senior engineers to maintain accuracy, structural integrity, and compliance with project-specific requirements under the **Off-System Bridge Program**.

Experience Dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
5/23 - Ongoing SECTION 17 PROJECT	**Carroll Avenue over Middle Creek Colyell Creek, Livingston Parish, LA** **Project Engineer.** Joshua was project engineer for this project, providing bridge and structural design services. Waggoner was contracted by LADOTD to replace a rail car bridge with a new slab span bridge. The project involved comprehensive services, including topographic and property surveys, ROW mapping, and the development of preliminary and final plans. Waggoner completed road and drainage design, a hydraulic impact analysis, and bridge design for a 4-span structure, all while adhering to LADOTD standards. The scope included utility coordination, construction sequencing, and rigorous quality control measures.
2018 - Present	**LA 3213 Gramercy Bridge Approach (Westbank), St. John the Baptist Parish, LA (H.002960)** **Project Engineer.** Joshua was project engineer for this project, providing bridge and structural design services. This project consists of constructing a new overpass along the existing horizontal alignment on LA 3213 to create a grade separation over the existing Union Pacific railroad tracks while remaining inside the existing ROW and includes the design of an on-site diversion to route traffic around the construction zone. Joshua performed the final structural design for all superstructure and substructure components. All design was performed with the AASHTO L.R.F.D. guidelines and LADOTD's Bridge Design and Evaluation Manual. This project utilized the newly developed "LG" prestressed concrete girders.
06/23 - Ongoing	**Jones Creek Road Improvements Phases 1A & 1B, East Baton Rouge Parish, LA** **Project Engineer.** Joshua is serving as project engineer for this project. Waggoner was contracted by the East Baton Rouge Parish Department of Department of Transportation and Drainage through the MOVEBR Program to design the extension of Jones Creek Road from the existing Tiger Bend Road intersection to a new terminus point on Airline Highway. The project includes a two-mile four-lane boulevard on new alignment, green infrastructure drainage features, a roundabout at Jefferson Highway, a new residential subdivision access point for an existing subdivision, a new bridge over Claycut Bayou, topographic and ROW mapping, and stormwater detention ponds to control outfall channel levels.
01/18 - 06/20	**I-10 Widening, LA30 - LA22, Ascension Parish, LA** **Project Engineer.** Joshua was project engineer for this project, providing bridge and structural design services. This project involves the widening of a five-mile segment of I-10, including two girder bridge structures and one slab span structure as well as the replacement of the LA 941 bridge structure. Joshua was responsible for checking the longitudinal reinforcing design of the slab span bridge as well as the reinforcement of the new LA 941 bridge. He was also responsible for a preliminary bridge quantity estimate for the LA 941 overpass.

Joshua Olivier resume continued

02/16 - Ongoing	**Pecue Lane/I-10 Interchange, East Baton Rouge Parish, LA (H.003047)** **Project Engineer.** Joshua is serving as project engineer for this project. This project consists of the design of an interchange with multiple through and turn lanes on Pecue Lane, an entrance ramp and exit ramp on eastbound I-10, an entrance and exit ramp on westbound I-10, replacing the current Pecue Lane slab span bridge over Wards Creek, and widening the I-10 girder bridge over Wards Creek. Joshua was responsible for the superstructure and substructure design of the I-10 East bound and West bound bridge widening as well as the checking of the Pecue Lane slab span superstructure and substructure design. He also assisted with the load rating of all structures. Additionally, Joshua performed shop drawing review as the project entered construction.
10/12 - Ongoing	**Hooper Road Widening (LA 408), East Baton Rouge Parish, LA** **Project Engineer.** Joshua is serving as project engineer for this project, providing bridge and structural design services. This project is for the widening of an existing two-lane roadway to a four-lane boulevard to increase capacity. The project began with an Environmental Assessment (EA) and National Environmental Policy Act (NEPA) environmental documentation.
01/18 - 05/20	**I-10 Corridor Improvements (LA 415 to Essen Lane) EA, West & East Baton Rouge Parishes, LA** **Project Engineer.** Joshua assisted in the development of the proposed vertical profiles for the Perkins Drive through Acadian Throughway section of the corridor. He was responsible for the identification of critical points of clearance along this region and the corresponding impacts to the design Profile Grade Line. He was also responsible for developing construction sequencing for the removal of the straddle bent over the Kansas City Rail Road overpass.
2014 - Ongoing	**Ambassador Caffery & US 90 I/C (Future I-49), Lafayette, LA (H.002868)** **Project Engineer.** Joshua is serving as project engineer for this project. This project entails construction of a new fully access controlled grade-separated interchange at the intersection of Ambassador Caffery Parkway (LA 3073) and US 90 (future I-49 South) in Lafayette Parish. Joshua assisted with checking the superstructure and column bent substructure design. This project utilized the newly developed "LG" prestressed concrete girders. Additionally, Joshua performed shop drawing review as the project entered construction.

16. STAFF EXPERIENCE:

Firm Employed By: Waggoner Engineering, Inc. (formerly Sigma Consulting Group, Inc.)					
Name	**Alex Farr, PE**			Years of Relevant Experience with this Employer	11
Title	Senior Transportation Engineer Manager			Years of Relevant Experience with Other(s) Employers	2
Degree(s)/Years/Specialization			BS/2011/Civil Engineering		
Active Registration Number/State/Expiration Date			PE#40426/LA/09-30-2026		
Year Registered	2016	Discipline	Civil Engineering		
Contract Role(s)/Brief Description of Responsibilities		Road & Drainage Design Lead			

Alex is a licensed **Professional Engineer** with over **13 years of experience** in **roadway and drainage design**, project management, and plan development for **LADOTD transportation projects**. He has led the design of multiple state roadway improvement efforts, with a focus on delivering projects on time and within budget. For the Angus Avenue bridge replacement, Alex will serve as the **Road & Drainage Design Lead,** responsible for the development of **roadway geometry, typical sections, drainage layouts**, and **coordination with hydraulics and bridge teams**. He will ensure that all roadway elements comply with **LADOTD's Roadway Design Procedures and Details Manual,** maintain **constructability standards**, and align with the scope of the **Off-System Highway Bridge Program**. Alex's leadership will help ensure a cohesive design that supports the structure and surrounding roadway network.

Experience Dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
5/23 - Ongoing SECTION 17 PROJECT	**Carroll Avenue over Middle Creek Colyell Creek, Livingston Parish, LA** **Road Design Lead.** Alex serves as the road design lead professional for the project, overseeing plan development including horizontal and vertical geometry, detour plans, roadway drainage, and quantity estimation. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 62-foot by 20-foot railcar bridge with a new 24-foot by 80-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
5/23 - Ongoing SECTION 17 PROJECT	**Hood Road over Middle Colyell Creek, Livingston Parish, LA** **Road Design Lead.** Alex serves as the road design lead professional for the project, overseeing plan development including horizontal and vertical geometry, detour plans, roadway drainage, and quantity estimation. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 92-foot by 19-foot timber trestle bridge with a new 24-foot by 120-foot cast-in-place slab span bridge. The new bridge is entirely in a 420-foot radius curve on a new alignment that improves existing undesirable geometry in the roadway. Our team has performed the design and detailing for this non-standard case that meets all current LADOTD and AASSHTO requirements. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
5/23 - Ongoing SECTION 17 PROJECT	**George Jenkins Road over Berrys Creek, Washington Parish, LA** **Road Design Lead.** Alex serves as the road design lead professional for the project, overseeing plan development including horizontal and vertical geometry, detour plans, roadway drainage, and quantity estimation. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 120-foot by 13-foot timber trestle bridge with a new 24-foot by 140-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width. Our team has modified the end bent detail to accommodate the taper-down bridge rail along the approach slab that was necessitated by the proximity of an existing driveway to the proposed bridge. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.

Alex Farr resume continued

5/23 - Ongoing SECTION 17 PROJECT	**Mitch Road over Peters Creek, Washington Parish, LA** **Road Design Lead.** Alex serves as the road design lead professional for the project, overseeing plan development including horizontal and vertical geometry, detour plans, roadway drainage, and quantity estimation. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 78-foot by 26-foot timber trestle bridge with a new 24-foot by 100-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width and skew. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
04/21 - Ongoing SECTION 17 PROJECT	**Rural Bridge Replacement Initiative Phase II (South), LA (16 Projects) (440001338), Various Locations, LA** **Project Manager.** Alex is responsible for the plan development of this project, which is for 16 state projects including 29 bridge replacement sites throughout south Louisiana. This includes preparing the Project Design Report (PDR) as well as the horizontal and vertical geometry. As some bridge sites are allowed to be closed for construction while others must remain open, Alex is also responsible for designing a detour route or diversion road, which includes a suggested sequence of construction. Alex is also responsible for the guardrail design at each bridge site. Along with plan development, Alex will be assisting the project manager in subconsultant coordination as well as invoicing and progress reporting to the LADOTD Project Manager.
03/13 – 07/22	**I-10: East Jct. I-49 to LA 328, Lafayette and St. Martin Parishes, LA (H.003003)** **I-10: LA 328 to LA 347, St. Martin Parish, LA (H.003014)** **I-10: LA 347 to Atchafalaya Floodway Bridge, St. Martin Parish, LA (H.003014)** **Project Engineer.** Alex prepared road design plans for the interstate, ramps, and overpasses for all three segments of I-10. The TMPs pertained to alternate route analysis, public information, stakeholder involvement, traffic and safety data, temporary traffic control, and work zone impact management strategies. Alex was also responsible for the suggested sequence of construction, temporary signing, and quantity computations for each construction funding source and control section. This project included both pavement preservation and capacity functional classifications.
03/13 – 07/22	**I-49 South: US 90 & Ambassador Caffery Interchange, Lafayette Parish, LA (H.002868)** **Project Engineer.** Alex was responsible for the storm sewer drainage design along the northbound and southbound service roads for this project. Alex was also responsible for preparing a traffic signal plan including a traffic signal warrant analysis as well as an operational analysis concerning the two new proposed signals at the northbound and southbound service roads and Ambassador Caffery. Alex also developed the Transportation Management Plan (TMP) for this project to minimize impacts to the traveling public throughout construction.
06/23 - Ongoing	**Jones Creek Road Improvements Phases 1A & 1B, East Baton Rouge Parish, LA** **Project Manager.** Waggoner was contracted by the East Baton Rouge Parish Department of Transportation and Drainage through the MOVEBR Program to design the extension of Jones Creek Road from the existing Tiger Bend Road intersection to a new terminus point on Airline Highway. The project includes a two-mile four-lane boulevard on new alignment, green infrastructure drainage features, a roundabout at Jefferson Highway, a new residential subdivision access point for an existing subdivision, a new bridge over Claycut Bayou, topographic and ROW mapping, and stormwater detention ponds to control outfall channel levels. Alex is serving as the Project Manager for this project, designing the roadway geometrics, typical sections, geometric details, cross sections, MOT, quantities, and construction cost estimates.

16. STAFF EXPERIENCE:

Firm Employed By: Waggoner Engineering, Inc. (formerly Sigma Consulting Group, Inc.)					
Name	**Kelsie Bankston, PE**			Years of Relevant Experience with this Employer	3
Title	Project Engineer			Years of Relevant Experience with Other(s) Employers	4
Degree(s)/Years/Specialization			BS/2018/Civil Engineering		
Active Registration Number/State/Expiration Date			PE#47126/LA/03-31-2027		
Year Registered	2022	Discipline	Civil Engineering		
Contract Role(s)/Brief Description of Responsibilities		Road & Drainage Design			

Kelsie is a licensed **Professional Engineer** with hands-on experience in **roadway and drainage design, topographic survey interpretation,** and **bridge inspection support**. Her background includes site visits, reporting, and plan development for **bridge replacements** and **roadway improvements**. For the Angus Avenue bridge replacement, Kelsie will support the roadway design team, focusing on the collection and interpretation of **topographic survey data**, including **drainage structures, travel lanes, shoulders, and utility locations**. She will assist in the development of preliminary and final plans, ensuring conformance with **LADOTD's Roadway Design Procedures and Details Manual** and the requirements of the **Off-System Highway Bridge Program.** Kelsie's field and design experience will support the delivery of accurate, **high-quality roadway plans** that align with project scope and standards.

Experience Dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
05/23 - Ongoing SECTION 17 PROJECT	**Carroll Avenue over Middle Creek Colyell Creek, Livingston Parish, LA** **Road Design Engineer.** Kelsie provided checking for the roadway and drainage design and plans. The work included assuring proposed design criteria met minimum design guidelines with consideration for practical design fitting assessed site conditions. Kelsie is checking the geometric layout (horizontal and vertical), drainage calculations, typical sections and cross sections, and quantity computations. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 62-foot by 20-foot railcar bridge with a new 24-foot by 80-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
05/23 - Ongoing SECTION 17 PROJECT	**Hood Road over Middle Colyell Creek, Livingston Parish, LA** **Road Design Engineer.** Kelsie provided checking for the roadway and drainage design and plans. The work included assuring proposed design criteria met minimum design guidelines with consideration for practical design fitting assessed site conditions. Kelsie is checking the geometric layout (horizontal and vertical), drainage calculations, typical sections and cross sections, and quantity computations. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 92-foot by 19-foot timber trestle bridge with a new 24-foot by 120-foot cast-in-place slab span bridge. The new bridge is entirely in a 420-foot radius curve on a new alignment that improves existing undesirable geometry in the roadway. Our team has performed the design and detailing for this non-standard case that meets all current LADOTD and AASSHTO requirements. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
05/23 - Ongoing SECTION 17 PROJECT	**George Jenkins Road over Berrys Creek, Washington Parish, LA** **Road Design Engineer.** Kelsie provided checking for the roadway and drainage design and plans. The work included assuring proposed design criteria met minimum design guidelines with consideration for practical design fitting assessed site conditions. Kelsie is checking the geometric layout (horizontal and vertical), drainage calculations, typical sections and cross sections, and quantity computations. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 120-foot by 13-foot timber trestle bridge with a new 24-foot by 140-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width. Our team has modified the end bent detail to accommodate the taper-down bridge rail along the approach slab that was necessitated by the proximity of an existing driveway to the proposed bridge. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.

Kelsie Bankston resume continued

05/23 - Ongoing SECTION 17 PROJECT	**Mitch Road over Peters Creek, Washington Parish, LA** **Road Design Engineer.** Kelsie provided checking for the roadway and drainage design and plans. The work included assuring proposed design criteria met minimum design guidelines with consideration for practical design fitting assessed site conditions. Kelsie is checking the geometric layout (horizontal and vertical), drainage calculations, typical sections and cross sections, and quantity computations. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 78-foot by 26-foot timber trestle bridge with a new 24-foot by 100-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width and skew. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
04/21 - Ongoing SECTION 17 PROJECT	**Rural Bridge Replacement Initiative Phase II (South), LA (16 Projects) (440001338), Various Locations, LA** **Project Engineer.** Kelsie is managing and designing four bridge replacement projects included in this contract. This work includes assessing site conditions, deciding the structure type and size based on the hydraulics of the channel, and designing the roadway approaches. She is responsible for project management, roadway and slab span bridge design, construction plan preparation, quantity computations, and developing an opinion of probable costs.
02/21 - 02/23	**LA 73: US 61 (Airline) – Essen Lane, East Baton Rouge, LA (H.010652)** **Project Engineer.** This roadway transfer project involves replacement of the existing LA 73 roadway with a new asphalt pavement section. Kelsie assisted in setting up the base geometry using as-built drawings and survey data for the reconstruction of LA 73, including curb and gutter and sidewalks throughout the limits of the project. She was responsible for all quantity calculations, including compiling the quantity book, and the summary sheets. She also performed the QA/QC of the geometric details.
10/21 - Ongoing	**I-10: LA 415 to Essen Lane on I-10/I-12 (CMAR), East Baton Rouge Parish, LA (H.004100)** **Project Engineer.** Kelsie has assisted in the preparation of various submittals for this project. She has assisted in the typical section design, plan, and profile preparation, required ROW and roadway geometrics for various sections and stages of this project, and is responsible for the graphical grading and superelevation design of multiple ramps throughout the corridor. She is responsible for documenting and tracking information, documents, and comments received from LADOTD and other consultants on the design team. Kelsie has performed quantity calculations and prepared quantity tables for various submittal stages.
05/21 - 03/23	**LA 352 Drainage Improvement, St. Martin Parish, LA (H.014415)** **Project Engineer.** This project involves channel improvements and adding subsurface drainage systems to an outfall channel adjacent to LA 352. Kelsie is responsible for the typical sections, plan profiles, developing a suggested sequence of construction, diversion road design for maintenance of traffic, quantity computations, pay item list, and documentation of comments and responses.

