AECOM

Proposal for Engineering and Related Services

IDIQ Contracts for Traffic Engineering - Statewide

Contracts Nos. 4400025298 and 4400025299

November 22, 2022

Submitted to: Louisiana Department of Transportation and Development

Submitted by: **AECOM Technical Services, Inc.**

Delivering a better world

ΑΞϹΟΜ

AECOM 8555 United Plaza Blvd., Suite 300 Baton Rouge, LA 70809

November 22, 2022

Louisiana Department of Transportation and Development Attn: Michael Gorbaty Consultant Contract Services Administrator 1201 Capitol Access Road, Room 405-E Baton Rouge, LA 70802

Ref: Contract Nos. 4400025298, 4400025299; IDIQ Contracts for Traffic Engineering - Statewide

Mr. Michael Gorbaty:

Optimizing the newly available federal funds, the State, through the Louisiana Department of Transportation and Development (LADOTD) is ambitiously designing and delivering more and larger projects than it has been able to undertake for many years. We are delighted that the LADOTD has elected to request firms who provide Traffic Engineering Services to serve the State through an IDIQ. With this added labor and expertise, more projects can both begin and be completed allowing the existing Traffic Engineering Division to focus on a new generation of projects.

AECOM provides numerous state DOTs with traffic engineering services. We have a very large team of local and regional experts who bring their experience and unique skill sets to challenges large and small. Here in Louisiana, AECOM has been working to establish itself as a premier provider of traffic engineering services to both public and private clients. Five years ago, we largely used subconsultants for this work, augmented by out-of-state AECOM experts, but this will no longer be our practice. We hired a key leader in our manager of traffic services Daniel Helms. Daniel, and our other staff have supported local roadway designers in their pursuit of PTOE certification. We have also made significant investments in training so that some of our more uniquely-skilled experts in different states have obtained their Louisiana PEs, as well as TEPR Training certifications. This is evident in the number of staff we show as registered for upcoming TEPR classes. While we have not had the privilege of providing traffic services to DOTD, we respectfully ask that you give the AECOM team a fresh look. We hope you can acknowledge the efforts we have made to build this capacity and select our team for a statewide traffic engineering services contract, providing support for the agency's numerous corridor studies, intersection studies, traffic signal design, and other task orders.

The AECOM team combines experience providing industry leading technical expertise with a thorough understanding of analyzing and addressing traffic signal and other intersection operations. Our team will also provide exemplary customer services to LADOTD. The AECOM team offers LADOTD a locally based one-stop shop for traffic engineering services that is available and eager to immediately serve LADOTD without the need to coordinate around a heavy backlog, or with a key staff spread across multiple states.

AECOM is partnering with premium providers for supporting services:

The staff members of Intelligent Transportation Systems LLC (ITS) have decades of experience with the LADOTD in technology related projects. The services they have provided include: ITS Design, TMC Operations, and Traffic Signal Designs with hundreds of traffic signal designs ranging from two-lane intersections to Continuous Flow Intersections (CFI). ITS augments our local staff with additional direct knowledge of LADOTD process and procedures.

Civil Design & Construction, Inc. (CD&C) provides boundary and topography services for numerous clients. CD&C is SBA Certified as a Woman-Owned Small Business and is DBE Certified by the LADOTD. CD&C will provide any topographical survey needs for any potential traffic signal design task orders.

GRAM Traffic Counting (GRAM) has expertise in automated traffic record counts, turning movement counts, travel and field surveys, video license plate capture, ball bank studies, delay studies, GAP studies, GPS travel runs, intersection diagrams, and radar studies. Additionally, GRAM can develop a customized data collection program to meet the needs of the LADOTD.

The staff from AECOM's large local offices, various offices in neighboring states, and the subconsultants will be managed by Daniel Helms. Daniel is a traffic professional with over 20 years of progressive experience. Over half his career has been spent as a senior leader in Mississippi's DOT, and he has enhanced those skills and extensive knowledge with AECOM. His attention to detail, sense of urgency, and dedication to the profession will help deliver each assignment on time, on budget, and with the highest quality.

Yours Very Truly, AECOM Technical Services, Inc.

Jouth D Mo Dell

Jonathan McDowell, PE Associate Vice President, US West Region (225) 922-5934 jonathan.mcdowell@aecom.com

DITSH

Daniel Helms, PE, PTOE, RSP₂₁ Project Manager (225) 922-5978 daniel.helms@aecom.com

Sections 1-11

New Orleans Computerized Signal Program

AECOM was contracted by the City of New Orleans to upgrade 433 Signalized intersections to a new computerized traffic sign network.

Upgrades included:

- New Mast Arms
- Emergency Preemption
- ► Vehicle Count Stations and CCTV Cameras
- ► Striping
- ► Fiber Optic Communication

AECOM took the project from Conceptual Design to Construction, Engineering and Inspection.



DOTD FORM: 24-102

PROPOSAL TO PROVIDE CONSULTANT SERVICES

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

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

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

1. Contract title as shown in the advertisement	IDIQ Contracts for Traffic Engineering Statewide
2. Contract number(s) as shown in the advertisement	4400025298 and 4400025299
3. State Project Number(s), if shown in the advertisement	N/A
4. Prime consultant name (as registered with the Louisiana Secretary of State where such registration is required by law)	AECOM Technical Services, Inc.
5. Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	AECOM Technical Services, Inc. (AECOM) LAPELS No. EF.0002331
6. Prime consultant mailing address	8555 United Plaza Boulevard, Suite 300 Baton Rouge, LA 70809
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	8555 United Plaza Boulevard, Suite 300 Baton Rouge, LA 70809
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Daniel Helms, PE, PTOE, RSP ₂₁ Project Manager (225) 922-5978 daniel.helms@aecom.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Jonathan McDowell, PE Associate Vice President, US West Region (225) 922-5934 jonathan.mcdowell@aecom.com

10. This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli- controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based	Signature (shall be the same person as #9):
determined to be false, and to terminate any contract awarded based on such a false response.	Date: November 22. 2022
11. If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal and each firm(s)' percentage.	Firm(s): Firm(s)' %: Gram Traffic Counting 3% Civil Design & Construction, Inc 2%

Sections 12-15

Re-establishing City of New Orleans Traffic Signal Infrastructure after Hurricane Katrina

AECOM was contracted by LADOTD following the devastation of Hurricane Katrina to assist in getting the City of New Orleans traffic signal infrastructure back up.

