June 25, 2024

PROPOSAL

Engineering and Related Services

IDIQ CONTRACTS FOR INTELLIGENT TRANSPORTATION SYSTEMS (ITS) DESIGN AND IMPLEMENTATION SERVICES

STATEWIDE

Contract Nos. 4400029436 & 4400029583

NEEL-SCHAFFER

Solutions you can build upon

Sections ***1-11***

Contract Nos. 4400029436 & 4400029583

IDIQ CONTRACTS FOR INTELLIGENT TRANSPORTATION SYSTEMS (ITS) DESIGN AND IMPLEMENTATION SERVICES

DOTD FORM: 24-102

PROPOSAL TO PROVIDE CONSULTANT SERVICES

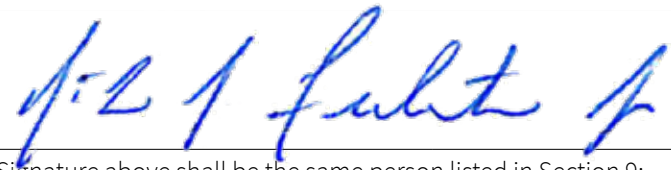
(Revised January 1, 2023)

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	IDIQ CONTRACTS FOR INTELLIGENT TRANSPORTATION SYSTEMS (ITS) DESIGN AND IMPLEMENTATION SERVICES STATEWIDE
2. **Contract Number(s)** as shown in the advertisement	4400029436 AND 4400029583
3. **State Project Number(s)**, if shown in the advertisement	**N/A**
4. **Prime consultant name** (name must match as registered with the Louisiana Secretary of State where such registration is required by law)	**Neel-Schaffer, Inc.**
5. **Prime consultant license number** (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is re-quired under Louisiana law)	**EF.0001372**
6. **Prime consultant mailing address**	10000 Perkins Rowe, Suite G360 Baton Rouge, LA 70810
7. **Prime consultant physical address** (existing or to be established, if location is used as an evaluation criteria)	10000 Perkins Rowe, Suite G360 Baton Rouge, LA 70810
8. **Name, title, phone number, and email address of prime consultant's contract point of contact**	**Nick Ferlito, PE, PTOE** *Senior Vice President / Louisiana Area Manager* nick.ferlito@neel-schaffer.com 225.924.0235
9. **Name, title, phone number, and email address of the official with signing authority for this proposal**	**Nick Ferlito, PE, PTOE** *Senior Vice President / Louisiana Area Manager* nick.ferlito@neel-schaffer.com 225.924.0235

10. This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.



Signature above shall be the same person listed in Section 9:

Date: **June 24, 2024**

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	FIRM PERCENT
N/A	N/A

Sections ***12-15***

Contract Nos. 4400029436 & 4400029583

IDIQ CONTRACTS FOR INTELLIGENT TRANSPORTATION SYSTEMS (ITS) DESIGN AND IMPLEMENTATION SERVICES

12. PAST PERFORMANCE EVALUATION DISCIPLINE TABLE:

Past Performance Evaluation Discipline(s)	% of Overall Contract	Neel-Schaffer, Inc.	Intelligent Transportation Systems LLC	Vectura Consulting Services, LLC	Halff Associates, Inc.	Environmental Science Services, Inc.	Each Discipline must total to 100%
ITS	100%	60%	27%	5%	5%	3%	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%	60%	27%	5%	5%	3%	

13. FIRM SIZE:

Firm name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
Neel-Schaffer, Inc.	Principal	1	2
	Supervisor – Eng	1	2
	Engineer	4	25
	Engineer Intern	1	7
	Senior Technician	2	2
	GIS Analyst	1	4
Intelligent Transportation Systems LLC	Principal	3	3
	Engineer Intern	1	1
	ITS Technician	1	6
Vectura Consulting Services, LLC	Supervisor – Eng	1	2
	Engineer	1	3
Halff Associates, Inc.	Engineer	2	10
Environmental Science Services, Inc.	Engineer	1	1
	GIS Analyst	3	3

14. ORGANIZATIONAL CHART:

PROJECT MANAGEMENT & PROGRAM ASSISTANCE

Nick Ferlito, Jr., PE, PTOE ◂ ❶ ❷
*Clarke Chauvin, PE, PTOE, PMP ◂ ❺
Said El Said, PE, PhD ❺

COORDINATION MEETINGS & PROJECT REPORTING

Nick Ferlito, Jr., PE, PTOE ◂ ❶ ❷
*Clarke Chauvin, PE, PTOE, PMP ◂ ❺
*Jonathan Duhe, PE, PTOE, RSP$_1$ ◂

LEGEND

- Neel-Schaffer, Inc.
- Intelligent Transportation Systems LLC
- Vectura Consulting Services, LLC
- Halff Associates, Inc.
- Environmental Science Services, Inc.

❶ MPR Designation | ◂ TEPR Certified

* Person has Work Zone Certification.

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

LADOTD ITS
Lucy Kimbeng, PE
Project Manager

PROJECT PRINCIPAL
Nick Ferlito, Jr., PE, PTOE ◂ ❶ ❷

PROJECT MANAGER
*Clarke Chauvin, PE, PTOE, PMP ◂ ❺

QA / QC
Nick Ferlito, Jr., PE, PTOE ◂ ❶ ❷
Said El Said, PE, PhD ❺

ITS / TRAFFIC ENGINEERING ANALYSIS

*Clarke Chauvin, PE, PTOE, PMP ◂ ❺
*Jonathan Duhe, PE, PTOE, RSP$_1$ ◂
Glen Reed, PE ❸
Said El Said, PE, PhD ❺
Ellen Burke Howard, PE, PTOE ◂
Seth Popay, EI ◂

*Jonathan Fox, PE, PTOE, PMP ◂ ❺
*Diane Hammonds, PE, PTOE, RSP$_1$ ◂
*Kimberly McDaniel, PE, PTOE, PTP ◂
*Colin Francis, EI ◂

*Laurence Lucius Lambert, II, PE, PTOE, PTP ◂
*Reece Rodrigue, PE, PTOE, RSP$_1$ ◂

Jose Delgado, PE, LEED AP, RCDD ❹
John Gianotti, PE

ENGINEERING PLANS, SPECIFICATIONS & CONSTRUCTION ESTIMATES

*Clarke Chauvin, PE, PTOE, PMP ◂ ❺
*Jonathan Duhe, PE, PTOE, RSP$_1$ ◂
Glen Reed, PE ❸
Said El Said, PE, PhD ❺
Mike Brown, PE
Seth Popay, EI ◂

*Jonathan Fox, PE, PTOE, PMP ◂ ❺
*Colin Francis, EI ◂

*Laurence Lucius Lambert, II, PE, PTOE, PTP ◂
*Reece Rodrigue, PE, PTOE, RSP$_1$ ◂

Jose Delgado, PE, LEED AP, RCDD ❹
John Gianotti, PE

TECHNICAL SUPPORT DURING CONSTRUCTION

*Clarke Chauvin, PE, PTOE, PMP ◂ ❺
*Jonathan Duhe, PE, PTOE, RSP$_1$ ◂
Glen Reed, PE ❸
Said El Said, PE, PhD ❺
Mike Brown, PE
Seth Popay, EI ◂
*Lonny Territo

*Jonathan Fox, PE, PTOE, PMP ◂ ❺
*Colin Francis, EI ◂
*Christopher Dodt

Jose Delgado, PE, LEED AP, RCDD ❹

GIS SUPPORT SERVICES

Nick Ferlito, Jr., PE, PTOE ◂ ❶ ❷
*Clarke Chauvin, PE, PTOE, PMP ◂ ❺
Said El Said, PE, PhD ❺
Ken Holland

*Andrew Milanes, PE, GISP
Garth Sullivan, GISP
Warren Kron, GISP
Amelia Adams

15. MINIMUM PERSONNEL REQUIREMENTS:

MPR No.	**Personnel being used to meet the MPR** (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license and discipline meeting MPR / certification and number (Ex: PE # - Civil)	State of license	License / certification expiration date
1	Nick Ferlito, Jr., PE, PTOE	Neel-Schaffer, Inc.	PE No. 28001 - Civil	LA	09/30/25
2	Nick Ferlito, Jr., PE, PTOE	Neel-Schaffer, Inc.	PE No. 28001 - Civil	LA	09/30/25
3	Glen Reed, PE	Neel-Schaffer, Inc.	PE No. 28369 - Electrical	LA	03/31/26
4	Jose Delgado, PE	Halff Associates, Inc.	PE No. 46151- Electrical & Computer	LA	03/31/26
5	Clarke Chauvin, PE, PTOE, PMP	Neel-Schaffer, Inc.	PE No. 41770 - Civil	LA	09/30/25
5	Said El Said, PE, PhD	Neel-Schaffer, Inc.	PE No. 47227 - Civil	LA	03/31/25
5	Jonathan Fox, PE	Intelligent Transportation Systems LLC	PE No. 33277 - Civil	LA	09/30/25

Section **16**

Contract Nos. 4400029436 & 4400029583

IDIQ CONTRACTS FOR INTELLIGENT TRANSPORTATION SYSTEMS (ITS) DESIGN AND IMPLEMENTATION SERVICES

16. STAFF EXPERIENCE

Firm employed by Neel-Schaffer, Inc.					
Name	**Nick Ferlito, Jr., PE, PTOE**			Years of relevant experience with this employer	28
Title	Senior Vice President / Louisiana Area Manager			Years of relevant experience with other employer(s)	3
Degree(s) / Years / Specialization			BS / 1993 / Civil Engineering; MS / 1996 / Civil Engineering		
Active registration number / state / expiration date			PE No. 28001 / LA / 09-30-2025; PTOE No. 930		
Year registered	1998	Discipline	Civil		
Contract role(s) / brief description of responsibilities			Principal; **Meets MPRs 1 & 2** / Project oversight, QA / QC, Technical Expertise		

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).
05/24 – Present	**Regional ITS Architecture Update, Houma, LA:** Principal in charge for the ITS Architecture Update for the Houma Region. This update includes the evaluation of the existing ITS inventory and stakeholder engagement. Based on the findings of the existing ITS inventory and stakeholder needs, the updated ITS Architecture Report provides recommended ITS projects with cost, ITS services, interfaces and architecture for the region.
05/24 – Present	**Shreveport-Bossier Regional ITS Architecture Update:** Principal in charge for the ITS Architecture Update for the Shreveport-Bossier Region. This update includes the evaluation of the existing ITS inventory and stakeholder engagement. Based on the findings of the existing ITS inventory and stakeholder needs, the updated ITS Architecture Report provides recommended ITS projects with cost, ITS services, interfaces and architecture for the region.
05/24 – Present	**Regional ITS Architecture Update, Lake Charles, LA:** Principal in charge for the ITS Architecture Update for the Lake Charles Region. This update includes the evaluation of the existing ITS inventory and stakeholder engagement. Based on the findings of the existing ITS inventory and stakeholder needs, the updated ITS Architecture Report provides recommended ITS projects with cost, ITS services, interfaces and architecture for the region.
07/23 – Present	**Northshore Regional ITS Architecture Update:** Principal in charge for the ITS Architecture Update for the Northshore Region. This update includes the evaluation of the existing ITS inventory and stakeholder engagement. Based on the findings of the existing ITS inventory and stakeholder needs, the updated ITS Architecture Report provides recommended ITS projects with cost, ITS services, interfaces and architecture for the region.
09/22 – Present	**Alexandria ITS Phase 2 Design:** Principal in charge for the design of 5 ITS CCTV sites and one ITS DMS site along US 165 in Alexandria, LA. This project included a Systems Engineering Analysis (SEA) to evaluate various communication designs, i.e. all fiber, all wireless and a hybrid fiber and wireless system. The design included site layout design for each CCTV site and DMS site, communication system design for the hybrid fiber optic and wireless system. The communication design included fiber splicing plans and a line of sight survey for the wireless component of the design. Design also included CCTV pole foundation design, estimated quantities and probable construction cost, and review of contractor bids and recommended contract award.
06/22 – Present	**Kansas Lane Connector, Monroe, LA:** Principal in charge for the development of relocation plans for the ITS fiber trunk line along US 165 and US 80 as well as the relocation new fiber drop cables to an existing ITS DMS site and an existing ITS CCTV site on US 165. The relocation plans provide layout plans of the proposed fiber rerouting as well as proposed fiber splicing plans for the two (2) existing ITS sites. The fiber relocations were due to the proposed widening along US 165 and US 80 associated with the Kansas Lane Extension from US 80 to US 165.
05/22 – Present	**Kansas Lane-Garrett Road Connector and I-20 Improvements, Monroe, LA:** Principal in charge for the development of relocation plans for the ITS fiber trunk line and power to an existing ITS CCTV site at the interchange of I-10 at Garrett Road. The relocation plans provide layout plans of the proposed fiber and power rerouting as well as proposed fiber splicing plans. The fiber and power needed to be relocated due to the proposed widening and drainage improvement of I-20.

05/22 – Present	**I-10 ITS Scott to Lake Charles:** Technical Support During Construction: Principal in charge for technical support during construction for the I-10 ITS Scott to Lake Charles project. The technical support included attending site visits, monthly progress meetings, reviewing shop drawing submittals, answering RFIs and final commission site visit.
06/22 – 10/22	**ITS Fiber Management System Data Collection**: Principal in charge for site inventory, site photos and OTDR fiber test for 188 ITS sites statewide.
04/21 – 08/22	**Regional Architecture Update, Lafayette LA:** Principal in charge for the ITS Architecture Update for the Lafayette Region. This update includes the evaluation of the existing ITS inventory and stakeholder engagement. Based on the findings of the existing ITS inventory and stakeholder needs, the updated ITS Architecture Report provides recommended ITS projects with cost, ITS services, interfaces and architecture for the region.
10/20 – 04/22	**I-10 ITS Scott to Lake Charles Design:** Principal in charge for the design of 13 new and 2 upgraded CCTV sites along I-10 from Scott, LA to Lake Charles, LA. The design included site layout design for each CCTV site, fiber optic splicing plans for tying into the existing Conterra fiber system, CCTV pole foundation design, developed estimated quantities and probable construction cost, and provided review of contractor bids and recommend contract award.
07/16 – Present	**I-49 South at Verot School Road, Lafayette, LA:** Traffic Lead that performed Traffic QA/QC on the preparation of a Transportation Management Plan and design of temporary and permanent traffic signals.
01/17 – 05/20	**Computerized Signalization, Phases IV and V, Baton Rouge LA:** Project Manager responsible for performing traffic signal design which included vehicle detection systems, surveillance camera systems, fiber optic communications and construction services in support of the City of Baton Rouge computerized signalization. Phase IV included 21 intersections and Phase VA included 23 intersections.
04/18 – 06/19	**LA 1256 Adaptive Signal System, Cameron Parish, LA:** Project Manager responsible for the traffic signal modification plans of 5 traffic signals along LA 1256 from Dave Dugas Road to I-10 in Sulphur, LA in order to implement the SynchroGreen Adaptive traffic signal system. Also incorporated traffic signal design of a temporary traffic signal including traffic signal analysis and traffic signal warrant analysis.
06/15 - 09/16	**LA 39 / LA 46 / LA 47 Corridor Signal Improvements, New Orleans, LA:** Project Manager responsible for the with Data Collection (Signal Inventory/Travel Time Runs), Signal Warrant Analyses, Intersection Operational Analyses (Synchro) to develop signal timing, and development of Traffic Signal Design Plans
10/13 – 09/15	**US 171 at You Winn Rd. Signal Design, Moss Bluff, LA:** Project Manager responsible for the Signal Design (Clearance Calculations, AutoTURN, Intersection Analysis (Synchro/Vistro), Intersection Quantities and Traffic Signal Inventory)
06/15 – 02/17	**US 80 Traffic Control Signal Upgrade, Shreveport, LA:** Project Manager responsible for the with Data Collection (Traffic Counts and Travel Time Runs), Signal Warrant Analyses, Intersection Operational Analyses (Synchro), and Traffic Signal Design.
01/06 – 12/09	**City of Baton Rouge Green Light Plan:** Traffic Lead for the City's Program Management Team responsible for all peer reviews of traffic studies and traffic signal design plans for the entire program. These reviews were coordinated with both City of Baton Rouge and DOTD representatives.
02/09 – 03/12	**District 61 Inventory:** Project Manager responsible for the signal equipment and intersection inventories at 371 signalized intersections within DOTD District 61.
Career History	Mr. Ferlito is a Principal with Neel-Schaffer, Inc. with 30 years of experience in ITS/Traffic/Transportation Engineering. He has served as the project manager/ traffic lead on **DOTD IDIQ Contracts for ITS (44-16364), IDIQ Contracts for Traffic Engineering (44-25299/44-02630 / 44-04064), Traffic Signal Timing (44-1777 / 44-0691), Traffic Signal Design (700-99-0447 / 44-4712 / 44-8851), Traffic Signal Inventories (700-99-0332 / 44-4829), and Stage 0 Studies (44-1583 / 44-15258)** since 2006. Additionally, he has served as project manager for DOTD Safety IDIQ Contracts (44-1583 / 44-4402 / 44-10504 / 44-23689). Nick has also managed local and regional traffic impact studies, intersection studies, corridor studies, transportation management plans, signal timing studies, warrants analysis, traffic signal inventories, signal design projects and other traffic engineering related projects for both public and private projects. He is experienced with numerous traffic engineering software packages include HCS, SYNCHRO, Tru-Traffic (TSPPDraft), SIDRA, VISSIM, and Dynameq. Mr. Ferlito is a certified Professional Traffic Operations Engineer (PTOE) and has completed DOTD's Traffic Engineering Process and Report (TEPR) training.

16. STAFF EXPERIENCE

Firm employed by Neel-Schaffer, Inc.					
Name	**Clarke Chauvin, PE, PTOE, PMP**			Years of experience with this firm/employer	0
Title	Transportation Project Manager			Years of experience with other firm(s)/employer(s)	13
Degree(s) / Years / Specialization			BS / 2013 / Civil Engineering;		
Active registration number / state / expiration date			PE No. 41770 / LA / 09-30-2025; PTOE No. 4337		
Year registered	2017	Discipline	Civil		
Contract role(s) / brief description of responsibilities			Project Management; **Meets MPR 5** / Engineering Design, Studies, Analyses, Technical Expertise		

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).
05/24 – Present	**Lake Charles Regional ITS Architecture Update:** Project Manager – Clarke is managing this ITS Regional Architecture Update on an expedited schedule. This update includes the evaluation of the existing ITS inventory and stakeholder engagement. Based on the findings of the existing ITS inventory and stakeholder needs, the updated ITS Architecture Report provides recommended ITS projects with cost, ITS services, interfaces, and architecture for the region.
05/24 – Present	**Shreveport-Bossier Regional ITS Architecture Update:** Project Manager – Clarke is managing this ITS Regional Architecture Update on an expedited schedule. This update includes the evaluation of the existing ITS inventory and stakeholder engagement. Based on the findings of the existing ITS inventory and stakeholder needs, the updated ITS Architecture Report provides recommended ITS projects with cost, ITS services, interfaces, and architecture for the region.
05/24 – Present	**Houma Regional ITS Architecture Update:** Project Manager – Clarke is managing this ITS Regional Architecture Update on an expedited schedule. This update includes the evaluation of the existing ITS inventory and stakeholder engagement. Based on the findings of the existing ITS inventory and stakeholder needs, the updated ITS Architecture Report provides recommended ITS projects with cost, ITS services, interfaces, and architecture for the region.
10/20 – Present	**I-10 ITS Scott to Lake Charles, Lafayette, Acadia, and Jefferson Davis Parishes, LA:** Project Manager - Clarke served as Project Manager to develop construction plans for 15 CCTV sites along I-10. With his background in hands-on ITS work, Clarke was able to provide unique insights into the project after it moves past construction and into preventative maintenance. Additionally, his experience with DOTD’s network allowed him to perform communications design which bring existing isolated sites into the project and to create network redundancy through fiber optic rings to better serve DOTD’s long term needs. The design of this project is completed, and Clarke continues to serve this project as the point of contact for technical support during construction.
07/23 – Present	**Northshore Regional ITS Architecture Update:** Project Manager – Initially serving in a role to provide technical support to architecture updates through RAD-IT, Clarke is now project manager and has worked to update all aspects of the ITS Architecture including operational concepts, functional requirements, interface requirements, ITS standards, proposed project costs and sequence, as well as the ITS Architecture Report.
09/22 – 06/24	**Alexandria ITS Phase 2 Design:** Project Manager – Initially serving as a subconsultant, providing expertise in ITS network and communications design, Clarke now provides oversight over the entire project. In addition to providing traditional fiber communications design, Clarke performed a wireless analysis for a point-to-point backhaul link, comparing alternative radio equipment with varying frequencies, to identify feasibility and reliability of communications which would bridge both sides of the Red River, in Alexandria.

03/16 – 03/24	**ITS Management, Operations, and Maintenance Engineering and Inspections (ME&I), Statewide, LA:** Project Manager. Through multiple iterations of this contract, Clarke has served as a pre-professional, engineer, and project manager for the ITS Maintenance Retainer Contract. He has performed routine maintenance on emergency crossover gates, travel time message system, CCTV camera sites, RVD sites, ramp meter sites as well as DMS sites. His skills include but are not limited to: device troubleshooting, communication and network troubleshooting, parts replacement, as well as coordinating with law enforcement, TMC operations staff, and DOTD. He has had additional training in ITS devices, networking, wireless communication, and fiber optics and has utilized this information to be an effective trouble shooter and problem solver on the ITS Maintenance Retainer. A critical component of his efforts on this project were his ability to understand DOTD's ITS network to implement and propose improvements in communications and network structure which improved reliability and redundancy.
08/23 – 03/24	**Bonnet Carre SEA:** Project Manager - As someone with hands on experience maintaining the Bonnet Carre spillway infrastructure for years prior, Clarke played a critical role in developing a plan for assessment of the existing infrastructure. As project manager, Clarke developed checklists for key components to be assessed as well as performing hands on inspection of the electrical, communications, and ITS infrastructure. Upon identifying an electrical hazard, Clarke proposed and implemented an emergency plan to temporarily resolve the issue until such time as it can be permanently resolved. Clarke performed network design, identifying the existing communications, proposed repairs/replacements (fiber, wireless, hybrid), and discussed alternatives with DOTD to ensure continued operation even if the project needed to be broken into phases. Clarke also led efforts to implement an RWIS system in response to the I-55 "Superfog" incident.
06/22 – 10/22	**ITS Fiber Management System Data Collection:** Project Manager - Clarke led a field team to perform OTDR fiber testing and data collection, training personnel and providing quality control on collected data. With years of hands on experience with ITS and signal sites, Clarke was able to ensure proper inventory collection and validate fiber testing results. This helped develop a quality fiber management system for DOTD's future use.
06/19 – 03/24	**LADOTD DSRC Connected Vehicle Pilot, Baton Rouge, LA:** Project Manager - DOTD's first connected vehicle project. He managed a crew for the installation of Spectra RSU devices and worked with manufacturers and DOTD personnel to ensure the integration and operation of the devices. Even though there were many challenges with this first of its kind project, Clarke's hands-on experience allowed him to step in and update code on the devices to ensure proper functionality with DOTD's system. Clarke continued to support the system through maintenance after construction. Recently, Clarke led the upgrade to these devices required by new FCC requirements with CV2X communications.
03/16 – 07/19	**SASOL Lake Charles Chemical Project – System A – Adaptive Traffic Signal System, Westlake, LA:** Project Engineer - In support of LA's first adaptive traffic signal corridor, Clarke provided signal design support for multiple intersections. His efforts included developing preliminary signal permit plans, developing timing models, conducting field investigations, providing quantities, constructability reviews, and signal construction inspection. As the project developed, Clarke supported improved network design and implementation through wireless communications and supplemented the signal corridor with additional ITS including CCTV, vehicle detection, and Bluetooth detection.
09/18 – 03/24	**GNOEC Safety Bays, Greater New Orleans Expressway Commission, Metairie, LA:** Project Engineer. To promote safety and reduce congestion along the longest bridge in the world, Clarke was involved in designing an ITS system to supplement 12 safety bays currently under construction on the Causeway Bridge across Lake Pontchartrain. In addition to evaluating detection technologies to handle a non-standard application, Clarke worked to devise a communication system to remotely notify TMC staff when these safety bays were occupied to provide emergency assistance as quickly as possible. This included planning a detection system, a remote notification system, a CCTV camera system, and allocating fiber optic cables to design a redundant fiber optic ring. After construction, Clarke continued to support this system through maintenance and operations.
Career History	Mr. Chauvin joined Neel-Schaffer in 2024 and serves as a Senior Project Manager based in the firm's Baton Rouge, LA office, focused on Intelligent Transportation Systems (ITS), traffic signals, and traffic studies. Clarke brought more than a decade of transportation and over 20 years of electrical experience when he joined the firm. He has extensive experience working on projects for DOTD, performing services including: feasibilty studies, SEAs, ITS and communications design, integration, installation, and maintenance, deploying new technologies, and technical support. Clarke holds specialty certifications in PTOE, PMP, TCT/TCS, TEP&R, NFPA 70E, IMSA Signal Technician Level 1, 2, & Inspector, ESA Networking 101-106, RCNA/RCNP, various ITS hardwares, and completed qualifications for LASFM Security Qualifier and Statewide Electrical Contractor.