16. STAFF EXPERIENCE:

Firm Employed By: Waggoner Engineering, Inc. (formerly Sigma Consulting Group, Inc.)					
Name	**Charlotte Gremillion, PE**			Years of Relevant Experience with this Employer	5
Title	Project Engineer			Years of Relevant Experience with Other(s) Employers	2
Degree(s)/Years/Specialization			BS/2018/Civil Engineering		
Active Registration Number/State/Expiration Date			PE#47930/LA/09-30-2025		
Year Registered	2023	Discipline	Civil Engineering		
Contract Role(s)/Brief Description of Responsibilities		Road & Drainage Design			

Charlotte is a licensed **Professional Engineer** with experience in transportation and commercial projects, specializing in r**oadway and geometric design, site analysis,** and **plan development.** She is proficient in AutoCAD, Civil 3D, **MicroStation, and GlobalMapper**, which she uses to produce accurate and detailed design documents. For the Angus Avenue bridge replacement project, Charlotte will support the **roadway design team**, checking horizontal and vertical geometry, **typical roadway section**, cross sections, and roadside safety items. Her thorough review of the design's adherence to the minimum guidelines will be critical to ensuring the final product is safe and meets **LADOTD requirements** as well as the **Off-System Bridge Program standards.**

Experience Dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
04/21 - Ongoing SECTION 17 PROJECT	**Rural Bridge Replacement Initiative Phase II (South), LA (16 Projects) (440001338), Various Locations, LA** **Project Engineer.** Charlotte is in charge of managing a bridge replacement project included in this contract. This work includes assessing site conditions, deciding the structure type and size based on the hydraulics of the channel, and designing the roadway approaches. She will be responsible for preparing the submittals for each of these bridges as well as submitting monthly progress reports.
9/22 - Ongoing	**LA 1088: Soult and Trinity Roundabouts, St. Tammany Parish, LA (H.010116)** **Project Engineer.** This project includes replacing two intersections and the connecting two-lane urban arterial with roundabouts and a four-lane boulevard section. Charlotte responsibilities include roadway geometrics, design reports, technical calculations, and plan development. She designed all typical sections through the addition of two new roundabouts. She identified and assessed the roadway design constraints in the area when deciding the location of the two roundabouts and roadway approaches. She connected the existing conditions to the new designs so that access would not be limited.
05/20 - Ongoing	**I-10: LA 415 to Essen Lane on I-10 and I-12, Baton Rouge, LA (H.004100)** **Lead Technical Design Engineer.** This project is to replace the urban interstate through downtown Baton Rouge under an alternative delivery process. Charlotte serves as a technical design engineer for urban freeways, grade separation interchanges, urban arterials, urban collectors, and local streets. She is the lead design engineer for roundabouts at the Dalrymple Drive Exit Ramp and Terrance Street at Braddock Street intersection. She prepares roadway design calculations, executes technical reviews, and prepares construction plans for several stages, phases, and segments of the project. She also performs quantity calculations and prepares quantity tables for various submittal stages. She is responsible for plan and profile preparation, cross sections, and roadway geometrics for various sections and stages of the project.
10/20 - Ongoing	**I-10/I-12 College Flyover, East Baton Rouge Parish, LA (H.013897)** **Technical Review Engineer.** This project includes design upgrades to a grade separation fully directional interchange of two interstates in Baton Rouge, LA. Charlotte serves as a technical review engineer for the owner verification team on the following design units: definitive design, clearing and grubbing, roadway (multiple units), drainage, maintenance of traffic (multiple units), pavement marking and signing, SWPPP, and TMP Level 4. Her responsibilities include technical reviews of calculations and drawings for conformance to the minimum guidelines, project technical performance specifications, and contract documents. She manages all technical comments originating from her firm and take part in technical review meetings with the design-builder and owner.

16. STAFF EXPERIENCE:

Firm Employed By: Waggoner Engineering, Inc. (formerly Sigma Consulting Group, Inc.)				
Name	**Bryan Harmon, PE**		Years of Relevant Experience with this Employer	10
Title	Vice President | Special Projects Engineer		Years of Relevant Experience with Other(s) Employers	33
Degree(s)/Years/Specialization		BS/1981/Agricultural Engineering | BS/1982/Civil Engineering		
Active Registration Number/State/Expiration Date		PE#22595/LA/03-31-2027		
Year Registered	1987	Discipline	Civil Engineering	
Contract Role(s)/Brief Description of Responsibilities		Bridge Hydraulics Design Lead		

Bryan is a licensed Professional Engineer with extensive experience in **infrastructure design, specializing in hydraulics, drainage systems,** and transportation engineering. He has led the design and review of large-scale **roadway and bridge improvement projects**, with a strong understanding of DOTD standards, pavement design, and **right-of-way coordination**. For the Angus Avenue bridge replacement project, Bryan will serve as the **Bridge Hydraulics Design Lead**, responsible for r**eviewing and overseeing the hydraulic analysis and drainage design** in accordance with the **LADOTD Hydraulics Manual** and **Off-System Bridge Program Guidelines.** He will ensure that both preliminary and final designs address **drainage structures, flow capacity**, and **construction-phase considerations,** supporting compliance and long-term performance. Bryan will also provide technical support during construction phase services, helping to resolve any **design-related issues** and maintain delivery schedules.

Experience Dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
03/13 – 07/22	**I-10: East Jct. I-49 to LA 328, Lafayette & St. Martin Parishes (H.003003)** **I-10: LA 328 to LA 347, St. Martin Parish (H.003014)** **I-10: LA 347 to Atchafalaya Floodway Bridge, St. Martin Parish (H.003014)** **QA/QC.** Bryan performed roadway and drainage design for these three segments of I-10. He also performed superelevation computations and graphical grades to provide positive drainage along relatively flat grades in the median of the interstate. He was also responsible for QA/QC of the roadway plans and sequence of construction for the LA 347 roundabouts and roadway improvements. This project included both pavement preservation and capacity functional classifications.
05/21 – 03/23	**LA 352 Drainage Improvement, St. Martin Parish, LA (H.014415)** **Lead Hydraulic Engineer.** Bryan is the lead hydraulic engineer for drainage improvements along LA 352 in Henderson, LA. The project includes removing several undersized side drains and side road cross drains with a 10x6 RCB to alleviate regional flooding problems near the I-10 Henderson exit. The design also incorporates a drainage bypass system to balance flows near the interchange. Bryan is responsible for performing HEC-RAS modeling and HYDRO-WIN calculations on the main outfall channel, developing drainage alternatives and associated costs, and QA/QC on the construction plans.
08/18 – 10/22	**I-220/I-20 Interchange and BAFB Access Design-Build, Bossier Parish, LA (H.003370)** Bryan was responsible for the evaluation and design of both the existing and proposed drainage systems for this new four-lane rural arterial and roadway. In addition to the standard LADOTD drainage evaluations for storm drain systems (inlets, pipes, box culverts, and bridges) consideration of impacts to the surrounding floodplain storage basins and wetlands had to be considered. The floodplain area along the southern limits of the project is also bisected by the KCSRR and is subject to significant backwater and overbank flooding from Red Chute Bayou. Due to the floodplain complexities associated with this lateral overflow storage area, coordination with the Bossier Levee District was required which included utilizing elements of their 2D Unsteady Flow HEC-RAS Model for this region. Due to the lateral overflows and interchange of flows, consideration of bridge scour was evaluated for the KCSRR Overpass utilizing the HEC-RAS computer model.

Bryan Harmon resume continued

04/21 - Ongoing SECTION 17 PROJECT	**Rural Bridge Replacement Initiative Phase II (South), LA (16 Projects) (440001338), Various Locations, LA** **Hydraulic Design Engineer.** Bryan is serving as Waggoner's (formerly Sigma) supervising Hydraulic Design Engineer for the Phase II Rural Bridge Replacement Initiative. Hydrologic and hydraulic evaluations are being developed to provide a hydraulically suitable replacement for the existing bridge structures that have been designated for replacement under this program. All bridge hydraulic reports, data forms, and data tables are being prepared in accordance the current LADOTD Hydraulics manual and design directives.
04/18 - Ongoing	**Belle Chasse Bridge and Tunnel Replacement Public-Private Partnership Project, Plaquemines and Jefferson Parishes, LA (H.004791)** **Lead Drainage Engineer.** Waggoner (formerly Sigma) is providing the drainage design for this major highway improvement that is being designed and constructed under this alternative delivery method. Bryan is serving as the lead drainage engineer and is responsible for the coordination and proper consideration of the impacts that the large multi-jurisdictional pumped drainage outfall systems have on the project drainage system performance. Project drainage considerations include bridge deck scupper design conforming to FHWA HEC 21 requirements, and standard storm drainage piping and inlet design for associated local roadway improvements. The drainage system design must account for the final full build conditions but must also function during the various construction sequences with the addition of temporary systems.
2016 - 2019	**I-10: Highland to LA 73 Design-Build Project, East Baton Rouge and Ascension Parish, LA (H.009250)** **Design & Construction Liaison and Design Engineer.** Bryan is serving as the project design and construction Liaison for the project. He is responsible for coordinating design and construction efforts to ensure a cost effective and efficient delivery process. Bryan also serves as a design engineer for the open ditch and subsurface drainage systems for this 6.7-mile interstate capacity improvement project for LADOTD.
05/20 - Ongoing	**I-10: LA 415 to Essen Lane on I-10/I-12 (CMAR), East Baton Rouge Parish, LA (H.004100)** **Drainage Engineer.** Bryan is serving as Waggoner (formerly Sigma) supervising Drainage Engineer for this major interstate improvement project from just east of the Mississippi River bridge crossing to just west of College Drive. Bryan is responsible for the final drainage design of the interstate collection systems, local frontage roads, and drainage outfalls including the bridge hydraulic evaluation of the Acadian Thruway Bridge over Dawson Creek.
10/20 - Ongoing	**I-10 and I-12 College Drive Flyover Ramp Design-Build (CE&I/OV), East Baton Rouge Parish, LA (H.013897)** **Drainage Engineer.** While primarily a road project, Bryan's role as drainage design reviewer is highly relevant to the RFQ. His consideration of impacts on the Wards Creek drainage basin and review of primary drainage systems and open channel design align with the RFQ's focus on structural drainage improvements.
02/16 - Ongoing	**Pecue Lane/I-10 Interchange, East Baton Rouge Parish, LA (H.003047)** **Responsible Charge.** Bryan served in the "Responsible Charge Role" for East Baton Rouge City-Parish for this proposed new interchange, including the oversight of the initial interchange justification study, the development of the environmental assessment, and the associated preliminary engineering studies and design. This project had several constraints that had to be considered during these planning stages, including the Kansas City Southern Railroad (KCSRR) and Wards Creek, both of which fell within the potential control of access limits of the project.

16. STAFF EXPERIENCE:

Firm Employed By: Waggoner Engineering, Inc. (formerly Sigma Consulting Group, Inc.)					
Name	**Gage Spell, LSI**			Years of Relevant Experience with this Employer	1
Title	Senior Project Designer			Years of Relevant Experience with Other(s) Employers	11
Degree(s)/Years/Specialization			BS/2017/Physical Geography		
Active Registration Number/State/Expiration Date			LSI#686/LA/3-31-2027		
Year Registered	2018	Discipline	Surveying		
Contract Role(s)/Brief Description of Responsibilities		Bridge Hydraulics Design			

Gage is a **Licensed Surveyor Intern** with over 11 years of experience in **hydrology and hydraulics modeling, site investigation,** and **drainage design.** He has contributed to major infrastructure projects such as the **MOVEBR Sherwood Forest Extension** and the **Sorrento Pump Station Capacity Increase,** where he developed **2D hydraulic models** to assess **flood risks and roadway impacts**. For the Angus Avenue bridge replacement project, Gage will support the **bridge hydraulics design** team, focusing on **hydrologic and hydraulic modeling, drainage impact analysis,** and **flood mitigation** strategies. His responsibilities include providing technical input for drainage design and assisting with coordination between roadway and bridge teams to ensure full compliance with **LADOTD Hydraulics Manual** and **Off-System Bridge Program standards.** His experience with capital improvement planning and aerial inspections enhances the project's ability to deliver resilient and well-informed design solutions.

Experience Dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
02/25 - 03/25	**May Street Bridge Replacement, University Lakes Project Commission, LA** **Hydraulic Modeler.** Gage provided bridge hydraulic modeling for the replacement of the existing culvert structure with a new bridge structure along May St. Gage reviewed existing information to establish the drainage area of the site, then he performed that analysis in HEC-RAS to establish flow rates and velocities at the new bridge site. Waggoner was tasked with providing hydraulic modeling and analysis, including bridge scour analysis for the proposed new bridge. The roadway separates City Park Lake and University Lake near LSU's campus in Baton Rouge. The new structure will allow for more recreational marine traffic to utilize both lakes without having to get out of the water.
10/12 - Ongoing	**Hooper Road Widening (LA 408) Blackwater-Joor, East Baton Rouge Parish, LA** **Hydrologic and Hydraulic Modeler.** Gage served as a H&H modeler for this project Waggoner is leading a comprehensive improvement project for Hooper Road in Central, Louisiana, transforming it from a two-lane rural road to a four-lane urban boulevard. The project scope includes NEPA environmental documentation, planning, and preliminary engineering. Key elements involve roadway planning, environmental impact assessment, public involvement, and conceptual design of multiple roundabouts. Waggoner is now developing final design and construction plans, featuring a raised median boulevard and a two-lane roundabout at Lovett Road. The project adheres to LADOTD design criteria and includes detailed surveying, drainage design, utility relocation, and traffic management planning.
2/23 - Ongoing	**Bolivar and Sunflower County Watershed Plan, Cleveland, Bolivar and Sunflower County, MS** **Hydrologic and Hydraulic Modeler.** Gage modeled existing conditions and proposed improvements to identify effective solutions for repetitive flooding in the Bogue Chitto watershed. He analyzed and compared results to provide recommendations to local and state authorities and coordinated with the project team to develop Environmental Assessments in compliance with USDA NRCS standards and requirements. Bolivar County had expressed the desire to collaborate in the development of a Comprehensive Watershed Based Stormwater Management Program to identify, analyze, quantify, prioritize, and develop a short- and long-term implementation plan for both capital and maintenance requirements needed to address drainage-related deficiencies throughout the watershed area as directly related to preserving and enhancing municipal and/or county infrastructure. Waggoner was contracted with Mississippi Soil and Water Conservation Commission to provide engineering and technical support services for six HUC12 watersheds in Bolivar County.

16. STAFF EXPERIENCE:

Firm Employed By: Waggoner Engineering, Inc. (formerly Sigma Consulting Group, Inc.)					
Name	**Jace Ricard, PLS**			Years of Relevant Experience with this Employer	2
Title	Land Surveyor			Years of Relevant Experience with Other(s) Employers	10
Degree(s)/Years/Specialization			BS/2014/Geomatics		
Active Registration Number/State/Expiration Date			PLS#5205/LA/09-30-2025		
Year Registered	2019	Discipline	Survey		
Contract Role(s)/Brief Description of Responsibilities		Survey Lead | **Meets MPR 4**			

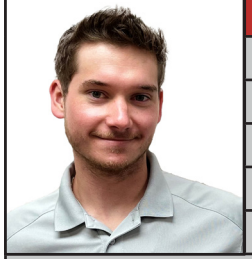
Jace is a **Professional Land Surveyor** with over 10 years of experience in t**opographic, boundary,** and **construction surveying** for infrastructure, roadway, and **bridge projects across Louisiana**. As **Survey Department Manager** at Waggoner, he oversees field operations, data quality, and integration with engineering design teams. For the Angus Avenue bridge replacement project, Jace will lead all **surveying activities,** including coordination and execution of the topographic survey, in compliance with the **LADOTD Location and Survey Manual** and **Off-System Bridge Program** procedures. He will ensure the accuracy of field data, particularly for **drainage features, cross sections, and right-of-way alignment**, and will certify deliverables per LADOTD requirements. Jace meets **MPR #4** as a Louisiana-licensed PLS with the required experience.