AECOM managed 5 construction packages for approximately 185 intersections. Management included:

- Construction Inspection & Management
- Material Tracking
- ► Field Redesigns
- ► Contractor Billing
- ► As-Built Documentation



12. Past Performance Evaluation Discipline Table:

As indicated in the advertisement, insert the completed table here. The percentages for the prime and sub-consultants must total 100% for each past performance evaluation discipline, as well as the overall total percent of the contract.

The only past performance evaluation disciplines to be used are: Road, Bridge, Traffic, CE&I/OV, Geotech, Survey, Environmental, Data Collection, Planning, Right-of-Way, CPM, ITS, Appraiser and Other. The crosswalk from the old categories to the new categories can be found at the link below:

http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/CCS/General%20Information/CPPR%20Crosswalk%20to%20New%20 Evaluation%20Disciplines.pdf. (same link as in the advertisement)

Evaluation Disciplines	% of Overall Contract	AECOM	INTELLIGENT TRANSPORTATION Systems*		GRAM Traffic Counting 0 1 0
Planning	15%	100%	-	-	-
Traffic	65%	80%	20%	-	-
Data Collection	3%	3%	2%	-	95%
Road	15%	90%	10%	-	-
Surveying	2%	-	-	100%	-
Identify the percentage of work for the overall contract to be performed by the prime consultant and each subconsultant.					
	100%	80%	15%	2%	3%

13. Firm Size:

For all firms that are part of this team, indicate the approximate number of personnel to be committed to this contract, by DOTD Job Classification and the total number of personnel within the firm that could provide support, if needed. If a specialized job classification is required and not included on the DOTD job classification list, specify "Other (xxxx)" and include the classification title inside the parentheses. The DOTD Job Classification(s) to be used can be found at the following link:

http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/CCS/Job_Qualification/Job%20Classifications%20with%20Descriptions.pdf

Firm Name	DOTD Job Classification	Number of Personnel Committed to this Contract	Total number of personnel available in this DOTD Job Classification (if needed)
	Principal	1	2
	Supervisor-Other	4	7
	Supervisor-Engineer	5	9
	Engineer	5	11
	Engineer Intern	4	8
	Engineer - Other	2	6
	Engineering - Aide	2	2
AECOM	Environmental Manager	2	4
/	Biologist/Wetlands	1	2
	Archaeologist	1	3
	Archaeologist - Tech	1	4
	Historian	1	2
	Senior Technician	3	5
	Planner	1	3
	Administrative	1	2

	Supervisor-Other	1	1
CDANA	Senior Technician	1	2
Traffic Counting 1 © ©	Technician	1	2
	Clerical	1	2
	Principal	1	2
	Supervisor Engineer	2	2
	Engineer	1	2
Systems®	Engineer Intern	1	1
	Technician	0	8
	Other	0	2
	Supervisor Engineer	1	1
	Engineer Intern	1	1
	Surveyor	2	2
8	Party Chief	3	5
	Instrument Man	2	3
INCORPORATED	Rodman	2	2
	CADD Operator	1	1
	Senior Technician	3	5
	Supervisor-Other	1	1

14. Organizational Chart:

Provide an organizational chart showing ALL relevant prime consultant and sub-consultant (if applicable) personnel assigned to the contract, area of project responsibility for each, and reporting lines for the purposes of this contract. An individual's role does not necessarily have to match their DOTD job classification identified in Section 13. If applicable, identify all personnel performing traffic engineering analysis and/or QC of traffic engineering analysis by placing an asterisk next. to their name. Include the certificates required by the Traffic Engineering Process and Report Training Requirements article of the Advertisement in Section 20. It is acceptable to use an 11x17 format for Section 14.



TECHNICAL ADVISORS

Victor De La Garza, PE (TX) 💠

Signal QA/QC Kimberly McDaniel, PE, PTOE, PTP 💸

TRAFFIC SIGNAL INVENTORY

TASK LEAD

Greg Trahan, PE, RSP1 (MPR 6) • 🔶 💸

- Joe Carter, PE (KY), IMSA Jonathan Fox, PE, PTOE, PMP 🔹 Clarke Chauvin, PE, PTOE, PMP 💠 📕 📕
- Cruz Alvarez, PE (TX), CNU-A

LEGEND

- Intelligent Transportation Systems LLC
- - Completed Highway Safety Manual Course offered by LTRC
- Completed LADOTD Traffic Engineering and Process Report

15. Minimum Personnel Requirements:

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

MPR No.	Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license/ certification & number	State of license	License/ certification expiration date
1, 2	Jonathan McDowell, PE	AECOM	PE/PE.0030508	LA	03/31/2023
			PE/PE.0042486	LA	09/30/2024
3, 4	Daniel Helms, PE, PTOE, RSP ₂₁	AECOM	AECOM PTOE/2820		04/14/2025
			RSP ₂₁ /11		12/09/2022
0		450014	PE/PE.0036041	LA	03/31/2023
ь Greg Iranan, РЕ, КSP ₁		AECOM	RSP1/833	N/A	03/14/2025
5	Stacie Bittner	Gram Traffic Counting			

Section 16

2018 Collision Diagram - Jones Creek Road Extension at Airline Highway (US 61) Corridor Study

AECOM has developed and customized crash diagrams for many different Safety Studies Reports in Louisiana. These crash diagrams help identify crash trends and help to visualize the crash areas.