16. STAFF EXPERIENCE

Firm employed by Neel-Schaffer, Inc.					
Name	**Glen Reed, PE**			Years of experience with this firm/employer	33
Title	Senior Project Manager			Years of experience with other firm(s)/employer(s)	12
Degree(s) / Years / Specialization			BS / 1976 / Civil Engineering		
Active registration number / state / expiration date			PE No. 28369 / LA / 03-31-2026		
Year registered	1999	Discipline	Electrical		
Contract role(s) / brief description of responsibilities			Engineer; **Meets MPR 3** / Project engineer, technical expertise, QA / QC, electrical 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). Technical expertise, QA / QC, Electrical design
08/17 – 04/18	**Mississippi Department of Transportation I-59 at SR 42 Lighting, Hattiesburg, MS:** Senior Electrical Engineer. Interchange lighting for I-59 at SR- 42 consisted of using LED high mast and low mast lights. Mr Reed designed all illumination facilities ensuring compliance with NEC, AASHTO, and IESNA, as well as MDOT standards.
06/10 – 03/13	**MDOT Bridge ITS Project, AR, LA, MS:** Electrical Design of Power to ITS Equipment. To address the needs of an interactive system, Neel-Schaffer was selected the Mississippi Department of Transportation to design an active bridge monitoring system at the four Mississippi River crossings in Mississippi. The locations included: • US 49 bridge in Lula, MS / Helena, AR • US 82 bridge in Greenville, MS / Lake Village, AR • I-20 bridge in Vicksburg, MS / Tallulah, LA • US 84 bridge in Natchez, MS / Ferriday, LA At each location, ITS technologies were implemented, including CCTV cameras, vehicle detection devices, dynamic message signs, highway advisory radio, and broadband and fiber optic communications. These devices were located at each of these bridges and in advance of the detour or diversion routes to provide alternate route information to travelers. In addition to these features, Real Time River Current (RTRC) sensors were installed at each bridge location to measure both the river current velocity as well as direction to alert watercraft, ports and maritime officials of current conditions prior to reaching the bridge. This type of critical information is planned to reduce the potential for barge crashes that have occurred in the past at the river bridges.
01/19 – 03/20	**SR 601 / 30th Ave relocation project, Gulfport, MS:** Electrical Design for Power to ITS/Traffic Signals and Roadway Lighting for MDOT – Neel-Schaffer developed Phase B Roadway Final Plans for the construction of SR 601 and relocation of 30th Avenue for the southern portion of the project in Harrison County. Roadway lighting, traffic and ITS elements included installing two brand new intersections, and the removal of three existing intersections. ITS technology including CCTV cameras, radar vehicle detection, blue tooth vehicle detection, dynamic message boards and fiber optic communication to provide information and travel time to motorists.
08/17 – 04/18	**MDOT I-59/SR42, Hattiesburg / Petal MS**: Electrical Design of power to ITS Equipment and Roadway Lighting. Neel-Schaffer was selected by the Mississippi Department of Transportation in 2016 to provide final contract plans for lighting, signing, ITS elements, and signal modifications for a proposed $24 million I-59/SR 42 Interchange improvements project near Laurel, MS. This project also includes improvements along SR 42 from I-59 to Old Richton Road. The limits of the lighting design extended along the entire segment of I-59 within the project limits and within the no access limits along SR 42. LED fixtures and galvanized poles with a combination of high and low mast fixtures were specified. ITS elements included CCTV cameras, radar vehicle detection, dynamic message boards and fiber optic communication to provide information and travel time to motorists. Traffic signal plans included improving three traffic signals along SR 42 and interconnecting them with fiber. This fiber will be connected into a larger network by MDOT in the future.

10/17 – 07/18	**MDOT US 82 Interchange Improvements, Columbus, MS:** Electrical Design of Power to ITS Equipment and Roadway Lighting. Neel-Schaffer prepared plans for a wide variety of improvements at the intersections of US 82 and 18th Avenue and US 82 and Military Road in Columbus, MS. The improvements include traffic lighting, signing and traffic signal design/ITS elements, and signal timings for the busy intersections. The lighting plan extended from roundabout to roundabout along Military Road, using LED fixtures on low mast light poles. The ITS elements included interconnection of signals between US 45 and the US 82 westbound ramp terminals provided by short range broad band radio IC and fiber optic cable. CCTV cameras were installed. A complex phasing plan was initiated to operate both the 18th Avenue/5th Street and the 18th Avenue/82 westbound ramp intersections from a single controller.
01/15 – 09/17	**MDOT SR 12, Starkville, MS:** Electrical Design of Power to ITS Equipment, including CCTV cameras, radar detection devices and dynamic message boards. A safety project resulted in construction of a raised median to replace the TWLTL, signal replacements (14 intersections), ITS components, and ADA compliance. All signals were inter-connected due to their close spacing. This will also allow the changing of signal timings to accommodate game day traffic for Mississippi State University events.
02/07 – 05/12	**MDOT I-269 Project, Southaven, MS:** Electrical Design of Power to ITS Equipment, including CCTV cameras, radar detection devices and dynamic message boards. Neel-Schaffer designed approximately seven miles of new interstate from MS 305 to just east of US 78.
04/15 – 12/15	**Mississippi Department of Transportation I-20 at SR-15 Lighting, Newton, MS**: Senior Electrical Engineer. Interchange lighting for I-55 at SR-115 consisted of using LED high mast and low mast lights. Mr. Reed designed all illumination facilities ensuring compliance with NEC, AASHTO, and IESNA, as well as MDOT standards.
11/13 – 06/14	**I-10 Interchange at Gautier-Vancleave Rd. Lighting**: Senior Electrical Engineer. The work included 7,000 feet of underground branch circuit, one secondary power controller, eight high mast poles with 1000 HPS, and 11 low mast poles with high pressure sodium. All illumination facilties were designed ensuring compliance with NEC, AASHTO, and IESNA, as well as MDOT standards Mr. Reed designed all illumination facilities, ensuring compliance with NEC, AASHTO, and IESNA, as well as MDOT standards.
02/12 – 12/12	**Lighting on MS 49, Belzoni, MS**: Senior Electrical Engineer. The project consisted of 2.5 miles of roadway lighting on MS 49 in Belzoni. This included 62 400-watt high-pressure sodium 35-foot poles, and two secondary power controllers. All illumination facilties were designed ensuring compliance with NEC, AASHTO, and IESNA, as well as MDOT standards. Mr. Reed designed all illumination facilities ensuring compliance with NEC, AASHTO, and IESNA, as well as MDOT standards.
03/10 – 12/10	**I-110 Loop Bridge Lighting, Biloxi, MS**: Senior Electrical Engineer. Neel-Schaffer provided design services that helped light up the I-110 loop bridge over US 90 on the Mississippi Gulf Coast in Biloxi. A total of 201 light fixtures, spaced approximately 10 feet apart, now illuminate an outline of the bridge that carries drivers to the Harrison County beach. The $535,000 project, financed by Harrison County and through a Transportation Enhancement Grant from the Mississippi Department of Transportation, has changed the view of US 90 and the I-110 loop for drivers and pedestrians.
Career History	Mr. Reed joined Neel-Schaffer in 1991 and has 40 years of experience in high voltage electrical systems and control. Mr. Reed is involved with the design and construction engineering for power distribution, lighting, instrumentation and control systems for a variety of projects, including the supply of electrical power to industrial sites, various water and wastewater projects, roadway lighting, and airfield lighting.

16. STAFF EXPERIENCE

Firm employed by Neel-Schaffer, Inc.					
Name	**Said El Said, PE, PhD**			Years of experience with this firm/employer	2
Title	Project Engineer			Years of experience with other firm(s)/employer(s)	15
Degree(s) / Years / Specialization			BS / 2002 / Civil Engineering; MS / 2006 / Civil Engineering; PhD / 2022 / Transportation Engineering		
Active registration number / state / expiration date			PE No. 47227 / LA / 03-31-2025		
Year registered	2000	Discipline	Civil		
Contract role(s) / brief description of responsibilities			Project Engineer; **Meets MPR 5** / Engineering Design, Studies, Analyses, Technical Expertise		

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).
11/23 – 06/24	**TDOT Connected Vehicle Integration for the I-24 Smart Corridor:** Neel-Schaffer provided integration and security provisioning services on the deployed CV Roadside units on I-24 Smart Corridor in Tennessee. The work included configuration of the RSUs and the Signal Controllers to ensure communication between the devices and network for streaming of the TIM, SPaT, and MAP messages. In addition, the RSUs were provisioned for security to authenticate the broadcast of DSRC messages using SCMS authentication. Said developed the work procedures, guidelines, technical support, and training. In addition to managing the work while monitoring performance, Said coordinatws between network administrators on the corridor.
11/23 – 06 /24	**MDOT Wrong Way Driving Detection & Alert System:** Neel-Schaffer has completed an ATTAIN grant application for MDOT to deploy WWDD&A System in the Jackson, MS area. Said lead this effort and is currently developing WWDD Special Provision and detail sheets for MDOT. The Special Provision uses a performance based and a technology agnostic approach that ensures the selection and deployment of technology that meets MDOT requirements and performance criteria.
10/23 – 06/24	**TDOT Statewide ITS Support:** Said is providing ITS support services to TDOT/Traffic Operations Division. This work includes a wide range of projects and initiatives to provide continuous support for the TOD.
12/12 – 05/22	**TDOT TSM&O & ITS Program Documents:** In deploying ITS and technology projects using federal funding, TDOT ITS office is responsible for creating System Engineering Analysis (SEA) reports and review and approval of the documents developed by local agencies for compliance with regional, state, and federal regulations. As part of TSM&O Program documents, Said was responsible for the development of the ITS Project Development Guidelines to define the technology project development process and streamline the process for Tennessee. This document provided the process to reduce/eliminate unnecessary documentation requirements for most technology projects including traffic signal improvements. This process continues to save time and money for TDOT and local agencies.
01/17 – 06/19	**TDOT SmartWay Communication Networks Upgrade, Statewide, TN:** The Traffic Operations and IT Divisions performed a statewide upgrade to four SmartWay communication networks in TN urban areas. Using Cisco equipment, all switches were upgraded through multiple phases starting with the core TMC switches in phase 1, Layer 3 switches in phase 2, and Layer 2 switches in phase 3. This major upgrade provided a multitude of lessons learned by using federal funding from the ITS deployment and maintenance contracts to upgrade communication devices by strategically updating the ITS Architecture, technical specification, and coordination with IT; realizing the limit of scale to upgrading the network devices as some function will cease to operate depending on percentage of devices deployed. Timing of the phases is crucial to the success of the deployment over a fully functional network; staging of the device deployment steps to ensure continual operation of ITS devices and TSM&O operations in the TMC; using specifications and self-certification process to ensure the deployment of the intended devices and ensuring full cooperation with the IT division as a stakeholder and a partner. Full understanding of IT goals and methodologies is essential to the project success and to ensure IT network goals are met including Scalability, Redundancy, Resilience, Security, Performance, and Usability.
05/22 – 06/24	**Nashville SmartWay ITS System Maintenance, Middle TN:** CEI Support. The project includes construction, engineering and inspection services of ITS projects. As a subconsultant to Gresham-Smith, this 5-year On-Call contract allows for providing engineering services on ITS Deployment and Maintenance contracts to include inspection and testing of installed devices and systems and inspection of preventive maintenance and repair activities on installed devices.

10/22 – 06/24	**Danny Thomas Boulevard ITS Design, Shelby County, TN:** Design Support. The project includes the development of design and specification for the deployment of an ITS system and improvements to the traffic signal control systems on Danny Thomas Boulevard. The project includes 10 intersections with multiple crossings for bridges and railroad. Involved in the evaluation and inventory of the existing network and subsystems and the design of communication network, traffic surveillance, and signal improvements.
11/22 – 06/24	**City of Lebanon ITS Phase 2, Wilson County, TN:** ITS Design Support. The project includes the development of design and specification for the deployment of citywide ITS system and traffic signal control systems. Involved in the evaluation and inventory of the existing network and subsystems and the design of communication network upgrade, traffic surveillance expansion, and improvements for 22 traffic signals. The project includes providing an Advanced Traffic Management System to monitor and control the system elements.
12/12 – 05/22	**SmartWay ITS Maintenance Contracts:** The four SmartWay networks across Tennessee maintain high performance rates. ITS maintenance contracts are continuously deployed to ensure the highest level of support and maintenance is provided for the networks. The maintenance contracts include preventive and repair maintenance for the system devices in addition to special repair tasks and locate services for the infrastructure. The special repair tasks are used to perform upgrades to the system to include multiple statewide initiatives similar to the full upgrade and replacement of Network devices, end of life cycle replacement for CCTVs and RDSs, relocation and upgrade of subsystems to include HAR and RWIS. The ITS team provided technical support and coordination between the construction and the ITS contractors to ensure adequate service is provided to SmartWay networks and to maintain consistent high-performance levels.
07/18 – 06/24	**I-24 Integrated Corridor Management Project (Smart Corridor), Davidson and Rutherford Counties, TN:** The project deploys Active Arterial Management (AAM), Active Traffic Management (ATM), Traffic Demand Management strategies (TDM), ramp meting system, traveler information enhancements, and connected vehicle/autonomous vehicle (CV/AV) applications. The project limits for the I-24 SMART Corridor include approximately 28 miles along I-24, 28 miles along SR 1 within Metro Nashville, LaVergne, Smyrna, and Murfreesboro, and 30 miles of connector routes between I-24 and SR 1. The project is the first of its kind in the state of Tennessee with an estimated construction budget of over $110 million, including all the planned phases. The project is located across five transportation systems to include: TDOT, Metro Nashville, La Vergne, Smyrna, and Murfreesboro. The technology deployed, in the first two phases, includes major upgrades to approximately 130 signalized intersections along the arterial (SR 1) and connector routes, 150 Connected Vehicle Roadside Units, 67 Active Lane Management gantries, 31 CCTV systems, and 23 Dynamic Message Signs. With different levels of complexity between the networks, Center to Center connectivity between the 4 TOCs and TDOT/TMC has been coordinated to allow for short- and long-term solutions.
01/21 – 11/22	**I-24 Motion Testbed Project, Nashville, TN:** The MOTION project is one of a kind on the international scale. With the deployment of 40 camera poles standing at 110 feet and higher, 276 CCTVs (4K) cameras are deployed on I-24 between Bell Road and Waldron Road. The deployed cameras will serve the testbed project to capture the traffic behavior on I-24. The 4K streams are used to capture vehicle by vehicle trajectories (x, y, z, time) to allow for the analysis of traffic behavior under different conditions along the monitored stretch of the interstate. The first research using the testbed is led by Vanderbilt University using automated vehicle technology to provide a solution for the “Phantom Jam.” The testbed is located within the I-24 Smart Corridor and provides a fully instrumented real-life environment for transportation research and technology developers. This initiative has the potential to change transportation research by providing the opportunity to analyze the traffic behavior in real time without dependency on simulation programs.
Career History	Mr. El Said joined Neel-Schaffer in 2022 and serves as a Transportation Systems Program Manager, based in the firm’s Nashville office. He received a Philosophy Doctorate in Transportation Engineering from Vanderbilt University in May 2022 and joined Neel-Schaffer following an 19-year career with the Tennessee Department of Transportation. Said’s role in this position is to better serve clients as transportation technology rapidly evolves and now includes such applications as connected vehicles, unmanned aerial systems (drones), and smart infrastructure. Neel-Schaffer’s Transportation Systems program will include services such as planning, design contracting, deployment inspection and testing, monitoring and tracking, asset management, and technical support. Mr. El Said founded TDOT’s Intelligent Transportation Systems section for the inception of the Transportation Operations Division within the department. As part of the Top-To-Bottom review initiative in TDOT, the TOD was created and the ITS section started to plan, design, procure contracts, inspect, provide technical support, maintain, and upgrade the ITS SmartWay networks in Tennessee.

16. STAFF EXPERIENCE

Firm employed by Neel-Schaffer, Inc.					
Name	**Jonathan Duhe, PE, PTOE, RSP$_1$**			Years of experience with this firm/employer	10.5
Title	Project Engineer			Years of experience with other firm(s)/employer(s)	1
Degree(s) / Years / Specialization			BS / 2011 / Civil Engineering;		
Active registration number / state / expiration date			PE No. 41047 / LA / 03-31-2025; PTOE No. 4418; RSP$_1$ No. 282		
Year registered	2016	Discipline	Civil		
Contract role(s) / brief description of responsibilities			Engineer / Engineering Design, Studies, Analyses, Technical Expertise		

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).
03/21 – 08/22	**Lafayette Regional ITS Architecture Update, Lafayette, LA:** Project Manager. This project involved updating the regional ITS architecture for the Lafayette region. This project entailed holding various meetings with stakeholders to get input on the regions’ ITS needs as well as the current inventory. It also involved updating the RAD-IT file to reflect the updated architecture and creating the report.
06/23 – Present	**Northshore Regional ITS Architecture Update, Northshore Region, LA:** Project Manager. This project involved updating the regional ITS architecture for the Northshore region which includes St. Tammany, Tangipahoa, St. Helena, and Washington Parishes. This project entailed holding various meetings with stakeholders to get input on the regions’ ITS needs as well as the current inventory. It also involved updating the RAD-IT file to reflect the updated architecture and creating the report.
09/22 – 06/24	**Alexandria ITS Phase 2, Rapides Parish, LA:** Project Manager This project involved adding 5 new CCTV cameras to be connected with new fiber along US 167 in Alexandria, LA. These 5 new CCTV sites would be tied back to the existing fiber network across the Red River Bridge utilizing wireless radio communication to an existing CCTV site. Responsible for development of the ITS design plans.
05/22 – 09/22	I**TS Fiber Management System Data Collection, Statewide, LA:** Project Manager. This project involved inventorying various ITS devices in Baton Rouge, Lake Charles, Monroe, and New Orleans, LA. As part of this project, inventory forms, site photographs, and OTDR Fiber Measurements, were to be collected and compiled for data entry into the inventory database. Responsible for collecting the field data and compiling the data for entry into the database.
07/21 – 02/23	**FYA Signal Improvement (LCG), Lafayette, LA:** Project Engineer. Responsible for the development of signal plans to upgrade 28 intersections to include flashing yellow arrow signal heads as well as backplates.
09/20 – 05/22	**I-10 ITS Scott to Lake Charles, District 03 and 07, LA:** Project Manager. This project involved adding CCTV cameras along I-10 from Scott, LA to Lake Charles, LA utilizing permitted fiber. Responsible for the development of the ITS plans as well as engineering services during construction. These engineering services include attending the pre-construction meeting and reviewing technical submittals.
03/21 – 01/22	**Lake Charles Emergency Traffic Signal Services, Lake Charles, LA:** Project Manager. The purpose of this project was to evaluate damaged traffic signals from Hurricane Laura, develop plans for any repairs, and perform CEI services during construction. Responsible for managing the damage evaluation and development of traffic signal plans. Also responsible for managing the CEI during construction including putting together contract documents, reviewing technical submittals, and reviewing contractor invoices.
04/18 – 06/19	**LA 1256 Adaptive Signal System, Cameron Parish, LA:** Engineer for modification of 5 traffic signals along LA 1256 from Dave Dugas Road to I-10 in Sulphur, LA in order to implement the SynchroGreen Adaptive traffic signal system.
03/21 – 04/24	**MOVEBR Synchronization and Communication Signal Rebuilds – Group 3, Baton Rouge, LA:** Project Engineer. Responsible for traffic signal design of 6 intersections within the city of Baton Rouge including data collection (TMCs, peak period observations, etc.), traffic signal analysis (Synchro), signal timing determination utilizing Synchro and Tru-Traffic softwares, and design plan preparation.

10/22 – Present	**MOVEBR Synchronization and Communication Signal Rebuilds – Bluebonnet at BROC / USPS, Baton Rouge, LA:** Project Engineer. Responsible for traffic signal design including data collection (TMCs, peak period observations, etc.), traffic signal analysis (Synchro), signal timing determination utilizing Synchro and Tru-Traffic softwares, and design plan preparation.
03/19 - 11/19	**District 08 Signal Timing Study, Natchitoches, LA:** Project Engineer Oversaw Data Collection (TMCs, Observations, Inventory, Travel Runs, etc), Signal Warrant Analyses, Intersection Operations Analyses (Synchro), Developed new signal timing and TSIs
03/19 – 11/19	**US 61 Signal Timing Study, Baton Rouge, LA:** Project Engineer. Oversaw Data Collection (TMCs, Observations, Inventory, Travel Runs, etc), Signal Warrant Analyses, Intersection Operations Analyses (Synchro), Developed new signal timing and TSIs
04/19 – 11/19	**LA 14 Signal Timing Study, Lake Charles, LA:** Project Engineer. Oversaw Data Collection (TMCs, Observations, Inventory, Travel Runs, etc), Signal Warrant Analyses, Intersection Operations Analyses (Synchro), Developed new signal timing and TSIs
08/16 – 07/19	**US 425 / US 84 Corridor Study, Vidalia & Ferriday, LA:** Traffic Engineer. Responsible for Data Collection (Traffic Counts and Peak Hour Observations), Traffic Forecasting, Safety Analyses, Corridor Operational Analyses (Synchro, Sidra), Warrant Analyses, Traffic Report Preparation
08/21 – Present	**MOVEBR Synchronization and Communication Signal Rebuilds – Group 4, Baton Rouge, LA:** Project Engineer. Responsible for traffic signal design of 4 intersections within the city of Baton Rouge including data collection (TMCs, peak period observations, etc.), traffic signal analysis (Synchro), signal timing determination utilizing Synchro and Tru-Traffic softwares, and design plan preparation.
06/15 – 01/18	**LA 39/LA 46/LA 47 Corridor Signal Improvements, New Orleans, LA:** Traffic Engineer. Assisted with Intersection Operational Analyses (Synchro), Signal Design
01/14 – 12/16	**LA 30 Stage 0, Traffic & Safety Study, Gonzales, LA:** Engineer Intern. Assisted with data collection.
01/14 – 04/16	**District 04 Signal Timing Study, Shreveport, LA:** Engineer Intern assisted with Data Collection (Signal Inventory and Travel Time Runs), Signal Warrant Analyses, Intersection Operations Analyses (Synchro), Signal Timing Implementation 10.
07/15 – 05/16	**LA 42 (Burbank Dr) at W. Parker Blvd Signal Design, Baton Rouge, LA**: Engineer Intern. Assisted with Signal Design (Clearance Calculations, AutoTURN, Synchro/Vistro, MicroStation, Intersection Quantities, Traffic Signal Inventory)
11/15 – 06/16	**US 61 (Airline Hwy) at Duplessis Rd / Germany Rd, Prairieville, LA:** Engineer Intern. Assisted with Signal Design (Clearance Calculations, Synchro, MicroStation, Intersection Quantities, Traffic Signal Inventory)
01/14 – 03/16	**LA 73 Corridor Study (LA 74 to LA 621) Stage 0 Feasibility Study:** Engineer Intern. Assisted with Synchro analysis and turn lane length requirements.
01/15 – 05/15	**LA 3073 (Ambassador Caffery Pkwy) at Crescent Ranch Blvd Signal Design, Lafayette, LA**: Engineer Intern. Assisted with Signal Design (Clearance Calculations, Synchro, MicroStation, Intersection Quantities, Traffic Signal Inventory)
Career History	Mr. Duhe joined Neel-Schaffer in 2013 and has over a decade of experience working on a wide range of traffic and transportation projects. Mr. Duhe has worked on many intersection/corridor signal timing studies and signal design projects and other traffic engineering related projects for both public and private projects. Mr. Duhe has also worked on many ITS related projects including ITS designs, ITS inventories, and regional ITS architecture updates. Mr. Duhe is experienced with numerous traffic engineering software packages include HCS, SYNCHRO, VISTRO, Tru-Traffic (TSPPDraft), and SIDRA. Mr. Duhe is a certified Professional Traffic Operations Engineer (PTOE), a Road Safety Professional (RSP1) and has completed LADOTD's Traffic Engineering Process and Report (TEPR) training.

16. STAFF EXPERIENCE

Firm employed by Neel-Schaffer, Inc.					
Name	**Seth Popay, EI**			Years of experience with this firm/employer	3
Title	Project Engineer			Years of experience with other firm(s)/employer(s)	0
Degree(s) / Years / Specialization			BS / 2019 / Civil Engineering;		
Active registration number / state / expiration date			EI No. 34729 / LA / 03-31-2025		
Year registered	2020	Discipline	Civil		
Contract role(s) / brief description of responsibilities			Engineer Intern / Traffic Studies, ITS Plan Development, Microstation		

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).
12/20 – Present	**College Dr. Enhancement Project (MOVEBR) Baton Rouge, LA**: Engineer Intern. Performing a traffic study along College Drive between Perkins Road and Bawell Street/Bankers Avenue including the I-10 Ramps in an effort to improve capacity and safety. Assisted with data collection including travel time runs and collecting crash reports. Also assisted with performing a safety analysis using LADOTD’s Cat Scan safety tool.
10/23 – Present	**Jimmie Davis Bridge Design Build – Shreveport, LA**: Engineer Intern. Assisted with the design and sequence of construction of temporary signals along LA 511. Assisted with the design of the permanent signals along LA 511. Assisted and performed safety analysis for the various intersections in the project area using CAT Scan Safety Tool.
8/22 – Present	**Alexandria ITS Phase 2 – Alexandria, LA:** Engineer Intern. Assisted with the design and layout of new ITS cameras along US 167 as well as upgrades of existing ITS cameras along US 71 in Alexandria. (Microstation) Assisted with quantities and cost estimate.
1/21 – 12/21	**I-10 ITS Scott to Lake Charles, Statewide, LA**: Engineer Intern. Assisted with design and layout of new ITS cameras along I-10 between Scott to Lake Charles. (MicroStation)
10/21 – 10/22	**FYA Signal Improvements, Lafayette, LA** : Engineer Intern. Assisted with the data collection for the signal inventory sheets. Also assisted with development of signal plans for the 28 intersections to include flashing yellow arrow signal heads as well as backplates.
3/21 – Present	**Synchronization and Communication Signal Rebuilds – Group 3, Baton Rouge, LA**: Engineer Intern. Assisted with data collection and peak hour determination. Performed a safety analysis of all 6 intersections using LADOTD’s Cat Scan safety tool. Assisted with signal designs. (Synchro, Clearance Calcs, AutoTurn, MicroStation)
8/21 – Present	**Synchronization and Communication Signal Rebuilds Phase 2 – Group 4, Baton Rouge, LA**: Engineer Intern. Assisted with data collection and peak hour determination. Performed a safety analysis of all 6 intersections using LADOTD’s Cat Scan safety tool. Assisted with signal designs. (Synchro, Clearance Calcs, AutoTurn, MicroStation)
10/23 – Present	I**-49 at Verot School Rd Interchange Design, Laffayette, LA**: Engineer Intern. Assisted with the design and sequence of construction of three intersections along US 90. Assisted with the design and layout of the I-49 at Verot School Rd Interchange. (Microstation)
08/21 – 02/22	**LA 16 Access McDonalds/ Urgent Care TIS, Watson, LA**: Engineer Intern. Assisted with data collection including peak hour observations and TMC counts. Performed turn lane analysis and intersection analysis. (HCS software)
02/22 – 03/22	**Patriots Point Mixed Use Development TIS, Watson, LA**: Engineer Intern. Performed trip generation as well as trip distribution. Assisted with turn lane analysis and intersection analysis. (HCS software)
12/21 – 01/22	**LA 1256 Corridor Study, Lake Charles, LA**: Engineer Intern. Collected and reviewed crash reports. Assisted with safety analysis for three intersections along LA 1256 corridor using LADOTD’s Cat Scan safety tool.