Experience Dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
5/23 - Ongoing SECTION 17 PROJECT	**Carroll Avenue over Middle Creek Colyell Creek, Livingston Parish, LA** **Survey and ROW Lead.** Jace is the land surveyor of record for topographic survey, property survey, and ROW maps for this project. The topographic survey involved establishing horizontal and vertical control while acquiring detailed surface features, channel features, existing utilities through coordination, and bridge features. Utilizing the information gathered, his team generated a comprehensive topographic map and 3D digital terrain model, providing a robust foundation for design and construction. Jace also prepared existing property maps along with corresponding acquisition and recordation right-of-way maps in accordance with LADOTD Location and Survey standards. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 62-foot by 20-foot railcar bridge with a new 24-foot by 80-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
5/23 - Ongoing SECTION 17 PROJECT	**Hood Road over Middle Colyell Creek, Livingston Parish, LA** **Survey and ROW Lead.** Jace is the land surveyor of record for topographic survey, property survey, and ROW maps for this project. The topographic survey involved establishing horizontal and vertical control while acquiring detailed surface features, channel features, existing utilities through coordination, and bridge features. Utilizing the information gathered, his team generated a comprehensive topographic map and 3D digital terrain model, providing a robust foundation for design and construction. Jace also prepared existing property maps along with corresponding acquisition and recordation right-of-way maps in accordance with LADOTD Location and Survey standards. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 92-foot by 19-foot timber trestle bridge with a new 24-foot by 120-foot cast-in-place slab span bridge. The new bridge is entirely in a 420-foot radius curve on a new alignment that improves existing undesirable geometry in the roadway. Our team has performed the design and detailing for this non-standard case that meets all current LADOTD and AASSHTO requirements. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.

Jace Ricard resume continued

5/23 - Ongoing SECTION 17 PROJECT	**George Jenkins Road over Berrys Creek, Washington Parish, LA** **Survey and ROW Lead.** Jace is the land surveyor of record for topographic survey, property survey, and ROW maps for this project. The topographic survey involved establishing horizontal and vertical control while acquiring detailed surface features, channel features, existing utilities through coordination, and bridge features. Utilizing the information gathered, his team generated a comprehensive topographic map and 3D digital terrain model, providing a robust foundation for design and construction. Jace also prepared existing property maps along with corresponding acquisition and recordation right-of-way maps in accordance with LADOTD Location and Survey standards. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 120-foot by 13-foot timber trestle bridge with a new 24-foot by 140-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width. Our team has modified the end bent detail to accommodate the taper-down bridge rail along the approach slab that was necessitated by the proximity of an existing driveway to the proposed bridge. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
5/23 - Ongoing SECTION 17 PROJECT	**Mitch Road over Peters Creek, Washington Parish, LA** **Survey and ROW Lead.** Jace is the land surveyor of record for topographic survey, property survey, and ROW maps for this project. The topographic survey involved establishing horizontal and vertical control while acquiring detailed surface features, channel features, existing utilities through coordination, and bridge features. Utilizing the information gathered, his team generated a comprehensive topographic map and 3D digital terrain model, providing a robust foundation for design and construction. Jace also prepared existing property maps along with corresponding acquisition and recordation right-of-way maps in accordance with LADOTD Location and Survey standards. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 78-foot by 26-foot timber trestle bridge with a new 24-foot by 100-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width and skew. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
02/24 - Ongoing	**BREC Scotlandville Parkway Bridge Replacements, East Baton Rouge Parish, LA** **Survey Manager.** Jace served as survey manager for this project, an evaluation and assessment of three bridges along a three-mile parkway along I-110 in North Baton Rouge with multiple recreational facilities. Waggoner's services for this project include topographic survey, construction drawings, bidding assistance, construction administration, and geotechnical services for the demolition, construction, and installation of three small vehicle and pedestrian replacement bridges at the parkway. The new bridges will restore access along the greenway trail at two locations and provide new access to the Disc Golf Course. The topographic survey involved establishing horizontal and vertical control at the three new bridge sites and two existing bridge sites slated for demolition, with all five sites tied together for consistency. Field surveying captured detailed topography of ground features, channels, bayous, bridge structures, utilities, trails, and pathways. Using a combination of RTK GPS, terrestrial scanning, and conventional total station methods, the team generated a comprehensive topographic map and a 3D digital terrain model in Civil3D, providing a robust foundation for design and construction.
10/12 - Ongoing	**Hooper Road Widening (LA 408) Blackwater-Joor, East Baton Rouge Parish, LA** **Land Surveyor.** Jace served as the land surveyor of record for the property survey and right-of-way maps for this MOVEBR project, which included widening Hooper Road between Blackwater Road and Joor Road from an existing two-lane roadway to a four-lane boulevard with sidewalks. A total of 86 parcels were included in the ROW maps. Jace was responsible for performing the property survey and preparation of the property map, acquisition ROW maps, and recordation ROW maps in accordance with LADOTD standards. This project included both pavement preservation and capacity functional classifications.
06/23 - Ongoing	**Jones Creek Road Improvements Phases 1A & 1B, East Baton Rouge Parish, LA** **Land Surveyor.** Jace is the land surveyor of record for topographic survey updates and ROW map revisions for this MOVEBR project, which includes extending Jones Creek Road on a new alignment from Tiger Bend Road to Airline Highway. Jace prepared recordation and acquisition set ROW map revisions. Waggoner was contracted by the East Baton Rouge Parish Department of Department of Transportation and Drainage through the MOVEBR Program to design the extension of Jones Creek Road from the existing Tiger Bend Road intersection to a new terminus point on Airline Highway. The project includes a two-mile, four-lane boulevard on new alignment, green infrastructure drainage features, a roundabout at Jefferson Highway, a new residential subdivision access point for an existing subdivision, a new bridge over Claycut Bayou, topographic and ROW mapping, and stormwater detention ponds to control outfall channel levels.

16. STAFF EXPERIENCE:



Firm Employed By: Waggoner Engineering, Inc. (formerly Sigma Consulting Group, Inc.)					
Name	**Milan Lear**			Years of Relevant Experience with this Employer	7
Title	Survey Party Chief			Years of Relevant Experience with Other(s) Employers	0
Degree(s)/Years/Specialization			N/A		
Active Registration Number/State/Expiration Date			N/A		
Year Registered	N/A	Discipline	N/A		
Contract Role(s)/Brief Description of Responsibilities		Survey & ROW Services			

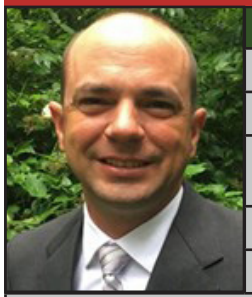
Milan is a **Survey Crew Chief and Certified Survey Technician**, with extensive experience in **topographic and boundary surveys** for **transportation, utility, and development projects.** He is proficient in using Leica and Trimble survey equipment, including total stations, **RTK GPS, scanners, and digital levels**. For the Angus Avenue bridge replacement, Milan will **lead the field survey crew,** responsible for collecting topographic and utility data, documenting cross sections, and supporting right-of-way mapping in accordance with the **LADOTD Location and Survey Manual.** His experience with **ALTA/NSPS surveys, as-built surveys**, and **Subsurface Utility Engineering (SUE) at quality levels A-C** ensures accurate field data collection for use in final design.

Experience Dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
5/23 - Ongoing SECTION 17 PROJECT	**Carroll Avenue over Middle Creek Colyell Creek, Livingston Parish, LA** **Survey Field Crew Chief.** Milan served as Survey Party Chief for the topographic survey on this project, leading a three-man crew to capture sufficient field data to create accurate designs and construction plans. Part of the field acquisitions involved establishing horizontal and vertical controls, capturing detailed surface features, channel features, existing utilities through coordination with LA One Call, and recording existing bridge components. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 62-foot by 20-foot railcar bridge with a new 24-foot by 80-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
5/23 - Ongoing SECTION 17 PROJECT	**Hood Road over Middle Colyell Creek, Livingston Parish, LA** **Survey Field Crew Chief.** Milan served as Survey Party Chief for the topographic survey on this project, leading a three-man crew to capture sufficient field data to create accurate designs and construction plans. Part of the field acquisitions involved establishing horizontal and vertical controls, capturing detailed surface features, channel features, existing utilities through coordination with LA One Call, and recording existing bridge components. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 92-foot by 19-foot timber trestle bridge with a new 24-foot by 120-foot cast-in-place slab span bridge. The new bridge is entirely in a 420-foot radius curve on a new alignment that improves existing undesirable geometry in the roadway. Our team has performed the design and detailing for this non-standard case that meets all current LADOTD and AASSHTO requirements. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
5/23 - Ongoing SECTION 17 PROJECT	**George Jenkins Road over Berrys Creek, Washington Parish, LA** **Survey Field Crew Chief.** Milan served as Survey Party Chief for the topographic survey on this project, leading a three-man crew to capture sufficient field data to create accurate designs and construction plans. Part of the field acquisitions involved establishing horizontal and vertical controls, capturing detailed surface features, channel features, existing utilities through coordination with LA One Call, and recording existing bridge components. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 120-foot by 13-foot timber trestle bridge with a new 24-foot by 140-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width. Our team has modified the end bent detail to accommodate the taper-down bridge rail along the approach slab that was necessitated by the proximity of an existing driveway to the proposed bridge. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.

Milan Lear resume continued

5/23 - Ongoing SECTION 17 PROJECT	**Mitch Road over Peters Creek, Washington Parish, LA** **Survey Field Crew Chief.** Milan served as Survey Party Chief for the topographic survey on this project, leading a three-man crew to capture sufficient field data to create accurate designs and construction plans. Part of the field acquisitions involved establishing horizontal and vertical controls, capturing detailed surface features, channel features, existing utilities through coordination with LA One Call, and recording existing bridge components. Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 78-foot by 26-foot timber trestle bridge with a new 24-foot by 100-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width and skew. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.
10/12 - Ongoing	**Hooper Road Widening (LA 408), East Baton Rouge Parish, LA** **Utility Locator and Survey Party Chief.** Milan was the survey party chief for the topographic survey of 2.2 miles of a two-lane roadway. As part of the topographic survey, he collected painted QL-C utility markings, above ground utility features, and applied appropriate survey line coding for line connectivity. The locating of QL-B markings performed by others included preparation of shot count sheets and line designations. He was also the party chief for surveying QL-A test holes at eight locations. Test holes were performed to locate existing sewer force mains and critical fiber optic communication lines along the project corridor.
2018 - 2019	**Causeway Blvd - Earhart Expressway Interchange SUE (LADOTD), Jefferson Parish, LA** **Utility Locator and Instrument Man.** Milan performed QL-B utility designations and QL-A surveying at 22 test hole locations. Utilities located include water lines, sewer force mains, gas, fiber optic telecommunications, storm drains, and active large diameter gas transmission lines.

16. STAFF EXPERIENCE:



Firm Employed By: ELOS Environmental, LLC					
Name	**Lucas Watkins**			Years of Relevant Experience with this Employer	18
Title	Principal/Environmental Scientist			Years of Relevant Experience with Other(s) Employers	4
Degree(s)/Years/Specialization			MS/2005/Biological Sciences BS/2000/Forest Management		
Active Registration Number/State/Expiration Date			N/A		
Year Registered	N/A	Discipline	N/A		
Contract Role(s)/Brief Description of Responsibilities		Environmental Lead | **Meets MPR 5**			

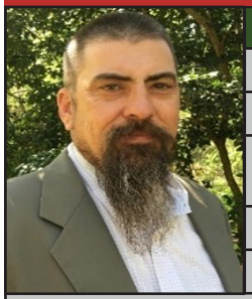
Lucas will serve as the **Environmental Lead**, overseeing the environmental team's efforts on the Angus Avenue bridge replacement project. He will be responsible for **project oversight, NEPA clearance**, and **agency coordination**. Lucas meets **MPR #5** as an environmental professional with over five years of experience in **wetland delineation**.

Experience Dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
09/20 - Ongoing	**LADOTD Rural Bridges, Phases I & II, Statewide, LA** ELOS has been contracted to provide environmental services for the LADOTD Rural Bridge Replacement Initiative projects in six districts across the state. Lucas ensures that all phases of the project adhere to federal and state environmental regulations. He facilitates effective communication among DOTD officials, environmental organizations, and other stakeholders to address concerns and maintain transparency throughout the project.
09/22 - Ongoing	**DOTD IIJA Off-System Bridges District 62** This Off-System bridge project involves the replacement of six bridges; ELOS is performing wetland delineations, completing permit applications, completing solicitation of views to document categorical exclusions for the work proposed, completing cultural resources research, tribal packets, and reports, and write navigability determination reports. Lucas has reviewed the findings reports prior to client submission.
10/23 - Ongoing	**EBR Off System Bridge Program, East Baton Rouge Parish, LA** ELOS is contracted to prepare and submit permit applications to the US Army Corps of Engineers (USACE) to include completing permit application packet, documenting the rationale for the project, providing the summary of project and detailed verbal description of the project location. ELOS is also responsible for generating one site plan for each project and coordinating with USACE for a permit under Section 10/404 of the Clean Water Act. Lucas the permit application throughout the entire process to ensure success of the permit process.
08/22 - 08/24	**LADOTD Rousseau Bridge Replacement, St. Tammany Parish, LA** ELOS was contracted to provide professional environmental for the Rousseau Bridge Replacement Project located on approximately 2.62 acres in St. Tammany Parish. Lucas directed the comprehensive assessment of potential environmental impacts related to transportation infrastructure projects. He ensured the accuracy, completeness, and integrity of environmental reports and documentation submitted to regulatory agencies for review and approval.
02/22 - Ongoing	**STP Lock No. 3 Replacement, St. Tammany Parish, LA** ELOS has been contracted to perform wetland delineation, submit joint permit applications, perform a State Historic Preservation Office (SHPO) Section 106 desktop review and Consultation, and perform a US Fish and Wildlife (USFWS) Endangered Species Act (ESA) Biological assessment for the St. Tammany Parish Lock No. 3 Bridge Replacement project. Lucas ensures that all phases of each step of the project complies with all state and federal regulations.

Lucas Watkins resume continued

03/24 - Ongoing	**Brownswitch Road Bridge Replacement, St. Tammany Parish, LA** ELOS was contracted to collect data and prepare a report to support a Wetland Delineation and manage the permit process with the USACE. ELOS will facilitate compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 by completing a Section 106 Desktop Review. ELOS will conduct a biological survey to determine potential effects on species protected under the Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), Bald and Golden Eagle Protection Act (BGEPA) and all other applicable law and regulations. Lucas has overseen every step of the process ensuring compliance with all regulations and transparency between all stakeholders in the project.
04/22 - Ongoing	**Yellow Water Road Bridge Replacement, Tangipahoa Parish, LA** ELOS has been contracted to prepare a Early Section 106 Tribal coordination packet and submit it to the LADOTD Project Manager (ELOS will not directly communicate with the tribal governments). ELOS will conduct biological assessment and a review of previous Historic Reviews. Lucas will review the finding of all reviews and the permit packet prior to submission.
12/22 - Ongoing	**Wildwood Dr. Bridge, Livingston Parish, LA** ELOS was contracted to perform a Wetlands Delineation Assessment, a Biological Assessment, and a Cultural Resource Survey. Lucas directed the assessments and ensured the accuracy of the Cultural Resource Survey. He supervised the submission of all pertinent documentation to the appropriate agencies.
11/17 - Ongoing	**Move Ascension, Phases I, II, & III, Ascension Parish, LA** ELOS is contracted to plan projects, perform wetland delineations, conduct cultural resource surveys, and submit permit applications for 60 roadway projects, varying from roundabouts to constructing new lanes and connecting roadways, located throughout Ascension Parish. Lucas has reviewed delineation details, edited cultural resource reports, developed and analyzed alternatives, reviewed scheduled, assisted with wetland mitigation, and reviewed permit applications.
08/22 - Ongoing	**H.014362 Lake Road, St. Tammany Parish, LA** ELOS was contracted to complete the solicitation of views and categorical exclusion notices, conduct a wetland delineation, and submit a joint permit application, scenic rivers permit application, and USCG bridge permit application for the project. Lucas reviewed the categorical exclusion packet and assisted with agency coordination and requests for more information.
02/23 - Ongoing	**DOTD Roundabout at Minnesota Park and Range Road, Tangipahoa Parish, LA** ELOS is contracted to complete a wetland delineation report, submit a permit application, as well as assist with a CATEX, Phase I ESA, and the solicitation of views (SOVs) for the roundabout project at the intersection of Minnesota Park and Range Road. Lucas monitors the project timelines, milestones, and budgets to ensure timely delivery of environmental assessments that align with project schedules. He also reviewed the SOVs and supporting documentation prior to initiating the process with agencies.
08/22 - Ongoing	**MoveBR Mickens Road, East Baton Rouge Parish, LA** ELOS is contracted to provide environmental services for a 2.8-mile-long roadway improvements project on Mickens Road from Hooper Road to Joor Road in East Baton Rouge. Services included a wetland delineation, a Phase I ESA, and a permit application to USACE. Lucas has reviewed the wetland delineation report, coordinated staff for the Phase I ESA tasks, reviewed final reports, and consulted with the Parish leadership.