16. Staff Experience	e:					
Résumés shall be p identified in Sectio person. Any certifi	Résumés shall be provided for all prime and sub-consultant personnel listed in Sections 14 and/or 15 of the proposal. Résumés of personnel not dentified in Section 14 or Section 15 of the proposal should not be included and will not be evaluated. Résumés should be limited to 2 pages per person. Any certificates required by the advertisement are to be placed in Section 20.					
F	Firm AECOM					
Dan	iel Helms, PE, P ⁻	TOE, RSP21		Year	rs of Relevant Experience with this Employer	2.75
Projec	t Manager - Meets MPR 3	3 & 4	Y	lears of	Relevant Experience with Other Employer(s)	19
Degree(s)/Years/Specialization BS/1998/Civil Engineering ME/2003/Civil Engineering						
Active Registration Number/State/ Expiration Date PE/42486/LA/09.30.24 PTOE/2820/04.14.25 RSP ₂ //11/12.09.22						
Year Registered 2018 Discipline Civil Engineer						
Contract Ro	le(s)/Brief Description of Responsibilities	MPR 3&4. Project Manag	er, Intersection/Co	orridor/	Network Analysis Task Lead.	
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the prop rience dates should cover t	osed contract; i.e., "o he time specified in	designe i the app	ed drainage", "designed girders", "designed plicable MPR(s).	
09/20-Ongoing	Feasibility Study and Traffic Task Lead. Traffic safety along a congest of various traffic operat adherence to LADOTD	Report / TEPR, College Da c Engineering Task Lead for ed urban corridor. Daniel wo tions and safety analyses, a 's Traffic Engineering Proce	rive, City of Baton or a roadway enhance orks with a group of and provides quality ass and Report.	Rouge / ement p subcon checks	/ Parish of East Baton Rouge, Baton Rouge project, seeking to improve traffic operations a sultants on the development and documenta to work prior to submittal. This project require	tion
06/20 – 05/22	20 – 05/22 Loop 1604 and Interstate 10 Schematic and Interchange Access Justification Report; Texas Department of Transportation (TxDOT), San Antonio, TX. Senior Traffic Engineer and Highway Safety Technical Lead. Daniel was responsible for the development and technical quality review in the design and layout of overhead signing for a 20-mile section of freeway. The work included relocating signs for clear and concise understanding for the roadway user. He was also responsible for the Enhanced Interchange Safety Analysis Tool (ISATe) predictive safety analysis for an Interchange Access Justification Report (IAJR) for the upgrade of a major system interchange in northwest San Antonio.					
02/20 – Ongoing	MOVEBR Jones Creel Engineering Task Lead to Airline Highway. Dan signalized intersections Engineering Process ar of Appendix C – Existin crash analysis, using th	k Road Extension, Segment for a new roadway project, iel is responsible for the devise, roundabouts, and alterna nd Report, coordinating ana g Safety Analysis, which uti ie CATScan tool.	nts 1A and 1B, City extending a suburba velopment of the tra tive intersections. T alysis work with the 0 lizes the Crash1 and	r-Parish an arter affic ana This proj City-Par d Crash3	of East Baton Rouge, LA. Traffic Task Lead. ial from its current terminus at Tiger Bend Roa lysis, looking at different alternatives, includin ject also includes following LADOTD's Traffic rish and LADOTD. He also leads the developr 3 databases, to conduct spot specific and seg	Traffic ad g nent gment

02/19-01/20	Barksdale Interchange Design-Build, Louisiana Department of Transportation & Development (LADOTD), Bossier City, LA. Senior Transportation Engineer. This design-build project constructed a new controlled access roadway, connecting at the I-20, I-220 interchange in northwest Louisiana. Daniel was responsible for the development of the signing plans, including overhead and ground mounted signs, detour plan development of and providing quality control for the project's IMR and the Transportation Management Plan (TMP). The project required coordination and collaboration with state, federal and military stakeholders.
04/18 – 01/20	Interstate 10 Interchange Modification Report (IMR) and Interstate Justification Report (IJR), LADOTD, Ascension Parish, LA. Project Manager and Traffic Engineering Task Lead. Daniel served as Project Manager for the IMR / IJR study for three interchanges on an urban interstate, using the LADOTD Traffic Engineering Process and Report. He led development of the traffic analysis, including defining the methodology to develop design year volumes, development and high-level evaluation of interchange concepts, and coordinating with outside consultants that were developing a Feasibility Study for an intersecting route.
02/18-01/20	Interstate 20 Transportation Management Plan (TMP) & Travel Assessment, LADOTD, Bossier & Caddo Parishes, LA. Project Manager and Technical Task Lead. Daniel led the development of a mesoscopic model and TMP. Daniel was responsible for the development of a Level 4 TMP of the I-20 corridor. The elements of the TMP required the review of alternate routes through the development of a mesoscopic simulation model, public information strategies, stakeholder involvement, ITS implementation, queuing analysis, and crash analysis. The TMP analyzed the impacts to the road networks of Shreveport and Bossier City, Louisiana, for an interstate pavement rehabilitation project.
06/07-12/17	Traffic Safety Engineering Manager, MDOT. Daniel was the day to day manager of the traffic safety engineering program. He performed site review, crash data analysis, benefit-to-cost analysis, countermeasure development and selection, design contract scope development and contract review, and design project management, including design and plan review. He managed several traffic signal projects, which included the crash data analysis, countermeasure selection, design, benefit-to-cost analysis, and traffic signal analysis, including signal timings, warrant analysis, capacity analysis, etc.
	 These projects include: 1. Implement Flashing Yellow Arrow (FYA) on corridors across the state, update signal timings: US 51 and SR 463 in Madison and Ridgeland; SR 12 in Starkville; SR 145 in Tupelo; SR 570 in McComb; US 49 in Hattiesburg; US 90 in Waveland / Bay St. Louis; US 90 in Pascagoula.
	2. Standalone traffic signal analysis, warrant analysis, and design for signal upgrades and new signals in rural and urban settings: SR 18 at Midway Road, SR 18 at Palestine Street / Seven Springs Road; SR 53 at Canal Road / Mark West Road; SR 53 at County Farm Road / Shaw Road; SR 63 at SR 614 / Wade Vancleave Road; US 72 at Alcorn County Roads 218 / 306; SR 18 at Hinds Boulevard / Raymond Lake Road; US 45 at Hamilton Road; US 45 at Ripley Road; US 45 at Pratts Road; US 45 at Southwest Avenue; US 84 at Auburn Road; US 61 at Delta View Road; US 61 at Oak Ridge Road; US 98 at Beaver Dam Road; US 98 at SR 198 / Rocky Creek Road.
05/20-08/20	FM 2090 at Tram Road. TXDOT, Houston, TX. Engineer-of-Record/Deputy Project Manager. Daniel provided services for a signal design project at an isolated intersection in the Houston Metropolitan area. He was responsible for the design, development and summarization of quantities, general notes, traffic signal notes, and the engineer's estimate of probable cost. Daniel worked with junior staff, along with staff of the prime consultant, to meet the tight budget and schedule of this project.