05/24 – Present	**Kansas Ln-Garrett Rd ITS Fiber Relocate Phase 2, Monroe, LA**: Engineer Intern. Assisted with the design and layout for relocating existing fiber network along US 80 in Monroe. (Microstation)
08/22 – 10/22	**Canal Bride Replacement-Improvements, Thibodaux, LA**: Engineer Intern. Assisted with design and layout of new traffic signal pole and new timing plans. (Microstation, Synchro)
06/22 – 09/22	**Kansas Lane Connector EWL 6, Monroe, LA**: Engineer Intern. Assisted with the design and layout of new ITS fiber network along US 165. (Microstation)
06/22 – Present	**Kansas Ln-Garrett Rd ITS Fiber Relocate, Monroe, LA**: Engineer Intern. Assisted with the design and layout of new ITS fiber network along I-20 in Monroe. (Microstation)
Career History	Mr. Popay is an Engineer Intern with 3 years of experience in multiple traffic and safety engineering software packages including HCS, SYNCHRO, Vissim, SIDRA and LADOTD's CAT Scan safety tool.

16. STAFF EXPERIENCE

Firm employed by Neel-Schaffer, Inc.					
Name	**Ellen Burke Howard, PE, PTOE**			Years of experience with this firm/employer	10
Title	Project Manager			Years of experience with other firm(s)/employer(s)	5
Degree(s) / Years / Specialization			BS / 2009 / Civil Engineering		
Active registration number / state / expiration date			PE No. 38207 / LA / 03-31-2026		
Year registered	2013	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Engineer / Project Management, Traffic studies, Analysis, Traffic Simulation Modeling		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
06/22 – Present	**District 03 Safety Investment Plan, LADOTD**: Engineer for this study evaluating crashes at 119 locations on the state and local highway networks using variations in crash statistics to identify possible roadway issues and potential low-cost safety improvements.
04/20 – 07/21	**District 05 Safety Investment Plan, LADOTD**: Engineer for this study evaluating crashes on the state and local highway networks using variations in crash statistics to identify possible roadway issues and potential low-cost safety improvements. There were initially 81 locations with 53 additional locations added as a supplement.
02/19 – 3/20	**District 07 Safety Investment Plan, LADOTD**: Engineer for this study evaluating crashes at 63 locations on the state and local highway networks using variations in crash statistics to identify possible roadway issues and potential low-cost safety improvements.
12/17 – 03/19	**District 08 Safety Investment Plan, LADOTD**: Engineer for this study evaluating crashes at 68 locations on the state and local highway networks using variations in crash statistics to identify possible roadway issues and potential low-cost safety improvements.
01/14 – 05/15	**Safety Study, LA 49 (Williams Blvd.,) Kenner, LA – Stage 0 / Safety Study**: Traffic Engineer responsible for data collection, intersection operational signal analyses (Synchro), and Vissim modeling.
07/21 – Present	**US 190 Access Management Stage 0 and Traffic Study**: Traffic Engineer responsible for initial and final data collection, existing safety analysis and existing and no build traffic analysis, final traffic report
03/21 – Present	**MOVEBR N. Sherwood Forest Extension**: Traffic Engineer responsible for initial and final data collection, existing safety analysis, existing and no build HCS analysis, alternatives HCS analysis, and final traffic report
09/20 – Present	**MOVEBR College Drive Enhancements:** Traffic Engineer responsible for calibrated Vissim model, existing and no build traffic analysis and alternatives analysis.
09/15 – 10/17	**LA 22, Dalwill Drive to Roger Storme Road, Mandeville, LA**: Project Engineer assisted with traffic analyses for corridor study along LA 22 from Dalwill Drive to Roger Storme Road. Alternatives considered included alternative intersection designs J-Turn and Roundabout intersections versus traditional signalized intersections.
09/21 – 07/22	**MOVEBR Harding Boulevard at Interstate I-110:** Traffic Engineer responsible for initial and final data collection, existing safety analysis and existing and no build traffic analysis, Tier 1 alternative analysis, and final traffic report
08/20 – 10/21	**I-10 & I-12 College Dr. Flyover Ramp Design-Build Project**: Traffic Engineer responsible for calibrated Vissim model and traffic analysis, and Interchange Modification Report
12/19 – 03/20	**US 80: Intersection @ Bellevue Rd**: Traffic Engineer responsible for Initial and final data Collection, existing safety analysis, and Chapter 1 of Final Report and signalized intersection analysis.

10/18 – 04/19	**Kansas Lane – Garrett Road Connector and I-20 Improvements**: Traffic Engineer responsible for 90% Submittal Stage Draft Transportation Management Plan
10/17 – 01/18	**Move Ascension - 6 Intersection Improvement Studies for Ascension Parish**: Traffic Engineer responsible for data collection, intersection traffic operational analyses (Synchro, Vistro, and Sidra), safety analyses, warrant analysis, signal analysis, benefit/cost analyses, and traffic report preparation
08/16 – 01/17	**LA 433 at Carroll Road, Stage 0 Modern Roundabouts Study**: Traffic Engineer responsible for intersection operational analyses (Synchro and Sidra), warrant analysis.
02/16 – 04/18	**LA 22 (Rou Mar Nei Drive to 1st Street)**: Traffic Engineer assisted with corridor traffic operational analyses including traffic signal analysis.
09/15 – 01/17	**US 90 - US 61 - LA 611-9 Corridor Improvements**: Traffic Engineer responsible for warrant analysis, safety analysis, signal inventory, travel time runs, initial and final data collection report preparation
09/15 – 05/16	**LA 19 Widening (LA 64 to Sunset Blvd.) - Stage 0 Study**: Traffic Engineer responsible for data collection, warrant analysis, intersection operational analyses (Synchro), and traffic report preparation
02/15 – 12/17	**US 51 Business (I-12 to Coleman) Corridor Study - US 51 Business Corridor Study**: Includes analysis of three roundabout geometry intersections. Traffic Engineer assisted with Corridor Operational Analyses
02/15 – 12/17	**US 51 (W University to I-55) Corridor Study**: Includes analysis of eight roundabout geometry intersections. Traffic Engineer assisted with Corridor Operational Analyses
01/15 – 06/15	**LA 3002, 16 & 1034 Corridor Study Phase 2**: Traffic Engineer responsible for data collection and traffic signal analysis.
01/14 – 12/16	**LA 30 Stage 0, Gonzales, LA – Traffic & Safety Study**: Traffic Engineer responsible for data collection, corridor traffic operational analysis (Synchro and Sidra), calibrated Vissim modeling, Stage 0 Traffic Report
01/14 – 03/16	**LA 73 Corridor Study (LA 74 to LA 621) Stage 0 Feasibility Study**: Traffic Engineer responsible for data collection, warrant analysis, corridor operational analyses (Synchro and Sidra), Stage 0 traffic report preparation
01/14 – 06/14	**Stage 0 Study, Edenborne Parkway Extenstion to South St. Landry Road, Ascension Parish, LA**: Traffic Engineer responsible for intersection operational analyses (Sidra).
Career History	Mrs. Howard joined Neel-Schaffer, Inc. in January 2014. Before joining Neel-Schaffer, Mrs. Howard worked as a Traffic Engineer for DOTD District 62. She also worked as a Traffic Engineer Intern for DOTD's Traffic Engineering Management Section in Headquarters. She worked on a variety of projects involving Traffic Engineering Studies, Signal Timing and Coordination, Corridor Studies, traffic modeling using VISSIM and Transportation Management Studies. During her employment at LADOTD, she also reviewed numerous Corridor Studies, Intersection Studies, Safety Studies, Traffic Impact Studies, and Temporary Traffic Control Plans. She is proficient in Traffic Engineering software such as HCS, Synchro, SIDRA, SimTraffic, VISSIM as well as DOTD's CAT Scan safety tool. She also attended Highway Safety Manual (HSM) workshop, Highway Capacity Analysis Seminar, Roundabout Design Workshop, Traffic Signal Workshop, Synchro Training, Vissim Training, Access Management Location and Design Course, Alternative Intersections / Interchanges Workshop, and Crash Reconstruction for Traffic Engineers Course. With Neel-Schaffer, Mrs. Howard has served as a project engineer for the noted traffic related DOTD projects. Mrs. Howard is a certified Professional Traffic Operations Engineer (PTOE), a certified Road Safety Professional Level 1, and has completed DOTD's Traffic Engineering Process and Report (TEPR) training.

16. STAFF EXPERIENCE

Firm employed by Neel-Schaffer, Inc.			
Name	**Mike Brown**	Years of relevant experience with this employer	45
Title	Engineering Technician / Project Coordinator	Years of relevant experience with other employer(s)	45
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	Engineering Technician / Technical Support		

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).
2022 –2025	**MDOT Gulf Coast Emergency Signal Repairs, Harrison and Hancock Counties, MS:** Neel-Schaffer was selected by MDOT to provide inspection, evaluation, and design of repairs for traffic signals and ITS for all signals on State Maintenance routes in Hancock and Harrison counties that were damaged when Hurricane Zeta hit the Gulf Coast on October 28, 2020. The majority of the signals are on the US 90, US 49, and SR 605 corridors. This project includes inspecting all facets of 93 interchanges, inspecting 81 ITS camera sites and three Dynamic Message Signs, inspecting the ITS communications and structures at 40 communication poles; and conducting a damage assessment of system and structural damage to wireless communication back haul infrastructure at eight towers/water tanks. Additionally, Neel-Schaffer designed and will detail new traffic signal controller cabinet foundations for 16 intersections in Harrison County to raise them above flood stage. Intersection improvements include replacing five existing section signal heads with Flashing Yellow Arrow (FYA) signal heads, replacing older video and loop detection with new video detection at mast arms and radar detection at span wire intersections, upgrading wireless communications at 93 interchanges. Traffic signal heads and pedestrian signal heads, signal cable and PTZ cameras were replaced on an as-needed basis. Signal phasing was changed/modified to better accommodate signal movements as warranted.
2021	**Adaptive Signal Control Technology, Little Rock, Conway, Maumelle, and Benton, AR (CARTS Project):** Designer. Provided field inventory data of existing traffic signal facilities on all four corridors, and managed collection of data for evaluation to determine the viability of Adaptive Signal Control. The Conway Dave Ward Drive Corridor Adaptive Control is ongoing with a vendor selected and plans at final stage of completion prior to going to contract. Assembled the contract documents, specifications, and plans for construction. Provided assembly of existing design files available, communicating with the various agencies involved, putting together the contract documents, drafting the special provisions, verifying the signal phasing and operation, and plan review.
2019 – 2020	**Citywide System and Intersection Design, Cabot, AR:** Primary Designer on MDOT's ITS / traffic signals for I-59 / Sr 42 in the Hattiesburg / Petal, MS area. Neel-Schaffer designed ITS elements, lighting, and signing for a MDOT redesign on the I-59/SR 42 interchange. Traffic plans included improving 3 traffic signals. ITS technology including CCTV cameras, radar vehicle detection, dynamic message boards and fiber optic communication to provide information and travel time to motorists.
11/18 – 12/21	**Traffic Signals on Highland Colony Parkway at Costco, Ridgeland, MS:** Designer/ Inspector. Services included the preparation of traffic signal designs and contract documents, signal timings, and construction engineering services. The project included the installation of new traffic signals at two intersections. The project included fiber optic communications and integration with the city of Ridgeland's traffic management center. The signal design included video and radar detection systems, pan-tilt-zoom (PTZ) cameras, battery backups, cabinet monitoring systems, signal preemption, signage, and sidewalks. This signal contained many of the latest state of the art components used to monitor preemption, traffic signal controller equipment, and software able to supply counts and signal performance measures (spm).

06/10 – 03/13	**MDOT Bridge ITS Project, AR, LA, MS:** Electrical Design of Power to ITS Equipment. To address the needs of an interactive system, Neel-Schaffer was selected the Mississippi Department of Transportation to design an active bridge monitoring system at the four Mississippi River crossings in Mississippi. The locations included: • US 49 Bridge in Lula, MS / Helena, AR • US 82 Bridge in Greenville, MS / Lake Village, AR • I-20 Bridge in Vicksburg, MS / Tallulah, LA • US 84 Bridge in Natchez, MS / Ferriday, LA At each location, ITS technologies were implemented, including CCTV cameras, vehicle detection devices, dynamic message signs, highway advisory radio, and broadband and fiber optic communications. These devices were located at each of these bridges and in advance of the detour or diversion routes to provide alternate route information to travelers. In addition to these features, Real Time River Current (RTRC) sensors were installed at each bridge location to measure both the river current velocity as well as direction to alert watercraft, ports and maritime officials of current conditions prior to reaching the bridge. This type of critical information is planned to reduce the potential for barge crashes that have occurred in the past at the river bridges.
01/83 – Present	**Various MDOT projects in MS:** Primary designer and supplemental CEI on MDOT's Signal and ITS projects around the state where new signals or old signals were installed or upgraded. ITS technology was also installed including fiber optic cable communications, wireless communications, CCTV cameras, video, radar, and blue tooth vehicle detection, dynamic message boards, highway advisory radio and travel time signs. Lighting systems were also installed on many of these projects in conjunction with the roadwork. Recent examples of these various projects are: • I-59 / SR 42 Project in Hattiesburg / Petal, MS, • I-55 South Project in Jackson / Byram, MS, • US 82 Interchange Improvements in Columbus, MS, • SR 12 Project in Starkville, MS, • I-269 Project for 9 miles of I-269 in the Southaven, MS (Memphis, TN) area.
2017 – 12/20	**State Street Corridor Improvements, Jackson, MS:** Inspector. Neel-Schaffer provided engineering design and CE&I services for this $19.5 million "road diet" project that transformed a very busy two-mile corridor near the Fondren District in north Jackson. Neel-Schaffer coordinated with the City of Jackson, MDOT and the FHWA during construction to make sure the project stayed on track. The project included roadway reconstruction and resurfacing, improvement traffic signals at four intersections and one fire station, replacements and upgrades to water and sewer lines, storm drain design and replacement, a multi-use trail and sidewalk with ADA compliance, landscaping improvements, and bioswales in some areas between the curb and multi-use trail. Construction was completed in December 2020.
08/17 – 04/18	**I-59 / SR 42 Project, Hattiesburg / Petal, MS:** Primary Designer on MDOT's ITS / traffic signals for I-59 / Sr 42 in the Hattiesburg / Petal, MS area. Neel-Schaffer designed ITS elements, lighting, and signing for a MDOT redesign on the I-59/SR 42 interchange. Traffic plans included improving 3 traffic signals. ITS technology including CCTV cameras, radar vehicle detection, dynamic message boards and fiber optic communication to provide information and travel time to motorists.
Career History	Mr. Brown joined Neel-Schaffer in 1979 and has more than 44 years of experience as an Engineering Technician/Project Coordinator. He has worked as a Surveyor, Draftsman, Inspector, CADD Designer and Project Manager and Project Coordinator. His wide range of field and office experience on transportation projects provides the firm with much valuable and practical knowledge. As a result of his extensive experience with Federal Aid Projects, he has developed a good working relationship with MDOT construction and design staff and is familiar with MDOT requirements, policies and procedures for construction. Mr. Brown serves on the Board of Directors for the Gulf Region Intelligent Transportation Society and is a member of the Deep South Institute of Transportation Engineers

16. STAFF EXPERIENCE

	Firm employed by Neel-Schaffer, Inc.				
	Name	**Ken Holland**		Years of relevant experience with this employer	0
	Title	GIS Analyst		Years of relevant experience with other employer(s)	30
	Degree(s) / Years / Specialization		BS / 1995 / Community and Regional Planning		
	Active registration number / state / expiration date		N/A		
	Year registered	N/A	Discipline	N/A	
	Contract role(s) / brief description of responsibilities		GIS Analyst / GIS Development, Technical Expertise		

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).
2002 –2024	Mr. Holland is the former Deputy Director of the Gulf Regional Planning Commission. He has 30 years of experience in community and regional planning, land use, re-districting, grant writing and administration, and creating and managing geographic information systems. Mr. Holland also has vast experience with the MPO planning process. He has been involved in developing GIS applications supporting the Gulf Coast Long Range Transportation Plan and the MPO Transportation Improvement Program. Mr. Holland has been the project manager on developing TAZ data to support the Gulf Coast Long Range Transportation Plan and utilized TransCad software to aid in transportation decisions for the Mississippi Gulf Coast. Mr. Holland is familiar with the latest GIS technologies and software packages and fully comprehends how these applications can be applied to develop a functional product. Mr. Holland is also a certified FAA drone pilot and has experience in maintaining online web applications and map products. Some of his other responsibilities have been managing the GRPC's Traffic Count Program, including Miovision traffic solutions equipment, and coordinating a managed IT Department. His prior duties have included applying for and managing the Land Use and Transportation sections for the Regional Sustainability Plan for Opportunity Grant award from the U.S. Department of Housing, applying for and administrating multiple regional CIAP grant awards, and managing project impact-MEMA grant awards. Mr. Holland was also the project manager responsible for creating a regional scenario planning tool that utilizes existing and future land use to allocate appropriate land use types over undeveloped parcels of land. Mr. Holland also has experience in the private sector. He has worked for a planning consulting firm specializing in comprehensive land-use plans and with an environmental planning consulting group, where he was involved with creating a regional land suitability model for the Department of Marine Resources for the entire Mississippi Gulf Coast.
2001 – 2002	**Senior Planner / GIS Manager**: Coastal Environments Inc.
1997 – 2001	**Planner / Senior GIS Analyst:** Gulf Regional Planning Commission
1995 –1997	**Planner / GIS Analyst**: Lusteck and Associates

16. STAFF EXPERIENCE

Firm employed by Neel-Schaffer, Inc.					
Name	**Lonny Territo**			Years of relevant experience with this employer	10
Title	Senior Technician			Years of relevant experience with other employer(s)	9
Degree(s) / Years / Specialization			N/A		
Active registration number / state / expiration date			N/A		
Year registered	N/A	Discipline	N/A		
Contract role(s) / brief description of responsibilities			Senior Technician / Data Collection, Inspection		

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).
05/15 – Present	**LA 328 Stage 0 Traffic & Safety Study**: Develop to traffic and safety analysis of the LA 328 in proximity to I-10 in St. Martin Parish. Performed traffic counts and, Breaux Bridge, LA: traffic controller downloads.
06/14 – Present	**Baton Rouge Computerized Signalization, Phases IV and V**: Performed traffic engineering, signal design and construction services in support of the City of Baton Rouge computerized signalization. Phase IV included 21 intersections and Phase VA included 23 intersections. Phase VB which is currently in the design phase includes 24 intersections. Performed traffic counts and traffic controller downloads.
09/14 – 01/18	**District 02 Traffic Signal Inventory Retainer Contract: LA 39, LA 46 & LA 47 Corridor Improvements (28 intersections):** Performed traffic counts and traffic controller downloads.
09/14 – 01/18	**District 02 Traffic Signal Inventory Retainer Contract, LA 39, LA 46 & LA 3021 Corridor Improvements (26 intersections):** Performed traffic counts and traffic controller downloads.
09/14 – 01/18	**District 02 Traffic Signal Inventory Retainer Contract: I-610, I-10, US 90 & LA 3021 Corridor Improvements (17 intersections)**: Performed traffic counts and traffic controller downloads.
09/14 – 01/18	**District 02 Traffic Signal Inventory Retainer Contract: US 90, US 61 & LA 611-9 Corridor Improvements (20 intersections):** Performed traffic counts and traffic controller downloads.
09/14 – 01/18	**District 02 Traffic Signal Inventory Retainer Contract: US 61 & LA 3154 Corridor Improvements (23 intersections)**: Performed traffic counts and traffic controller downloads.
08/14 – 08/17	**Retainer Contract for Traffic Signal Engineering, US 80 Traffic Control Signal Upgrades**: Provided signal design plans and signal timing plans at 20 intersections along US 80 in Shreveport, LA. Performed traffic counts and traffic controller downloads.
07/14 – 12/14	**Baton Rouge Computerized Signalization Phase VA**: Phase VA included 23 intersections, performed construction inspection in support of the City of Baton Rouge computerized traffic signal synchronization system. Performed construction inspection as the Resident Project Representative.
12/14 – 05/15	**Retainer for Signal Timing Studies Districts 61, 62 & 02: LA 3040 / LA 20 / LA 57, Houma/Thibodaux (25 intersections)**: Developed an Initial Data Collection Report, a Final Data Collection Report, a Recommended Signal Timing Report with new TSI's, and for implementing the recommended signal timings in the field. Performed traffic counts and traffic controller downloads.
12/14 – 05/15	**Retainer for Signal Timing Studies Districts 61, 62 & 02: US 11, Slidell, LA (16 intersections)**: Developed an Initial Data Collection Report, a Final Data Collection Report, a Recommended Signal Timing Report with new TSI's, and for implementing the recommended signal timings in the field. Performed traffic counts and traffic controller downloads.

12/14 – 05/15	**Retainer for Signal Timing Studies Districts 61, 62 & 02, LA 44, Gonzales, LA (10 intersections)**: Developed an Initial Data Collection Report, a Final Data Collection Report, a Recommended Signal Timing Report with new TSI's, and for implementing the recommended signal timings in the field. Performed traffic counts and traffic controller downloads.
12/14 – 05/15	**Retainer for Signal Timing Studies Districts 61, 62 & 02, LA 19, Baker, LA (10 intersections)**: Developed an Initial Data Collection Report, a Final Data Collection Report, a Recommended Signal Timing Report with new TSI's, and for implementing the recommended signal timings in the field. Performed traffic counts and traffic controller downloads.
12/14– 05/15	**Retainer for Signal Timing Studies Districts 61, 62 & 02, US 425, Vidalia / Ferriday, LA (11 intersections)**: Developed an Initial Data Collection Report, a Final Data Collection Report, a Recommended Signal Timing Report with new TSI's, and for implementing the recommended signal timings in the field. Performed traffic counts and traffic controller downloads.
12/14 – 05/15	**Retainer for Signal Timing Studies Districts 61, 62 & 02, LA 3124 / LA 60 / LA 10 / LA 16, Bogalusa, Amite, Franklinton, Kentwood, Amite, LA (32 intersections)**: Developed an Initial Data Collection Report, a Final Data Collection Report, a Recommended Signal Timing Report with new TSI's, and for implementing the recommended signal timings in the field. Performed traffic counts and traffic controller downloads.
Career History	Lonny joined Neel-Schaffer in 2013 and has nearly 20 years of experience as a technician and resident project representative. He has provided construction inspection services and traffic counts and traffic controller downloads for a wide variety of projects, including intersection improvements and traffic studies.
Certifications	ATTSA – Traffic Control Supervisor ATSSA – Registered Flagger IMSA/FOA Certified Fiber Optic Technician IMSA - Work Zone Temporary Traffic Control Technician IMSA – Traffic Signal Inspector Level 1 IMSA - Traffic Signal Design/Engineering Level II IMSA - Traffic Signal Senior Field Technician Level III.

16. STAFF EXPERIENCE

Firm employed by Intelligent Transportation Systems LLC					
Name	**Jonathan Fox, PE, PTOE, PMP**			Years of experience with this firm/employer	8
Title	Principal			Years of experience with other firm(s)/employer(s)	14
Degree(s) / Years / Specialization			BS / 2003 / Civil Engineering		
Active registration number / state / expiration date			PE No. 33277 / LA / 09-30-2025; PTOE No. 2329		
Year registered	2007	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Principal; **Meets MPR 5** / Engineering Design, Studies, Analyses, Technical Expertise		

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).
03/21 – 08/22	**Lafayette Regional ITS Architecture Update (H.014513) (Lafayette Region)** | Principal Engineer/Lead ITS Engineer. Jonathan served as the Principal Engineer for ITS LLC's portion of this project. The tasks included updating the Regional Architecture Development for Intelligent Transportation (RAD-IT) and associated standards and requirements. Jonathan led the conversion of the previously developed regional architecture files (Turbo Architecture software) to RAD-IT software and bringing it in line with the latest applicable ITS service packages and information flows.
09/20 – Present	**ITS Scott to Lake Charles (H.013256) (Acadia, Jeff Davis, and Calcasieu Parishes) |** Principal Engineer. Jonathan serves as the Principal Engineer for the ITS LLC portion of the work for this project. During the design phase, he oversaw the communications design, fiber network design, ring topology, and fiber allocations. He provided support in determining site locations, constructability assessments, FAA pole height clearance verifications, plan review, specification verifications, and budget estimate support. Further efforts to support the project included coordination between LADOTD and Conterra, as the backbone fiber for the project is part of a permit that provides LADOTD with fiber optic cable and access. Construction Support included response to communication-related RFIs as well as observing commissioning testing.
12/14 – Present	**LADOTD ITS Maintenance (44-2500, 44-7102. 44-16811) (Statewide)** | Principal Engineer. Jonathan serves as supervisor engineer for the ITS Maintenance Retainer. He has performed routine maintenance on emergency crossover gates, travel time message system, CCTV camera sites, RVD sites, ramp meter sites as well as DMS sites. His skills include device troubleshooting, communication and network troubleshooting, parts replacement, site cleaning, insect extermination, traffic control setup, as well as coordinating with law enforcement, TMC operations staff, and DOTD. In addition to handling repair and maintenance issues as they arise. He's oversaw efforts to add wireless links to create a redundant communication path along the Bonnet Carre and set up high bandwidth backhaul radios near the I-10/I-12 split in order to mitigate any communication impacts from the major interstate construction project in the area. Jonathan has played a key role in hurricane and flood recovery efforts across the Gulf Coast of Louisiana for the past decade ensuring that LADOTD's critical ITS systems were brought back online in a timely manner to provide important safety information to the public.
2007 – 2010	**I-12 Ramp Metering Design and Implementation (East Baton Rouge Parish)** | Engineer. Jonathan provided signal layout design support, quality control and fiber optic communications design for 16 ramp meters in the Baton Rouge area, including plan layouts, fiber allocations, and technical specification. He also handled construction administration, fiber inspection, fiber test review, and integration coordination. This was the first implementation of ramp metering in the state.
12/12 – 12/14	**Baton Rouge ITS Phase 3 (Baton Rouge)** | Project Manager & Design Lead: Jonathan oversaw the System Engineering Analysis (SEA) document for the project in compliance with the FHWA Rule (23 CFR Part 940.11) to determine project scope and analyze implementation constraints including minimizing the impact of construction on the traveling public and using existing fiber optic communications. Several ITS deployment projects were solely focused on the core urban area leaving gaps. The solution to meet the LADOTD's goal of the Baton Rouge ITS Phase 3 Project was to supplement the area with sixteen additional closed circuit television video cameras, five dynamic message sign sites, one HUB site, 30 Bluetooth detection sites, one travel time message sign (first in the state), and eight ramp meters that cover five parishes over 50 miles to help with blind areas. He led the development of the plan set from conception to final plans.