16. STAFF EXPERIENCE:



Firm Employed By: ELOS Environmental, LLC					
Name	**Brian Fortson**			Years of Relevant Experience with this Employer	13
Title	Senior Project Manager/Biologist			Years of Relevant Experience with Other(s) Employers	23
Degree(s)/Years/Specialization			JD/2006/Civil Law BS/1995/Wetland Ecology		
Active Registration Number/State/Expiration Date			N/A		
Year Registered	N/A	Discipline	N/A		
Contract Role(s)/Brief Description of Responsibilities		Environmental			

Brian will serve on the **environmental team**, assisting with **NEPA clearance, feasibility analysis,** and a**gency coordination** for the Angus Avenue bridge replacement project.

Experience Dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
08/23 - Ongoing	**EBR Off System Bridge Program, East Baton Rouge Parish, LA** Brian has coordinated with the environmental scientists to review the wetland delineation reports and assist with USACE permit applications for 13 bridge replacements.
09/20 - Ongoing	**LADOTD Rural Bridges Phases I & II, Statewide, LA** ELOS has been contracted to provide professional environmental consulting services for the LADOTD Rural Bridge Replacement Initiative for two project phases. Phase I involved bridge replacements under 16 state project numbers and supplemental task orders, impacting 33 structures in Districts 03, 07, 61, and 62. Phase 2 is ongoing and involves bridge replacements under 9 state project numbers and supplemental task orders, impacting multiple structures in Districts 05, 08, 58. Almost all the projects have included a wetland delineation, permit applications, cultural resource survey, and a T&E survey. Brian has reviewed wetland delineation reports and categorical exclusion documentation, discussed findings and reviewed data for final reports, and met with staff internally to develop threatened and endangered species surveys.
09/22 - Ongoing	**LADOTD IIJA Off-System Bridges District 62** This Off-System bridge project involves the replacement of six bridges; ELOS is performing wetland delineations, completing permit applications, completing solicitation of views to document categorical exclusions for the work proposed, completing cultural resources research, tribal packets, and reports, and write navigability determination reports. Brian has reviewed the findings reports prior to client submission.
10/22 – 09/23	**LADOTD Rousseau Bridge Replacement, St. Tammany Parish, LA** ELOS was contracted to provide environmental services for the Rousseau Bridge Replacement Project located on approximately 2.62 acres in St. Tammany Parish. Services included a wetland delineation, Scenic Rivers permit application, emergency authorization application to USACE, SOVs, and a final report. Brian assisted with the report drafts and permit applications.
05/21 – 05/22	**STP Chris Kennedy RD Bridge Replacement, St. Tammany Parish, LA** ELOS was contracted to provide professional environmental engineering services to collect data to further prepare reports for wetland delineation, biological assessment and cultural impact in accordance with the removal and replacement plans. Brian coordinated with internal teams to review reports, correlative maps, and environmental data to complete the approved contract.
03/22 – 12/23	**STP Lock No. 2 Bridge Replacement, St. Tammany Parish, LA** Brian assisted with internal teams to provide Cultural resource services for the Lock No. 2 Bridge replacement located on approximately 4.83-acres in St. Tammany Parish. ELOS was contracted to provide Section 106 of NHPA, Terrestrial Phase I Culture Resource Survey and Cultural Resource Assessment No Findings report.

Brian Fortson resume continued

11/17 - Ongoing	**Move Ascension - Phases I, II, & III, Ascension Parish, LA** ELOS has been contracted to plan projects, perform wetland delineations, conduct cultural resource surveys, and submit permit applications for 60 roadway projects, varying from roundabouts to constructing new lanes and connecting roadways, located throughout Ascension Parish. Brian leads multi-disciplinary teams of environmental specialists, engineers, and consultants to achieve project objectives efficiently and effectively through the complexities of environmental compliance, ensuring that infrastructure development meets regulatory standards while minimizing environmental impacts and maximizing community benefits.
02/23 - Ongoing	**LADOTD Roundabout at Minnesota Park and Range Road, Tangipahoa Parish, LA** ELOS is contracted to complete a wetland delineation report, submit a permit application, as well as assist with a CATEX, Phase I ESA, and the solicitation of views (SOVs) for the roundabout project at the intersection of Minnesota Park and Range Road. Brian monitors the project timelines, milestones, and budgets to ensure timely delivery of environmental assessments that align with overall project schedules.
01/21 - Ongoing	**LA 22 Gapping, Ascension Parish, LA** **Project Manager.** ELOS is contracted to perform a wetland delineation, complete a joint permit application, complete a biological survey, monitor for bald and golden eagle protection, complete a Phase I ESA, complete a Section 106 review and report, and assist with wetland mitigation planning. Brian has served as the project manager to assist in determining the potential jurisdictional wetlands and other waters, preparing and submitting permit applications, and reviewing the desktop Section 106 review. He will also oversee the Phase I ESA and wetland mitigation planning.
01/22 – 09/22	**Judge Dufresne Parkway Extension, St. Charles Parish, LA** ELOS was contracted to conduct a Wetland Delineation, submit Permit Applications, perform a Phase I ESA, and provide a Section 106 Desktop Review for a 161.5-acre site to extend Judge Dufresne Parkway to include several adjacent, privately owned parcels. Brian oversaw the environmental consulting project for the parkway extension, ensuring that environmental considerations were integrated into all project phases, regulatory requirements were met, and the project was completed successfully while minimizing environmental impacts. He implemented quality assurance and control measures to ensure that deliverables meet established standards and client expectations. Brian maintained accurate project documentation, including reports, permits, correspondence, and regulatory filings.
08/17 - 11/19	**I-10 Highland to LA 73 Design Build, East Baton Rouge Parish to Ascension Parish, LA** ELOS was contracted to act as the environmental compliance manager responsible for permitting and construction monitoring for the fast-track interstate widening project from Highland Road in Baton Rouge to LA 73 in Prairieville. Brian provided senior-level environmental project management for the project, overseeing complex environmental aspects of transportation infrastructure initiatives. He assisted in the development of a comprehensive environmental management strategy, wrote and assisted with amending the SWPPP as the project progressed, and assisted in preparing and reviewing the permit applications.
01/15 - 01/16	**US 51 (LA 22 To Club Deluxe Road) – Environmental Services, Tangipahoa Parish, LA** ELOS was contracted to complete a biological survey and report, a Phase I ESA, and a draft environmental assessment, in addition to analyzing natural resource impacts and assisting with public outreach for this roadway improvement project. Brian supervised and participated in field investigations to support wetlands delineations and findings reports, biological surveys, and threatened and endangered species reports. He also provided coordination among regulatory agencies, landowners, and public stakeholders.
07/20 – 08/21	**Trace Connection to Heritage Park Stage 0 Checklist, St. Tammany Parish, LA** ELOS was contracted to provide a LADOTD Stage 0 Environmental Checklist for the Trace Connection to Heritage Park project. The project determined the feasibility of two proposed alternatives for the extension of the Tammany Trace from US Highway 190 West/ Gause Blvd near Cherry Street eastward for approximately 2.7 miles with a 100-ft wide corridor. Brian served as the project manager overseeing all fieldwork and coordinating between clients and government agencies.

16. STAFF EXPERIENCE:

Firm Employed By: ELOS Environmental, LLC					
Name	**Basile Dardar**			Years of Relevant Experience with this Employer	8
Title	Environmental Specialist/Project Manager			Years of Relevant Experience with Other(s) Employers	2
Degree(s)/Years/Specialization			BS/2014/Biology		
Active Registration Number/State/Expiration Date			N/A		
Year Registered	N/A	Discipline	N/A		
Contract Role(s)/Brief Description of Responsibilities			Environmental		

Basile will serve on the **environmental team**, providing expertise in **wetland studies, endangered species surveys** (including tri-colored bat), **environmental permits, NEPA clearance**, and **Stage 0 checklists**.

Experience Dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
08/23 - Ongoing	**EBR Off System Bridge Program, East Baton Rouge Parish, LA** Basile has coordinated with the field team to conduct wetland delineations, complete wetland findings reports, work with the USACE for jurisdictional determinations of wetlands, and assist with USACE permit applications and supporting documentation for 13 bridge replacements.
09/22 - Ongoing	**DOTD IIJA Off-System Bridges District 62** ELOS is contracted to provide comprehensive services to replace bridges throughout various parishes located in Southeast Louisiana in several phases until completion. Basile has coordinated with field teams to assess cultural and environmental impacts. Through ongoing efforts, Basile has maintained the required data and documentation and reviewed deliverables and reports applicable to SOVs, wetland delineations, and categorical exclusion of the construction activities. He has assisted with preparing applicable permits, maps, forms, and supplemental documentation.
04/22 – Ongoing	**Tangi Off-System Bridge Prioritization, Tangipahoa Parish, LA** ELOS is contracted to provide environmental services including wetland delineations, Solicitation of Views (SOVs), Categorical Exclusion (CE) documents, and permit applications and drawings for six bridges to be replaced in District 62. Basile has conducted wetland delineations, prepared and submitted permit applications, and led the team in completing the SOVs and CE documentation.
06/22 – 09/23	**LADOTD Rousseau Bridge Replacement, St. Tammany Parish, LA** ELOS was contracted to provide environmental services for the Rousseau Bridge Replacement Project located on approximately 2.62 acres in St. Tammany Parish. Services included a wetland delineation, Scenic Rivers permit application, emergency authorization application to USACE, SOVs, and a final report. Basile has conducted a wetland delineation, submitted reports to USACE, coordinated with the field team regarding SOVs and information needed, and reviewed permit drawings.
11/21 – Ongoing	**LADOTD Rural Bridges Phases I & II, Statewide, LA** ELOS has been contracted to provide professional environmental consulting services for replacing bridges in rural areas for two project phases. Phase I involved bridge replacements under 16 state project numbers and supplemental task orders, impacting 33 structures in Districts 03, 07, 61, and 62. Phase 2 is ongoing and involves bridge replacements under 9 state project numbers and supplemental task orders, impacting multiple structures in Districts 05, 08, and 58. Almost all the projects have included a wetland delineation, permit applications, a cultural resource survey, and a threatened and endangered species survey. Basile has coordinated field crews, performed wetland delineations, collected and inputted data, written and produced reports, developed timelines, coordinated with LADOTD, worked on permit applications with state and federal agencies, and assisted with the surveys.

Basile Dardar resume continued

11/21 – Ongoing	**Move Ascension - Phases II & III, Ascension Parish, LA** ELOS has been contracted to plan projects, perform wetland delineations, conduct cultural resource surveys, and submit permit applications for 60 roadway projects, varying from roundabouts to constructing new lanes and connecting roadways, located throughout Ascension Parish. Basile has worked on the wetland findings report for the USACE jurisdictional determination of wetlands, reviewed delineation photographs and maps, and reviewed corresponding figures and data for the permit applications.
01/22 – 09/22	**Judge Dufresne Parkway Extension, St. Charles Parish, LA** ELOS was contracted to conduct a Wetland Delineation, submit Permit Applications, perform a Phase I ESA, and provide a Section 106 Desktop Review for a 161.5-acre tract of land referred to as Judge Dufresne Parkway Extension located in St. Charles Parish, Louisiana. Basile performed the wetland delineation, completed the Phase I ESA and its report, and assisted with the USACE permit application and follow-up.
06/24 – Ongoing	**US 190 Roundabouts (H.014375), St. Tammany Parish, LA** ELOS has been contracted to perform a wetland delineation, prepare and submit joint permit applications, complete Section 106 reviews, and conduct threatened and endangered species surveys for a 28-acre area for the installation of roundabouts on US 190. Basile has assisted with writing and reviewing the threatened and endangered species report.
02/23 – Ongoing	**LADOTD Minnesota Park / Range Road Roundabout, Tangipahoa Parish, LA** ELOS is contracted to complete a wetland delineation report to obtain a jurisdictional determination from the US Army Corps of Engineers (USACE), submit a permit application, if necessary, as well as assist with a Categorical Exclusion (CATEX), Phase I Environmental Site Assessment (ESA), and the Solicitation of Views (SOVs) for a roundabout project (H.014340) covering 2.5 acres in Tangipahoa Parish. Basile has worked on the SOVs, reviewed the CATEX sections and documentation, written permit applications, and coordinated with LADOTD.

16. STAFF EXPERIENCE:

Firm Employed By: ELOS Environmental, LLC					
Name	**Cory Ricks**			Years of Relevant Experience with this Employer	8
Title	Environmental Scientist			Years of Relevant Experience with Other(s) Employers	1
Degree(s)/Years/Specialization			BS/2015/Biology		
Active Registration Number/State/Expiration Date			N/A		
Year Registered	N/A	Discipline	N/A		
Contract Role(s)/Brief Description of Responsibilities		Environmental			

Cory will serve on the **environmental team**, providing expertise in **wetland delineations** and **jurisdictional determinations**, as well as managing the **collection of field data** and the **development of reports**.

Experience Dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
09/20 - Ongoing	**LADOTD Rural Bridges Phases I & II, Statewide, LA** ELOS has been contracted to provide professional environmental consulting services for the LADOTD Rural Bridge Replacement Initiative for two project phases. Phase 1 involved bridge replacements under 16 state project numbers and supplemental task orders, impacting 33 structures in Districts 03, 07, 61, and 62. Phase 2 is ongoing and involves bridge replacements under 9 state project numbers and supplemental task orders, impacting multiple structures in Districts 05, 08, 58. Almost all the projects have included a wetland delineation, permit applications, cultural resource survey, and a threatened and endangered species survey. Cory has coordinated field crews, performed wetland delineations, written and produced reports, developed timelines, coordinated with LADOTD, and assisted with the surveys.
06/22 - 09/23	**LADOTD Rousseau Bridge Replacement, St. Tammany Parish, LA** ELOS was contracted to provide environmental services for the Rousseau Bridge Replacement Project located on approximately 2.62 acres in St. Tammany Parish. Services included a wetland delineation, Scenic Rivers permit application, emergency authorization application to USACE, SOVs, and a final report. Cory worked on the emergency authorization application since the bridge was the only way to access a neighborhood, assisted with the Scenic Rivers permit application, and provided project updates to St. Tammany Parish.
04/22 - 02/24	**Tangi Off-System Bridge Prioritization, Tangipahoa Parish, LA** ELOS is contracted to provide environmental services including wetland delineations, Solicitation of Views (SOVs), Categorical Exclusion (CE) documents, and permit applications and drawings for six bridges to be replaced in District 62. Cory conducted a gopher turtle survey, wrote the findings report, completed permit applications with supporting documentation, and assisted with agency coordination.
11/17 - Ongoing	**Move Ascension - Phases I, II, & III, Ascension Parish, LA** ELOS has been contracted to plan projects, perform wetland delineations, conduct cultural resource surveys, and submit permit applications for 60 roadway projects, varying from roundabouts to constructing new lanes and connecting roadways, located throughout Ascension Parish. Cory leads a team of field members to perform the wetland delineations. He has also assisted with cultural resources field investigations and with permit applications to state and federal agencies (USACE, LEDNR, DOTD).
05/21 - 05/21	**Tammany Trace Bridge Replacement, St. Tammany Parish, LA** Cory performed the wetland delineation, entered the wetforms, revised transmittals, reviewed the photographs/logs, coordinated with the GIS team to update maps, and submitted the wetland findings report.
05/22 - 03/24	**North Brickyard Road Bridge Replacement Program, Tangipahoa Parish, LA** Cory initiated the Solicitation of Views (SPVs), Categorical Exclusion (CE) documents, and reviewed all supporting documentation as it was sent and received from the agencies. He also assisted with permit applications and agency coordination when asked for additional information.

Cory Ricks resume continued

02/23 - Ongoing	**LADOTD Minnesota Park/Range Road Roundabout, Tangipahoa Parish, LA** ELOS is contracted to complete a wetland delineation report to obtain a jurisdictional determination from the U.S. Army Corps of Engineers (USACE), submit a permit application, if necessary, as well as assist with a Categorical Exclusion (CATEX), Phase I Environmental Site Assessment (ESA), and the Solicitation of Views (SOVs) for a roundabout project (H.014340) covering 2.5 acres in Tangipahoa Parish. Cory has researched additional information for reports, worked on files related to the CATEX, and assisted with reviewing agency requests for more information.
07/21 - 08/22	**LA Trace Road Widening, Ascension Parish, LA** ELOS was contracted to complete a wetland delineation report and prepare and submit road widening and culvert replacement joint application permits to the USACE and LDENR. Cory worked with the team on the wetland delineation and reviewed the final figures and reports, prepared the joint application permits, met with the landowner for ROW, provided follow-up information and permit revisions to USACE and LDENR, and reviewed project invoicing.
09/16 - 06/20	**LA 3234 Extension to Hammond Airport Environmental Assessment, Tangipahoa Parish, LA** ELOS was contracted to provide environmental services for the LA-3234 Extension from LA-1065 to Hammond Airport. These services included preparing estimates of environmental mitigation costs so that ELOS will estimate the cost of mitigation of any unavoidable environmental impacts, such as wetland mitigation, hazardous waste mitigation, or cultural resource mitigation. Cory performed the wetland delineation for all three routes and provided a report of the findings. Cory also assisted in GIS mapping of the Wetlands Findings Report, Phase I Environmental Site Assessment, and the Biological Assessment Survey. Cory also provided a report of the threatened and endangered species known in the project area. Cory led efforts on providing stream and waterbody data for each report.
08/17 - 11/19	**I-10 Highland to LA 73 Design Build, East Baton Rouge Parish to Ascension Parish, LA** ELOS was contracted to act as the environmental compliance manager responsible for permitting and construction monitoring for the fast-track interstate widening project from Highland Road in Baton Rouge to LA 73 in Prairieville (H.009250). The project included widening an approximately 6-mile segment of I-10 and expanding two bridges/overpasses. Cory worked on documentation for the CATEX, wrote and revised several permits to state and federal agencies, and coordinated field crews for completing stormwater inspections and monitoring construction activities for environmental impacts and compliance.