F	irm AECOM					
Scot	tt Shea, PE			Year	rs of Relevant Experience with this Employer	2
Senior Traffic Engineer			Years of	Relevant Experience with Other Employer(s)	14	
Degree	(s)/Years/Specialization	MS/2010/Transportation E BS/2008/Civil Engineering	Engineering			
Active Reg	istration Number/State/ Expiration Date	PE/8473453/UT/09.24				
	Year Registered	2011	C	Discipline	Transportation	
Contract Rol	e(s)/Brief Description of Responsibilities	Intersection/Corridor/Na contract; i.e., "designed dr should cover the time spe	etwork Analysis ainage", "designe cified in the appli	. Experier d girders", cable MPF	nce and qualifications relevant to the proposed "designed intersection", etc. Experience date R(s).	t s
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the propo rience dates should cover t	osed contract; i.e he time specified	., "designe I in the app	ed drainage", "designed girders", "designed blicable MPR(s).	
11/21-Ongoing	SH-75 Roadway Widening Traffic Analysis, Hailey, ID. Traffic Operations. Scott led the traffic operations team in the operational analysis for widening approximately 6 miles of SH-75 in Hailey, ID. The roadway is being widened from a three or four-lane cross section to a four or five-lane cross section with a center turn lane or median. The project included safety analysis and signal warrant calculations.					
07/20-04/24	Oak Hill Parkway Design Build, Austin, TX. MOT Traffic. Scott analyzed different phases of the MOT plan for the multi-year DB project as well as signal timing plans and signal warrant calculations. The project upgrades US290 to 2-to-3 freeway mainlanes in each direction, as well as creates 2-to-3 frontage road lanes in each direction. Grade separated intersections are being constructed at 7 intersections as well as creating flyovers for the new SH71 and US290 interchange.				ar DB nes	
06/14-12/15	I-15 Point Design Build, Salt Lake City, UT. Traffic Engineer. Scott was the primary traffic engineer analyzing current and future LOS operations for 7.4 miles of freeway and 3 interchanges. The project freeway section carries over 220,000 vehicles a day and includes a high occupancy and toll vehicle (HOT) lane. Traffic analysis considered auxiliary lanes, truck climbing lanes, and construction MOT requirements for the five General Purpose (GP) lanes. The project received the 2017 American Council of Engineering Companies. Utab Chapter, Grand Award and the 2016 Utab Construction and Design Project of the Year Award				uture y ınd f	
2012-2015	I-15 South Davis Operational Upgrades, Davis County, UT. Traffic Operations. Scott analyzed traffic operations for two alternative design interchanges at 500 South and 2600 South in Bountiful, UT. The project required the project to stay within the existing roadway width and fit under the existing bridge spans. The 500 South interchange was analyzed for a Diverging Diamonc Interchange (DDI) and the 2600 South interchange was analyzed with displaced left turns. Traffic analysis considered heavy directional traffic on the freeway ramps for both AM and PM peak periods, ramp metering, and an offset offramp lane.				n the Imond /	
07/10-07/13	Bangerter Highway Re intersection of Bangert operations, maintenand but would fail again in 1	edwood Road Interchange er Highway and Redwood R ce, and longevity. A continue 0 years. The preferred alter	e, Bluffdale, UT. Road in Bluffdale, U ous flow intersec native was a grad	Traffic Ana UT. Analys tion (CFI) v le-separat	alysis. Scott performed traffic analysis at the is considered 9 ratings, including: cost, right- worked operationally and was the low cost alte ted single point urban interchange (SPUI).	of-way, Prnative

F	irm AECOM					
Gree	gory Trahan, PE,	RSP1		Year	rs of Relevant Experience with this Employer	16
Senior	Transportation Engineer	- Meets MPR 6		Years of	Relevant Experience with Other Employer(s)	1
Degree	e(s)/Years/Specialization	BS/2005/Civil Engineering]			
Active Reg	istration Number/State/ Expiration Date	PE/36041/LA/03.31.2023 RSP1/833/03.14.25 ATSSA Traffic Control Sup LA State Specific (2019)	pervisor Refresher		LADOTD Traffic Process and Report Parts 1, 3 (2018)	2 and
	Year Registered	2011	D	iscipline	Civil Engineer	
Contract Rol	e(s)/Brief Description of Responsibilities	Mr. Trahan will provide r Inventory services. He v general oversight.	oad design servi vill also support 1	ces, warr the Proje	rant analysis, Data Collection, and Traffic S ct Manager and other design teams by pro	ignal viding
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the prop rience dates should cover t	osed contract; i.e. he time specified:	, "designe in the app	ed drainage", "designed girders", "designed blicable MPR(s).	
09/17-Ongoing	LA 23 Over Mid-Barataria Sediment Diversion, Plaquemines Parish, LA. Project Engineer. Greg was the Project Engineer that assisted in the Design Plans for the new bridge and roadway structure over the new sediment diversion. The project consists of a new concrete precast girder bridge, approximately 2,200 feet in length, and the connecting asphalt roadway. Design Plans included Plan and Profile sheets, Drainage Plan and Profile sheets, Sequence of Construction Plans. Mr. Trahan assisted in the design of road side drainage, intersection layout, guardrail layout, and Sequence of Construction Plans. There will be multiple construction activities being conducted at one time. The Sequence of Construction is a critical element of design in order to manage traffic and maintain roadway operations.					er that ans the ole to
02/07-06/10	Siegen Lane Improvements (Highland Rd. to 650' south of Perkins Rd.), City of Baton Rouge Dept. of Public Works, Baton Rouge, LA. Project Engineer. Greg assisted in the design and plan development of a 1.18-mile segment of Siegen Lane that is planned to be widened to a four-lane boulevard. Greg assisted in the geometric design of the roadway, subsurface drainage, and the development of the sequence of construction. He has also prepared quantities and cost estimates for the project.					
06/13-Ongoing	MOVEBR Jones Creek is managing tasks for T that will extend a subur the development of the alternative intersection layout, and wiring for th	Road Extension Segmer raffic Engineering, Environr ban arterial from its current traffic analysis, analyzing o s. Greg also assisted in the e new signals.	nts 1A & 1B, City- nental Review, and terminus at Tiger different alternativ design of the Tige	Parish of d Green In Bend Roa res, includ er Bend In	East Baton Rouge, LA. Project Manager. Great frastrure/landscaping for a new roadway proj ad to Airline Highway. Greg is responsible for ling signalized intersections, roundabouts, and intersection; this included traffic signals, cross	;g ect d walk
12/20-Ongoing	MOVEBR Jones Creek Greg is managing the tr Rouge Parish line. The t analysis the existing sig	Road Extension, Airline raffic engineering for the co craffic engineering report fo gnals within the study corrid	Highway Traffic S prridor study of Air Ilows the LA DOT dor along with a pr	Study, Cit line Highv D Traffic E oposed ir	ty-Parish of East Baton Rouge, LA. Project N way from Industrialplex Boulevard to the East R Engineer Report Process. The traffic study will Intersection of the Jones Creek Road intersec	Janger. 3aton tion.