11/12 – 12/14	**H.010138 Sunshine Bridge ITS Deployment (Sorrento)** | Project Manager. Jonathan managed all tasks from system engineering through deployment of final design package. He oversaw the development of the project level SEA for the deployment of a closed-circuit television camera system along LA 22 and LA 70 including the Sunshine Mississippi River Bridge. He overcame project challenges including determining how permitted fiber communications assets would be used, structure mounted conduit systems, and handling ongoing bridge painting construction. He developed a conceptual design to have the camera support mount directly to the bridge pier cap instead of the bridge's steel members to reduce maintenance. He also oversaw the analysis report, developed plans, specifications, and provided cost estimates.
04/16 – 08/16	**Alabama Department of Transportation (ALDOT) ITS Specifications (Statewide AL)** | Design Lead. ALDOT desired an upgrade of their special provisions into a standard specification to bring consistency throughout the state on ITS equipment The specifications developed included material and construction for fiber optic communications infrastructure, network switches and wireless radios, CCTV cameras, dynamic message signs, vehicle detection systems, ITS cabinets, environmental sensors, and an assortment of other related ITS items. This required assessing multiple manufacturers and models for each device type. Further, Jonathan oversaw and supported the development of material lab test provisions for the equipment as well as acceptance testing provisions.
Career History	Jonathan has over 20 years of experience in traffic engineering and intelligent transportation systems. He currently serves as Principal at Intelligent Transportation Systems LLC (ITS LLC). His background includes traffic studies and assessments, traffic signal design, and ITS systems engineering and architecture. Jonathan's ITS-related experience includes system diagnostics and troubleshooting, system testing, management and operations, and systems maintenance. He led the design and implementation of the first adaptive traffic signal system in Louisiana and continues to be a leader in this specialty. Jonathan's varied experiences in design, ITS, traffic engineering, and program management make him an asset to the team managing the ITS ME&I program development and implementation.

16. STAFF EXPERIENCE

Firm employed by Intelligent Transportation Systems LLC			
Name	**Diane Hammonds, PE, PTOE, RSP$_1$**	Years of experience with this firm/employer	2
Title	Principal	Years of experience with other firm(s)/employer(s)	20

Degree(s) / Years / Specialization	BS / 2002 / Civil Engineering
Active registration number / state / expiration date	PE No. 40749 / LA / 09-30-2024; PTOE No. 7113
Year registered 2016 Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities	Principal / Signal Design, Traffic Studies, Analyses, Technical Expertise

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).
06/22 – Present	**LADOTD ITS Maintenance (44-7102. 44-16811), Statewide Louisiana** | Principal: Diane serves as a firm Principal for the existing ITS Maintenance Retainer. Her role includes overseeing the management of the contract to ensure that the project tasks are completed on time and within budget. She works with the project team on managing resources, providing required trainings and certifications, and allocating equipment.
12/22 – Present	**Ascension Parish Traffic Impact Studies IDIQ Contract** | Lead Traffic Engineer: Diane currently serves as the Lead Traffic Engineer for this IDIQ Contract. As a direct-contract consultant, ITS LLC performs traffic impact studies for proposed commercial and residential developments throughout the Parish. The scope of work includes performing traffic impact studies (TISs) for a variety of commercial and residential developments that may include subdivisions, multi-family developments (apartment homes), strip retail centers, big box stores, restaurants, office complexes, industrial facilities, and more. Each proposed development is unique and has differing requirements for the studies.
July 2022 – Present	**Contract No. 4400021887 – Contract for Replacement of Fifteen Bridges, LADOTD District 08** | Project Manager and Engineer of Record: Diane is serving as the Project Manager and Engineer of Record for this contract. The firm’s work on this project includes the development of temporary traffic control plans and a Traffic Management Plan (Levels I-IV, varies) for the replacement of 15 different isolated rural bridges located in the boundaries of LADOTD District 08. The detour plans for each location are unique but collectively include the design and operation of temporary traffic signals, temporary detour roadways, and temporary bypasses using existing state routes.
08/19 – 03/20	**LA-93 at Westgate Signal (Scott)** | Project Engineer: Diane served as the Project Engineer for the modification of the intersection to add a traffic signal. The temporary traffic signal at the intersection was needed as part of a traffic control plan and detour route to accommodate traffic during construction and closure of an adjacent roadway. Diane prepared the volumes forecasting and capacity analysis as well as report documentation, and signal design. The approval coordination included the LADOTD District 03 and Headquarters Traffic Engineering Staffs and the Lafayette Consolidated Government.
01/22 – 05/22	**Traffic Signal – LA-433 at Town Center Parkway (St. Tammany Parish) |** Lead Traffic Engineer and Engineer of Record: Diane served as the Engineer of Record and Lead Traffic Engineer for an Intersection Control Evaluation (ICE) analysis for the intersection of LA-433 (Old Spanish Trail) at Town Center Parkway. The scope of services included traffic engineering analyses, traffic signal design, and permit assistance as required by the LADOTD Traffic Engineering Process and Report (TEPR) guidelines. The evaluation included an MUTCD 2009 Edition Traffic Signal Warrant Evaluation, a crash review for a three (3) year period that included diagrams, locations, and summaries, an existing operating analysis, and an alternative intersection control analysis for a traffic signal, an all-way stop, a roundabout, an R-Cut, and median UTurns.
08/21 – 05/22	**Railroad Trail Project Signal & Pedestrian Crossing Design, Louisiana Tech University (Ruston)** | Lead Traffic Engineer: Diane served as the Lead Traffic Engineer for the design and development of construction plans for the Tech Drive at Railroad Avenue Signal and Pedestrian Crossing, which included traffic evaluation, engineering design for the installation of accessible pedestrian signals (APS), and pavement markings as part of FHWA BUILD Grant for pedestrian improvements throughout the Louisiana Tech campus and the City of Ruston.

08/19 – 06/21	**S.P. No. H.009932 US 80 Widening: Vancil Rd to Well Rd EA (Ouachita Parish)** | Traffic Engineer: Diane served as a traffic engineer for this Environmental Assessment (EA) to improve the corridor by widening the existing roadway and implementing intersection improvement principles along a 1.4-mile portion of US 80. She has assisted in the existing/no-build, safety, and alternatives capacity analysis reports, which have been approved by LADOTD. She analyzed project impacts by coordinating and assisting in developing the line and grade study, cost estimates, and conceptual plans.
02/19 – 08/21	**Farm Road Multi-Bridge Replacement Project (Calcasieu Parish)** | Traffic Engineer: Diane provided assisted in the preparation of traffic management plans for the Calcasieu Parish Police Jury related to the replacement of two (2) bridges located on Farm Road. Diane provided traffic engineering services, including the preparation of temporary traffic control plans.
08/19 – 05/22	**S.P. No. H.002297 LA 37 (Sullivan Road to Liberty Road) (East Baton Rouge Parish)** | Lead Traffic Engineer: Diane served as the Lead Traffic Engineer and was responsible for managing and reviewing all submittals by the traffic sub-consultant, Gresham Smith. Diane ensured quality control and assisted in the development of the Stage 0 Feasibility Study, Environmental Inventory, and conceptual plans
08/19 – 05/22	**LA-93 (Westgate Road) at Eraste Landry Road (Scott)** | Technical Lead, Analyst, & Design Engineer: Diane served as the Technical Lead, Analyst and Design Engineer for the modification of the intersection to add a traffic signal. The temporary traffic signal at the intersection was needed to accommodate traffic during construction which resulted in an adjacent roadway closure. Diane prepared the volume forecasting and capacity analysis as well as report documentation, and signal design. The approval coordination included the LADOTD District 03 staff as well as Headquarters and the Lafayette Consolidated Government.
05/18 – 08/19	**Lakeshore Drive Mixed Use Development Traffic Impact Study (Slidell)** | Project Manager, Engineer of Record, & Analyst: Diane served as the Project Manager, Engineer of Record, and Analyst for a ± 1,083-acre mixed use development which at full buildout will contain residential houses, a school, and small commercial retail. The study included 2 interstate interchanges with state highways as well as a 1.7-mile segment of Parish owned roadway including 4 roundabout evaluations and a J-turn corridor. She performed approval coordination with both the LADOTD and St. Tammany Parish.
Career History	Diane C. Hammonds, P.E., PTOE, RSP1, currently serves ITS LLC as a Principal. She has over 20 years of experience in traffic engineering specializing in Traffic/Transportation Engineering and Transportation Planning projects including traffic impact assessments, traffic signal design systems, traffic simulation modeling, access management reviews, safety studies, traffic control plans, roundabout analysis and design as well as permit reviews and coordination. Ms. Hammonds has successfully completed hundreds of successful traffic & transportation projects. Her unique skills to bring both the client and reviewing agency to agreement on the final product is an asset to the projects she is involved in. Diane has completed trainings and certification for the LADOTD Traffic Engineering Process and Reports (Parts I, II, and III) and other continuing education courses and training in HCS, Synchro, Roundabouts and the HSM and is proficient in Synchro, SimTraffic, HCS, VISTRO, SIDRA, CRASH 1, CRASH 3 and Microstation. Diane holds national certifications as a Professional Traffic Operations Engineer (PTOE) and Road Safety Professional (RSP1).

16. STAFF EXPERIENCE

Firm employed by Intelligent Transportation Systems LLC					
Name	**Kimberly McDaniel, PE, PTOE, PTP**			Years of experience with this firm/employer	2
Title	Principal | Chief Executive Officer			Years of experience with other firm(s)/employer(s)	19
Degree(s) / Years / Specialization			BS / 2003 / Civil Engineering; MS / 2005 / Civil Engineering		
Active registration number / state / expiration date			PE No. 32973 / LA / 09-30-25; PTOE No. 2072		
Year registered	2007	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Principal / Traffic Studies		

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).
06/22 – Present	**LADOTD Task Order - Connected & Autonomous Vehicles (C/AV) Team and Working Group Support, Louisiana Statewide** | Policy Development: Kimberly is assisting with the policy development components of the Connected & Autonomous Vehicles Team. The goal of this task order is to bring various practitioners together to assess Louisiana's current climate for the implementation of connected and autonomous vehicles (C/AV), begin developing projects to make the state's infrastructure and regulations ready for C/AV deployment, create public information programs, determine infrastructure needs, propose laws and regulations statutes, and determine other mechanisms necessary to prepare the State of Louisiana for the integration of connected and autonomous vehicles on the state's highways and roadways.
05/22 – Present	**LADOTD ITS Maintenance (44-7102. 44-16811), Statewide Louisiana** | Principal: Kimberly serves as a firm Principal for the existing ITS Maintenance Retainer. Her role includes overseeing the management of the contract to ensure that the project tasks are completed on time and within budget. She works with the project team on managing resources, providing required trainings and certifications, and allocating equipment.
12/22 – Present	**Ascension Parish Traffic Impact Studies IDIQ Contract** | Principal and Project Manager: Kimberly currently serves as the Principal and Project Manager for this IDIQ Contract. As a direct-contract consultant, ITS LLC performs traffic impact studies for proposed commercial and residential developments throughout the Parish. The scope of work includes performing traffic impact studies (TISs) for a variety of commercial and residential developments that may include subdivisions, multi-family developments (apartment homes), strip retail centers, big box stores, restaurants, office complexes, industrial facilities, and more. Each proposed development is unique and has differing requirements for the studies.
06/22 – Present	**Contract No. 4400021887 – Contract for Replacement of Fifteen Bridges, LADOTD District 08** | Principal: Kimberly serves as the Principal for this contract. The firm's work on this project includes the development of temporary traffic control plans and a Traffic Management Plan (Levels I-IV, varies) for the replacement of 15 different isolated rural bridges located in the boundaries of LADOTD District 08. The detour plans for each location are unique but collectively include the design and operation of temporary traffic signals, temporary detour roadways, and temporary bypasses using existing state routes.
10/08 – 08/14	**LADOTD Access Management Program, Louisiana Statewide** | Engineer VI: Kimberly developed and managed the LADOTD Access Management Program. In this role, she performed extensive research of access management policies and best practices throughout the US. Kimberly led multiple focus groups and policy development teams consisting of LADOTD employees, consulting engineers, commercial developers, residential developers, real estate agents, attorneys, municipal employees, and elected officials from around the state to develop a policy for LADOTD which would regulate the granting of access to state highways. The policy was adopted as Louisiana Administrative Code Title 70, Part I, Chapter 15. Kimberly authored the Access Connections Policy, a document expanding the criteria of the code. She developed training courses for DOTD employees, consultants, contractors, real estate professionals, and elected officials and conducted trainings throughout the state of Louisiana. Once implemented, she chaired and managed the Access Management & Traffic Impacts Appeals Board, coordinating appeals submitted by landowner/developer applicants whose requests for access were denied by the District. Kimberly served as the state's Subject Matter Expert on Access Management throughout this time.

06/12 – 08/14	**LADOTD Traffic Impacts Policy & Program, Louisiana Statewide** | Engineer VI: Kimberly assisted with the development of a revised Traffic Impacts Policy to be used throughout the state for studies related to commercial or large-scale residential development. The program was integral to the success of the Access Management Program as it sought to outline the requirements to study the potential traffic impacts of proposed developments and determine effective mitigation strategies for the additional traffic. Denials of these studies at the District level were also appealed to the Access Management & Traffic Impacts Appeals Board which Kimberly chaired. Kimberly coordinated traffic impact reviews with LADOTD District and Headquarters staff.
06/22 – Present	**Contract for Replacement of 16 Bridges District 08, Northern Louisiana** | Principal: Kimberly is serving as the Principal for this project. The project includes the replacement of 16 rural bridges in northeast Louisiana. Kimberly is leading a team to develop Traffic Management Plans to be used to maintain or detour traffic during construction. For some of the bridge replacements, the Traffic Management Plan will employ the use of a temporary traffic signs, and others will utilize a temporary bypass roadway.
Career History	Kimberly currently serves as Principal and Chief Executive Officer for Intelligent Transportation Systems LLC (ITS LLC). Most of her 20+ year career has been spent in the private industry as an engineering consultant; however, she served six years in public service at the Louisiana Department of Transportation and Development. While at LADOTD, Kimberly played a lead role in the development of state laws (Revised Statutes), policies, and programs related to Access Management, Traffic Impacts, and Complete Streets. Kimberly's experience includes performing a variety of traffic impact studies, capacity analyses, safety analyses, corridor studies, access management evaluations, environmental assessments, and pedestrian studies. She also has experience in roadway design including the design of facilities for bicyclists and pedestrians and the development of traffic control plans. Kimberly is an experienced project manager with a proven record of delivering project on time and on budget.

16. STAFF EXPERIENCE

Firm employed by. Intelligent Transportation Systems LLC				
Name	**Colin Francis, EI**		Years of experience with this firm/employer	2
Title	Engineer Intern		Years of experience with other firm(s)/employer(s)	1
Degree(s) / Years / Specialization		BS / 2022 / Civil Engineering		
Active registration number / state / expiration date		EI No. 35053 / LA / 09-30-2024		
Year registered	2022	Discipline	EI / Civil	
Contract role(s) / brief description of responsibilities		Engineer Intern / Traffic Studies, ITS Plan Development, Microstation		

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).
05/22 – Present	**LADOTD ITS Management, Operations and ME&I Statewide (44-16811) (Statewide Louisiana)** | Pre-Professional. Colin performs maintenance, trouble-shooting, and installation functions on the existing LADOTD ITS Maintenance Retainer. He has performed routine maintenance on CCTV camera sites, RVD sites, ramp meter sites, and DMS sites. His skills include device troubleshooting, communication and network troubleshooting, parts replacement, and site cleaning. Colin also drives various heavy trucks used in maintenance operations and works from buckets.
06/23 – Present	**LADOTD Task Order - Connected & Autonomous Vehicles (C/AV) Team and Working Group Support, Louisiana Statewide**: Colin is serving as an Engineer Intern for the firm’s portion of this work. The goal of this task order is to bring various practitioners together to begin developing projects, programs, infrastructure, statutes, and other mechanisms necessary to prepare the State of Louisiana for the integration of connected and autonomous vehicles on the state’s highways and roadways.
05/22 – Present	**LADOTD ITS Maintenance** (Authorized Dealer, Standard State Contracts, Low Bid Construction), Louisiana Colin has performed repair work under various contracting mechanisms for DOTD ITS. These work experiences are like that of the maintenance retainer; however, the work includes items outside the scope of the maintenance retainer. Tasks have included building custom components, modifying facilities, site decommission, and solar power system installation.
10/22 – Present	**Alexandria ITS Phase 2 (H.011504), Alexandria, Louisiana**. Colin is providing engineering design support as an Engineer Intern. He has performed field trips for drone-based line of sight assessment, ITS site layout, railroad crossing permit evaluation, utilities alignment review, and wireless assessment support.
Career History	Colin currently serves ITS LLC as an Engineer Intern. Colin is a recent graduate and has over thee years of combined experience as a student intern and post-graduate Engineer Intern. Colin has assisted with a variety of traffic impact studies, safety analyses, and traffic signal design projects. Additionally, Colin has been part of different aspects of ITS maintenance and installation work including CCTV camera testing and configuration, radio testing, and fiber testing. Colin holds the following certifications to supplement his work experience: • Class D Chauffeur’s License • ATTSA Traffic Control Technician & Supervisor • NFPA 70E • OSHA, Fall Protection

16. STAFF EXPERIENCE

Firm employed by Intelligent Transportation Systems LLC					
Name	**Christopher Dodt**			Years of experience with this firm/employer	1.5
Title	Project Manager			Years of experience with other firm(s)/employer(s)	22
Degree(s) / Years / Specialization			N/A		
Active registration number / state / expiration date			N/A		
Year registered	N/A	Discipline	N/A		
Contract role(s) / brief description of responsibilities			Senior Technician / Data collection, inspection		

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).
01/23 – Present	**LADOTD ITS Management, Operations and ME&I Statewide (44-16811) (Statewide Louisiana)**| Project Manager. Chris serves as a project manager for the ITS ME&I IDIQ Contract. He performs routine maintenance on emergency crossover gates, travel time message system, CCTV camera sites, RVD sites, ramp meter sites as well as DMS sites. His skills include device troubleshooting, communication and network troubleshooting, parts replacement, site cleaning, insect extermination, traffic control setup, as well as coordinating with law enforcement, TMC operations staff, and LADOTD. Chris manages the firm’s ME&I technicians including scheduling, training, advanced troubleshooting, and QA/QC of work.
2017 – 2022	**Contract for Traffic Management Center (TMC) Operations, New Orleans**	Traffic Management Center Supervisor & Traffic Incident Management Assistant Coordinator. Chris managed a staff of ten TMC Operators between the New Orleans and Houma TMCs in a 24/7 emergency operations call center. He was responsible for ensuring that operator staff properly disseminated traffic conditions via email and web applications to the media and the motoring public in accordance with the LADOTD TMC standard operations. Chris reviewed and approved traffic incident plans for large scale planned events and emergency conditions due to weather. He coordinated initial training and ongoing assistance to operator staff to ensure all LADOTD requirements were met. He conducted meetings with individuals from all Traffic Incident Management (TIM) responder disciplines, including law enforcement, fire/rescue, emergency medical service, towing and recovery, emergency management, communications, highway/transportation and dispatch within the Louisiana and neighboring states, regions, and local municipalities.
2014 – 2017	**Contract for Traffic Management Center (TMC) Operations, Statewide**	TMC Operations Manager & Traffic Incident Management (TIM) Coordinator. Chris managed the overall operations of five Traffic Management Centers (TMCs). He produced and updated policies within the standard operating procedures and training documents. He managed a staff of approximately 30 employees statewide in 24/7 emergency call operations centers. Chris provided detailed monthly billings to client and ensured that all client expectations were met or exceeded. He actively researched different avenues to maintain efficient operation of TMCs with a high level of accuracy and accountability. He conducted meetings with individuals from all TIM responder disciplines, including law enforcement, fire/rescue, emergency medical service, towing and recovery, emergency management, communications, highway/transportation and dispatch within the Louisiana and neighboring states, regions, and local municipalities.
2012 – 2014	**Contract for Traffic Management Center (TMC) Operations, New Orleans**	Traffic Management Center Supervisor & Traffic Incident Management Assistant Coordinator. Chris managed a staff of ten TMC Operators between the New Orleans and Houma TMCs in a 24/7 emergency operations call center. He was responsible for ensuring that operator staff properly disseminated traffic conditions via email and web applications to the media and the motoring public in accordance with the LADOTD TMC standard operations. Chris reviewed and approved traffic incident plans for large scale planned events and emergency conditions due to weather. He coordinated initial training and ongoing assistance to operator staff to ensure all LADOTD requirements were met. He conducted meetings with individuals from all Traffic Incident Management (TIM) responder disciplines, including law enforcement, fire/rescue, emergency medical service, towing and recovery, emergency management, communications, highway/transportation and dispatch within the Louisiana and neighboring states, regions, and local municipalities.

2009 – 2012	**Contract for Traffic Management Center (TMC) Operations, New Orleans** | Traffic Management Center Operator/Senior Operator. Chris actively monitored the roadway for abnormal traffic patterns, vehicle crashes, debris, etc., by use of Closed-Circuit Televisions (CCTV). He disseminated traffic conditions via email and web applications to the media and the motoring public. He also produced traffic incident plans for large-scale planned events and emergency conditions due to weather. He provided initial training and ongoing assistance to operator staff to ensure all requirements of the LADOTD were always met or exceeded.
2000 – 2009	**Law Enforcement for Kenner Police Department, Kenner** | Police Officer. Chris performed uniform patrol duties in a community with a population of 75,000 people. As a Correctional Peace Officer, Chris operated various criminal history databases and video surveillance equipment setups, provided accurate booking and comprehensive care, custody, and control of the inmate population at the municipal jail. As a Property Management Officer, he installed specialized video and audio surveillance equipment, installed and repaired emergency communications and lighting equipment on police vehicles, scheduled and performed general and technical maintenance on the police fleet, and conducted inventory of specialized police equipment, uniforms, and weapons. Throughout his time as a law enforcement officer, Chris regularly provided court testimony in City, Parish, and State courts and is certified by the United States Attorney's Office for courtroom testimony. He was awarded the 2008 Police Officer of the Year by the Kenner Rotary Club and received numerous commendations from the Department for exemplary performance as a police officer and for his investigative skills and achievements.
Career History	Chris has over ten years of experience with Transportation Management Systems and Operations components, namely with the management and operations of Traffic Management Centers (TMCs). During his time working in the TMCs of Louisiana, Chris also assisted LADOTD ITS section in troubleshooting device communication and operation within the TMC. As the current project manager for the ITS ME&I IDIQ at Intelligent Transportation Systems LLC (ITS LLC) Chris manages the day-to-day operations of ITS LLCs field technicians. This includes daily scheduling, training, advanced troubleshooting, and QA/QC of work performed. Chris also excels with repairs to a wide range of electronics, relays, power, and generators, and has a strong desire to remain current with emerging technology. In addition to his experience, Chris has achieved a variety of certifications including: • ATTSA Traffic Control Technician & Supervisor • Louisiana State Fire Marshal – Security licensure #E26979 • OSHA, Fall Protection • NFPA 70E

16. STAFF EXPERIENCE

Firm employed by Vectura Consulting Services, LLC			
Name	**Laurence Lucius Lambert, II, PE, PTOE, PTP**	Years of experience with this firm/employer	8
Title	Supervisor-Eng	Years of experience with other firm(s)/employer(s)	18
Degree(s) / Years / Specialization	BS / 1997 / Civil Engineering; MS / 2006 / Civil Engineering (Transportation Focus)		
Active registration number / state / expiration date	PE No. 29901 / LA / 03-31-2026		
Year registered 2001 Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities	Engineer / Engineering Design, Studies, Analyses		

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).
06/23 – Present	**H.012845.1 Connected & Autonomous Vehicles (C/AV) Team and Working Group Support** Laurence is a member of the team to develop new policies and legislation related to C/AV.
01/23 – 02/24	**H.011504 Alexandria ITS Phase 2** Laurence was the project manager for a System Engineering Analysis Report, Engineering Opinion of Probably Construction Cost and Level 2 Transportation Management Plan.
03/21 – 03/22	**H.014513.1 Lafayette Regional ITS Architecture Update** Laurence completed an ITS System Inventory, identified all existing and future agreements between stakeholder organizations participating in the ITS operations in the Lafayette region, and updated the strategy for maintaining the regional ITS architecture.
10/21—03/22	**H.013256.5 I-10 ITS Scott to Lake Charles** (Lead Traffic Engineer) Laurence was the lead traffic engineer for a Level 2 Traffic Management Plan (TMP) for the construction of ITS equipment along I-10. The plan included a safety strategy that included a CAT Scan, LOS determination utilizing Citrix data, lane closure recommendations based on a queue analysis and public information strategies.
09/18 – 02/19	**H.013261.1 I-110 ITS Deployment Systems Engineering Analysis** (Project Manager) As a sub-consultant, Laurence was the task leader for the Constraints & Alternatives Analysis as well as the Projects & Procurement Strategy portion of the project. The goal of the project was to deploy Close Circuit Television (CCTV) cameras and one Dynamic Message Sign (DMS) along the I-110 corridor from US 190 to US 61. To communicate with the field devices from the Traffic Management Centers (TMCs), installing fiber optics along the I-110 corridor was recommended. The fiber optics also allow communication to the traffic signals at the interchange ramps along I-110 to the TMC.
03/18 – 06/18	**Shreveport Immediate ITS Phase 2b (Lead Traffic Engineer)** Laurence was the task leader for Procurement and Alternative Analysis Configuration portions of the Systems Engineering Analysis (SEA) that complied with Code of Federal Regulations (CFR), Title 23, 940.11). The Alternatives Analysis Configuration consisted of analyzing three possible project configurations. The pros and cons of the needed equipment and communication options were documented. This task consisted of a field visit with DOTD staff to verify fiber optic lines, junction boxes and traffic signal controller types. The Procurement task consisted of investigating the methods of procurement for the deployment project where the procurement options for the pros and cons for each method were documented.
06/12 – 12/12	**Ramp Metering Study of I-10 Segment, East Baton Rouge and Ascension Parishes, Louisiana** (Project Manager) Laurence conducted a feasibility study to deploy ramp meters along the Interstate 10 (I-10) Corridor in Baton Rouge between Dalrymple Drive and LA 73. The study consisted of analyzing 17 on-ramps under differing design conditions, which include the following: 2010 Existing, 2012 Without Ramp Meter, 2012 Ramp Meter, and 2012 Ramp Meter with Recommendations. Laurence’s role in this project as project manager was to oversee all QA / QC measures and interpret the results from the model. Laurence coordinated with the local agencies to obtain all current proposed projects in the area, which included DOTD I-10 Widening Project Phases 1 and 2, the Green Light Plan (GLP) Essen Lane Widening Project, and the GLP Highland Road Widening Project.