Section 17

17. FIRM EXPERIENCE:

Firm Name	Waggoner Engineering, Inc. (formerly Sigma Consulting Group, Inc.)				
Project Name	Carroll Avenue over Middle Creek Colyell Creek	Past Performance Evaluation Category(ies)*		Bridge, Right-of-Way, Survey	
		Firm Responsibility	Prime		
Project Number	H.015429	Owner's Name	LADOTD		
Project Location	Livingston Parish, LA	Owners Project Manager	Ryan Rodney, Project Manager		
Owners Address, Phone, Email	PO Box 94245, Baton Rouge, LA 70806 | 225.379.1308 | Ryan.Rodney@la.gov				
Services Commenced by this Firm (mm/yy)	05/23	Total Consultant Contract Cost ($1,000's)	$200		
Services Completed by this Firm (mm/yy)	Ongoing	Cost of Consultant Services Provided by this Firm ($1,000's)	$136		

Project Description:

Waggoner was contracted by LADOTD to perform topographic and property surveys, ROW maps, and preliminary and final plans to replace an existing rail car bridge with a new slab span bridge. This bridge is located off the state highway system and utilized LADOTD Off-System bridge standard plans.

TOPOGRAPHIC SURVEY

- **Control Survey**
  - Static GPS OPUS for two control points
  - RTK Control Traverse for 23 intersection locations
  - Digital levels
  - GPS control sketch
- **Topographic Survey**
  - Detailed topography of existing roadway, bridge, drives, utilities, and drainage features.
  - QL-C utility locates for above ground visible features and paint markings from LA One Call Tickets
  - Total station conventional topography using LADOTD Location & Survey code list and attributes
  - Microstation and Inroads Survey deliverables including 2D, 3D DGN FILES, DTM, FWD, and ALG files
- **Property Survey/Right-of-Way Maps**
  - Locate property corners
  - Set existing ROW and property lines
  - Prepare ROW maps in accordance with LADOTD Location & Survey requirements, including legal descriptions of required ROW

PRELIMINARY & FINAL PLANS

- **Road & Drainage Design**
  - Prepare design reports, design waivers, and exceptions
  - Establish horizontal and vertical geometry
  - Calculate hydraulic impact of bridge replacement
  - Guardrail and embankment widening design
  - Typical sections
  - Plan profiles
  - Geometric details
  - Suggested sequence of construction
  - Cross sections
  - Quantities and opinion of probable construction costs
- **Bridge Design**
  - 24-foot clear width 4-Span slab span bridge
  - 16-inch Prestressed Concrete Pile Substructure Design
  - Channel Revetment
- **Quality Control/Quality Assurance**

Project Relevance:

- √ Project Management
- √ Bridge Design
- √ Road Design
- √ Drainage Evaluation
- √ Utility Coordination
- √ Comment & Response Logs
- √ Electronic Plan Development
- √ Preliminary & Final Road and Bridge Plans
- √ Topographic Survey
- √ Property Survey
- √ Right-of-Way Map

Team Members Involved:

Andrew Windmann, Alex Farr, Miles Williams, Robert Lear, Jace Ricard, Kelsie Bankston, Joshua Gonya

17. FIRM EXPERIENCE:

Firm Name	Waggoner Engineering, Inc. (formerly Sigma Consulting Group, Inc.)				
Project Name	Hood Road over Middle Colyell Creek	Past Performance Evaluation Category(ies)*		Bridge, Right-of-Way, Survey	
		Firm Responsibility	Prime		
Project Number	H.015430	Owner's Name	LADOTD		
Project Location	Livingston Parish, LA	Owners Project Manager	Ryan Rodney, Project Manager		
Owners Address, Phone, Email	PO Box 94245, Baton Rouge, LA 70806 | 225.379.1308 | Ryan.Rodney@la.gov				
Services Commenced by this Firm (mm/yy)	5/23	Total Consultant Contract Cost ($1,000's)	$200		
Services Completed by this Firm (mm/yy)	Ongoing	Cost of Consultant Services Provided by this Firm ($1,000's)	$136		

Project Description:

Waggoner was contracted by LADOTD to perform topographic and property surveys, ROW maps, and preliminary and final plans to replace an existing timber trestle bridge with a new reinforced concrete slab span bridge. This bridge is located off the state highway system and is located within a horizontal curve. Since this geometry fell outside the application of the LADOTD Off-System Bridge standard plans, Waggoner performed the design and created the construction plans for the replacement structure.

TOPOGRAPHIC SURVEY

- **Control Survey**
  - Static GPS OPUS for two control points
  - RTK control traverse for 23 intersection locations
  - Digital levels
  - GPS control sketch
- **Topographic Survey**
  - Detailed topography of existing roadway, bridge, drives, utilities, and drainage features.
  - QL-C utility locates for above ground visible features and paint markings from LA One Call Tickets
  - Total station conventional topography using LADOTD Location & Survey code list and attributes
  - Microstation & Inroads Survey deliverables including 2D, 3D DGN files, DTM, FWD, and ALG files
- **Property Survey/Right-of-Way Maps**
  - Locate property corners
  - Set existing ROW and property lines
  - Prepare ROW maps in accordance with LADOTD Location & Survey requirements, including legal descriptions of required ROW

PRELIMINARY & FINAL PLANS

- **Road & Drainage Design**
  - Prepare design reports, design waivers, and exceptions
  - Establish horizontal and vertical geometry
  - Calculate hydraulic impact of bridge replacement
  - Guardrail and embankment widening design
  - Typical sections
  - Plan profiles
  - Geometric details
  - Suggested sequence of construction
  - Cross sections
  - Quantities and opinion of probable construction costs
- **Bridge Design**
  - 24-foot clear width 6-span slab span bridge in horizontal curve
  - 18-inch prestressed concrete pile substructure design
  - Channel revetment
- **Quality Assurance/Quality Control**

Project Relevance:

- √ Project Management
- √ Bridge Design
- √ Road Design
- √ Drainage Evaluation
- √ Utility Coordination
- √ Comment & Response Logs
- √ Electronic Plan Development
- √ Preliminary & Final Road and Bridge Plans
- √ Topographic Survey
- √ Property Survey
- √ Right-of-Way Map

Team Members Involved:

Andrew Windmann, Alex Farr, Miles Williams, Robert Lear, Jace Ricard, Kelsie Bankston, Joshua Gonya

17. FIRM EXPERIENCE:

Firm Name	Waggoner Engineering, Inc. (formerly Sigma Consulting Group, Inc.)				
Project Name	George Jenkins Road over Berrys Creek	Past Performance Evaluation Category(ies)*		Bridge, Right-of-Way, Survey	
		Firm Responsibility	Prime		
Project Number	H.015433	Owner's Name	LADOTD		
Project Location	Washington Parish, LA	Owners Project Manager	Ryan Rodney, Project Manager		
Owners Address, Phone, Email	PO Box 94245, Baton Rouge, LA 70806 | 225.379.1308 | Ryan.Rodney@la.gov				
Services Commenced by this Firm (mm/yy)	05/23	Total Consultant Contract Cost ($1,000's)	$200		
Services Completed by this Firm (mm/yy)	Ongoing	Cost of Consultant Services Provided by this Firm ($1,000's)	$136		

Project Description:

Waggoner was contracted by LADOTD to provide preliminary and final engineering and plan preparation to replace a 120-foot by 13-foot timber trestle bridge with a new 24-foot by 140-foot cast-in-place slab span bridge. The new bridge utilizes the Off-System Slab Span standard details for the proposed clear width. Our team has modified the end bent detail to accommodate the taper-down bridge rail along the approach slab that was necessitated by the proximity of an existing driveway to the proposed bridge. Waggoner also completed road and drainage design, bridge hydraulic and scour impact analyses, topographic survey, property survey, and preparation of ROW maps all while adhering to rigorous quality control measures.

TOPOGRAPHIC SURVEY

- **Control Survey**
  - Static GPS OPUS for two control points
  - RTK control traverse for 23 intersection locations
  - Digital levels
  - GPS control sketch
- **Topographic Survey**
  - Detailed topography of existing roadway, bridge, drives, utilities, and drainage features.
  - QL-C utility locates for above ground visible features and paint markings from LA One Call Tickets
  - Total station conventional topography using LADOTD Location & Survey code list and attributes
  - Microstation & Inroads Survey deliverables including 2D, 3D DGN files, DTM, FWD, and ALG files
- **Property Survey/Right-of-Way Maps**
  - Locate property corners
  - Set existing ROW and property lines
  - Prepare ROW maps in accordance with LADOTD Location & Survey requirements, including legal descriptions of required ROW

PRELIMINARY & FINAL PLANS

- **Road & Drainage Design**
  - Prepare design reports, design waivers, and exceptions
  - Establish horizontal and vertical geometry
  - Calculate hydraulic impact of bridge replacement
  - Guardrail and embankment widening design
  - Typical sections
  - Plan profiles
  - Geometric details
  - Suggested sequence of construction
  - Cross sections
  - Quantities and opinion of probable construction costs
- **Bridge Design**
  - 24-foot clear width 7-span slab span bridge
  - 16-inch prestressed concrete pile substructure design
  - Channel revetment
- **Quality Assurance/Quality Control**

Project Relevance:

- √ Project Management
- √ Bridge Design
- √ Road Design
- √ Drainage Evaluation
- √ Utility Coordination
- √ Comment & Response Logs
- √ Electronic Plan Development
- √ Preliminary & Final Road and Bridge Plans
- √ Topographic Survey
- √ Property Survey
- √ Right-of-Way Map

Team Members Involved:

Andrew Windmann, Alex Farr, Miles Williams, Robert Lear, Jace Ricard, Kelsie Bankston, Joshua Gonya

17. FIRM EXPERIENCE:

Firm Name	Waggoner Engineering, Inc. (formerly Sigma Consulting Group, Inc.)				
Project Name	Mitch Road over Peters Creek	Past Performance Evaluation Category(ies)*		Bridge, Right-of-Way, Survey	
		Firm Responsibility	Prime		
Project Number	44-25041, H.015434	Owner's Name	LADOTD		
Project Location	Washington Parish, LA	Owners Project Manager	Ryan Rodney, Project Manager		
Owners Address, Phone, Email	PO Box 94245, Baton Rouge, LA 70806 | 225.379.1308 | Ryan.Rodney@la.gov				
Services Commenced by this Firm (mm/yy)	05/23	Total Consultant Contract Cost ($1,000's)	$200		
Services Completed by this Firm (mm/yy)	Ongoing	Cost of Consultant Services Provided by this Firm ($1,000's)	$136		

Project Description:

Waggoner was contracted by LADOTD to perform topographic and property surveys, right-of-way maps, and preliminary and final plans to replace an existing timber bridge with a new slab span bridge. This bridge is located off the state highway system and utilized LADOTD Off-System bridge standard plans.

TOPOGRAPHIC SURVEY

- **Control Survey**
  - Static GPS OPUS for two control points
  - RTK Control Traverse for 23 intersection locations
  - Digital levels
  - GPS control sketch
- **Topographic Survey**
  - Detailed topography of existing roadway, bridge, drives, utilities, and drainage features.
  - QL-C utility locates for above ground visible features and paint markings from LA One Call Tickets
  - Total station conventional topography using LADOTD Location & Survey code list and attributes
  - Microstation & Inroads Survey deliverables including 2D, 3D DGN files, DTM, FWD, and ALG files
- **Property Survey/Right-of-Way Maps**
  - Locate property corners
  - Set existing ROW and property lines
  - Prepare ROW maps in accordance with LADOTD Location & Survey requirements, including legal descriptions of required ROW

PRELIMINARY & FINAL PLANS

- **Road & Drainage Design**
  - Prepare design reports, design waivers, and exceptions
  - Establish horizontal and vertical geometry
  - Calculate hydraulic impact of bridge replacement
  - Guardrail and embankment widening design
  - Typical sections
  - Plan profiles
  - Geometric details
  - Suggested sequence of construction
  - Cross sections
  - Quantities and opinion of probable construction costs
- **Bridge Design**
  - 24-foot clear width 5-span slab span bridge
  - 16-inch prestressed concrete pile substructure design
  - Channel revetment
- **Quality Assurance/Quality Control**

Project Relevance:

- √ Project Management
- √ Bridge Design
- √ Road Design
- √ Drainage Evaluation
- √ Utility Coordination
- √ Comment & Response Logs
- √ Electronic Plan Development
- √ Preliminary & Final Road and Bridge Plans
- √ Topographic Survey
- √ Property Survey
- √ Right-of-Way Map

Team Members Involved:

Andrew Windmann, Alex Farr, Miles Williams, Robert Lear, Jace Ricard, Kelsie Bankston, Joshua Gonya

17. FIRM EXPERIENCE:

Firm Name	Waggoner Engineering, Inc. (formerly Sigma Consulting Group, Inc.)				
Project Name	Rural Bridge Replacement Imitative Phase II	Past Performance Evaluation Category(ies)*		Bridge	
		Firm Responsibility	Prime		
Project Number	(Multiple Projects)	Owner's Name	LADOTD		
Project Location	Districts 02, 03, 07, 61, & 62	Owners Project Manager	Valerie Tourres, PE		
Owners Address, Phone, Email	PO Box 94245, Baton Rouge, LA 70806 | 225.379.1308 | Valerie.Tourres@la.gov				
Services Commenced by this Firm (mm/yy)	04/21	Total Consultant Contract Cost ($1,000's)	$5,812		
Services Completed by this Firm (mm/yy)	Ongoing	Cost of Consultant Services Provided by this Firm ($1,000's)	$2,661		

Project Description:

Waggoner was contracted by LADOTD to provide all necessary engineering and related services required for developing plans for the replacement of 29 bridges on the Louisiana State Highway System in Districts 02, 03, 07, 61, and 62.

Waggoner performed the investigation and analysis necessary to create the preliminary and final plans for various types and configurations of roadways and bridges. The 29 bridges were grouped into 16 projects where Waggoner used topographic survey provided by a subconsultant to establish horizontal & vertical geometry in accordance with applicable design guidelines. From this geometry, limits of construction and required right-of-way takings were established for the purpose of capturing requisite environmental areas of interest needed for NEPA approval and various agency permits.

All drainage design, grading, and structural design was performed by Waggoner. Structural design included such components as reinforced concrete decks, slab spans, and bent caps, as well as precast prestressed concrete girders and piles. Overall site conditions, hydraulic design needs, and constructability was considered when choosing the bridge replacement types and sizes.

Frequent communication was maintained between the Project Manager and the client to provide updates on the numerous submittals and extensive collaboration involved in managing 16 projects concurrently.