06/13-10/14	Stage 0 Feasibility Study & Report, Williams Boulevard, LADOTD, Jefferson Parish, LA (H.010570.1). Project Engineer. Greg assisted in the crash analysis and environmental inventory associated with the LA 49 feasibility study. The study considered a 2.5–mile segment of a heavily traveled, heavily developed five-lane urban roadway with moderate pedestrian use, three major intersections and an interchange with Interstate 10.Task included collecting and analyzing data to identify trends and determine overrepresented crash types. Developed collision diagrams. Used Crash Modification Factors to analyze safety countermeasures proposed for each alternative.
08/12-07/14	Stage 0 Feasibility Study & Report, Johnston Street Study (US 167), LADOTD, Lafayette Parish, LA (H.009998.1). Project Engineer. Greg was the Project Engineer for the US 167 Study. The US 167 (Johnston Street) Corridor Study is a study that collected and analyzed data to help develop immediate, short–term, and long–term recommendations in accordance with "DOTD's Stage 0: Manual of Standard Practice" for the Johnston St. (US 167) corridor between Coulee Mine Bayou Bridge and Cajundome Avenue. Greg was tasked to identify crash trends, develop collision diagrams, determine the effectiveness of counter measures in alternative concepts, and identify and assemble environmental conditions along the corridor into a GIS database.
05/10-02/14	Stage 0 Feasibility Study & Report, I-49 Raceland to the West Bank Expressway (24 Stage 0 Reports), LADOTD, Lafourche, St. Charles & Jefferson Parishes, LA (H.005171). Project Engineer. Greg assisted with developing a program of Stage 0 projects that would provide interim capacity and safety improvements along the US 90 corridor from LA 1 to the current terminus of the elevated portion of the Westbank Expressway. Greg assisted in conducting field work for environmental inventories, reviewed of crash data, various alignment alternative analysis, and completing cost estimates for alternatives.
11/11-01/13	Stage 0 Feasibility Study & Report, LA 935, LADOTD, Ascension Parish, LA (H.009997.1). Project Engineer. Greg assisted in performing a Stage 0 Feasibility Study in accordance with the results of a Roadway Safety Assessment (RSA) performed by the AECOM team. The study area is approximately a 4–mile segment of LA 935 from LA 431 to LA 22 in Ascension Parish with a known history of crashes. Greg assisted in developing conceptual alternatives for the realignment of LA 935. Additional tasks included developing typical sections, creating design criteria, and developing cost estimates for various alternatives
09/20-Ongoing	Feasibility Study & Report/TEPR, College Drive, City of Baton Rouge/Parish of East Baton Rouge, Baton Rouge, LA. Project Engineer. Greg is assisting in the Design Study, Traffic Study, and Preliminary Plans for the completion of roadway improvement on College Drive and its vicinity between Perkins Road and Bawell Street inclusive of the interchange with I–10. The Design Study will include development of numerous concepts to enhance operational capacity and efficiency along the corridor while including Complete Streets and green infrastructure improvements. Preliminary alternatives were developed and documented using LADOTD Stage 0 Project and Scope and Environmental Checklists in order to apply for state and federal funding grant applications to expand funding for the project beyond the allocation of the parish MOVEBR bond funds. Completed the Stage 0 checklists.
05/12-12/13	LA 1 Corridor Study, LADOTD, West Baton Rouge and Iberville Parishes, LA (H.009930.1). Project Manager. Greg served as the Project Manager for this task order and assisted with the development of alternatives using signal coordination and access management principles to preserve the traffic operations of the corridor. In addition to vehicle mobility AECOM also analyzed and recommend safety and enhancements along the 10.5 mile corridor from N. Line Road to LA 988 (Schnebelen Road).
11/12-11/13	District 02 Signal Inventory, LADOTD, St. Charles, Orleans, St. Bernard, Plaquemines, Jefferson, LaFourche, Terrebonne Parishes, LA (H.009426.5). Project Manager. Greg coordinated the collection of the Existing Traffic Signal inventories with in District 02. This included the collection and review of the existing Traffic Signal Inventory (TSIs) that were provided by the department. Greg was able to deploy a coordinated effort to field verify the existing TSI and provide updates that may have been required. After completion of the field review, AECOM completed updated intersection drawings and required TSI forms to provide the most updated information. These updates TSI were provided to DOTD in both hard copy and electronic format.

F	irm AECOM					
Dere	ek Chisholm AIC	P, ENV SP, LEED	GA	Year	rs of Relevant Experience with this Employer	8
Princip	Principal Planner, Associate Vice President		Years of	Relevant Experience with Other Employer(s)	23	
Degree	(s)/Years/Specialization	Post-Grad Certificate/Pub MPA/1997/Environmental BS/1993/Organizational M	lic Policy Planning Specialt lanagement	У		
Active Reg	istration Number/State/ Expiration Date	FHWA-NHI-142005 NEPA & Making Nov. 4-6, 2014 American Institute of Cert 2011 LEED Green Associa	Transportation De ified Planners #14 ite (#10148303)	ecision- 17159	2014 Envision Sustainable Professional Certified in Charrette Management by Natio Charrette Institute (2006)	nal
	Year Registered	N/A	C	Discipline	N/A	
		Stage 0. Derek is a senior-le of progressive experience. environmental approvals ar	evel NEPA expert a He has managed o nd permits.	nd Project complex, c	t Manager, living in Louisiana, with over twenty-f onceptual planning and NEPA studies as well as	ve years simpler
Contract Role(s)/Brief Description of Responsibilities		Derek has contributed to nu the local AECOM team on p and the projects that he has familiar with traffic operatio and stakeholders. Though r as well as the EMME2 trave and the ASCE's Engineering	umerous other EIS projects including the shelped lead, have ns analysis, and off no longer proficien demand model. In g for Sustainable C	s and EA's ne I-49 Laf won nume ten works t with then 2018, Der ommunitie	Nationally and has spent years working closely fayette Connector and the Jimmie Davis Bridge erous awards, some of which are shown below. I to lead traffic analyses and explain results to the n, he has experience with Synchro/ SimTraffic, V rek contributed chapters to the books Bicycle U es.	with Derek, Derek is public issim, rbanism
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the prop rience dates should cover t	osed contract; i.e. he time specified	, "designe in the app	ed drainage", "designed girders", "designed olicable MPR(s).	
10/16-Ongoing	LADOTD State Project No. H.004273.5, I-49 Lafayette Connector Project, Lafayette, LA. Public and Stakeholder Involvement. The team is currently completing the Functional Plan for the I-49 corridor in Lafayette is structured around a context sensitive solutions approach. Derek originally served as the bridge between the public and stakeholder involvement of the CSS process and the environmental team. Derek set up the comment management system and is facilitating the Section 106 consultation. Derek has led the break-out reevaluation for the first construction segment, and the development of the award- winning virtual reality open house.					
	2022 TransComm Awa	rd. DOTD received an Intera	ctive Marketing a	ward for th	he I-49 Lafayette Connector Virtual Reality Ro	om.
11/17-04/19	LADOTD State Project No. H.001779.2, Jimmie Davis Bridge Supplemental EA, Bossier & Caddo Parishes, LA. Senior Advisor. Derek served as a Senior Advisor on this project, providing quality control review and assisting on complex issues related to bicycling connectivity, Section 4(f) and the final FHWA comments on the preliminary, draft Supplemental Environmental Assessment.				isor. Iling	
03/16-05/18	US Air Force, Barksdale Air Force Base, IMR & Environmental Assessment, Bossier City, LA. Environmental Assessment. To improve traffic congestion, safety/national security, Derek assisted with the Environmental Assessment of this improvement, and am MOU and strategy for expeditious completion of the IMR process. The US Air Force is designing and constructing the portion for which AECOM prepared an EA.				nent. To nt, and portion	