07/11 – 07/15	**H.4400001465 Retainer Contract for lTS Traffic Incident Management (TlM) Program Transportation Management Centers (TMC's) Operations Staffing Support and Systems Engineering (SE) Statewide**. Laurence was the overall project manager of this multi-year, $15,000,000 contract that included providing staffing support, developing Standard Operating Procedure Manuals, Traffic Incident Management program support, ramp meter feasibility and design, TMC Concept of Operations, ITS system requirement documentation and Systems Engineering Analysis and Documentation. Laurence coordinated with the DOTD and TMC staff at the following TMC locations: DOTD Headquarters Annex Building, Baton Roue TMC on Harding, New Orleans, Shreveport, and Houma.
03/10 – 06/10	**Bonnet Carre Spillway Speed Study, New Orleans, Louisiana** (Project Manager) Laurence analyzed the existing speeds on this facility and various forms of enforcement to ensure safety. Laurence led our efforts for this project, which consisted of a speed study to provide data to the DOTD managers to examine the current speed limit on the Spillway. He investigated other means of speed-limit enforcement, variable speed limits applicability, and managed lane options. 50%, 85%, and 95% speed analyses were performed with the speed data.
06/09 – 02/10	**SPN 737-94-0030 Shreveport ITS (Near Term 3A), Shreveport, LA (Project Manager)** Laurence was in responsible charge of the design of the ITS equipment on a 22-mile stretch of I-220 in Shreveport, including approximately 10 closed circuit television cameras, 4 dynamic message signs, 2 dynamic curve-warning signs and 40 radar vehicle detectors. Project included plan preparation of communications diagrams, fiber optic allocation diagrams, fiber optic termination diagrams, telecommunication facilities, power services, wireless transmitters and receivers, related conduit and end equipment, general notes, special details, technical specifications and terrain analyses. As PM, Laurence was involved in every aspect of this process.
08/09 – 12/09	I**-12 Ramp Metering Public Outreach, Baton Rouge, Louisiana** (Project Manager) Laurence prepared exhibits and 3-D models and facilitated three public meetings to educate the public about ramp metering and its implementation. Several stakeholder meetings were held to educate the elected officials and civic groups. Laurence gave a formal presentation at each meeting to describe the benefits of ramp meters and the project specifics.
07/08 – 07/11	**SPN 700-99-0413 Retainer Contract for lTS Transportation Management Centers** (Project Manager) Laurence was the overall project manager of this 3-year contract that included providing staffing support, developing Standard Operating Procedure Manuals, Traffic Incident Management program support, ramp meter feasibility and design, TMC Concept of Operations, ITS system requirement documentation and Systems Engineering Analysis and Documentation. Laurence coordinated with the DOTD and TMC staff at the following TMC locations: DOTD Headquarters Annex Building, Baton Roue TMC on Harding, New Orleans, Shreveport, and Houma.
01/07 – 08/07	**I-12 Ramp Metering Study, Baton Rouge, Louisiana** (Project Manager) Under the ITS retainer contract, Laurence provided analysis and evaluations of potential ramp metering at six interchanges along this corridor. The scope also included analysis of existing traffic conditions, evaluation of proposed solutions, and creation of micro-simulation models of existing and proposed conditions. An existing micro-simulation model was obtained from DOTD to analyze and visually represent the existing traffic conditions. The existing conditions model was calibrated and used as a base to develop models of ramp metering. Laurence presented the findings to DOTD, including an overview map of the interchange area, a schematic of existing volumes, a Micro-simulation of the existing conditions, a summary table of LOS for existing conditions, micro-simulations of proposed solutions, and a summary table of LOS for each solution. Laurence also submitted a formal report of the findings.
03/06 – 10/06	**New Orleans Regional Transportation Management Center SEA** (Project Manager) Laurence served as the project manager for the Laurence ITS Design Team that handled the New Orleans Regional TMC project. Laurence provided the Systems Engineering Analysis (SEA) for the operations of the new TMC, which included a conceptual layout of the RTMC data, audio / video, personal computers, and computer equipment including wiring.
08/05 – 10/06	**Shreveport/Bossier City ITS/Bert Kouns Industrial Loop, Shreveport, LA** (Project Manager) Laurence was in responsible charge of the design for ITS equipment on Louisiana 526 (Bert Kouns Industrial Loop) in Shreveport. The Project included approximately 10 closed circuit television cameras and 16 signalized intersection upgrades. Reviewed systems engineering analysis, plan for communications diagrams, fiber optic allocation diagrams, fiber optic termination diagrams, telecommunication facilities, power services, wireless transmitters and receivers, related conduit and end equipment, general notes, special details, technical specifications, and terrain analyses.

16. STAFF EXPERIENCE

Firm employed by Vectura Consulting Services, LLC			
Name	**Reece Rodrigue, PE, PTOE, RSP$_1$**	Years of experience with this firm/employer	4
Title	Engineer	Years of experience with other firm(s)/employer(s)	7

Degree(s) / Years / Specialization			BS / 2013 / Civil Engineering
Active registration number / state / expiration date			PE No. 42074 / LA / 03-31-2026
Year registered	2017	Discipline	Civil
Contract role(s) / brief description of responsibilities			Engineer / Engineering Design, Studies, Analyses

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).
06/23 – Present	**H.012845.1 Connected & Autonomous Vehicles (C/AV) Team and Working Group Support** Reece is a member of the team to develop new policies and legislation related to C/AV.
06/23 – Present	**H.011507.1 Monroe Phase 3 SEA** Reece visited the project site to document the controller type and detection needs at each signalized intersection within the right-of-way.
07/21 – Present	**H.007160 - EBR Computerized Traffic Signal, Phase VB (Baton Rouge, Louisiana)** Reece is part of the team responsible for Construction Engineering and Inspection. Reece has reviewed the signal mast arm shop drawings to assist the City-Parish of Baton Rouge in accepting the manufactured poles. Reece, with the DOTD, City-Parish and the Contractor conducted field visits to confirm pole foundation locations.
01/23 – 02/24	**H.011504 Alexandria ITS Phase 2** Reece was the project engineer for a site visit, System Engineering Analysis Report, Engineering Opinion of Probably Construction Cost and Level 2 Transportation Management Plan.
06/22 – 02/23	**H.012381.5 ITS Fiber Management System Data Collection** Reece performed the field observations for 40 sites to verify the ITS FMS and inventory services.
04/20 – Present	**H.004791 DOTD Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project (Belle Chasse, LA)** Reece is responsible for designing the temporary traffic signal for the intersection of LA 23 at Engineers Rd. for eight phases of construction per the anticipated sequence of construction. Temporary pole location and heights were recommended for placement for use for all construction phases. Vehicle clearance interval calculations were conducted for each phase in accordance with DOTD and ITE guidance. Reece is responsible for producing the traffic impact analysis portion of the Traffic Management Plan that was also used in planning for the permanent and temporary signal timing plans. Reece was also responsible for producing the permanent signal plans for the LA 23 intersections at Engineers Road and at Burmaster Street. He evaluated stop bar locations, calculated vehicle, and pedestrian clearance intervals, designed the railroad preemption sequence for both at-grade crossings, designed the wiring layout, and developed the interconnect plan. In addition, Reece was responsible for reviewing and approving shop drawings that were submitted by the contractor for use in construction.
01/21 – 05/21	**H.013256 - I-10 ITS Scott to Lake Charles (Lafayette, Acadia, and Jefferson Davis Parishes)** Reece was a member of the subconsultant team who was tasked with reviewing the ITS plans for 15 sites along I-10 where CCTV cameras were being installed. Reece was responsible for measuring anticipated construction quantities and producing a cost estimate for said quantities by using DOTD’s Bid Tabulation and Cost Estimating Tool.
09/20 – 12/21	**H.011909.5-4 Roundabout: US 171 at Boone St. (Vernon Parish)** Reece is an essential design engineer, who is assisting in the production of the temporary signal design associated with the sequence of construction for the roundabout at US 171 at Boone St. He conducted a thorough analysis of the US 171 corridor’s existing allowable movements and identified the movements that would be restricted during the proposed construction process and how it would impact the typical traffic patterns.

16. STAFF EXPERIENCE

Firm employed by Halff Associates, Inc.					
Name	**Jose Delgado, PE, LEED AP, RCDD**			Years of experience with this firm/employer	14
Title	Transportation Deputy Practice Leader, ITS			Years of experience with other firm(s)/employer(s)	8
Degree(s) / Years / Specialization			BS / 2002 / Electrical Engineering		
Active registration number / state / expiration date			PE No. 46151 / LA / 03-31-2026		
Year registered	2021	Discipline	Electrical and Computer Engineer		
Contract role(s) / brief description of responsibilities			Engineer; **Meets MPR 4** / Engineering Design, Studies, Analyses, Technical Expertise		

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).
03/14 – 09/14	**Brasfield & Gorrie, LED Sign Improvements for New York Land Ports of Entry**. Responsible for the Electrical Engineering and ITS design of the Massena and Champlain’s NY LPOE LED signs improvements design. Designed the Rainbow’s NY LPOE LED sign improvement. A total of 34 LED signs were designed. The display at each LED sign was controlled from a remote building. This design-build project consisted of performing an assessment of the existing electrical and telecommunication infrastructure conditions, design, and construction administration. Designed the structural cabling system to accommodate the new signs’ communication requirements. Specified network switches, fiber optic cabling, data copper cabling, and patch panels.
11/15 – 05/16	**City of McAllen, Anzalduas International Bridge**. Responsible for designing electrical and ICT upgrades for the addition of two new vehicle lanes expansion. The electrical and ICT systems design included upgrades of the power distribution, new LED type lighting for two canopies, relocation of two 50-foot poles to clear the new lanes, power and data for new License Plate Readers, power and data for new Radiation Portal Monitors, fiber optic line extensions, coax cabling for surveillance cameras, telephone systems at new canopy booths, and power systems at two new booths.
01/13 – 11/16	**City of McAllen, New City Performing Arts Facility**. Responsible for designing a new 1,800-seat performing arts building with an estimated area of 93,470 sf. Electrical and ITS included two power distribution services with dedicated harmonic mitigated transformers for the electronic and audio equipment, interior and exterior lighting systems, structured cabling, access control, surveillance cameras, intrusion detection, passive components for the television broadcast system, fire alarm system, voice evacuation system, 400kW emergency diesel generator, interconnections with a new fire smoke exhaust system, integration of lighting systems to a Building Management System (BMS), layout of MDF & IDFs rooms, cable tray routing, fiber optic and copper cabling specification, Uninterruptible Power Supply (UPS) specification, and telephone demarcation.
11/16 – 12/17	**Texas State Technical College – Harlingen, New Central Chiller Plant**. Responsible for designing the addition of chillers, cooling towers, and pump additions for campus HVAC additions. The system included the addition of a new power company transformer. Power switchboards included arc flash protective controls to protect the maintenance personnel. Variable frequency drives were implemented for cooling tower motor control to maximize the energy efficiency of mechanical equipment. The project also included a new paralleled 300kW natural gas-fueled standby generator and interior and exterior lighting systems. For ITS, designed the horizontal structured cabling, the interbuilding fiber optic backbone cable extension across campus for the new plant, electronic access controls, surveillance cameras rough-ins, fire alarm system, equipment layout at MDFs closet, cable tray routing, and inside plant type fiber optic and copper cabling.
01/18 – 07/19	**Brownsville Public Utility Board, Annex Building**. Responsible for the MEP engineering consultant working on planning, coordinating, and designing the building. The new 3-story, 63,000-sf building provided office space to four utility departments: accounting, engineering, information technology (IT), and supervisory control and data acquisition (SCADA). The new facility holds an IT Network Operation Center (NOC), SCADA Network Operation Center and an Energy Control facility. The IT NOC and SCADA NOC are equipped with a 2N+1 In-Row Cooling Rack system with UPS backup and backed up by redundant power generators.

08/16 – 09/17	**Brownsville Public Utility Board, Service Center Yard**. Responsible for providing electrical engineering, ITS designer of record, and MEP for the new operation service center facility for Brownsville Public Utilities Board that consists of a 52,500-sf administration office building, meeting rooms, storage space, warehouse space, loading docks, car wash building, fleet vehicles fueling stations, and vehicle maintenance building.
01/18 – 02/23	**Hidalgo County, New Courthouse**. Responsible for electrical engineering and ICT design. Halff was retained to provide mechanical, electrical, and plumbing (MEP); fire protection; and ICT for a new seven-story, 368,000-sf high-rise building design to accommodate district and County courtrooms, one court of appeals, district and County clerks, jury services, public defender and indigent defense, Hidalgo County Bar Association, detention spaces and holding area, and a shell space for six additional future courts.
08/20 – 11/21	**City of Corpus Christi, Rincon Road.** This project involved a 1.5-mile reconstruction of Rincon Road from the Joel Fulton International Trade Corridor to the end of the roadway at the PCCA maintenance facility within Corpus Christi. The existing roadway is located parallel to a railroad track and serves as the lone travel route for wind farm components arriving from the port docks. The project included widening and rehabilitating the existing flexible pavement as well as replacing stretches of pavement sections that have deteriorated beyond repair. Additional work included an upgrade of all roadway illumination and the installation of additional security cameras (Miovision) which were added to the PCCA network. Driveway culverts were replaced and new signage was placed throughout the project.

16. STAFF EXPERIENCE

Firm employed by Halff Associates, Inc.					
Name	**John Gianotti, PE**			Years of experience with this firm/employer	1
Title	Senior Project Manager			Years of experience with other firm(s)/employer(s)	35
Degree(s) / Years / Specialization			BS / 1988 / Civil Engineering		
Active registration number / state / expiration date			PE No. 48528 / LA / 03-31-2026		
Year registered	2023	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Engineer / Engineering Design, Studies, Analyses, Technical Expertise		

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).
01/21 – 03/23	**TxDOT San Antonio, IH 35 & IH 37 ITS Expansion**. The ITS network on these two highways stopped at LP 13 (IH 35) and IH 410 (IH 37) on the south side of San Antonio. ITS coverage on these corridors is critical because IH 35 heavy freight traffic can be delayed due to frequent crashes and IH 37 is a hurricane contraflow evacuation route. John studied both highways to identify the needs of both corridors and how that related to the ITS solution. The IH 35 corridor is from LP 13 to Von Ormy (9 miles), and the IH 37 corridor is from IH 410 to LP 1604 (8 miles). IH 35 has a history of crashes just south of IH 410, causing truck traffic to be delayed or detoured. The CCTV and DMS locations were critical for crash detection and detour information. The IH 37 route needed several locations of DMS and CCTV for coverage in the event of a hurricane evacuation. Knowing the different criteria of each highway allowed John to strategically place DMS and CCTV for the specific needs of each roadway rather than just placing them at a set interval. Two of the initial locations had to be revised due to the lack of nearby electrical lines that could supply power for the electrical services. These revisions saved the project the expense of extending existing electrical lines, which would have been a costly and time-consuming step that would have delayed the project completion.
01/17 – 08/19	**TxDOT San Antonio, Rural ITS on IH 10 (San Antonio to Sheffield).** John oversaw the design, construction, and operation of 27 DMS and 14 CCTV on IH 10 from San Antonio to Sheffield (250 miles). He personally selected and traveled to each location to determine whether electrical service was available and met with the local utility companies to confirm they could provide the power required for the DMS and CCTV. An additional challenge was confirming that each site had adequate cell coverage and whether a T1 line was available for communication to TransGuide. After completion of the project, a majority of the locations were connected to the TxDOT ITS network by cell modems. This project established DMS and CCTV coverage on IH 10 for everyday and emergency traffic management purposes for the San Antonio, San Angelo, and Odessa Districts. This is the longest ITS project of its kind in TxDOT and has been invaluable in allowing TxDOT to monitor the IH 10 corridor.
08/21 – 03/23	**TxDOT San Antonio, IH 35 NorthEast Expansion (NEX).** The 19.5-mile IH 35 NEX project is comprised of several segments, with John as the TxDOT PM for the ITS design and construction on the Central project, a 9.5-mile, $1.5B Design-Build project from I-410 North to FM 3009. Disruption of the existing TxDOT ITS infrastructure because of this Design-Build project which did not have traditional 30/60/90 reviews. The construction impacts to the existing fiber optic network, DMS, and CCTVs changed weekly and made it difficult to maintain ITS coverage through the project limits. John and his team realized quickly that the Design-Build contractor did not have a good understanding of how the TxDOT ITS network operated nor how to maintain the network during construction.
05/18 – 09/21	**TxDOT San Antonio, IH 10 Reconstruction.** This 5-mile project on the east side of town was completely reconstructed from a 4-lane to a 6-lane highway. There was no ITS in this section of IH 10 and a complete ITS system was added. However, the closest ITS fiber optic connection is 4 miles to the west inside of IH 410. A connection to the ITS fiber on IH 410 was not feasible due to funding and project limits. John and his team developed a connection to the IH 35 fiber trunkline through an existing ITS radio located just to the NE of this project. The IH 10/410 interchange project, under construction at the west end of the IH 10 reconstruction will add ITS fiber and conduit that provides a path to the existing ITS radio location. The IH 10 reconstruction had all ITS devices (DMS, CCTV, RVSD, an ATIS sign & Bluetooth) connected internally by fiber. To connect the two projects, the west end of the IH 10 project had a concrete fiber hub installed where ½ mile of fiber was stored. The 10/410 interchange project will take this stored fiber and connect it to the ITS radio. The construction timelines of both projects required a temporary solution (additional ITS radio) and an interim solution (1/2 mile of coiled fiber in a fiber hub).

05/23 – 03/24	**TxDOT Austin, IH 35 ITS Design (SH 80 to RM 12).** ITS Engineer responsible for the preparation and development of PS&E for ITS, roadway, lighting, drainage, and traffic signal design for IH 35 Mobility from north of RM 12 (Wonder World Drive) to SH 80 (Hopkins Street) in Hays County, Texas. The proposed project covered 2.5 miles of frontage road improvements and selective ramp and mainlane improvements.
03/20 – 10/22	**TxDOT San Antonio, Advanced Traveler Information System (ATIS**). John managed the TransGuide staff and oversaw the design, construction, and operation of the ATIS system. First, John and his team determined where the ATIS signs would be placed to give travelers the most time to decide on an alternate route. Each ATIS sign displays two routes and their travel times. Additionally, there are secondary signs on each route for when there are additional route options. This ATIS design was based on the travel time signs on the IH 35 signs north and south of Austin that identify times for the SH 130 alternate route. After several iterations, sign locations were selected based on studying the travel patterns of drivers passing through San Antonio. Additionally, some of the ATIS signs were in the construction limits of adjacent projects on IH 10, IH 35, and LP 1604. The respective projects required change orders to relocate the signs or add them to ongoing projects during construction. John and his team used LoneStar to implement and operate the system. This software uses algorithms to calculate travel times for each route based on INRIX data, automating the display of travel times on each sign.

16. STAFF EXPERIENCE

Firm employed by Environmental Science Services, Inc.					
Name	**Andrew Milanes, PE, GISP**			Years of relevant experience with this employer	28
Title	GIS Analyst			Years of relevant experience with other employer(s)	32
Degree(s) / Years / Specialization			BS / 1992 / Civil Engineering; MS / 2022 / Geomatics Engineering and GIS		
Active registration number / state / expiration date			PE No. 39896 / LA / 09-30-2025		
Year registered	2015	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Engineer / GIS Analysis, Technical Expertise		

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).
02/21 – Present	**Enterprise GIS Design and Deployment – Plaquemines Parish, LA** – Project Manager for GIS services for the Plaquemines Port, Harbor, and Terminal District for development, integration, and maintenance of an Enterprise GIS for critical infrastructure security purposes. Responsibilities include system architecture design, geodatabase design, data development, integration with real-time AIS data feeds, application development, and training.
05/17 – 11/22	**Enterprise GIS Design and Deployment – New Orleans, LA** – Project Manager for GIS services for the Port of New Orleans for development, integration and maintenance of an Enterprise GIS for critical infrastructure security purposes. Responsibilities include system architecture design, scanning and digitizing of hardcopy drawings, integration of GIS with other Port business systems such as Sales Force and Laser Fiche, geodatabase design consultation, GPS and GIS training, inter-departmental coordination regarding uses and application of enterprise GIS, desktop and mobile GIS technical support, and development of best-practices guidelines.
04/17 – Present	**Parks and Recreation Enterprise GIS Design and Deployment – Baton Rouge, LA** – Project Manager for the design and implementation of an enterprise GIS for the parks and recreation department of a Parish with a population of 450,000. Responsibilities include system architecture design, integration of GIS with facilities management work-order system, geodatabase design consultation, GPS and GIS training, inter-departmental coordination regarding uses and application of enterprise GIS, desktop and mobile GIS technical support, and development of best-practices guidelines.
01/06 – Present	**Web and Mobile GIS and GPS Mapping for Petroleum Pipeline Operation and Maintenance – Baton Rouge, LA** – Project Manager and supervising engineering for the development of a GIS for maintenance and operation of petroleum pipeline system. Application managed the location and documentation of pipeline repairs and maintenance as well as various operational data such as foreign crossing locations and cathodic protection system components. The web application is used by pipeline management during regulatory audits to demonstrate compliance with maintenance regulations. Other tasks included the conversion of inline inspection results data to GIS in order to locate repair anomalies in the field using RTK GPS.
01/16 – 12/16	**Sanitary Sewer Mapping and GIS – Addis, LA –** Project Manager and supervising engineering for field data collection of sanitary sewer utility features. Project scope covered mapping existing sanitary sewer features, including manholes, lift stations, and grinder pumps. The Esri local government information model was utilized as the geodatabase to ensure consistency with the Parish GIS. The sanitary sewer geodatabase schema was uploaded to the survey data controller to collect feature attributes. Feature locations, including elevations, were collected using RTK GPS. All collected data was incorporated into the Parish GIS upon completion.
10/13 – Present	**Parish Enterprise GIS Design and Deployment – West Baton Rouge Parish, LA** – Project Manager for the design and implementation of an enterprise GIS for West Baton Parish. As the Parish GIS Consultant, the scope of services include system architecture design, data conversion, ArcGIS and SQL Server installation, configuration, and management, inter-departmental coordination regarding uses and application of enterprise GIS, desktop and mobile GIS technical support, development of best-practices guidelines, and management of internal quarterly GIS user group meetings.

16. STAFF EXPERIENCE

Firm employed by Environmental Science Services, Inc.					
Name	**Garth Sullivan, GISP**			Years of relevant experience with this employer	3
Title	GIS Coordinator			Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization			BS / 2014 / Geographic Information Science		
Active registration number / state / expiration date			GISP Member No. 161750; GISCI / 01-25-2027		
Year registered	2024	Discipline	GIS		
Contract role(s) / brief description of responsibilities			GIS Analyst / GIS Development, Technical Expertise		

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).
07/21 – 06/24	**Louisiana Department of Health – Private Water Well Study** • Project lead in determining potentially unregistered water well locations in Louisiana and creating internal and external applications to view and analyze water well testing results. • Assisted in deploying the ArcGIS Server. • Project lead in data development within ArcSDE utilizing model builder and custom geoprocessing tools for data extraction, transformation, and loading (ETL).
11/21 – 06/24	**Bossier City Assessor** • Project lead in development of an internal, public, and professional version of a tax assessor web application using the developer edition of ArcGIS Experience Builder. • Project lead in data development and upkeep.
07/21 – 06/24	**Port of Plaquemines Harbor, & Terminal District** • Lead cartographer in creating high-quality large format wall maps for the district's conference room and planning needs. • Analyst responsible for extracting data using ArcGIS GeoEvent Server and streaming a live service for state, parish, and port owned properties. • Analyst responsible for data development and ongoing maintenance. • Project lead for data migration into ArcGIS Enterprise. • Coordinated web and field application production and enhancements for port security usage.
11/21 – 12/21	**Comite Diversion: Reach 4 & White Bayou** • Analyst responsible for digitizing project boundaries and calculating cross-section points used for field stakeout and project excavation.
08/14 – 04/21	**Richland Parish 911 Address Data Development** • Standardized address format and collection methods. • Utilized ETL programming to convert data from the GIS into the Parish's Computer Aided Dispatch System.