Project Relevance:

- √ Project Management
- √ Road Design
- √ Bridge Design
- √ Drainage Evaluation
- √ Utility Coordination
- √ Comment and Response Logs
- √ Electronic Plan Development
- √ Preliminary & Final Road and Bridge Plans

PRELIMINARY & FINAL PLANS

- **Road & Drainage Design**
  - Prepare design reports, design waivers, and exceptions
  - Establish horizontal and vertical geometry
  - Calculate hydraulic impact of bridge replacement
  - Guardrail and embankment widening design
  - Typical sections
  - Plan profiles and geometric details
  - Suggested sequence of construction
  - Cross sections
  - Quantities and opinion of probable
  - Construction costs
- **Bridge Design**
  - Reinforced concrete design (slab spans, bridge decks, bents)
  - Precast concrete design (girders, piles)
  - Reinforced concrete box culverts
  - Reveted channels
  - Steel sheet piling
- **Quality Assurance/Quality Control**

Project Numbers: H.012061, H.012565, H.012891, H.014213, H.014215, H.014216, H.014241, H.014251, H.014252, H.014253, H.014254, H.014256, H.014257, H.014276, H.014278, H.014279

Team Members Involved:

Andrew Windmann, Alex Farr, Miles Williams, Robert Lear, Jace Ricard, Joshua Gonya, Joshua Olivier, Kelsie Bankston, Charlotte Gremillion

17. FIRM EXPERIENCE:

Firm Name	ELOS Environmental, LLC			
Project Name	LADOTD Rural Bridges: Phases I & II	Past Performance Evaluation Category(ies)*		Environmental
		Firm Responsibility	Subconsultant	
Project Number	Multiple H No.	Owner's Name	LADOTD	
Project Location	Statewide, LA (Districts 3, 5, 7, 8, 58, 61, and 62)	Owners Project Manager	Brian Allen	
Owners Address, Phone, Email	1201 Capitol Access Road, Baton Rouge, LA | 225.379.1840 | brian.allen@la.gov			
Services Commenced by this Firm (mm/yy)	08/20	Total Consultant Contract Cost ($1,000's)	Unknown	
Services Completed by this Firm (mm/yy)	Ongoing	Cost of Consultant Services Provided by this Firm ($1,000's)	$541.8	

Project Description:

ELOS has been contracted by BKI to provide professional environmental consulting services for the Louisiana Department of Transportation and Development (LADOTD) Rural Bridge Replacement Initiative for two project phases. Phase I involved bridge replacements under 16 state project numbers and supplemental task orders, impacting 33 structures in Districts 03, 07, 61, and 62. Phase II is ongoing and involves bridge replacements under 9 state project numbers and supplemental task orders, impacting multiple structures in Districts 05, 08, and 58. Almost all the projects have included wetland delineations, permit applications, cultural resource surveys, and threatened and endangered species surveys. ELOS has also assisted in the early planning stages of some of these projects to identify any possible adverse economic, social, or environmental effects or concerns.

ELOS has performed all environmental services according to the standards of the Federal Highway Administration (FHWA). Permits have been coordinated through several federal and state agencies including joint applications to the USACE and the Louisiana Department of Energy and Natural Resources (LDENR) / Office of Coastal Management, Scenic Rivers permits through the Louisiana Department of Wildlife & Fisheries, and cultural resource surveys in coordination with the Louisiana State Historic Preservation Office. ELOS also has personnel recently trained in the tricolored bat identification and surveys, which have been used for some of these bridge replacement projects.

Project Relevance:

- √ Solicitation of Views
- √ Wetlands Delineation
- √ CE Clearance documentation
- √ Preliminary JDs
- √ USACE Permit assistance.

Project Numbers: H.013952, H.013955, H.013956, H.013957, H.013958, H.013959, H.013963, H.013966, H.013968, H.013970, H.013976, H.013982, H.013984, H.013989, H.013996, H.013997 **(Phase 1)** and H.014242, H.014243, H.014245, H.014246, H.014247, H.014248, H.014249, H.014250, H.014268, H.015685 **(Phase II)**

Team Members Involved:

Lucas Watkins, Brian Fortson, Cory Ricks, Basile Dardar

17. FIRM EXPERIENCE:

Firm Name	ELOS Environmental, LLC				
Project Name	DOTD IIJA Off System Bridges District 62	Past Performance Evaluation Category(ies)*		Environmental	
		Firm Responsibility	Subconsultant		
Project Number	Multiple H. No.	Owner's Name	LADOTD		
Project Location	Tangipahoa Parish, LA	Owners Project Manager	Ryan Rodney, Project Manager		
Owners Address, Phone, Email	PO Box 94245, Baton Rouge, LA 70806 | 225.379.1308 | Ryan.Rodney@la.gov				
Services Commenced by this Firm (mm/yy)	09/22	Total Consultant Contract Cost ($1,000's)	$129		
Services Completed by this Firm (mm/yy)	Ongoing	Cost of Consultant Services Provided by this Firm ($1,000's)	$127		

Project Description:

The Off-System Bridge Program, established under the Infrastructure Investment and Jobs Act (IIJA), is a key federal initiative aimed at improving bridges not located on the federal-aid highway system. The program is designed to address the needs of local and rural bridges, which often fall outside the primary focus of traditional federal bridge programs. The program is managed at the state level and had $264 funded specifically for the repair, replacement, or rehabilitation of bridges. The funds were based on priorities and the overall condition of the bridges.

ELOS is currently contracted for the DOTD IIJA Off-System Bridge Program. The objective of this program was to replace as many poor condition, Off-System bridges as possible by initial screenings of eligible "Off-System" structures and create a Preliminary Screening Matrix/Spreadsheet. ELOS conducted appropriate technical and environmental studies and prepared necessary environmental documentation for approval from the Federal Highway Administration (FHWA), in accordance with the provisions of the National Environmental Policy Act (NEPA), FHWA Technical Advisory 6640.8a, and applicable laws, rules, guidance, and regulations. ELOS services encompass a comprehensive range of tasks aimed at ensuring compliance with environmental regulations and facilitating the necessary approvals for infrastructure projects. These services include environmental consulting to advise on regulatory requirements, NEPA (National Environmental Policy Act) compliance to assess and mitigate potential environmental impacts, and agency coordination to engage relevant federal, state, and local authorities. Additionally, services involve preparing section 106 tribal packets for consultation with native American tribes, solicitation of views to gather input from stakeholders, and conducting detailed studies such as wetland studies, cultural resources studies, and cultural resources surveys to evaluate the impact on natural and cultural resources. Surveys for threatened & endangered species and the preparation of a navigability determination packet help ensure environmental protections are met. The process also includes the development of an environmental determination checklist and the acquisition of necessary environmental permits to ensure all legal and regulatory requirements are fulfilled before the project proceeds.

Project Relevance:

- √ Solicitation of Views
- √ Wetlands Delineation
- √ CE Clearance Documentation
- √ Preliminary JDs
- √ USACE Permit Assistance

Project Numbers: H.015429, H.015430, H.015431, H.015432, H.015432, H.015433, and H.015434

Team Members Involved:

Lucas Watkins, Basile Dardar

17. FIRM EXPERIENCE:

Firm Name	ELOS Environmental, LLC			
Project Name	East Baton Rouge IIJA Off-System Bridge Program	Past Performance Evaluation Category(ies)*	Environmental	
		Firm Responsibility	Subconsultant	
Project Number	Multiple H. No.	Owner's Name	LADOTD	
Project Location	East Baton Rouge Parish, LA	Owners Project Manager	Dusty Bastion (HNTB Corporation)	
Owners Address, Phone, Email	450 Laurel St., Ste. 1200, Baton Rouge, LA 70801 | 225.368.2800 | dbastion@hntb.com			
Services Commenced by this Firm (mm/yy)	03/23	Total Consultant Contract Cost ($1,000's)	$108	
Services Completed by this Firm (mm/yy)	Ongoing	Cost of Consultant Services Provided by this Firm ($1,000's)	$87	

Project Description:

The East Baton Rouge (EBR) IIJA Off-System Bridge Program is an initiative aimed at replacing or rehabilitating various bridges throughout East Baton Rouge Parish, Louisiana, funded under the Infrastructure Investment and Jobs Act (IIJA). The primary goal of the program is to improve the safety, reliability, and structural integrity of local bridges, many of which are aging or in need of significant repairs. This program is part of a larger nationwide effort to address critical infrastructure needs, especially in rural and Off-System bridge locations that are not part of the primary interstate or state highway systems but are still essential for local connectivity and economic activity. The program focuses on replacing existing bridges with modern slab span bridges, which are often more cost-effective, durable, and easier to maintain compared to traditional bridge designs. These improvements will reduce the risk of bridge closures, enhance traffic flow, and support the local economy by ensuring safe passage for both vehicles and pedestrians.

Project Numbers: H.015547, H.015548, H.015544, H015549, H.015545, H.015550, H.015341, H.015551, H.015552, H.015553

Project Relevance:

- √ Solicitation of Views
- √ Wetlands Delineation
- √ CE Clearance Documentation
- √ Preliminary JDs
- √ USACE Permit Assistance

ELOS is contracted by HNTB to provide comprehensive wetland delineation and permit application services for the East Baton Rouge Parish (EBR) IIJA Off-System Bridge Program. Our team of experts has conducted thorough field surveys to delineate wetland boundaries across the 13 bridge replacement sites, using advanced techniques to assess soil types, vegetation, and hydrological conditions. We have ensured that all findings are accurately mapped and documented, complying with federal and state regulations using the latest FHWA criteria and standards. Based on our wetland delineation, we have prepared and submitted permit applications to the U.S. Army Corps of Engineers, the Louisiana Department of Environmental Quality, and other relevant agencies, securing the necessary approvals for the project. Our services have also included an analysis of environmental impact assessments, where we have evaluated potential wetland impacts and developed mitigation plans to compensate for any unavoidable losses. Throughout the permitting process, we have engaged with agencies, responded to requests for additional information or documentation, and provided ongoing compliance monitoring to ensure environmental protection standards are met during construction.

Team Members Involved:

Lucas Watkins, Brian Fortson, Cory Ricks, Basile Dardar

Section 18

18. APPROACH AND METHODOLOGY:

THE WAGGONER TEAM

Nothing matches having a consultant with LADOTD experience at your fingertips. Waggoner has partnered with ELOS Environmental to provide LADOTD with a team that has an excellent track record of successful project delivery. All members of the Waggoner team have previously worked together and are committed to providing the quality services required for this project.

The key personnel assigned to this project are the same individuals who have gained critical experience on similar projects. This will ensure that LADOTD receives the highest caliber services and expertise necessary for success.

Communication will be a primary key to success. We intend to discuss LADOTD's expectations and how the Waggoner team intends to meet or exceed those expectations during the project negotiation, scoping and schedule development process. Decisions will be documented and carried forward throughout the entire life of the project.

The Waggoner team project manager, Andrew Windmann, PE, will actively work the project schedule, monitor the budget, and forwardly orchestrate the design team to meet the project goals. His 15 years of working within the LADOTD Bridge Design section gives him unique insight and understanding of the needs and requirements of the OSBR Program and the importance of this project to East Baton Rouge Parish.

Finally, the most important key to project delivery success is quality control. Waggoner has a rigorous quality control process that will be incorporated throughout the life of the contract. Every submittal will be reviewed for both technical accuracy and relevant content. A copy of our quality control procedures will be submitted to LADOTD upon selection.

PROJECT BACKGROUND AND UNDERSTANDING

Waggoner understands the purpose and need of the project is to replace an existing bridge having a substructure in Poor/Serious condition, necessitating in a legal load posting limit of 10T/15T. Angus Avenue is a local road located in the city of Zachary near the intersection of LA 67 (Plank Road) and LA 64 (Main Street). The posted speed limit is 25 mph with and average daily traffic of 722 vpd (2019 data from FHWA NBI data). The proposed project will remove the existing deficient bridge structure traversing Bene'champ Bayou and construct a new bridge that will reestablish a crossing that satisfies all current design loads anticipated to use this passage that will last for a design service life of more than 75 years.

Waggoner performed a site visit on 8/1/2025 to better assess the overall project area and identify any potential items of concern. The following summarizes potential project challenges.

The southern edge of the bridge is within 5 feet of an 8-inch waterline which may require relocation prior to construction. The existing bridge has a 24-foot clear roadway for vehicular traffic, which matches the approaching roadway, but also maintains a 3.9 feet raised sidewalk on each side of the bridge, resulting in a total bridge width of 32.8 feet. There does not appear to be any signs of a sidewalk network on this avenue or the adjacent streets that connect. During the project kickoff meeting, we would consult with the parish to determine if there are future intentions to add sidewalks in this neighborhood to establish the extent of the project's requirements for Complete Streets adherence. If the sidewalks are not necessary, we would propose a new 26.5-foot-wide bridge, which would provide an estimated additional 3-4 feet of clearance to the utility and potentially eliminate the need for relocation.

Photograph showing proximity of existing waterline to the south edge of the bridge.

There is an existing double-wide driveway located near the southeast corner of the bridge. This driveway would likely have to be slightly realigned to the east and still require an alternative to providing the full-length guard rail protecting the bridge end and clear zone. Close attention will be given to this corner of the bridge to ensure the property owner is provided access to Angus Avenue, while also ensuring safe bridge end treatments are constructed.

Hydraulic analysis will assist in determining if a reinforced concrete box culvert would be an acceptable alternative to a standard bridge crossing, which could also minimize impacts to the identified utilities and any ROW needs.

PROJECT DELIVERY

Our approach in delivering a successful project with scope, schedule, and budget is guided by the long-standing process unique to the Off-System Highway Bridge Program (OSHBP). We will adhere to the timelines for preliminary and final plans as established in the OSHBP Guidelines. The main activities and deliverables we intend to provide are further described below:

KICKOFF MEETING

After receipt of Notice to Proceed, we will meet with Barbara Ostuno, PE and her staff to review the project information, identify informational needs, and confirm invoicing requirements and points of contract for project communications.

As this is a parish-owned bridge, we will also meet with representatives of East Baton Rouge Parish before beginning any work. Waggoner (formerly Sigma) has a long-standing relationship working with East Baton Rouge Department of Transportation on many projects, including load rating bridges in their inventory. In this meeting we will establish the Parish's future intents on installing pedestrian facilities on this roadway, which will help establish the typical section of the proposed new hydraulic structure. We will also confirm if the parish is agreeable to closing the road during construction and providing a signed detour route.

TOPOGRAPHIC SURVEY (STAGE 3, PART Ia)

Waggoner survey team will perform the topographic survey in accordance with the LADOTD OSHBP Guidelines and the Location and Survey requirements. The field crew will establish horizontal (NAD-83) and vertical control (NAVD-88) along with setting a minimum of four benchmarks using GPS equipment.

After control is established and the sketch accepted by LADOTD, the crew will continue capturing the existing roadway, bridge, and channel features and prescribed in the Guidelines. We will survey up to and exceeding the minimum limits if roadway geometry or stream geometry necessitates. All utilities will be located and included in the submittal. Ultimately, Waggoner will perform internal QA/QC prior to submitting the survey deliverables, which will include the field roll, existing drainage map, original field books, point listings, plotted cross sections, and site photographs.

PROPERTY SURVEY (STAGE 3, PART Ib)

If right-of-way takings are deemed necessary, our survey group will investigate available information, including title take off data and available reports, to assist in preparing the Base R/W maps. The field survey will use the same control as the topographic survey, and any existing property monuments will be located and identified in the property survey submitted to Location and Survey section. **The field work performed during this stage will all take place concurrently with the topographic survey. This will give a head start on Base Maps after receiving NTP for Preliminary Plans.**

Upon preparation of the Property Survey plan, Waggoner will submit the .PDF and .dgn of the detail, and the ASCII file to the Project Manager for acceptance by Location and Survey. All work will conform to the Location and Survey Manual – Addendum A.

BRIDGE HYDRAULICS ANALYSIS & 50% PRELIMINARY PLANS

The approved survey will be used in conjunction with available FEMA Firm maps, USGS Quad maps and LiDAR data establish the site's drainage area to create hydraulic modeling and confirm the proposed replacement structure. Further analysis using HYDR1130 and HEC-RAS programs will produce peak discharges and corresponding water surface elevations for various design storm years. This information will be critical in completing the OSHBP structural alternatives comparison table to establish the most-suited replacement structure. For the selected structure, channel scour and pier scour (if appropriate) will be analyzed and receive proposed mitigation actions.

Bridge Design Criteria – Type, Size, and Location

Waggoner's bridge designers will work with the bridge hydraulics engineer during the modeling and analysis to establish possible proposed structures. The new bridge alternative will consider a longer structure with new spill through slopes and slope armoring. If the channel geometry does not suit this configuration, then we will propose retaining walls at each abutment. Our team has experience and capability to provide the design and detailing for this option. Alternatively, precast RCBs will be studied for hydraulic suitability. If the RCB proves to be a viable option, it will get preference as the selection as it will minimize impacts to nearby utilities and required right-of-way. Our bridge team is also prepared to provide details for any necessary modifications to headwalls and wingwalls manifested by site-specific needs.

50% Preliminary Plans (STAGE 3, PART III)

Our roadway designers and drafters will begin creating plan sheets for this initial submittal. A roadway horizontal alignment will be established by either new alignment or adopting the existing alignment established during survey. The vertical geometry will be set with consideration to hydraulic requirements. Other tasks include creating the typical roadway section including cross section needs and transitions, sizing the guard rail and embankment widening at each bridge corner, and roadside drainage. The plans will be created in accordance with the OSHBP Guidelines and developed in Bentley MicroStation and Inroads. All items produced above will help establish the limits of construction and identify early potential ROW needs.