03/14-09/16	Lafourche Airport Connector Road EA, Port Fourchon, LA. EA Design. Lafourche Parish and the Port partnered to provide this important new connection between the Port's upland and coastal facilities. The DOTD had not provided funding for the EA but was collaborating with the Parish and Port on this effort. Derek lead the development of the draft preliminary EA, design, and the public and agency coordination tasks for this project. AECOM developed a TIGER Grant application as well.
05/10-08/23	ODOT Clackamas River-Springwater Road Bridge. Clackamas, OR. Public Engagement. This project developed and evaluated alternative river crossings in the core of Carver, Oregon. Derek led the public involvement discussions and aspects of the alternatives analysis. He also led the NEPA process. Issues included direct impacts to many businesses, a low-income manufactured home park, and historic resources.
10/05-04/07	ODOT Bridges Visual Performance-Oregon Statewide. Project Manager. Derek led a team of ODOT project management specialists, engineers, visual specialists, and others in preparing the visual performance standards (VPS) for the Oregon Transportation Investment Act (OTIA) III State Bridge Delivery Program. The VPS established context sensitive, performance-based and programmatic aesthetic guidelines and standards for bridge repair or replacement projects. Derek managed the field investigations of over 200 bridges, and prepared visual context data sheets from which each bridge's visual exposure and prominence in the visual environment was assessed for placement in one of four "Bridge Family" rankings (Gateway, high, moderate or low). Derek led public workshops to help identify potential regional or corridor themes and to gain input on broad aesthetic themes. The VPS also included a "How To Guide" for developing VPS's for other corridors within the OTIA III State Bridge Delivery Program, which included over 350 bridges statewide.
03/07-11/10	ODOT HWY 99 Bypass NEPA, Yamhill County, OR. Public Involvement. Derek oversaw the public involvement efforts related to environmental justice for this major highway project in the rapidly urbanizing northwest Willamette Valley. He coordinated with social service organizations and led a number of outreach events targeting environmental justice communities that included low-income families, migrant farm workers, and others.
02/09-12/11	EPA Community Involvement Training Conferences Trainer. EPA Public Involvement. Derek was a trainer at the EPA Public Involvement Training Conference, and also used the NCC (see below) in different impact workshops for FHWA projects, as well as planning projects in the US and abroad.
02/08-12/11	Neighborhood Cohesion Calculator (NCC). Nationwide. The Neighborhood Cohesion Calculator helps participating communities conduct an audit of the assets in neighborhoods though its use and outputs. The Calculator can be used to develop or refine neighborhood action plans and evaluate how major projects may impact neighborhoods. The Calculator is a flexible tool that can be customized to fit the needs of any community based on the characteristics of the area. The model was later provided through FHWA's Center of Excellence for NEPA Analysis.

F	irm AECOM						
Loui	s Costa			Year	rs of Relevant Experience with this Employer	22	
Senior	Planner			Years of	Relevant Experience with Other Employer(s)	31	
Degree	s(s)/Years/Specialization	BA/1964/Political Science MCP/1970/City Planning a NHI Course 142005, "Nation Introduction to Federal Pro- Administration	3A/1964/Political Science and History MCP/1970/City Planning and Urban Design NHI Course 142005, "National Environmental Policy Act (NEPA) and Transportation Decision Making" Introduction to Federal Projects and Historic Preservation offered through the General Services Administration				
Active Reg	istration Number/State/ Expiration Date	N/A					
	Year Registered	N/A	Di	iscipline	Environmental		
Contract Rol	e(s)/Brief Description of Responsibilities	Stage 0. Lou will assess built environment impacts using skills developed over 50 years in the environmental analysis of highway and transit facilities as well as the management of other transportation, and historic preservation projects.					
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properion of the properion of the properties of the propertie	osed contract; i.e., he time specified i	"designe n the app	ed drainage", "designed girders", "designed blicable MPR(s).		
07/15-Ongoing	LADOTD State Project No. H.004273.5 I-49 Lafayette Connector Supplemental EIS. Task Lead. Provided services for preparation of the SEIS for the 5.5-mile segment of I-49 South through urban area of Lafayette, LA. This assignment includes management of the Section 106 process for the project-both the Standing Structures Inventory Update and the consultation process. To date work has involved preparing the Inventory Update and coordinating with the CSS and design team members in Concept Pofinement Process to identify alternatives to be studied in the SEIS.					es on ers in a	
02/03-01/08	LADOTD State Project Parishes, LA. Project M grade, public outreach, environmental reports. Following the review of AECOM performed line the EIS document. A RC Management Plan man	No. 700-92-0011 I-49 Sout lanager. Led the EIS for 38 r traffic analysis, website de Originally the project was in the DEIS for SIU 1 commer and grade and public outre DD was issued by FHWA in 2 dated for mega-projects by	th - Raceland to We miles of interstate l velopment, cultura ntended to prepare ts and in response each services as w 2008. This project v SAFETEA-LU.	estbank I highway i Il resourc e two EIS e to the 2 ell as pro was one	Expressway EIS, Lafourche, St. Charles & Jef in the US 90 corridor. Led a team providing line ce investigation, and preparation of supplemen s for each of two sections of independent utili 2005 hurricane season, a single EIS was under ogram management. Louis was the lead author of the first LADOTD projects to include a Proje	ferson e and ital ty. taken. r of ect	
10/00-10/05	LADOTD State Projec Parishes, LA. Deputy F in the US 90 alignment. community opposition.	t No. 799-99-0230 I-49 So Project Manager. Provided s Major issues included high A ROD was issued by FHW	buth Lafayette Re services for an EIS ly congested inter A in 2005.	gional A for 10.8 r sections	Airport to LA 88 EIS, Iberia, Lafayette, & St. miles of new urban and suburban interstate hig at railroad grade crossings in industrial areas	<mark>Martin</mark> ghway and	