16. STAFF EXPERIENCE

Firm employed by Environmental Science Services, Inc.					
Name	**Warren Kron, GISP**			Years of relevant experience with this employer	0.5
Title	GIS Practice Lead			Years of relevant experience with other employer(s)	25.5
Degree(s) / Years / Specialization			BS / 1997 / Landscape Architecture		
Active registration number / state / expiration date			GISP No. 57560		
Year registered	2013	Discipline	Geographic Information Systems		
Contract role(s) / brief description of responsibilities			GIS Analyst / GIS Development, Technical Expertise		

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).
05/11 – 02/12	**Enterprise GIS Data Model**- Coordinated the discovery, documentation, design, and implementation of an enterprise data model and warehouse for the East Baton Rouge Parishwide GIS Program.
05/14 – 06/15	**EBRGIS portal** - Led the development and implementation of an ArcGIS Online organization containing both internal and external Web GIS content to promote collaboration between departments and sharing authoritative data with the public.
01/15 – 05/16	**Public Safety Common Operational Platform (PSCOP)** - Led the development and implementation of an ArcGIS Online organization containing real-time data, maps, and dashboards for the Baton Rouge Police Department and other public safety agencies in East Baton Rouge Parish.
08/16 – 03/17	**Inundation Mapping** - Developed an estimated flood inundation area based on various data inputs and processing for the Great Flood of 2016 in East Baton Rouge Parish. Utilized the inundation map layer to provide a wide variety of data analytics for decision makers.
12/17 – 04/23	**Stormwater Master Plan (SMP)** - Appointed to the SMP Advisory Committee and provided recommendations and insights for the development of the master plan. Also provided oversight and expertise for the collection of stormwater asset data, and for the integration of these data with a web-based MS4 reporting system.

16. STAFF EXPERIENCE

Firm employed by Environmental Science Services, Inc.					
Name	**Amelia Adams**			Years of relevant experience with this employer	0.5
Title	GIS Analyst			Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization			BS / 2020 / Conservation Biology		
Active registration number / state / expiration date			N/A		
Year registered	N/A	Discipline	N/A		
Contract role(s) / brief description of responsibilities			GIS Analyst / GIS Development		

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).
02/22 – 12/23	**Wetland Delineation in Matagorda County, TX** - Created and maintained ArcGIS Field Maps for the purpose of collecting wetland delineation data. Provided data preparation services and created map deliverables for use in environmental permits.
01/23 – 12/23	**Cultural Resource Survey in Galveston County, TX and Cameron Parish, LA** - Created ArcGIS Field Maps to track archaeological survey tracts for cultural resources surveys. Provided data preparation services, geospatial analysis, and created map deliverables for use in archaeology permits.
02/22 – 12/23	**Gopher Tortoise Burrow Surveys in North Central LA, MS, and AL** - Created ArcGIS QuickCapture apps and ArcGIS Dashboards used to record and categorize the locations of Gopher Tortoise burrows. Provided data preparation services and created map deliverables for environmental reports.
02/24 – 05/24	**The Water Institute of the Gulf SmartPort Resiliency Project** - Lead developer of an ArcGIS Experience Builder application that presents a wide variety of environmental, climate, infrastructure, demographic, economic, and resiliency data sources designed for the major ports along the Mississippi River in Louisiana.
02/24 – 06/24	**City of Denham Springs, LA Flood Impact Analysis Viewer** - Lead analyst in the development of 3D datasets including buildings, bridges, and flood depth models. Also, created an Experience Builder web application for viewing the data in a 3D scene.

Section 17

Contract Nos. 4400029436 & 4400029583

IDIQ CONTRACTS FOR INTELLIGENT TRANSPORTATION SYSTEMS (ITS) DESIGN AND IMPLEMENTATION SERVICES

17. FIRM EXPERIENCE

Firm Name	**Neel-Schaffer, Inc.**	Past Performance Evaluation Category(ies)*	ITS
Project name	**ITS Scott to Lake Charles**	Firm responsibility (prime or sub?)	Prime
Project number	H.013256	Owner's name	LADOTD
Project location	Lafayette, Acadia, & Jefferson Davis Parishes	Owner's Project Manager	Alaa Shams
Owner's address, phone, email	1201 Capital Access Rd., Baton Rouge, LA 70802; (225) 379-1497; alaa.shams@la.gov		
Services commenced by this firm (mm/yy)	09/20	Total consultant contract cost ($1,000's)	$276
Services completed by this firm (mm/yy)	Present	Cost of consultant services provided by this firm ($1,000's)	$140

To improve safety and reliability of Louisiana's most traveled roadway (I-10), the Neel-Schaffer team, led by **Nick Ferlito**, was tasked with **developing construction plans** for **15 CCTV sites** from Scott to Lake Charles, Louisiana. As prime consultant, Neel-Schaffer performed **project management** by developing the **scope of the project** and was also responsible for **coordination meetings and project reporting**. **Jonathan Duhe**, performed the role of project manager for Neel-Schaffer for this project and developed the **project schedule** and provided **monthly status reports**.

***Special Consideration**: The team performed initial field observations at camera height to identify the appropriate locations for CCTV which would minimize occlusions and maximize views. Additionally, the site locations were identified in the field with the mindset of long-term operation and maintenance. Cameras were designed on lowering devices for ease of maintenance and long-term cost savings to the department, but located where at any time in the future, large trucks could access the site and provide necessary repairs or supplemental equipment, future proofing the corridor.*

This project included **ITS equipment** upgrades to two existing sites for remotely operable power distribution units and new CCTV cameras. Additionally, one existing site was retrofitted for camera lowering devices for ease and cost savings to maintenance efforts. Current Neel-Schaffer team member, **Clarke Chauvin** (working for ITS LLC at the time), worked with DOTD ITS to compare **network design** alternatives for **ITS Communications**. Different arrangements of fiber rings were presented showing the benefits of each to ensure DOTD received reliable, redundant communications infrastructure upon project completion.

Image shows kmz with alternative locations investigated for one site to maximize CCTV views.

Challenge: FAA analysis identified locations where camera poles would require a permit and flashing beacon. **Solution**: A reduction in these pole heights still allowed for a quality camera view but avoided those additional requirements.

Challenge: Communications for this project used existing privately owned fiber. **Solution**: Performed extensive coordination with the fiber utility to identify tie-in locations, especially considering some boxes were overgrown or covered. Provided additional design support during construction for plan updates.

To support the construction of this project, Neel-Schaffer was also tasked with providing **technical support during construction** which included responding to **RFI's**, reviewing material **shop drawings**, and **product data** such as fiber testing results. More challenges arose as the fiber utility updated tie-in locations and fiber drops needed to be relocated. Additionally, a bridge construction project was identified at US 165 overpass, which significantly impacted the tie in location, but our team worked with the contractor to identify solutions to resolve all issues.

This project was performed with team members Intelligent Transportation Systems LLC and Vectura Consulting Services, LLC, included on this proposal.

Firm members: N. Ferlito, J. Duhe, S. Popay, Lonny Territo, C. Chauvin (formerly with ITS LLC)

17. FIRM EXPERIENCE

Firm Name	**Neel-Schaffer, Inc.**	Past Performance Evaluation Category(ies)*	ITS
Project name	**Alexandria ITS Ph 2**	Firm responsibility (prime or sub?)	Prime
Project number	H.011504	Owner's name	LADOTD
Project location	Rapides Parish	Owner's Project Manager	Alaa Shams
Owner's address, phone, email	1201 Capitol Access Rd., Baton Rouge, LA 70802; (225) 379-1497; alaa.shams@la.gov		
Services commenced by this firm (mm/yy)	09/22	Total consultant contract cost ($1,000's)	$317
Services completed by this firm (mm/yy)	Present	Cost of consultant services provided by this firm ($1,000's)	$153

Planned as the second phase of ITS deployments in the Alexandria, LA area, Neel-Schaffer was tasked with **developing construction plans** along US 167 (Pineville-Expressway) to supplement the critical river crossing route with new ITS deployments. **Nick Ferlito** led a team which performed **project management** (**Jonathan Duhe**), led **coordination meetings**, executed **project reporting**, and developed **engineering plans, specifications, and construction estimates**.

The team used drones to compare alternative camera locations for plan development to ensure optimum vantage. Likewise, the sites were assessed for long term operation and maintenance efforts for access and ground conditions. This project included design for new **ITS deployments** for CCTV sites as well as **ITS upgrades of existing infrastructure**. The **network design** along US 167 for the CCTV sites was developed with fiber optics and used a collapsed ring structure to include redundancy and no single point of failure.

***Special Consideration**: In addition to ITS communications, design measures were taken to develop fiber communications for two signal corridors which intersect this ITS route to allow for the easy and inexpensive integration of signal communications in the future.*

Existing ITS Site upgraded from wireless to fiber communications

Challenge: With the Red River physically separating these new ITS locations with DOTD's existing communications network, **Clarke Chauvin** led efforts in wireless **network design**.

Solution: Two existing ITS sites along US 71/US 165 were included in these design plans to have **infrastructure upgrades**, allowing for communications across the river. Between the two existing sites, fiber communications were designed to replace wireless, improving reliability for that link. From one existing site to the new sites across the river, a **wireless link analysis** was performed and a **report** created demonstrating the available options and expected performance of each alternative.

To supplement the inclusion of wireless communications into this project, the team **developed updated specifications** for use in this project as well as future projects. Additionally, the team developed a **system engineering analysis** to assure the interoperability of physical systems and a coherent traffic management program, which included how the project fit into the national and **regional ITS architectures**.

This project was performed with team members Intelligent Transportation Systems LLC and Vectura Consulting Services, LLC, included on this proposal.

Firm members: N. Ferlito, J. Duhe, S. Popay, Lonny Territo, C. Chauvin

17. FIRM EXPERIENCE

Firm Name	**Neel-Schaffer, Inc.**	Past Performance Evaluation Category(ies)*	ITS
Project name	**Lafayette & Northshore Regional Architecture Updates**	Firm responsibility (prime or sub?)	Prime
Project number	H.014513 & H.015136	Owner's name	LADOTD
Project location	Lafayette, St. Helena, St. Tammany, Tangipahoa & Washington Parishes	Owner's Project Manager	Alaa Shams & Tyler Henderson
Owner's address, phone, email	1201 Capitol Access Rd., Baton Rouge, LA 70802; (225) 379-1497; alaa.shams@la.gov		
Services commenced by this firm (mm/yy)	09/21, 06/23	Total consultant contract cost ($1,000's)	$162
Services completed by this firm (mm/yy)	08/22, Present	Cost of consultant services provided by this firm ($1,000's)	$84

To develop a plan for incorporating planned ITS infrastructure into the existing network, Neel-Schaffer was tasked with developing an updated **regional ITS architecture reports** and associated RAD-IT files for both the Lafayette and Northshore regions. This report identified the stakeholders associated with existing and proposed ITS infrastructure as well as the needed communication pathways associated with various entities. As principal of the prime consultant, **Nick Ferlito** led the team's efforts and provided oversight as well as supporting the **development of a detailed project scope**, ensuring a framework for coordination, a mutual understanding of deliverables, and identifying the execution of work.

The project manager, **Jonathan Duhe**, was responsible for **coordination meetings** between DOTD and the consultant for project kickoff, **monthly status reports**, and the **project schedule**. Detailed **meeting minutes** were critical on these stakeholder meetings to accurately capture all necessary updates.

Challenge: Stakeholder feedback from various sources.

Solution: Used multiple methods (survey, in-person, and online meetings) to elicit stakeholder feedback to provide the most comprehensive update possible.

The team worked to incorporate stakeholder feedback into the **updated architecture documents**, using RAD-IT, overseen by **Clarke Chauvin**. The updated reports were developed by the team based on the updated terminology associated with new FHWA architecture guidelines as well as the stakeholder feedback. The architecture updates were explained and documented in the applicable **regional ITS architecture report**.

Updated ITS Architecture structure in RAD-IT

Updated Regional ITS Architecture Report

***Special Consideration**: Changes to FHWA architecture guidelines and software called for a complete overhaul of the architecture structure, operational concept, functional requirements, interface requirements, and ITS standards.*

This project was performed with team members Intelligent Transportation Systems LLC and Vectura Consulting Services, LLC, included on this proposal.

Firm members: N. Ferlito, J. Duhe, C. Chauvin, J. Johnson, S. Andem

17. FIRM EXPERIENCE

Firm Name	**Neel-Schaffer, Inc.**	Past Performance Evaluation Category(ies)*	ITS
Project name	**Cameron Liquefaction Plant TIA**	Firm responsibility (prime or sub?)	Prime
Project number	DOTD Permit Project	Owner's name	LADOTD
Project location	Sulphur, LA	Owner's Project Manager	Jared Chaumont
Owner's address, phone, email	5827 Hwy 90 East, Lake Charles, LA 70615; (337) 437-9105, jared.chaumont@la.gov		
Services commenced by this firm (mm/yy)	05/18	Total consultant contract cost ($1,000's)	$150
Services completed by this firm (mm/yy)	12/18	Cost of consultant services provided by this firm ($1,000's)	$150

A boom of industrial development in Lake Charles, LA led to roadway infrastructure that was insufficient to handle the volume demands associated with the changing and impactful traffic volumes stemming from different phases of industrial construction in the area. To support the changing needs of the roadways, Neel-Schaffer, led by **Nick Ferlito**, was tasked with designing an adaptive traffic signal corridor along LA 1256 (Ruth St) in Sulphur, LA. This corridor ran from I-10 to the south along Ruth St., including 6 traffic signals (5 DOTD and 1 local).

The project manager, **Jonathan Duhe**, , included aspects of both ITS and Traffic engineering and began with developing **traffic signal reports** of the affected signals. The report included documenting the existing conditions and evaluating the signal through 6 proposed phases of construction with varying traffic volumes. An addendum was developed for associated **traffic impact studies**, which included **traffic simulation modeling** using DOTD standard software, and traffic signal plans were developed.

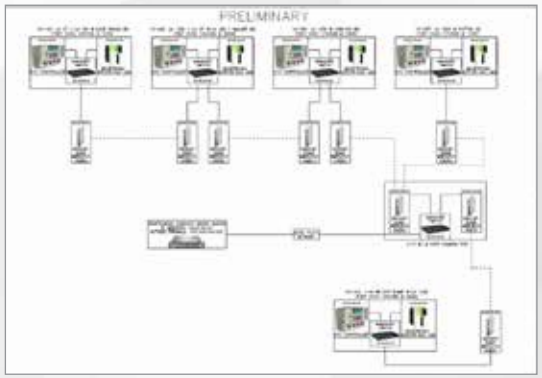
Challenge: Existing infrastructure was insufficient to support adaptive traffic signal operations.

Solution: Traffic signal upgrades including new radar vehicle detection, new traffic signal controller (980 ATC), and new communications infrastructure.

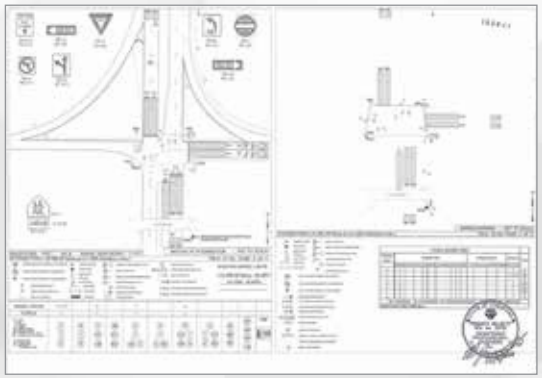
To develop the required traffic signal communications, **Clarke Chauvin** performed **network design** and developed **communication plans** for permitting and construction for this project. He also performed integration with the DOTD ITS network as well as into the ATMS.now server for adaptive operations. Clarke also worked on performance monitoring and timing optimization for the signal corridor after deployment to ensure efficient traffic flow.

***Special Consideration**: To ensure communications down the signal corridor and allow for additional growth in the future, a wireless radio system was implemented which, due to its reliability, has now incorporated additional ITS devices..*

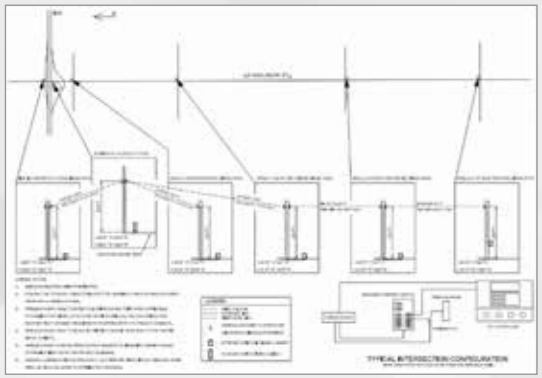
Firm members: N. Ferlito, J. Duhe, S. Andem, C. LeBeouf, C. Chauvin (formerly with ITS LLC)



Network Communication Plans



Adaptive Traffic Signal Inventory Plan Sheets



Wireless Communication Design

17. FIRM EXPERIENCE

Firm Name	**Neel-Schaffer, Inc.**	Past Performance Evaluation Category(ies)*	ITS
Project name	**ITS FMS Data Collection/Inventory**	Firm responsibility (prime or sub?)	Prime
Project number	H.012381	Owner's name	LADOTD
Project location	Statewide, Louisiana	Owner's Project Manager	Alaa Shams
Owner's address, phone, email	1201 Capitol Access Rd., Baton Rouge, LA 70802; (225) 379-1497; alaa.shams@la.gov		
Services commenced by this firm (mm/yy)	5/22	Total consultant contract cost ($1,000's)	$249
Services completed by this firm (mm/yy)	9/22	Cost of consultant services provided by this firm ($1,000's)	$101

To fully utilize DOTD's fiber infrastructure throughout the state, Neel-Schaffer was tasked with performing ITS and fiber inventory data collection in the **Baton Rouge, Lake Charles, Monroe, and New Orleans regions**. This data was collected at **CCTV, DMS, Traffic Signal and communication hub sites** with the goal of identifying the quality and quantity of in use and dark fibers for communication tracking and planning. **Nick Ferlito** led a team of engineers and technicians, performing **project management**, data collection, and inventory.

Challenge: The collected data was input into DOTD's fiber management system through another project with a concrete end date.

Solution: **Jonathan Duhe** developed a **scope of services** around an expedited timeframe. The team was able to surpass even the expedited **project schedule**, providing data months before the needed deadline.

Additionally, Jonathan supported the project by providing **monthly status reports** and **project reporting**.

Working as a subconsultant on the team, **Clarke Chauvin** led a field team to perform **OTDR fiber testing and data collection**, training personnel and providing quality control on collected data. With years of hands-on experience with ITS and signal sites, Clarke was able to ensure proper inventory collection and validate fiber testing results. This helped develop a quality fiber management system for DOTD's future use.

This project was performed with team members Intelligent Transportation Systems LLC and Vectura Consulting Services, LLC, included on this proposal.

Firm members: N. Ferlito, J. Duhe, L. Territo, C. Chauvin (formerly with ITS LLC)

17. FIRM EXPERIENCE

Firm name	**Intelligent Transportation Systems LLC**	Past Performance Evaluation Category(ies)*	ITS
Project name	**IDIQ Contract for Intelligent Transportation Systems (ITS) Management, Operations, and Maintenance Engineering and Inspection (ME&I)**	Firm responsibility (prime or sub?)	Sub
Project number	H.013868	Owner's name	LADOTD
Project location	Statewide Louisiana	Owner's Project Manager	Joshua Harrouch
Owner's address, phone, email	1201 Capitol Access Road; Baton Rouge, LA 70802; (225) 242-4640; joshua.harrouch@la.gov		
Services commenced by this firm	04/20	Total consultant contract cost ($1,000's)	$12,000
Services completed by this firm	Ongoing	Cost of consultant services provided by this firm ($1,000's)	Ongoing

ITS LLC has been a chosen partner of LADOTD for ITS Maintenance, Engineering, and Inspection since the inception of the first retainer contract awarded in 2012. Since that time, ITS LLC has enjoyed a continuous relationship with LADOTD's ITS Section and has participated on all subsequent retainers since (44-2500 & 44-7102). Since the first contract, ITS LLC's services have been expanded to include more defined roles for project management, operations, engineering, and inspection. ITS LLC is proud of its ongoing commitment to the maintenance of LADOTD's ever-growing ITS infrastructure.

On this contract, ITS LLC is responsible for both ongoing routine maintenance as well as responsive repairs for outages that occur. The ongoing maintenance includes visiting 236 camera sites to provide checking, testing, inspecting, cleaning, and periodic repair and replacement of components as required by the routine ME&I schedule. Technicians ensure that cameras are working properly, that all equipment – including all wiring and connections – is in good working order, that the site is cleaned and free of debris of unwanted insects and vegetation, and that the operations meet LADOTD standards. This results in limited downtime of the equipment and the best level of service for the motoring public. This work includes devices such as traffic cameras, dynamic message signs, vehicle detectors, ramp meters, emergency crossover gates, and queue warning systems.

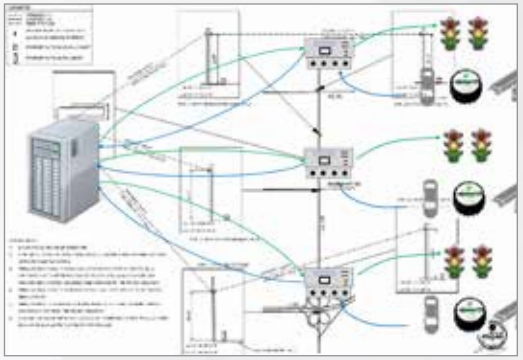
The responsive ME&I activities are performed to correct any reported failures of ITS equipment. When an outage occurs at one of the 236 sites assigned to ITS LLC, it is reported to the firm. ITS LLC technicians respond to the site within 24 hours to troubleshoot the problem, perform system testing, and make necessary hardware repairs to get that site back up and running as quickly and safely as possible. This sometimes involves coordination with equipment manufacturers' tech support personnel in addition to ITS LLC's in-house technicians.

Firm members: Jonathan Fox, Colin Francis, Kimberly McDaniel, Diane Hammonds

17. FIRM EXPERIENCE

Firm name	**Intelligent Transportation Systems LLC**	Past Performance Evaluation Category(ies)*	ITS
Project name	**Lake Charles Chemical – Adaptive Traffic Signal Systems A & B**	Firm responsibility (prime or sub?)	Sub
Project number	L2CC-990-11-DW-24	Owner's name	Sasol
Project location	Westlake and Sulphur, LA	Owner's Project Manager	Eric Flemming
Owner's address, phone, email	2201 Old Spanish Trail; Westlake, LA; eric.flemming@worleyparsons.com		
Services commenced by this firm	08/15	Total consultant contract cost ($1,000's)	Confidential
Services completed by this firm	07/19	Cost of consultant services provided by this firm ($1,000's)	Confidential

ITS LLC worked with the Louisiana Department of Transportation and Development and Trafficware, the system manufacturer, to turn on the first Adaptive traffic signal system in the State of Louisiana. The system has eased travel along the corridor, allowing better progression and more efficient operations.



Getting to the point of turning on the system took a lot of project management, planning, coordination, design and integration. ITS LLC performed signal design for six traffic signals on the Sampson St. corridor (System A) and four traffic signals on the LA 108 corridor (System B). The design included upgrading controllers to ATCs, upgrading detection for increased accuracy and traffic data collection, as well as PTZ CCTV camera for remote monitoring (see picture) and seven BlueTOAD units for travel time and speed data collection. In addition to determining the network allocations and communications paths, ITS LLC also designed, configured, and implemented the communications equipment.

A private cellular network connection was originally chosen as an alternative to fiber optic communications. ITS LLC was retained to provide ongoing maintenance support which has included troubleshooting server, network, and detection issues. Since DOTD's ITS Section completed the Lake Charles ITS Phase 2, it allowed ITS LLC to move the cellular communications system over to an unlicensed wireless radio system. ITS LLC conducted wireless assessments, designed, configured and installed 18 radio units between the two systems. This has resulted in fewer adaptive nuisance alarms as well as removed ongoing monthly cellular charges. This project ultimately brought 12 adaptive signals online and established the infrastructure needed to continue to add adaptive systems in the area. Sasol and the design team were recognized for their efforts by receiving the 2018 Louisiana Transportation Conference award for "Use of Innovative Product or Technology."

Firm members: Jonathan Fox

17. FIRM EXPERIENCE

Firm name	**Intelligent Transportation Systems LLC**	Past Performance Evaluation Category(ies)*	ITS
Project name	**Bonnet Carre ITS Upgrades**	Firm responsibility (prime or sub?)	Sub
Project number	H.015137.1	Owner's name	LADOTD
Project location	St John the Baptist, St Charles and Jefferson Parishes, Louisiana	Owner's Project Manager	Ben Nichols
Owner's address, phone, email	1201 Capitol Access Road; Baton Rouge, LA 70802; (225) 379-1232; ben.nichols@la.gov		
Services commenced by this firm	06/23	Total consultant contract cost ($1,000's)	$72.6
Services completed by this firm	Ongoing	Cost of consultant services provided by this firm ($1,000's)	TBD

ITS LLC is providing services related to the development of a Systems Engineering Analysis (SEA) to improve mobility and safety in the I-10 and I-310 corridors by improving the services delivered using intelligent transportation systems (ITS). The 12 mile bridge (a.k.a. Bonnet Carre Spillway bridge) is a critical link between Baton Rouge, Hammond, and New Orleans. The bridge-mounted ITS equipment is challenged daily by this marine environment.

ITS LLC assessed the existing ITS infrastructure, which included a visual assessment and site inventory, communications assessment with OTDR testing, electrical assessments with voltage data recorders, and structural assessment based on observations and unmanned aerial vehicle (UAV/drone) imagery. The FRE suspended conduit along the bridge has bell joint separating with power and fiber optic cables spilling out. ITS LLC helped support the data collection by using a Go-Pro camera to capture areas that drone footage was not possible because of tree foliage adjacent to the bridges.