75% PRELIMINARY PLANS (PRE PLAN-IN-HAND SET)

Waggoner will record and address all comments received from the 50% Preliminary Plan review. Any updates will be completed and submitted as the Pre-PIH set. This step may not be necessary depending on the level of comments received.

ENVIRONMENTAL – SOLICITATION OF VIEWS (SOVs)

Once the replacement structure is approved by LADOTD, ELOS Environmental will prepare Solicitation of Views documentation. The draft letter and information will be reviewed and approved by LADOTD and then distributed to the mailing list for East Baton Rouge Parish. As responses are returned, ELOS will log each remark and will close any loops with the respondent. This will become part of the Environmental Checklist submittal package.

95% PRELIMINARY PLANS (PLAN-IN-HAND MEETING)

All previous comments will be addressed in this submittal. Roadway sheets commenced in the 50% Preliminary stage will continue development and refinement, and bridge sheets will be created, including the general notes, general plan and elevation sheet, and bridge foundation plan. This submittal will include the engineer's opinion of probable construction cost, completed design report form, TMP checklist, completion of the constructability & biddability forms, and QC/QA certification forms. Waggoner will attend the Plan-in-Hand meeting held at the project site with LADOTD and East Baton Rouge Parish representation. We will document all meeting notes and submit them to the project manager within 72 hours of the meeting. A draft utility conflict matrix will be provided to the Parish representative at this meeting.

****At this time, LADOTD and Waggoner can begin negotiating the remaining final plans and final maps scope and tasks for the supplemental agreement, such that the project can continue seamlessly upon receipt of environmental clearance.**

60% BASE RIGHT-OF-WAY MAPS

Once limits of construction and proposed R/W takings are confirmed at the PIH Meeting, Waggoner will begin creating the 60% Base maps in accordance with LADOTD Location and Survey Manual along with Addendum A. Once submitted, we will attend the Joint Plan Review (JPR) Meeting coordinated by Location Survey Section. Any comments made at this meeting will be noted for future implementation into the Final Check Print maps that will be completed during the Final Plans stage.

100% PRELIMINARY PLANS & ENVIRONMENTAL DOCUMENTATION

Items and comments discussed at the Plan-in-Hand meeting will be incorporated into the plans as the majority of the roadway design elements are finalized. Bridge sheets continue progress and Pile Loads are summarized in the Pile Data table and submitted to LADOTD Geotechnical section for future foundation recommendations.

Environmental – Wetland Delineation

ELOS Environmental will conduct onsite visits to document and the ground level in the area for reporting in accordance with the US Army Corps of Engineers guidelines. They will locate wetlands within the project limits on a quadrangle sheet and layout map, and the impacted wetland area will be quantified in the report. The Findings Report will use the latest FHWA criteria and will be submitted to the LADOTD PM along with the SOV response package.

Environmental – Other Services

ELOS Environmental will request a Preliminary Jurisdictional Determination (Preliminary JD) from USACE along with the Wetland Report. They will prepare permit sketches to accompany this request. If the site warrants, ELOS will also be ready to assist in any Endangered Species identifications and any Cultural Resources studies or surveys. They have a professional archaeologist on their staff and have provided these services on numerous other LADOTD bridge replacement projects.

****Waggoner will not commence into Final Plans stage until receipt of Environmental Clearance and subsequent NTP for the supplemental agreement.****

60% FINAL PLANS (PRE ADVANCE CHECK PRINTS) - (STAGE 3, PART IV)

This submittal will add on roadway summary table sheets and any sheets not previously included, such as erosion control plans, geometric layout, and the subsurface soil survey furnished by LADOTD District lab. Bridge sheets not already provided will be included in this submittal, and in the case that current LADOTD standard plans cannot be used, Waggoner will provide bridge component sheets in development at this stage. Design for these components will begin at this stage and be completed at the Advance Check Print submittal, including all QA/QC actions.

FINAL RIGHT-OF-WAY MAPS

Waggoner will request updated Title Reports for any on-hand reports that are older than 6 months. The Final Check Print maps will be submitted for final review, incorporating comments made at the JPR meeting and adding in all remaining linework information that wasn't included in the 60% Base Maps. Once ready for final submittal, the Final R/W Maps will be printed and sealed by Waggoner's PLS, Jace Ricard. These maps along with the completed draft R/W Agreement forms will be submitted to the OSHBP PM for conveyance to Location and Survey.

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

We will log, review, and incorporate appropriate comments provided from the Pre Advance Check Prints. All plans that have not been substantially completed prior to this submittal will be finalized and quantities will be tabulated and checked for conformance to the specifications. These 95% prints will be provided to the PQU and reviewed internally. Any comments received back from the PQU will be documented and resolved for the 98% Final Plans submittal. At this time the plans will get a final review for biddability and readiness for letting.

100% FINAL PLANS (FINAL TRACINGS)

Waggoner will deliver 100% full-size Final Plans, including the Title Sheet on Mylar print, per the OSHBP Guidelines. This submittal will have incorporated all final comments made by reviewing parties and will be accompanied by the final calculation book, final hydraulics report, as-design bridge load rating report and files, and any approved design exceptions (issued by the Parish). All final QA/QC documentation will be included with this submittal package.

OPINION OF PROBABLE CONSTRUCTION COSTS, PAY ITEMS, & QUANTITIES

The preparation of opinions of probable construction costs (OPCC) will be prepared, beginning at the 90% Preliminary Plan and updates with every subsequent submittal. The Waggoner team design professionals have extensive experience in the LADOTD Purple Book, Pay Item list, Special Provisions, and developing specifications for Non-Standard items. We have experience with and understand the requirements for breaking down quantities by construction funding sources and control sections.

LETTING AND BIDDING ASSISTANCE

Waggoner will assist with answering Falcon questions during project advertisement. We will also provide any post letting bid review as requested by LADOTD to look for any major bid imbalances and recommend award.

CONSTRUCTION RELATED ENGINEERING SERVICES

At the request of LADOTD, Waggoner will be ready to assist with responding to RFI's, reviewing shop drawings, and review contractor proposals for proposed modifications to the construction contract (whether intentional or not).

PROJECT SCHEDULE

Waggoner is aware of the expected durations between deliverables for the typical bridge replacement project under this program and is committed to meeting those expectations. We have provided a proposed schedule for this project, incorporating these time frames as outlined in the Guidelines.

Angus Avenue Over Bene'champ Bayou		2025		2026												2027									
Task Name	**Duration**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**
NTP & Project Kickoff	30 days																								
Topo & Property Survey	30 days																								
LADOTD Review																									
PRELIMINARY DESIGN	**315 days**																								
Hydraulics & 50% PP	45 days																								
LADOTD Review	20 days																								
75% PP (Pre-PH) & SOV	45 days																								
LADOTD Review	20 days																								
90% PP (Plan-In-Hand)	30 days																								
Plan-In-Hand Meeting	45 days																								
60% Base ROW Maps	45 days																								
Environmental Services	45 days																								
LADOTD Review	60 days																								
100% Preliminary Plans	30 days																								
NTP Final Plans	1 day																								
FINAL PLANS	**315 days**																								
60% FP (Pre-ACP)	45 days																								
JPR & Final ROW Maps	60 days																								
LADOTD Review	45 days																								
95% FP (Advanced Check)	45 days																								
LADOTD Review	30 days																								
98% FP	30 days																								
100% FP (Final Tracings)	30 days																								
Utility & ROW Cleared	180 days																								
Advertisement for Bids	30 days																								
Construction Support	TBD																								

Sections 19-23

19. WORKLOAD:

Firm(s) ALL FIRMS MUST BE REPRESENTED IN THIS TABLE	Discipline(s)	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance
WAGGONER FORMERLY SIGMA CONSULTING GROUP	Bridge	4400029912 (formerly 4400019338)	Rural Bridge Replacement Initiative Phase II (South) (16 Project #s)	$343,763
		4400029918 (formerly 4400025041)	IIJA Off-System Bridge Program, District 62 (6 Project #'s)	$164,820
	Right-of-Way	4400025041	IIJA Off-System Bridge Program, District 62 (7 Project #'s)	$21,870
	Survey	4400025041	IIJA Off-System Bridge Program, District 62 (7 Project #'s)	N/A
ELOS AN AVENTIA COMPANY	Environmental	44-0019337, H.014242	LA-124 Big Branch, Sandy, Godfrey, Beech Bridges	N/A
		44-0019337, H.014243	LA-472 Indian and Big Bear Creek	N/A
		44-0019337, H.014245	LA-119 Bayou Pierre and Creek Bridges	$15
		44-0019337, H.014246	LA-1199 Creeks & Spring Creek	$19
		44-0019337, H.014247	LA-399 Creeks, Little 6 Mile Creek, Flat Branch	$45.01
		44-0019337, H.014247.5	LA-399 Bridges – Supplemental Task Order	N/A
		44-0019337, H.014248	LA-124 Creeks, Broke Leg Bayou, Boggy Bayou	$14
		44-0019337, H.014248.5	LA-124 On site Detours - Supplemental Task Order	$308
		44-0019337, H.014249	LA-126 Creek	$849
		44-0019337, H.014242.5	LA-124 Bridges/Detours – Supplemental Task Order	$21,473
		44-0019337, H.014250	LA-577 Bull Bayou and Creek Bridges	$38
		44-0019337, H.014268	LA-4 Creeks, Bear, Squirrel, Sugar, Bill's and Lost Creek Relief	$30
		44-0019337, H.014268.5	LA-4 Creeks, Bear, Squirrel, Sugar, Bill's and Lost Creek Relief – Additional Tasks	$398
		44-0019337, H.014245.5	LA-119 Bayou Pierre and Creek Bridges – Additional Tasks	N/A
		44-0027734, H.014362	Lake Road in St. Tammany Parish	$22,877
		44-0024593, H.015009	OSBR West Metairie Ave Bridge, South Suburban Canal	N/A
		44-0025041, H.015429	Carroll Ave, Middle Colyell Creek - IIJA Off-System Bridges District 62	$31
		44-0025041, H.015430	Hood Rd, Middle Colyell Creek - IIJA Off-System Bridges District 62	$51
		44-0025041, H.015431	Sawmill Rd, Unnamed Creek - IIJA Off-System Bridges District 62	$53
		44-0025041, H.015432	M. Williams Rd, Spring Creek - IIJA Off-System Bridges District 62	$53
		44-0025041, H.015433	George Jenkins Rd, Berrys Creek - IIJA Off-System Bridges District 62	$64
		44-0025041, H.015434	Mitch Rd, Peters Creek - IIJA Off-System Bridges District 62	$49
		44-0021326, H.010074.1	DOTD Stage 0 IDIQ-LA 3089 Serve Rd/LA 70 Up	$2,760

20. CERTIFICATIONS/LICENSES:

Certificate of Completion

presented to

Alex Farr

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: July 16, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 2

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Alex Farr

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: July 23, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Alex Farr

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: October 18, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

20. CERTIFICATIONS/LICENSES:

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Milan Lear
has attended
Louisiana Traffic Control Technician
Training Course

9/5/2023 to 9/5/2027
Training Valid Through

Vice President of Education and Technical Services

Baton Rouge, LA
Location

President, CEO

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

ATSSA American Traffic Safety Services Association ATSSA.com

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Alex Farr
has attended
Louisiana Traffic Control Supervisor Refresher
Training Course

11/10/2023 to 11/10/2027
Training Valid Through

Vice President of Education and Technical Services

Baton Rouge, LA
Location

President, CEO

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

ATSSA American Traffic Safety Services Association ATSSA.com

Certificate of Attendance

presented to

Miles B. Williams

for attending the

National Environmental Policy Act (NEPA) and Transportation decision Making

and for having been awarded 15 Professional Development Hours

April 30 - May 2, 2003	Baton Rouge, LA	Sandra Romero
Date	Location	Authorized By

LTRC
Louisiana Transportation Research Center

20. CERTIFICATIONS/LICENSES:

ATSSA
Safer Roads Save Lives

Robert Lear Jr.

has attended
Louisiana Traffic Control Supervisor Refresher

Completed: 16-MAY-2025

CEU (If Applicable): 0.75

ATSSA provides training and certification but neither constitutes employment by ATSSA.
This certificate provides proof of training, not certification.

American Traffic Safety Services Association
ATSSA.com

ATSSA
Safer Roads Save Lives

Jace Ricard

has attended
Louisiana Traffic Control Supervisor Refresher

Completed: 14-MAR-2025

CEU (If Applicable): 0.75

ATSSA provides training and certification but neither constitutes employment by ATSSA.
This certificate provides proof of training, not certification.

American Traffic Safety Services Association
ATSSA.com

Certificate of Training

this certifies that

Jace Ricard

has successfully completed the training program requirements for

ATSSA Online Flagger Certification Training Course

Awarded on this **1st** *day of* **April 2021**

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Basile Dardar
has attended
Traffic Control Technician-LA State Specific
Training Course

11/29/2022 to 11/29/2026
Training Valid Through

Baton Rouge, LA
Location

Director of Training

President, CEO

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

ATSSA American Traffic Safety Services Association ATSSA.com

20. CERTIFICATIONS/LICENSES:

State of Louisiana
Secretary of State

COMMERCIAL DIVISION
225.925.4704

Fax Numbers
225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

Name	Type	City	Status
WAGGONER ENGINEERING, INC.	Business Corporation (Non-Louisiana)	JACKSON	Active

Previous Names

Business: WAGGONER ENGINEERING, INC.
Charter Number: 34954531F
Registration Date: 6/16/2000
Domicile Address
143A LEFLEURS SQUARE
JACKSON, MS 39211
Mailing Address
143A LEFLEURS SQUARE
JACKSON, MS 39211
Principal Business Office
143A LEFLEURS SQUARE
JACKSON, MS 39211
Registered Office in Louisiana
450 LAUREL STREET, 8TH FLOOR
BATON ROUGE, LA 70801
Principal Business Establishment in Louisiana
450 LAUREL STREET, 8TH FLOOR
BATON ROUGE, LA 70801

Status

Status: Active
Annual Report Status: In Good Standing
Qualified: 6/16/2000
Last Report Filed: 6/11/2024
Type: Business Corporation (Non-Louisiana)

State of Louisiana
Secretary of State

COMMERCIAL DIVISION
225.925.4704

Fax Numbers
225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

Name	Type	City	Status
ELOS ENVIRONMENTAL, LLC	Limited Liability Company (Non-Louisiana)	WILMINGTON	Active

Previous Names

Business: ELOS ENVIRONMENTAL, LLC
Charter Number: 45643772Q
Registration Date: 10/19/2023
Domicile Address
1209 ORANGE ST
WILMINGTON, DE 19801
Mailing Address
607 W MORRIS AVE
HAMMOND, LA 70403
Principal Business Office
607 W MORRIS AVE
HAMMOND, LA 70403
Registered Office in Louisiana
3867 PLAZA TOWER DR.
BATON ROUGE, LA 70816
Principal Business Establishment in Louisiana
607 W MORRIS AVE
HAMMOND, LA 70403

Status

Status: Active
Annual Report Status: In Good Standing
Qualified: 10/19/2023
Last Report Filed: 9/20/2024
Type: Limited Liability Company (Non-Louisiana)

21. QA/QC PLAN:

If the advertisement requires submission of a QA/QC plan, include it here. **Otherwise, leave this section blank. If a QA/QC plan is included in this section and was not required by the advertisement, it will be redacted.**

Waggoner Engineering, Inc.
(formerly Sigma Consulting Group, Inc.)

Quality Assurance/Quality Control Plan for Bridge Design Projects

Contract for LADOTD Off-System Highway Bridge Program Angus Ave Over Drainage Canal in East Baton Rouge Parish For Critical Projects - Statewide

Contract No. 4400030642 | State Project No. H.015975.5 | Federal Aid Project No. H015975

This document is a supplement to Waggoner's Quality Assurance/Quality Control Plan dated August 2020

August 2025

CONTENTS

I. Introduction

At Waggoner Engineering, Inc. (formerly Sigma Consulting Group Inc.), we emphasize good communication as the key component in achieving excellence. This communication begins with our firm's mission, and continues with goals, company procedures, and then periodic feedback for making changes.

The procedures are what guide our day to day quality efforts. They are organized into company procedures and project procedures. Our method for assuring quality over the long term is addressed in our mission, quality goal, and feedback.

This document establishes the minimum requirements for the Quality Control (QC) and Quality Assurance (QA) for all LADOTD bridge design projects, with specific references to this project.