11/00-12/06	LADOTD State Project No. 700-99-0230 I-49 South - Wax Lake Outlet to Berwick EIS, St. Mary Parish, LA. Project Manager. Lad EIS for 9.3 miles of rural and suburban interstate highway in the US 90 alignment plus a 1-mile rural access road. Wetlands were largely avoided by the use of the existing alignment, but Louisiana Black Bear habitat and the proximity of a main line railroad paralleling US 90 were major concerns. The project included an extensive public participation program. Work involved standardizing travel lane widths, adding safety shoulders, and providing interchanges, frontage roads, and drainage improvements. A ROD was issued by FHWA in 2006.
01/12-03/14	Maryland Transit Authority, Purple Line EIS, Suburban Washington, DC. Member of the EIS team for the preparation of this document. Primary areas of his responsibility were the construction impacts, visual assessment, indirect and cumulative sections, and the responses to comments. The project received the 2015 FTA Outstanding Achievement Award for Excellence in Environmental Document Preparation in the EIS category. A ROD was issued by FTA in 2014.
07/08-08/12	Metropolitan Atlanta Rapid Transit Authority, Atlanta BeltLine Tier 1 EIS, Atlanta, GA. Member of the EIS team for this major transit project to create a 23-mile light rail system and trails encircling the inner city of Atlanta in existing railroad corridors, including the creation of four major transfer facilities where the new rail line intersects with the existing MARTA heavy rail transit system. Louis prepared the transportation and land use sections and performed a quality control review of the other chapters. He also prepared the ROD that was issued by FTA in 2012.
1995-1997	Regional Transit Authority, Canal Streetcar EIS, New Orleans, LA. Agency Project Manager. Led the reintroduction of streetcar service on Canal Street. Work on the EIS began following a Major Investment Study. The scope included a new streetcar storage and maintenance facility, improvements to the existing streetcar manufacturing and maintenance facility, a transfer terminal at the outbound end of the line, and a connection to the Riverfront Line. Noise, utility conflicts, and historic preservation were major issues. A ROD was issued by FTA in 1997.
05/13-07/15	LADOTD, State Project No. H.001779.5 Red River Bridge at Jimmie Davis Highway (LA 511) EA, Bossier & Caddo Parishes, LA. Project Manager. Led an Environmental Assessment (EA) to improve capacity of the LA 511 crossing of the Red River. Major concerns are community concern that the project is long overdue, commercial relocations, impacts to wetlands, and the inclusion of a shared use trail on the bridge to connect the existing trails on each side. A FONSI was issued by FHWA in 2015.
06/01-07/03	LADOTD, State Project No. 700-26-0254 Harvey Boulevard-Wall Boulevard to Engineers Road EA, Jefferson & Plaquemines Parishes, LA. Project Manager. Led an EA for extending a suburban residential roadway on both an existing right- of-way and a new alignment to cross a canal to connect with Engineers Road (LA 3017). Major issues were noise, an adjacent seaplane facility, and community opposition based on expectation of truck traffic in a residential area. A FONSI was issued by FHWA in 2003.

F	irm AECOM					
Bon	nie Dial, PE, PTC	E		Years of Relevant Experience with this Employer 16		16
Senior	Signal Design Engineer		Y	Years of	Relevant Experience with Other Employer(s)	0
Degree	(s)/Years/Specialization	BS/2006/Civil Engineering	J			
Active Reg	istration Number/State/ Expiration Date	PE/108550/TX/03.31.23 PTOE/3577/11.22				
	Year Registered	2011	Dis	scipline	Civil Engineering	
Contract Rol	e(s)/Brief Description of Responsibilities	Signal Design Task Lead	, Warrant Analysis	5.		
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the prope ience dates should cover t	osed contract; i.e., " he time specified in	designe 1 the app	ed drainage", "designed girders", "designed blicable MPR(s).	
07/18-Ongoing	Slaughter Lane Improvements, City of Austin, Austin, TX, Traffic Task Lead. Providing management and traffic design lead services for about 10 miles with sidewalks, SUP, bike lanes, and roadway capacity. Designed and constructed in phases to facilitate early construction. Bonnie supervised the preparation of the Traffic Projections Report and Safety Analysis. Bonnie managed signal design and signing/pavement marking design for over 20 traffic signals within multiple PS&E and IDIQ submittals. Coordinated with staff, other agencies, and utilities for a cobesive design.					e early sign other
11/20-1/21	Staff Augmentation, City of Austin, Austin, TX. Project Manager. Led multiple traffic engineering projects. Bonnie supervised the design of safety improvements with federal HSIP funding including two traffic signals, traffic control plan, pedestrian ramp improvements, and signing/striping. Converted the PHB for Congress at Alpine to a full signal, and designed new signal at Congress at Ramble. In addition, managed the fast-paced Cameron/Dessau street lighting PS&E project to improve safety lighting along roadway. Coordinated with City staff, Austin Energy, TXDOT, and other consultants. Developed 48 Cameron/Dessau street light design sheets specifications, and estimates for the statisticates and View and the statisticates and View and the statisticates and view at activates for the statisticates and view and view at activates for the statisticates and view at a statisticate and view at a statisticates and view at a statisticate and view at a statisticates and view at a statisticate and view at a statisticate and view at a statisticates and view at a statisticate and view at a stat					
08/20-Ongoing	US 59 Reconstruction temporary and permane system consists of DMS buttons, installation of Sy frontage road, and transi consultants and with traf	, TXDOT Laredo District , nt signals for two intersection , CCTV, and wrong way detect ynchro Green (radar detection tion between arterial and free fic control for consistency.	Laredo, TX. Traffic ns (University Blvd. a ction systems on sele n), and CCTV to view eway segment. Desig	Task Lea nd Del M ect exit r / under b gned ITS	ad. Provided services for 90% design of 6.5 miles Mar Blvd.), and signing and pavement markings. T ramps. Designed mast arms, pedestal poles, APS pridge. Designed signing and marking plans for fr S schematic and coordinated among multiple prin	s of ITS, he ITS S push eeway, me
9/21-9/22	West Road at Fedex Drive Traffic Signal Design, Fedex, Houston, TX. Traffic Design Lead. Provided services for the design of a traffic signal to Harris County standards and specifications. The project included coordination with Fedex, Harris County for approval of the traffic signal design, and CenterPoint to establish a new electrical service. The design included a traffic signal warrant study, flashing left turn arrow warrant, and intersection sight distance analysis. Also providing review and approval of construction item submittals.					
11/19-01/20	Planning Level Traffic a planning level traffic im of roadways, the existing identified to determine th	Impact Analysis, Confide pact analysis for traffic during and expected arterial Level ne overall viability of the proje	ential Client, Lake (g construction of a n of Service (LOS) was ect.	Charles new indus analyze	5, LA. Project Manager. Responsible for the overs strial facility. Using generalized criteria for similar d and possible roadway network improvements	sight of types were