Because of ITS LLC's familiarity with the sites on the bridge, they were able to arrange the appropriate temporary traffic control to perform the field work from the shoulder. As part of the alternative analyses, ITS LLC developed feasibility of using unlicensed wireless Ethernet radios in several topology arrangements (e.g., hub and spoke, daisy chain, hybrid). Solar powered alternatives were also considered as part of the assessment, but considered as a secondary means to shore power as they require great maintenance demand. Estimates of probable cost was developed for the alternatives and included in the potential project budget.

Firm members: Jonathan Fox, Colin Francis, Chris Dodt

17. FIRM EXPERIENCE

Firm name	**Vectura Consulting Services, LLC**	Past Performance Evaluation Category(ies)*	CE&I/OV
Project name	**Shreveport Immediate ITS Phase 2b**	Firm responsibility (prime or sub?)	Sub
Project number	H.006474.1	Owner's name	LADOTD
Project location	Shreveport, LA	Owner's Project Manager	Lucy Kimbeng
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802; (225) 379-2528; lucy.kimbeng@la.gov		
Services commenced by this firm	03/18	Total consultant contract cost ($1,000's)	Unknown
Services completed by this firm	06/18	Cost of consultant services provided by this firm ($1,000's)	$18.302

As a sub-consultant, Vectura was the task leader for Procurement and Alternative Analysis Configuration portions of the Systems Engineering Analysis (SEA) that complied with Code of Federal Regulations (CFR), Title 23, 940.11). The Alternatives Analysis Configuration consisted of analyzing three possible project configurations. The pros and cons of the needed equipment and communication options were documented. This task consisted of a field visit with DOTD staff to verify fiber optic lines, junction boxes and traffic signal controller types.

The Procurement task consisted of investigating the methods of procurement for the deployment project where the procurement options the pros and cons for each method were documented.

Firm members: Brin Ferlito, Laurence Lambert and Bridget Robicheaux

17. FIRM EXPERIENCE

Firm name	**Vectura Consulting Services, LLC**	Past Performance Evaluation Category(ies)*	Traffic, CE&I/OV
Project name	**I-110 ITS Deployment SEA**	Firm responsibility (prime or sub?)	Sub
Project number	H.013261.1-1	Owner's name	LADOTD
Project location	Baton Rouge, LA	Owner's Project Manager	Alaa Shams
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802; (225) 379-1497; alaa.shams@la.gov		
Services commenced by this firm	09/18	Total consultant contract cost ($1,000's)	Unknown
Services completed by this firm	12/18	Cost of consultant services provided by this firm ($1,000's)	$16.363

Vectura provided an Alternatives Analysis Configuration and Procurement Analysis as part of a System Engineering Analysis (SEA) for I-110 CCTV Cameras and DMS deployment to comply with Code of Federal Regulations (CFR), Title 23, 940.11.

The alternative analysis consisted of a field visit along the I-110 corridor to examine CCTV and DMS locations. As part of the field visit, drones were flown at the proposed heights of the CCTV's and DMS's to determine if any sight line issues were present. Also included in the site visit was the evaluation of connecting three pump stations and traffic signals to the proposed fiber optic line. Three possible project configurations were developed for this task along with pros and cons of the needed equipment and communication options.

Vectura also investigated the methods of procurement for the deployment project. Procurement options were documented with the identification of the pros and cons for each method.

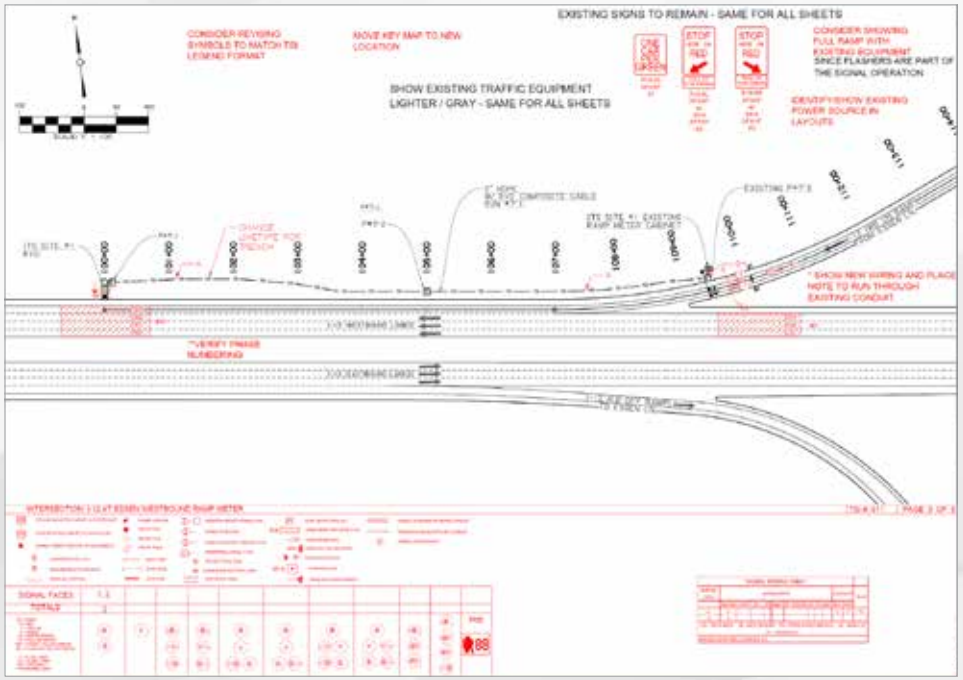
Firm members: Brin Ferlito, Laurence Lambert and Bridget Robicheaux

17. FIRM EXPERIENCE

Firm name	**Vectura Consulting Services, LLC**	Past Performance Evaluation Category(ies)*	ITS
Project name	**I-12: Essen Lane to Walker ITS Ramp Meter Upgrades**	Firm responsibility (prime or sub?)	Sub
Project number	H.012374.5	Owner's name	LADOTD
Project location	I-12 (District 61 / 62)	Owner's Project Manager	Alaa Shams
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802, 225-379-1497, alaa.shams@la.gov		
Services commenced by this firm	07/21	Total consultant contract cost ($1,000's)	Unknown
Services completed by this firm	12/21	Cost of consultant services provided by this firm ($1,000's)	$22,490

Based on previous studies, DOTD sought to update the existing ramp meters to a dynamic or responsive system on I-12 from Essen Lane to the Walker exit. Vectura developed Traffic Signal Inventory (TSI) sheets to show the proposed upgrades to the ramp meter system that included new stop bar detection locations, mainline radar vehicle detection, queue detectors, striping plans, controller upgrades, underground plant equipment layouts. Using the DOTD as-built plans for the existing ramp meters, Vectura used "redline" comments to update signal inventory (TSI) sheets. The final deliverable showed ramp meter configurations for one-lane, two-lane, and three-lane on-ramps. Vectura coordinated with Sections 45 and 56 as well as Districts 61 and 62.

Firm members: Laurence Lambert, Brin Ferlito, and Reece Rodrigue



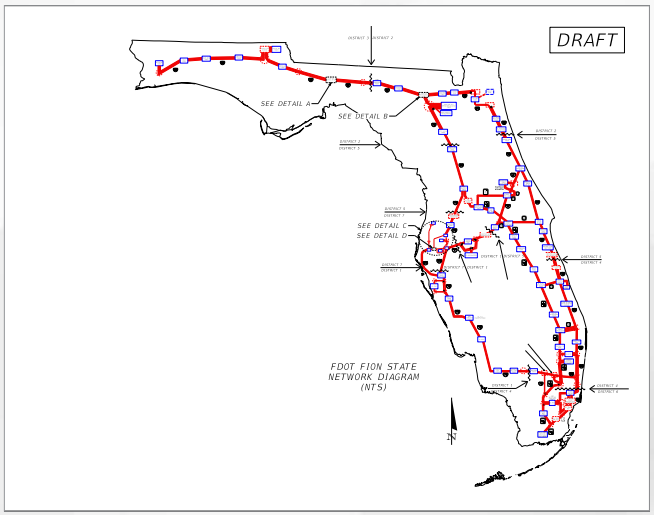
17. FIRM EXPERIENCE

Firm name	**Halff Associates, Inc.**	Past Performance Evaluation Category(ies)*	ITS
Project name	**Florida ITS Operations Network**	Firm responsibility (prime or sub?)	Sub
Project number	N/A	Owner's name	Florida DOT – Central Office
Project location	Statewide, Florida	Owner's Project Manager	Fred Heery, PE
Owner's address, phone, email	605 Suwannee Street, Tallassee, FL 32399; (850) 410-5600; Fred.Heery@DOT.State.FL.US		
Services commenced by this firm (mm/yy)	06/2017	Total consultant contract cost ($1,000's)	$599
Services completed by this firm	05/2022	Cost of consultant services provided by this firm ($1,000's)	$599

Halff provided design and construction plans to the FDOT Central Office for a fiber optic network spanning more than 2,000 miles, connecting the RTMCs across Florida to the FDOT Traffic Engineering Research Lab (TERL) and FDOT Central Office. The Florida ITS Operations Network (FION), previously called SICN, utilized a combination of fiber and the statewide microwave system to provide statewide interconnectivity. The upgrade to an all-fiber optic network improved data and video transmittance between sites.

Halff coordinated with each FDOT District and various local municipalities across the state to obtain dedicated fiber reservations and identify delineation points for splicing or patching the chord configurations necessary to deliver the network across District lines. Detailed documentation was required to certify project success due to the significant size of the network and the large number of stakeholders and fiber owners. New fiber optic cable laterals were designed where needed to complete links between District-owned fiber backbones and fiber drops into FDOT Central Office hub buildings to regenerate fiber optic signal between network nodes.

Firm members: Tracy Forester, Alvin Lubis



17. FIRM EXPERIENCE

Firm name	**Halff Associates, Inc.**	Past Performance Evaluation Category(ies)*	ITS
Project name	**ITS Design-Build on I-10**	Firm responsibility (prime or sub?)	Sub
Project number	N/A	Owner's name	Florida DOT – District 3
Project location	District 3, Florida	Owner's Project Manager	Amy DiRusso
Owner's address, phone, email	Highway 90 East, Chipley, Florida; (850) 330-1241; Amy.Dirusso@DOT.State.FL.US		
Services commenced by this firm	07/2013	Total consultant contract cost ($1,000's)	$904
Services completed by this firm	10/2019	Cost of consultant services provided by this firm ($1,000's)	$570

Halff provided design, permitting, public involvement, and construction services for the implementation of a fiber optic network, and ITS infrastructure, for approximately 223 miles along three regionally significant routes:

A. SR8/Interstate 10 from East of SR 87 (MM 32) to East of County Road (CR) 59 (MM 190)

B. SR 75/US 231 from CR 2301 north to the Alabama State Line

C. SR 10/US 90 from SR 75/US 231 to a new RTMC at the FDOT District 3 Headquarters Complex in Chipley, Florida

This project was a regionally critical project that closed a large gap in the existing ITS and fiber network and now provides backbone connectivity to the entire region of northwest Florida, from the Alabama state line to east of Tallahassee. The ITS infrastructure deployed as part of this project connects the existing FMS systems in Pensacola and Tallahassee, providing a continuous ITS infrastructure. Specific elements of the project included: 144-count fiber trunk line along SR 8 (I-10) and 72-count fiber trunk lines along SR 75/US 231 and SR 10/US 90 over a 10 gigabit Ethernet network, a State-of-the-art Regional Traffic Management Center (RTMC), nearly 400 device locations, and functionality and support for the Road Ranger Service patrol.

Firm members: Tracy Forester

17. FIRM EXPERIENCE

Firm name	**Halff Associates, Inc.**	Past Performance Evaluation Category(ies)*	ITS
Project name	**Flagler Weigh Station Mainline Screening**	Firm responsibility (prime or sub?)	Sub
Project number	N/A	Owner's name	Florida DOT – Central Office
Project location	Flagler County, Florida	Owner's Project Manager	Steven Marshall
Owner's address, phone, email	605 Suwannee Street, Tallassee, FL 32399; (850) 410-5530; Steven.Marshall@DOT.State.FL.US		
Services commenced by this firm	04/22	Total consultant contract cost ($1,000's)	$222
Services completed by this firm	Est. 09/24	Cost of consultant services provided by this firm ($1,000's)	$222

As part of this project, Halff supported FDOT's Motor Carrier Size and Weight (MCSAW) Communications Network by designing an electronic trucking bypass system. This system allows trucks entering the state to be weighed once and then tracked throughout the state, enabling them to bypass other weigh stations. Trucks were monitored using a combination of Lineas quartz WIM sensors, static weigh scales, license plate readers (LPR), USDOT cameras, and lidar scanners. This state-of-the-art system saved commercial truckers and the FDOT time and money, made possible by the statewide fiber network designed by Halff.

Firm members: Tracy Forester, Matt Thibault, Alvin Lubis

17. FIRM EXPERIENCE

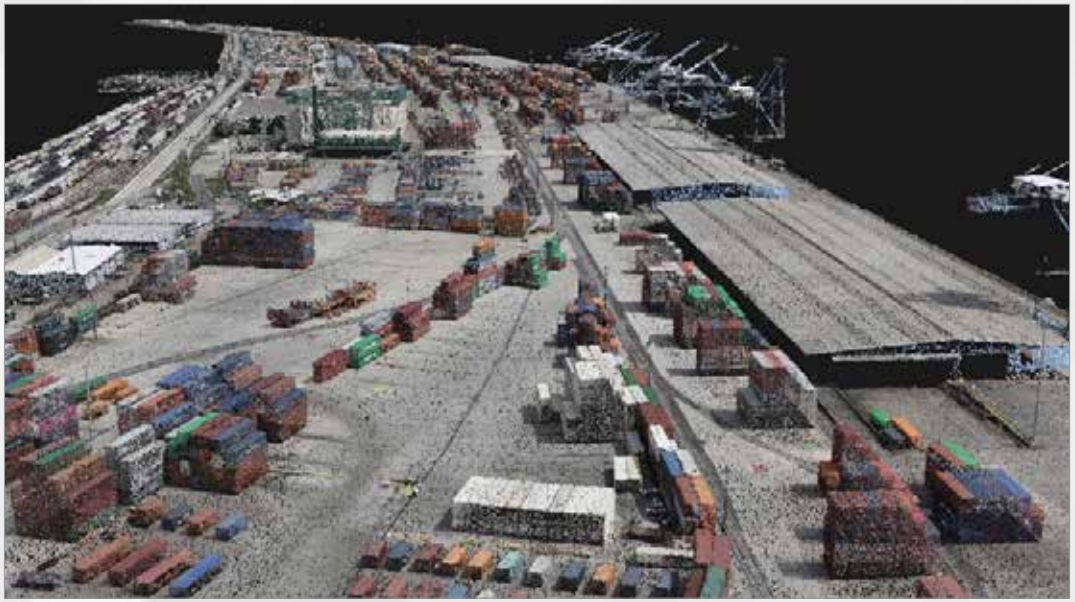
Firm name	**Environmental Science Services, Inc**	Past Performance Evaluation Category(ies)*	Other (GIS)
Project name	**Maritime Port Enterprise GIS Development**	Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	Port of New Orleans
Project location	New Orleans, LA	Owner's Project Manager	Chris Gilmore
Owner's address, phone, email	1350 Port of New Orleans Pl, New Orleans, LA 70130; (800) 776-6652; chris.gilmore@portnola.com		
Services commenced by this firm	01/17	Total consultant contract cost ($1,000's)	$1,100
Services completed by this firm	12/22	Cost of consultant services provided by this firm ($1,000's)	$1,100

Through competitive bid processes the Port of New Orleans (PortNOLA) has twice selected Es^2 (2017-2019 and 2019-2022 contracts) to provide technical assistance with the development, integration, and maintenance of an Enterprise GIS for critical infrastructure security purposes. Es^2 provided geodatabase development, converting and organizing existing data for GIS development, field data collection using high-accuracy GPS equipment, and web and mobile application development.

The purpose of this effort was to assist with converting and organizing existing data for GIS development including:

- System Design and Data Services
  - Create a geodatabase of Port assets from AutoCAD drawings
  - Develop a file structure and data maintenance procedures
  - On-site digitization and vectorization of hard copy documents
  - Data acquisition plan development
  - Security protocols development
- Configuration and Training
  - Configure Survey 123 apps for departmental forms
  - Configure apps for departmental workflows
  - Configure maps and apps for Emergency Operations Center
  - Training
- Real-Time Data Integration Using GeoEvent Server
  - Vessel AIS
  - Locomotive GPS
  - Weather Stations
  - Waze Traffic
  - Water Level Gauges

Firm members: Andrew Milanes, Garth Sullivan



17. FIRM EXPERIENCE

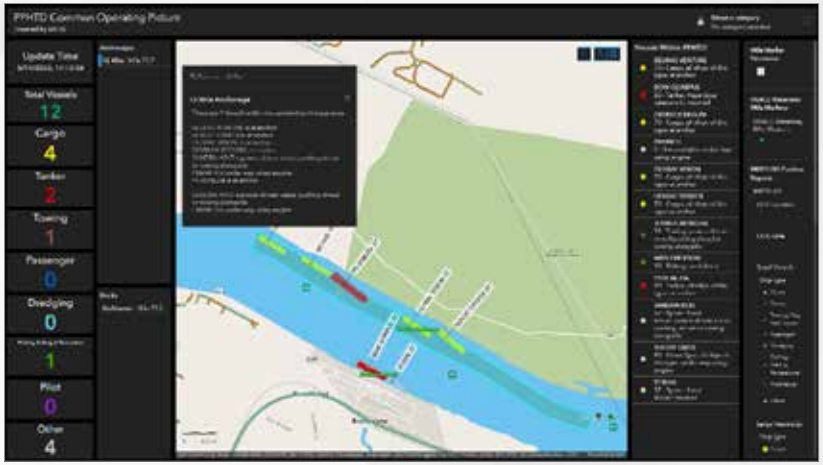
Firm name	**Environmental Science Services, Inc**	Past Performance Evaluation Category(ies)*	Other (GIS)
Project name	**Maritime Port Enterprise GIS /Digital Twin Development**	Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	Plaquemines Port Harbor and Terminal District
Project location	Plaquemines Parish, LA	Owner's Project Manager	Jalen Brown
Owner's address, phone, email	8056 LA-23, Belle Chasse, LA, 70037; (504) 682-7920; jbrown@pphtd.com		
Services commenced by this firm	04/2020	Total consultant contract cost ($1,000's)	$1,315
Services completed by this firm	Ongoing	Cost of consultant services provided by this firm ($1,000's)	$1,315

Through a competitive bid process the Plaquemines Port Harbor and Terminal District (PPHTD) selected Es[2] to provide GIS professional services with the development, integration, and maintenance of an Enterprise GIS and Digital Twin for critical infrastructure and domain awareness purposes.

The purpose of this effort was to design, develop, and implement an enterprise GIS for critical infrastructure and domain awareness.

- Geospatial Strategy Development
  - o Interview key department personnel to determine GIS needs
  - o Development of a geospatial strategy to define how GIS will be utilized within the organization
  - o Create department and personnel GIS data workflows necessary to implement the geospatial strategy
- System Design and Data Services
  - o Installation and configuration of ArcGIS Enterprise, including GeoEvent Server
  - o Create a geodatabase of Port assets
  - o Data acquisition plan development
  - o Security protocols development
- Configuration and Training
  - o Configure apps for departmental workflows
  - o Training
- Real-Time Data Integration Using GeoEvent Server
  - o Vessel AIS
  - o Geofencing for docks and anchorages
  - o Automated tariff documentation
- Security Cameras and Wireless Network Installation and Maintenance

Firm members: Andrew Milanes, Warren Kron, Garth Sullivan, Amelia Adams



17. FIRM EXPERIENCE

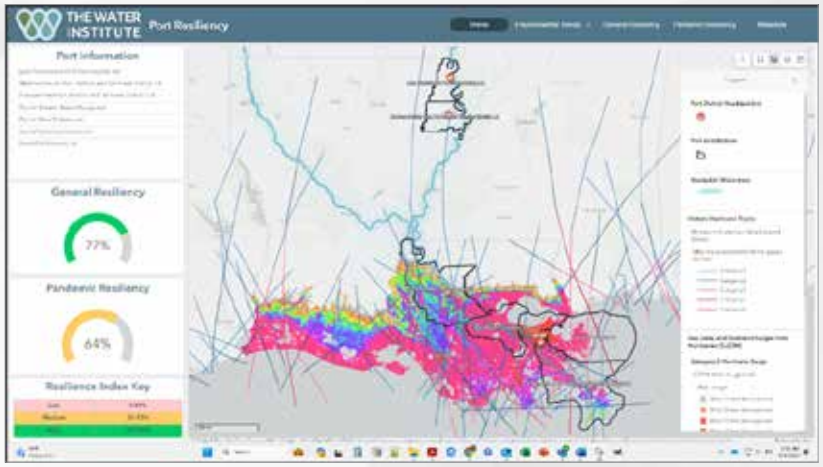
Firm name	**Environmental Science Services, Inc**	Past Performance Evaluation Category(ies)*	Other (GIS)
Project name	**Maritime Port Enterprise GIS Development**	Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	Port of South Louisiana
Project location	Reserve, LA	Owner's Project Manager	Brian Cox
Owner's address, phone, email	155 W 10th St., Reserve, LA 70084; (504) 682-7920; bcox@portsl.com		
Services commenced by this firm	02/23	Total consultant contract cost ($1,000's)	$1,042
Services completed by this firm	Ongoing	Cost of consultant services provided by this firm ($1,000's)	$1,042

Through a competitive bid process the Port of South Louisiana selected Es[2] to provide GIS professional services with the development, integration, and maintenance of an Enterprise GIS and Digital Twin for critical infrastructure and domain awareness purposes.

The purpose of this effort was to design, develop, and implement an enterprise GIS for critical infrastructure and domain awareness.

- Geospatial Strategy Development
  - o Interview key department personnel to determine GIS needs
  - o Development of a geospatial strategy to define how GIS will be utilized within the organization
  - o Create department and personnel GIS data workflows necessary to implement the geospatial strategy
- System Design and Data Services
  - o Installation and configuration of ArcGIS Enterprise, including GeoEvent Server
  - o Create a geodatabase of Port assets
  - o Data acquisition plan development
  - o Security protocols development
- Configuration and Training
  - o Configure apps for departmental workflows
  - o Training
- Real-Time Data Integration Using GeoEvent Server
  - o Vessel AIS
  - o Geofencing for docks and anchorages
  - o Automated tariff documentation
- Security Cameras and Wireless Network Installation and Maintenance

Firm members: Andrew Milanes, Warren Kron, Garth Sullivan, Amelia Adams



Section 18

Contract Nos. 4400029436 & 4400029583

IDIQ CONTRACTS FOR INTELLIGENT TRANSPORTATION SYSTEMS (ITS) DESIGN AND IMPLEMENTATION SERVICES

18. APPROACH:

Company Highlight:

Neel-Schaffer, Inc. (NSI) was founded in 1983 and is a **large, multi-disciplined consulting engineering firm of over 600 professional, technical, and support staff**. We are uniquely capable of successfully performing the tasks included in this contract. Our personnel have been extensively involved in **all aspects of ITS Design and Implementation** from feasibility studies and design plans to construction inspection and maintenance. Our team is qualified with **specialty certifications** which are applicable to these services and have a vision to help DOTD meet new challenges with **maintaining and updating existing infrastructure** as well as **implementing new technologies**.

Background:

Intelligent Transportation Systems (ITS) Design and Implementation includes a variety of services including, but not limited to: developments and updates to Statewide and Regional ITS Architecture documents, conducting traffic and systems engineering analyses (SEA), feasibility studies, developing engineering plans, specification, and construction estimates (PS&E), providing bid review analyses, providing technical support during construction, and testing and implementing state-of-the-art emerging ITS technologies throughout the entire state.

We are currently providing these services to DOTD for the active iteration of this IDIQ (Contract 44-16364). We understand the approach and methodology to completing these projects and have provided a summary in the sections which follow.

Approach and Methodology

We understand that the required deliverables vary based on project complexity. In the sections which follow, we provided an all-inclusive approach to delivering the project with the understanding that these submittal stages and level of detail for each submittal will **vary based on the project complexity**. We will work with the DOTD Project Manager (PM) to ensure that the scope for each task order project is **appropriately scaled down, when possible**, based on the project complexity.

The DOTD PM can request that we provide services for task orders which are at the Stage 0 feasibility stage through the Stage 5 construction stage. **We have successfully executed services for projects which we begin working on at all project stages.** This means that we understand the value of a detailed, clearly presented feasibility study, that can be easily transitioned to a separate consultant, when required. **Regardless of the initial project stage or services required, we are prepared to provide services for every stage and project type.**

Project Management and Program Assistance:

For most projects, **project management is continuous throughout the project** to ensure DOTD stays up to date on any unforeseen challenges which may arise. We begin with a meeting with DOTD and any applicable third parties to develop a detailed scope of services. Developing an **accurate and comprehensive scope of services is critical** to the facilitation of a quality project. Not only does it allow the opportunity to discuss all aspects of the project, ensuring that no deliverables or efforts are overlooked.

The meeting allows DOTD the opportunity **to identify the specific needs of the project**, express those to our team, and remove unnecessary pieces of the project, **streamlining project schedules, costs, and deliverables**. Detailed meeting minutes are collected for every meeting and sent out for agreement by all parties, ensuring a **properly documented discussion** and consensus by all parties involved. The quote below from a recent Consultant Technical Evaluation, indicates the benefits of our thorough project management.