Waggoner is fully responsible for the QC/QA of our work, and the work of all subconsultants. All subconsultants are to adhere to these guidelines also. **LADOTD is not responsible for performing QC/QA of Waggoner's or their subconsultants' work.**

II. References

- Quality Control/Quality Assurance Plan. 2020. Waggoner Engineering, Inc.
- LADOTD Bridge Design and Evaluation Manual, Part I – Policies and Procedures, Chapter 3: Policy for QC/QA
- Policy on Quality Control and Quality Assurance. 2012. Louisiana Department of Transportation and Development, Bridge Design Section
- Guidance on Quality Control and Quality Assurance (QC/QA) in Bridge Design. 2011. Federal Highway Administration.

III. Definitions

Quality Control (QC) - Procedures of checking the accuracy of the calculations and consistency of the drawings, detecting and correcting design omissions and errors before the design plans are finalized, and verifying the specifications for the load-carrying members are adequate for the service and operation loads.

Quality Assurance (QA) - Procedures of reviewing the work to ensure the quality controls are in place and effective in preventing mistakes, and consistency in the development of bridge design plans and specifications.

Designer - An individual directly responsible for the development of design calculations, drawings, specifications and contract documents, and review of shop drawings related to a specific bridge design with a level of technical skills and experience commensurate with the complexity of the subject structure or structures being designed. The designer must be licensed by the State of Louisiana as an engineer intern or a professional engineer.

Detailer - The detailer is the individual directly responsible for the creation of CAD drawings.

Checker - An individual responsible for performing a full technical review of the structural design calculations, drawings, specifications, and contract documents. The checker must be licensed by the State of Louisiana as an engineer intern or a professional engineer. If the designer is an engineer intern, then the checker must be a professional engineer.

Reviewer - An individual responsible for performing QA procedures for assuring that QC procedures have been performed. The reviewer must be licensed by the State of Louisiana as a professional engineer and have substantial experience in the design of similar structures.

Engineer of Record - An individual responsible for all bridge structural aspects of the design of the structure including the design of all of the bridge's systems and components. The EOR must be licensed by the State of Louisiana as a professional engineer and must have commensurate experience in the design

of similar structures. The EOR can be the designer, the design checker, the reviewer, or the supervisor/team leader who is directly involved in the project development. The Engineer of Record normally seals and signs the final contract plans and specifications.

Area	Role	Team Member	Responsible For
Project Management	Project Manager/ Point of Contact	Andrew Windmann, PE	Determining appropriate staff to assign work. Overall project delivery in conformance with established scope, schedule, and budget.
Bridge Design	Designer	Joshua Gonya, PE	Design of structural elements that are not covered by existing LADOTD standard details.
	Checker	Joshua Olivier, PE	In-depth check of the designer's calculations and plans. Independent or review designer's calculations.
	QA Review	Andrew Windmann, PE	Confirms that all calculations and plans have corresponding documents and that these documents were adequately checked in conformance with Waggoner's and LADOTD's QA/QC policies. Preforms high-level review for project biddability and constructability and ensures any identified modifications are incorporated.
Bridge Hydraulics	Designer	Charlotte Gremillion, PE	Creation of hydraulic model for unrestricted, existing, and proposed crossings at the body of water. Creation of report summarizing hydraulic data and requirements along with any scour analysis and mitigation.
	Checker	Bryan Harmon, PE	In-depth check of the HEC model(s) and hydraulics report. Ensures analysis was performed in conformance with LADOTD Off-System Bridge Hydraulics Manual and other governing FHWA Circulars as specified by AASHTO.
	QA Review	Robert Lear, Jr, PE, LSI	Confirms the hydraulic analysis and report following Waggoner's internal QA/QC procedures and that plans match the report.
Roadway & Drainage	Designer	Kelsie Bankston, PE	Design of proposed/adopted roadway and bridge geometry, established design typical sections and limits of construction, determines roadway drainage needs and provides adequate open or closed drainage systems to ensure adverse affects are avoided or minimized.
	Checker	Alex Farr, PE	In-depth check of the designer's use of correct minimum guidelines, horizontal and vertical geometries, and drainage calculations.
	QA Review	Robert Lear, Jr., PE, LSI	Confirms that all decisions made have justification and back-up. Ensures full QA/QC process is performed and adhered to. Performs high-level review for project biddability and constructability along with any fatal flaws in the design and construction plans.

IV. Project Procedure

A. Development of Project Design Criteria

Design criteria (bridge) must be developed and submitted for LADOTD for review and approval. Though the design criteria may change throughout the project, a current list of the criteria shall be maintained at all times. Any design assumptions made, or design exemptions obtained shall be listed in the design criteria and referenced in the calculations and drawings as appropriate. A design criteria checklist is included in the Appendix.

B. Design Process

During the design process, the designer must follow the design criteria established for the project. A bridge type, size and location (TS&L) study must be developed first and approved by the supervisor or team leader prior to proceeding with the design of structural components. The design calculations shall be organized and maintained in a standard calculation book format.

- The designer has the responsibility to ensure that his calculations or drawings have been checked and signed by a checker.
- All project calculations will be filed as directed by the Project Manager. Except for very small projects, the calculations should be maintained in a 3-ring binder/folder with a Table of Contents and page numbers.
- All calculations will be prepared neatly. These calculations will always be checked by an independent checker and signed by both the designer and the checker. Calculations performed on CAD, such as quantities, will be documented on printouts or drawings (preferably half-size), and checked independently. If such documentation is not readily available from the software, calculations shall be manually documented or performed using other methods.
- The calculations or drawings should be readable without the designer explaining the content. It may be necessary for the designer to explain the philosophy behind the design to the checker.
- All assumptions used in the calculations shall be listed, verified and approved by the Project Manager. Where code dictates a requirement, the code, code date, section number and applicable table will be listed. Where information is obtained from other calculations, disciplines or reference material, the source shall be identified.
- During development of design calculations, the designer should keep in mind that proper sketches and details should be presented as others may use these calculations in developing construction drawings.
- Computer programs (both commercial and in-house) are a great time-saver to the design process. However, it is the designer's responsibility to be familiar with the program, and its design assumptions and internal design routines and methods to the extent that he could duplicate a given result.
- Compute and document input for the computer programs, as you would design calculations. These should be attached to the computer printout when passed to checking. It is not necessary to copy (for checking) lengthy computer printouts.
- The checking of calculations shall be on a copy of the original and shall be retained with the original. After all corrections have been made, the checker shall sign the original. The checker shall sign every page of the calculations to ensure that pages are not added to the end of what he checked. No erasing is permitted after the checker has signed the original calculations.
- All drawings prepared in CAD will be plotted by the technician and checked for correctness and accuracy (by the technician) prior to delivering the drawing to the designer/engineer. It is the CAD technician's responsibility to ensure that the drawing is drawn correctly. The drawing designated as the check print should be in the format of the final deliverable.
- As a general rule, all engineers and technicians should review the plans, specifications and calculations during the development process not only for accuracy, but also that the elements fit together. This is especially true with inter-discipline projects. Checks should also be made on how revisions to one element of a project might affect other portions of the project.
- Each submittal should include a QC/QA certification that the process is being followed and the plan documents and information presented is accurate and meets the requirements of the submittal.

C. Checking Process

The checker may begin the checking process at the completion of the entire design/detail process or may check components of the designer/detailer's work as it is completed. Likewise, the checker may provide feedback at the completion of the entire checking process or as each component of check is completed.

During the design check process, the design checker must verify the accuracy of the designer's calculations, pay items, quantities, special provisions including Non-Standard items, and cost estimate. Regardless of the checking method employed, the designer's calculations are the calculations of record and must be updated to correct any errors or omissions discovered by the design checker. The design checker should also ensure that the drawings adequately and accurately present the design information.

During the detail check process, the detail checker must ensure the drawings are in accordance with the design information and CAD standards. All dimensions and quantity calculations must be verified. The following stamp should be applied to every Check Print drawing.

No: _____ Date: _____

CHECK PRINT

Dwg. Checked against calcs. And calc check confirmed

by: _____ Date: _____

Checked: _____ Date: _____

Backchecked: _____ Date: _____

Corrected: _____ Date: _____

Verified: _____ Date: _____

Any discrepancies that arise should be resolved between the designer/detailer and the checker, and the calculations and plan details should be corrected accordingly. If the designer/detailer and the checker are unable to resolve their discrepancies, the issue should be brought to the attention of the supervisor or team leader.

The checker shall be free to follow his own procedure for checking; however, the following must be adhered to regardless of his/her other methods.

- The checking of calculations shall be on a copy of the original and shall be retained with the original. After all corrections have been made, the checker shall sign the original. The checker shall sign every page of the calculations to ensure that pages are not added to the end of what he checked. No erasing is permitted after the checker has signed the original calculations.
- Checker is to show all additions or changes (noted in red) in sufficient detail for a draftman's complete understanding. Avoid verbal instructions. Checker should initial and date each drawing as it is checked.
- If reasons for errors are not clearly apparent, consult draftsman before making change.
- Various checklists (both department and client) exist and should be used where applicable.
- To minimize the number of marked-up drawings being circulated, only the stick file or a clearly designated "Check Print" set should be used for corrections.
- The checker of both the calculations and the drawings should compare the two. They must match.
- After drawings have been checked, notify disciplines concerned, of additional requirements, omissions, or changes.
- After checking is completed the check print should be returned to the original designer for his/her back-check and pick-ups. The original designer shall initial and date each sheet as back-checked.

- Any markups not completely addressed shall be indicated and discussed with Checker before the Back-Check print is returned.
- After Back-Check pickups are made, the drawings should be returned to the checker for final review. The CAD technician shall initial and date each sheet as corrected. After a final review, the checker shall initial and date each sheet as verified.
- All changes or approvals to checked design package shall be color coded as described in the Waggoner drafting standards. Below is a list of colors and intent for use:

YELLOW	indicates checked and complete
RED	indicates addition
GREEN	indicates "remove the item in green"
BLUE	indicates checkers comments are picked-up and complete
BLACK	to be used to write specific instructions or comments
CIRCLED AREA	indicates "not satisfactory" with a pencil comment explaining why, be specific.

The drawings should be locked when the checking process begins and then locked again when complete. This keeps unauthorized changes from occurring and ensures that the entire project team is using accurate and up-to-date information.

After the designer, design checker, detailer, and detail checker are satisfied with the state of the design calculations, drawings, special provisions, and cost estimate as appropriate, the design and detail check shall be considered complete. This shall be no later than the 95% Final Plans stage.

D. Quality Assurance/Review Process

Upon completion of the design and detail check, the designer is responsible for preparing a QA information package. A QA information package checklist is included in the Appendix. This QA package is given to a reviewer; the reviewer is the engineer responsible for ensuring that the QC process was followed and is complete.

During quality assurance process, the reviewer shall perform a cursory review of all documents in the QA information package submitted by the designer. This review should focus on the constructability of the plan details; areas of critical structural importance; areas where, based on the reviewer's experience, mistakes may be typically found; and areas that may be new to the design practice. The reviewer may, but need not, produce independent calculations to verify submitted information. The reviewer shall provide feedback to the designer and resolve all issues. The QA process shall be completed no later than the 98% final plans stage. At this point, the QC/QA certification (included in Appendix) shall be signed by the designer, design checker, detailer, detail checker, and reviewer.

E. Responsibilities of the EOR

- Ensure the QC/QA certification is signed by all responsible parties. Ensure the geotechnical design information shown on bridge plans is co-stamped by a Geotechnical Engineer and the hydraulic information shown on bridge plans is co-stamped by a Hydraulic Engineer.
- Assemble design calculations from all designers, finalize the calculation book, and seal the cover sheet of the calculation book.
- Ensure the names of the designer, design checker, detailer, detail checker, and reviewer are correctly shown on the title block of each plan sheet. Stamp all plan sheets or designate a designer, design checker, or reviewer who shall be licensed by the State of Louisiana as a professional engineer to stamp the sheets developed under their supervision. The EOR must stamp the general note sheets.
- Ensure 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.

F. Responsibilities of the LADOTD Bridge Task Manager:

The LADOTD bridge task manager will participate in the following:

- Initiate a design kick-off meeting as soon as the project is awarded to discuss project expectations, design criteria, submittal schedule, implementation of QC/QA plan document, as well as to become familiar with the consultant's design team members who are identified as the designers, design checkers, and reviewers.
- Review and approve design criteria and TS&L and ensure the design criteria is updated as the project progresses.
- Review consultant's submittals - **LADOTD Bridge Task Managers shall not perform QC/QA of consultants' work.** However, they will selectively check the plans for constructability, consistency, and clarity.

V. Plan Development

The following procedures help with our quality in the production of drawings and specifications:

- Use department-generated CADD standards and CADD drafting manual, as required.
- Each drawing has an automatic date stamp, along with a correct title block.
- Each drawing should always have a status stamp (Preliminary, For Review, For Approval, etc.) that also identifies the Engineer-of-Record.
- Dimensions and data should be shown only once, to reduce possible discrepancies.
- Cross referencing should be as simple and as clear as possible.
- Coordinate the drawings and specifications with each other.
- Use LADOTD standard specifications and standard plans when appropriate.
- When specifying products, use the LADOTD accepted Qualified Products List when possible.
- If the Qualified Products List does not contain the desired product, document the decision process for approving a product along with any relevant codes.
- Document for the files: relevant communications, alternatives, and reasoning for picking an alternative.

Appendix

- Design Criteria Checklist
- QA Information Package Checklist
- Consultant Submittal QC/QA Certification
- QC/QA Certification (Final)

Appendix
Design Criteria Checklist

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

Cover Sheet
The following information must be included on the cover sheet:

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

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

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

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

- Bridge information (number of bridges, bridge clear width, length, number of lanes, lane width, shoulder width, etc.)
- Road information (roadway classifications, design speed, traffic data, etc.)
- Vertical datum
- Vertical and horizontal clearances
- Hydraulic design information (design water elevations, scour depth and scour elevation, etc.)
- Other relevant information

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

Design Factors
The ductility factor, redundancy factor, and operational importance factor shall be listed in this section.

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

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

Bridge Barrier
The design criteria, types, and test levels for bridge barriers shall be listed in this section. Standard plans and special details should be listed if they are utilized.

Guardrail
The design criteria, types, and test levels for guardrails shall be listed in this section. Standard plans and special details should be listed if they are utilized.

Approach Slab
Design criteria for approach slab shall be included in this section. Standard plans and special details should be listed if they are utilized.

Deck and Deck Drainage
All design criteria for deck and deck drainage design shall be included in this section. Standard plans and special details should be listed if they are utilized.

Bearing
All bearing types and design criteria for each bearing type shall be included in this section. Standard plans and special details should be listed if they are utilized.

Joint
All joint types and design criteria for each type shall be included in this section. Standard plans and special details should be listed if they are utilized.

Superstructure
All superstructure types and design criteria for each type shall be included in this section. Standard plans and special details should be listed if they are utilized.

Substructure
All substructure types and design criteria for each type shall be included in this section. Standard plans and special details should be listed if they are utilized.

Piles and Drilled Shafts
All pile types, sizes, and structural design criteria shall be included in this section. Standard plans and special details should be listed if they are utilized.

Geotechnical Design
All geotechnical design criteria shall be included in this section. Standard plans and special details should be listed if they are utilized.

Mechanical Design
All mechanical design criteria shall be included in this section if applicable. Standard plans and special details should be listed if they are utilized.

Electrical Design
All electrical design criteria shall be included in this section if applicable. Standard plans and special details should be listed if they are utilized.

As-Designed Bridge Rating Criteria
All as-designed bridge rating criteria shall be included in this section.

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

Appendix
QA Information Package
Checklist

Project No:
Project Description:

___Calculation Book

___Plans

___Special Provisions

___Cost Estimates

___Other Documents

Appendix
Consultant Submittal QA/QC Certification

Project No:
Project Description:

I, the undersigned Supervisor or Team Leader for this project, certify that the information included in this submittal has been prepared in accordance with the QA/QC plan documents and the information presented is accurate and meets the requirements of this submittal.

_____
Submittal Description

_____	_____	_____
Supervisor or Team Leader Name	Signature	Date

22. SUB-CONSULTANT INFORMATION:

Firm Name (Name must match exactly as registered with Louisiana's Secretary of State (SOS): including punctuation, include screenshot(s) from SOS at the end of Section 20)	Address	Point of Contact and Email Address	Phone Number
ELOS Environmental, LLC	607 W. Morris Avenue Hammond, LA 70403	Lucas Watkins LWatkins@elosenv.com	985.662.5501

23. LOCATION:

If location is an evaluation criterion for this advertisement (see page 2) and the prime consultant intends to establish a local presence, describe the plan for doing so. **Otherwise, leave this section blank. Any information included in this section will be redacted if not required by the Evaluation Criteria section of the advertisement.**

WAGGONER

We do more than plan and design infrastructure.
We transform communities.