> *"The Consultant was efficient and delivered the data before the planned delivery schedule date. This allotted enough time for the data to be input into the Nexusworx software by another Consultant."*

Coordination Meetings & Project Reporting

Coordination Meetings

Depending on the type of project, **coordination meetings can play a critical role** in the successful outcome of a project. For instance, the development or update of a **Regional ITS Architecture hinges upon the applicable feedback of all relevant stakeholders**. The success of this type of project is identified through **incorporating all feedback** into the architecture, ensuring that in the future, when funding and projects are being determined, no additional updates or addendums are needed to satisfy federal requirements. **At Neel-Shaffer, we plan the appropriate level of coordination meetings for each project to ensure its success.**

Sample RAD-IT output from Regional ITS Architecture based on stakeholder feedback

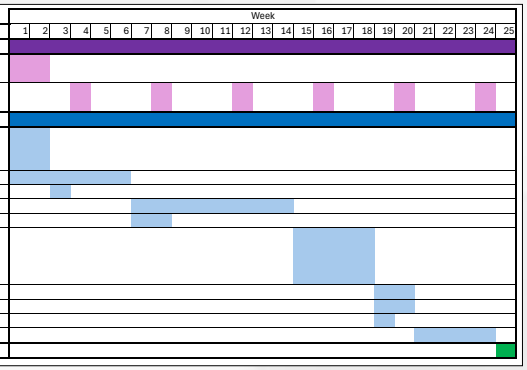
Project Reporting

All projects receive attention for project reporting through the development of a **progress schedule and monthly status reports**. In addition to providing DOTD with a convenient way to stay appraised of project status, project reporting opens a line of communication to keep DOTD updated with new developments as they arise. In addition to notifying DOTD when unforeseen or unexpected issues crop up with scope, schedule, or cost, **we see project reporting as our duty to provide proposed solutions to these issues**. **This helps DOTD assess the situation quickly and expedites any needed changes.**

Sample Project Schedules

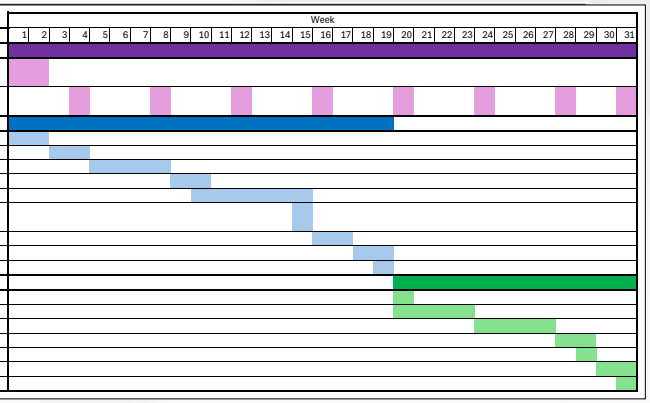
**Sample Regional ITS Architecture Update Schedule

Task No	Task Description	Duration
1.0	**Project Management**	6 months
1.1	*Project Kickoff Meeting* (+ Meeting Minutes)	2 weeks
1.2	*Monthly Status Report/Schedule Update* (recurring)	1 day
2.0	**Regional ITS Architecture Update**	
2.1	*Identify Needs* - Deliverables: Goals and objectives, background, approach to updates, organization of report	2 weeks
2.2	*Develop Architecture Scope*	6 weeks
2.3	*Relationship to Regional Planning*	1 week
2.4	*Coordination with Stakeholders*	2 months
2.5	*Existing System Inventory*	2 weeks
2.6	*Update ITS Architecture* - Update ITS Services, System Interfaces, Operational Concepts, Functional Requirements, & ITS Standards	1 month
2.7	*Identify Agreements*	2 weeks
2.8	*Project Deployment Sequence*	2 weeks
2.9	*Architecture Maintenance Plan*	1 week
2.10	*Develop Regional Architecture Report*	1 month
3.0	**Submit Deliverables**	1 day



**Sample ITS System Engineering Analysis Schedule

Task No	Task Description	Duration
1.0	**Project Management**	8 months
1.1	*Project Kickoff Meeting* (+ Meeting Minutes)	2 weeks
1.2	*Monthly Status Report/Schedule Update* (recurring)	1 day
2.0	**System Engineering Analysis**	5 months
2.1	*Review Feasiblity Study*	2 weeks
2.2	*Verify Existing Infrastructure*	2 weeks
2.3	*Perform Field Inspection/Evaluation*	1 week
2.4	*Determine Project Alternatives*	2 weeks
2.5	*Develop SEA Alternatives Report*	6 weeks
2.6	*Develop SEA Alternatives ROM Cost Estimate*	1 week
2.7	*SEA Alternatives Report Review Meeting*	2 weeks
2.8	Develop Final SEA Report	2 weeks
2.9	*Submit Final SEA Report*	1 day
3.0	***30% Plans***	3 months
3.1	*Title Sheet*	1 week
3.2	*Plan Sheets*	1 month
3.3	*Site Sheets*	1 month
3.4	Estimate of pay items, quantities, & cost	2 weeks
3.5	30% Plan Submittal	1 day
3.6	30% Plan Review/Revisions	2 weeks
3.7	30% Plan Final Submittal	1 day



Perform ITS / Traffic Engineering Analyses

ITS Engineering Analyses, Studies, Evaluations, and Reports

Neel-Schaffer, its employees, and its team have performed countless ITS engineering analyses, studies, evaluations, and reports since the inception of ITS work in Louisiana.

Statewide and Regional Architecture

When requested by the DOTD PM, we will complete a statewide and/or regional architecture (new or update) using **specialty software (RAD-IT) for architecture development** as well as DOTD-standard software. The tasks involved in an ITS architecture include:

- Developing a detailed scope (project and geographic)
- Identifying, coordinating with, and collecting feedback from participating agencies and stakeholders
- Developing/Updating an operational concept to define roles and responsibilities of stakeholders
- Documenting any agreements required for operations
- Documenting system functional requirements, interface requirements, information exchanges, and ITS standards in a report and FHWA approved software
- Developing/updating a sequence of proposed projects

To facilitate these critical projects in a way that meets DOTD's needs, Neel-Schaffer is currently performing three regional ITS architecture updates simultaneously, on an expedited schedule. All of which are on track to be completed in 2024.

Feasibility Studies/System Engineering Analyses

When requested by the DOTD PM, we will complete an ITS Feasibility Study or System Engineering Analysis which may include the following tasks:

- Developing a detailed scope based on DOTD's goal and required project deliverables
- Project reporting/coordination
- Field inspections, observations, or investigations
- Assessments of existing conditions and needs
- Alternatives with comparisons and explanations to support DOTD's informed decision-making
- Recommendations to support DOTD's means (budget, schedule)
- Project Deliverables
    - **Feasibility study report** and other additional project deliverables
    - **System engineering analysis report** and other additional project deliverables (i.e. 30% design plans, cost estimates, etc.)

Performing field inspections for DOTD's Fiber Inventory Management

Feasibility studies and system engineering analyses are the building blocks upon which DOTD makes their choices for future development and which projects to fund. ***We will provide a thorough, detailed report of findings to help guide this process.***

Traffic Engineering Analyses, Simulation Modeling Analyses, Studies, Evaluations, and Reports

When requested by the DOTD PM, we will complete traffic, traffic signal, and ramp meter studies. These various studies often include traffic analyses including, but not limited to, **warrants, traffic simulation modeling, timing and phasing optimization, and progression analyses**. Our studies are developed using **DOTD-standard software** and follow **Traffic Engineering Process and Report** guidance including:

- Scope and Man-Hour Negotiations
- Kick-Off Meeting and deliver meeting minutes
- Initial Data Collection and deliver Appendix A
- Final Data Collection and deliver Appendix B
- Existing Safety Analysis and deliver Appendix C
- Existing and No Build Analysis and deliver Appendix D, a Teir 1 Analysis, and Chapter 2 of the study report
- Coordinate an Existing and No Build Results Meeting with meeting minutes
- Preliminary Tier 2 Analysis and deliver meeting minutes, sketches and analyses, redistributed volumes map, and alternative comparative evaluation matrix

Data collection map for in-house TMC data collection

- Final Alternative Analysis and deliver Appendix E, the introduction of the final report, Chapter 3 of the final report, and an executive summary
- Final Alternatives Analysis Meeting and deliver meeting minutes
- Final Report delivering a sealed report for DOTD use

The steps included in developing these studies are very familiar to our team. Not only do we have redundancy with the number of personnel who have been through the Traffic Engineering Process and Report class, ***our personnel have extensive experience with performing this process through a number of reports which vary in size and complexity***.

Engineering Plans, Specifications & Construction Estimates

New and Upgraded ITS Deployments

Neel-Schaffer will develop plans, specifications, and construction estimates for new ITS deployments as requested by the DOTD PM. **Under the active ITS design contract (44-16364), we have performed all of these services**, including two complete plan sets for new and upgraded ITS sites (I-10 ITS: Scott to Lake Charles; Alexandria ITS Ph II). We've developed construction plans and weighed alternatives with DOTD regarding placement and inclusion of devices such as CCTV and DMS as well as developing applicable communication plans.

Additionally, when called for, **we developed a new wireless radio specification**, replacing an outdated specification. In addition to its use on this project, we wrote the specification where it could be **used in the future for additional projects without the need for further development**.

Wireless analysis performed for Alexandria ITS Ph II

We develop construction estimates to go along with all our plan sets. This applies not only to the **estimated quantities associated with the construction efforts**, but the **expected costs that DOTD should see during the bidding process**. This allows the project bids to be appropriately QC'd by the department to ensure a fair process and quality expectations of the contractor.

The development of plans, specifications, and construction estimates often run together and may include the following efforts:

- Developing a detailed scope based on DOTD's goal and required project deliverables
- Review of existing documentation (i.e. studies, preliminary plans)
- Review of existing infrastructure (field visits and coordination with DOTD ITS)
- Discussions of any available alternatives (i.e. proposed equipment, locations, add-ons, site removals)
- Development of plans specifications, and constructions estimates
- 60% Plan submittal, review and discussions with DOTD with documented comments and revisions
- 98% Plan submittal, review and discussion with DOTD with documented comments and revisions
- 100% Final Stamped Plan Submittal

Replacement/Retirement of Existing Infrastructure

Develop scope of work and or specification of decommissioning of a system. ***The Neel-Schaffer team has hands-on experience with the replacement and retirement of existing infrastructure from things as small as a device power supply or camera to a DMS sign or radio tower.*** Additionally, we can provide knowledge of what if any components can be salvaged for use elsewhere in the state. The knowledge of how infrastructure is connected and needs to be disconnected, applicable standards, certifications, and guidance, all play a role in developing documentation for the replacement or retirement of existing infrastructure. This documentation can include:

- Specifications for replacement/removal by contractors
- Cost estimates
- Scope of work
- Schematics

Damaged DMS sign inspected by team members before removal

Technical Support During Construction

As part of our current ITS Design contract, **Neel-Schaffer is actively performing services for technical support during construction** for the I-10 ITS Scott to Lake Charles project, addressing Requests for Information (RFIs) and submittal review.

Requests for Information (RFIs)

To ensure minimal impact to construction schedules, we streamline RFIs, developing a thorough understanding of the request and where possible, providing comparison details for alternative responses to DOTD. *We represent DOTD's interests through the entire construction process, ensuring a quality project that DOTD can easily operate and maintain after construction.* All RFI's and associated responses are appropriately documented and logged for any future review.

Submittal Review

Various types of submittals come in for review during the construction process, and Neel-Schaffer has staff with expertise in a variety of areas. *Whether reviewing structures such as camera poles, device specifications for field switches, or OTDR fiber testing results, our team has experience in all aspects of ITS design and implementation to provide a quality review on submittals.* Our team has hands-on experience with DOTD's preferred equipment and understands the needs that specifications were written around.

GIS Support Services

Our team has extensive experience with GIS support services. In addition to **ITS knowledge and in-house experience with GIS**, Neel-Schaffer has teamed with a **premier ESRI Partner, ES²**, to provide the **best quality GIS support services to DOTD**. Upon request of the DOTD PM, we will develop **data and map products using ESRI ArcServer and .NET technologies**. We have the **manpower for field data collection** for projects such as mapping of ITS field devices and fiber networks as well as the ITS Maintenance **background to develop inventory and maintenance records**. With our experience in ITS and working with DOTD ITS, especially, we will provide GIS deliverables are user friendly and thorough.

Personnel, Team, and Relevant Experience

Neel-Schaffer continues to develop a team of ITS professionals to better serve DOTD's ITS needs for the state. With over **30 years** of professional experience, **Nick Ferlito (MPR 1 & 2)** has helped guide the development of **ITS and Traffic** along Louisiana's roadways and beyond. Under the currently active ITS Design contract (44-16364), he has helped guide projects for **five ITS regional architecture** updates (Lafayette, Northshore, Houma, Lake Charles, & Shreveport-Bossier), **ITS fiber management inventory**, **systems engineering and wireless communication analysis** (Alexandria ITS Ph II), and **two ITS designs including new and upgraded sites** (I-10 ITS Scott to Lake Charles & Alexandria ITS Ph II) covering various aspects of ITS design including: ITS equipment design and layout, Structural, Geotechnical, Communications (fiber, wireless, and copper), Railroad permitting, and FAA compliance.

Glen Reed (MPR 3) has played a critical role in **electrical engineering** projects for over **30 years with Neel-Schaffer**. He has supported and led **ITS projects**, providing **electrical expertise for a variety of systems** including: lighting, **bridge monitoring system**, **CCTV cameras**, **vehicle detection**, **dynamic message signs**, **highway advisory radio**, broadband and fiber optic **communications**, water current sensors, **traffic signals**, **Bluetooth detection**, **travel time** system, traffic **signal interconnect**, short range broad band **radios**, power distribution, and **power services** for sites.

With experience including **13 years in transportation** and over **20 years in electrical and communications**, **Clarke Chauvin (MPR 5)** is a well-rounded engineer that has spent the majority of his professional career with a **focus in ITS**. Working on the forefront of ITS in LA, he has had some notable "firsts" for the state including helping to deploy the **first adaptive traffic signal corridor** and **first connected vehicle system**. As a manager on DOTD's ITS Maintenance contract, Clarke gained hands-on **experience installing and integrating various devices** and bringing new solutions to DOTD to **upgrade performance and capabilities.** Clarke takes pride in his efforts to **help guide the future of ITS infrastructure in LA**, not only by continuing to have a close relationship with the DOTD ITS section, but by his role as a **board member of the Gulf Region Intelligent Transportation Society (GRITS)** as LA representative.

Said El Said (MPR 5) worked for Tennessee Department of Transportation for almost **20 years** before joining Neel-Schaffer in 2022. During his time at TDOT, Said **founded Tennessee's ITS Section** for the inception of the Transportation Operations Division, starting to plan, design, procure contracts, inspect, provide technical support, maintain, and upgrade the ITS SmartWay networks in Tennessee. In his role with Neel-Schaffer, Said works to serve clients as transportation technology rapidly evolves and now includes such applications as **connected vehicles, unmanned aerial systems (drones), and smart infrastructure**. Additionally, Said continues to stay on the forefront of ITS through his role as a **board member of the Tennessee Intelligent Transportation Society**.

To continue to provide top quality services to DOTD, Neel-Schaffer is teaming with experts in the industry. All of our team members have worked with Neel-Schaffer before, and we know the quality work that we will ultimately provide to DOTD.

Intelligent Transportation Systems (ITS) LLC has built their company around a focus of ITS. Led by Principal, **Jonathan Fox (MPR 5)**, ITS LLC continues to support DOTD ITS through the ITS Maintenance contract. Employing ITS technicians with bucket trucks and "rolling toolboxes", ITS LLC brings knowledge and field support to handle any service DOTD may need. ITS LLC is a partner with Neel-Schaffer **on the active ITS Design contract** and we have worked closely for many years.

Vectura Consulting Services has carved out a niche in the LA transportation world in performing traffic and ITS studies and analyses. Known for quality work and attention to detail, Vectura is a partner with Neel-Schaffer **on the active ITS Design contract** and we have worked closely for many years on traffic and ITS projects.

Halff Associates has **teamed with Neel-Schaffer's Baton Rouge personnel on projects outside of LA**, and quality work and expertise made them a great fit for this team. **Jose Delgado (MPR 4)** has been performing design on ITS systems engineering for over a decade.

ES², a local company, is the **only ESRI Gold Partner based in Louisiana**. With **years of experience partnering with Neel-Schaffer**, we've worked together extensively to support disaster recovery efforts throughout the state and beyond. ES² has worked previously with LA's transportation, especially the ports, to deploy GIS solutions to benefit the state.

Why Neel-Schaffer?

Neel-Schaffer has been committed to Louisiana, providing quality services to DOTD as a leader in transportation for decades. **As the needs of DOTD have changed over the years, Neel-Schaffer has changed with them**, developing or acquiring the skill sets to handle any challenge DOTD may have. With experiences ranging from LTRC research proposals, before feasibility studies even begin, all the way to maintenance and operations, long after construction has been completed, **Neel-Schaffer has been involved in every aspect of ITS development in the state**. We take pride in our state and in our work and want to do everything in our power to help guide the state through its goals of a safer, more efficient transportation infrastructure, and we know that ITS is a critical component to get there.

NEEL-SCHAFFER
Solutions you can build upon

Sections ***19-23***

Contract Nos. 4400029436 & 4400029583

IDIQ CONTRACTS FOR INTELLIGENT TRANSPORTATION SYSTEMS (ITS) DESIGN AND IMPLEMENTATION SERVICES

19. WORKLOAD:

Firm(s)	Past Performance Evaluation Discipline(s)*	Contract Number & State Project Number	Project Name	Remaining Unpaid Balance**
Neel-Schaffer, Inc.	Planning	SPN 736-99-1548	Travel Demand Model Support Services Statewide (PRIME)	$55,425
	ITS	4400010428 EWL 3, H.004774.5; H.007300	Kansas Lane: Garrett Road Connector and I-20 Improvements (SUB)	$805
	Planning	4400015733, H.972374.1	Local Public Agency Documented Planning Process, Statewide	$311,846
	Road	4400017293, H.010616	I-20: LA 544 Overpass Replacement	$26,300
	ITS	4400016364, H.013256.6	I-10 ITS Scott to Lake Charles Technical Support Services During Construction	$5,246
	ITS	4400016364, H.011504.5	Alexandria ITS Phase 2	$16,139
	ITS	4400016364, H.015136.1	Northshore Regional ITS Architecture Update	$4,632
	ITS	4400016364, H.014511.1	Houma Regional ITS Architecture Update	$56,757
	ITS	4400016364, H.015136.1	Shreveport-Bossier Regional ITS Architecture Update	$57,529
	ITS	4400016364, H.015136.1	Lake Charles Regional ITS Architecture Update	$56,617
	Traffic	4400017438, H.013284	MRB South GBR: LA 1 to LA 30 Connector, Ascension, EBR, Iberville & WBR	$81,584
	Traffic	4400018271, H.014746.1	LA 383 Corridor Study	$13,195
	Traffic	4400018271, H.014746.5, SA #2	LA 383 Corridor Study	$59,915
	Planning	4400018271, H.014746.1	LA 383 Corridor Study	$94,106
	Planning	440023689, H.015148.5	District 03 Safety Investment Plan	$94,758
	Planning	4400021094	Update Statewide Transportation Plan and Travel Demand Model	$117,349
	Planning	4400023689, H.015227.5	US 61 at Victoria Dr. Ped Crossing	$48,663
	Traffic	4400026458, H.014710.5	Cedar Street Ext. to LA 22 and Roundabout	$144,263
	Road	4400024927, H.015226.5	US 90: Roundabout at LA 101	$172,791
	Road	4400024927, H.015226.5, TO #3	US 90: Roundabout at LA 101	$37,185
	Traffic	4400025299, H.013421.5	Dist. 02H Flashing Yellow Arrow Part 2	$408,730
	Traffic	4400025299, H.015645.5	LA 47 Hayne Blvd Safety Improvements	$172,963
Intelligent Transportation Systems LLC	ITS	H.013710.6	I-10: US61 to LaPlace Deployment	$18,961
	ITS	H.007160	EBR Computerized Signal Phase VB	$19,995
	ITS	H.001234.6	LA1 Port Allen Canal BR Replacement	$14,291
	ITS	H.013868.6(A)	ITS Routine Maintenance Engineering and Inspection (ME&I)	$129,583
	ITS	H.013868.6 (B)	ITS Responsive/Emergency ME&I Statewide	$48,280

19. WORKLOAD:

Firm(s)	Past Performance Evaluation Discipline(s)*	Contract Number & State Project Number	Project Name	Remaining Unpaid Balance**
Intelligent Transportation Systems LLC	ITS	H.013868.5	ITS Maintenance Program Management and Operations	$2,679
	ITS	H.011504	Alexandria Phase 2	$27,685
	ITS	H.002424.6	LA 70: Sunshine Bridge – LA 22	$18,768
	ITS	H.003047	Pecue Lane/I-10 Interchange Phase III	$22,841
	Traffic	44-24461	LA 385 – Ryan St Intersection Improvements	$180,000
	Traffic	44-21887	Replacement of Fifteen Bridges	$79,573
	ITS	H.006474.1	Shreveport Immediate ITS SEA/Design	$18,760
	ITS	H.012845.1	CAV Team Support	$140,307
	ITS	H.013482	I-10 WBR Queue Warning	$122,508
	ITS	H.013866	I-12: LA 21 to US 190	$8,678
	ITS	H.014515.5	511 & ATMS SEA	$77,385
	ITS	H.015136.1	Northshore Regional Architecture	$19,757
	ITS	H.015137	Bonnet Carre ITS Upgrades SEA	$32,384
Vectura Consulting Services, LLC	Traffic	4400017293; H.010616	I-20: LA 544 Overpass Replacement	$74,429
	Traffic	4400005484; H.005168.2	New Orleans Rail Gateway Avondale EA	$92,995
	CE&I/OV	4400020018; H.007160	EBR Computerized Traffic Signal, Ph VB	$33,910
	Traffic	H.004791	Belle Chasse Bridge & Tunnel Replacement PPP	$14,740
	Traffic	4400021519; H.012030.5	KCS RR Overpasses HBI	$572
	Traffic	4400023075; H.013522	S. Lewis Street Widening	$7,499
	ITS	4400016364; H.015136.4	Northshore Regional ITS Architecture Update	$11,421
	ITS	4400017922; H.012845.1	C/AV Team and Working Group Support	$13,949
	ITS	44000020058; H.011507.1	Monroe Phase 3 SEA	$29,217
	Traffic	4400018271; H.014746.5	LA 383 Stage 0 Corridor Study	$22,388

19. WORKLOAD:

Firm(s)	Past Performance Evaluation Discipline(s)*	Contract Number & State Project Number	Project Name	Remaining Unpaid Balance**
Halff Associates, Inc.	Other (Water Modeling)	440020960 Task Order No. 9	Community Outreach and Mitigation Strategies	$16,690
	Other (Water Modeling)	440020960 Task Order No. 15	FY23 Phase 1 Discovery – Northwest Louisiana	$40,577
	Other (Water Modeling)	440020960 Task Order No. 18	FFE Inventory Terrebonne Parish	$26,626
	Other (Water Modeling)	440020960 Task Order No. 120	FY23 Phase 2 Risk Identification & Assessment – Rapides Park Par 2	$44,227
Environmental Science Services, Inc.	Survey	CW8512	Louisiana Offshore Oil Port (LOOP) Environmental Monitoring Program (2024-2027) for DOTD	$149,590

20. CERTIFICATIONS/LICENSES:

SEE ATTACHED

Certificate of Completion

presented to

Nick Ferlito

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: June 4, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 4

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

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Nick Ferlito

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: June 11, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 4

Authorized Instructor

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Authorized instructor

DOTD
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Certificate of Completion

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Nick Ferlito

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: September 10, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
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Certificate of Completion

presented to

Clarke Chauvin

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

Clarke Chauvin

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
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Certificate of Completion

presented to

Clarke Chauvin

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: October 15, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor | *Authorized Instructor* | *Authorized instructor*

DOTD
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Certificate of Completion

presented to

Jonathan Duhe

for completing the

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Module 1

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Authorized Instructor

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DOTD
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Certificate of Completion

presented to

Jonathan Duhe

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: October 29, 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

Seth Popay

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: March 10, 2021
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
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Certificate of Completion

presented to

Seth Popay

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: March 10, 2021
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
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Certificate of Completion

presented to

Seth Popay

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: March 11, 2021
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
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Certificate of Completion

presented to

Ellen B. Howard

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

Ellen Howard

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

Ellen Howard

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: October 29, 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

Jonathan Fox

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: October 1, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 2.5

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Jonathan Fox

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: December 10, 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

Jonathan Fox

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: December 17, 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

Diane Hammonds

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: June 4, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 4

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Diane Hammonds

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: June 11, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 4

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Diane Hammonds

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: October 15, 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

Kimberly McDaniel

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: June 4, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 4

Authorized Instructor | *Authorized Instructor* | *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Kimberly McDaniel

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: June 11, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 4

Authorized Instructor | *Authorized Instructor* | *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Kimberly McDaniel

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: September 10, 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

Colin Francis

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: March 29, 2022
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor

Authorized Instructor

Authorized instructor

Certificate of Completion

presented to

Colin Francis

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: March 29, 2022
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor

Authorized Instructor

Authorized instructor

Certificate of Completion

presented to

Colin Francis

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: March 30, 2022
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor

Authorized Instructor

Authorized instructor

Certificate of Completion

presented to

Laurence Lambert

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

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Laurence Lambert

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

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Laurence Lambert

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: October 15, 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

Reece Rodrigue

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: November 5, 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

Reece Rodrigue

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: November 26, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3.5

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Reece Rodrigue

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: December 3, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

21. QA/QC PLAN:

N/A

22. SUB-CONSULTANT INFORMATION:

Firm Name (Name must match as registered with Louisiana's Secretary of State)	**Address**	**Point of Contact and email address**	**Phone Number**
Intelligent Transportation Systems LLC	37302 Commerce Lane Prairieville, LA 70769	Kimberly D. McDaniel, P.E., PTOE, PTP kimberly@itsanswers.com	225-751-9300
Vectura Consulting Services, LLC	4467 Bluebonnet Blvd, Suite A Baton Rouge, LA 70809	Sheelagh Brin Ferlito bferlito@vecturacs.com	225-223-6685
Halff Associates, Inc.	401 Market Street Suite 650 Shreveport, Louisiana 71101	Tracy Forester tForester@halff.com	850-848-9421
Environmental Science Services, Inc.	145 Del Orleans Avenue, Suite B Denham Springs, LA 70726	Andrew Milanes, PE, GISP amilanes@es2-inc.com>;	225-927-7171

23. LOCATION:

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