01/19-03/21	SH 146 at N Alexander Drive Traffic Signal Design, TXDOT (Houston District), Baytown, TX. Traffic Signal Design. Prepared a traffic signal warrant study for the intersection of SH 146 at Alexander Drive that determined once the mainlane overpass is built, a traffic signal is no longer needed. Then, performed an all-way stop warrant and traffic signal design to convert the traffic signal to flashing all-way stop conditions until further study after construction. The controller needed to be relocated due to the location of the bridge columns, and the existing mast arms will remain to reduce construction cost.
03/19-12/19	FM 1488 at Forest West and FM 1488 at Sweetgum Lane Traffic Signal Design, TXDOT (Houston District) Montgomery County, TX. Project Manager. Responsible for the design two traffic signals along FM 1488 due to the growing drivers in the area. The design included mast arms, pedestrian crossings to align with the planned access management project. Included driveway relocation to align driveway with intersection, utility relocation to avoid mast arm location, designed conduits and pedestrian ramps to avoid existing cross drainage diagonal across intersection.
03/19-12/19	FM 1488 Access Management Study, TXDOT, Montgomery County, TX. Project Manager. Responsible for guiding short-, medium-, and long-term improvement solutions to enhance safety and mobility along the 14 mile corridor with 19 signalized intersections. Analyzed intersection LOS, crash history, and deficiencies as part of the existing conditions report. Conducted steering committee, stakeholder, and public meetings as part of the valuable public involvement process. Recommended access management solutions including raised medians with hooded left turn lanes, continuous green T intersection, bicycle connectivity through intersections, pedestrian crossings, and traffic signal improvements. Prepared construction cost estimates and Transportation Improvements Program (TIP) applications to request funding.
03/19-10/19	Industrial Traffic Study, Confidential Client, Gregory, TX. Project Manager. Responsible for the analysis of a large industrial facility with the primary goal to recommend roadway improvements for circulation of existing operations and future operations. Understanding project needs, collecting traffic count data, determining local growth rates, analyzing intersections in Synchro, analyzing freeways in Vissim, and preparing construction cost estimates. Close coordination was required with client and TXDOT to incorporate several planned improvements.
07/19-05/20	IH 45 Reconstruction, TXDOT, Harris County, TX. Traffic Task Lead. Responsible for design of signing, signals, pavement markings, high mast illumination, and ITS along IH 45 from south of the Texas City Terminal Railroad to north of the Galveston Causeway surrounding SH 6 intersection. Performed quality control for signing, pavement markings, and ITS. Led team to complete work on time, within budget, and to high quality emphasizing public safety.
01/18-12/18	SH 3 Access Management Study, TXDOT, Harris County, TX. Traffic Engineer. Responsible for short-, medium-, and long- term improvements to enhance safety and mobility along the 14-mile corridor with 24 signalized intersections. Prepared preliminary roadway improvements to add raised medians with hooded left turn lanes based on Synchro traffic analysis results, to add sidewalks for multimodal connectivity, and recommend traffic signal improvements. Presented recommendations to the steering committee and prepared visually effective public meeting materials. Currently tasked to design 3 traffic signal designs from these recommendations.
01/17-12/17	SH 105 Access Management Study, TXDOT, Montgomery County, TX. Traffic Engineer. Responsible for the development of short term solutions for a four-lane highway to be expanded to six lanes with a 28-ft. median. The corridor has high speed limits, developing suburban area, high driveway density. The corridor has plenty of right-of-way for access management improvements. A cost estimate was also developed.

F	irm AECOM					
Jona	athan McDowell	, PE		Years of Relevant Experience with this Employer 19		19
Princip	al in Charge - Meets MPF	R1&2		Years of	Relevant Experience with Other Employer(s)	6
Degree	e(s)/Years/Specialization	BS/1996/Civil Engineering	I			
Active Reg	istration Number/State/ Expiration Date	PE/30508/LA/03.31.23 ATSSA Traffic Control Supervisor–LA State Specific (2023)			LADOTD Traffic Process and Report Parts 1, 3 (2018) NEPA and Transportation Decision Making (2 AASHTO Highway Safety Manual (2013)	2 and 2011)
	Year Registered	2003	E	Discipline	Civil Engineer	
Contract Rol	e(s)/Brief Description of Responsibilities	MPR 1&2. Principal-in-C	harge, Stage 0 Ta	ask Lead.		
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properience dates should cover t	osed contract; i.e. he time specified	, "designe in the app	d drainage", "designed girders", "designed licable MPR(s).	
	LA (H.001779.5 & 700-08-0114). Project Manager and Lead Road Design Engineer. Led the Stage 0 Feasibility Study; Lead Road Design Engineer and co-author of the engineering report for the EA. Designed geometric layout alternatives for capacity improvements and pedestrian and bicycle accommodations for the bridge crossing of the Red River and along Jimmie Davis Highway (LA 511) from the Red River to US 71. Tasks included the development of the purpose and need statement, the project design criteria, and the geometric alternatives of the bridge, interchange ramps on each side of the bridge, and roadway approaches. Developed a median U-turn alternative and off corridor access improvements to improve corridor connectivity for LA					l city is lect y for LA
07/15-Ongoing	LADOTD State Project No. H.004273.5: I-49 Connector, Lafayette Regional Airport to I-10/I-49/US 167 Interchange, Lafayette Parish, LA. Project Manager, Leadership Team Member, and Railroad Coordination & Design Task Manager. Led a NEPA Supplemental EIS and Design of a 5 mile urban freeway corridor. The project includes a Context Sensitive Solutions process that is occurring concurrently with the environmental process. The project includes a signature bridge and an urban master plan for local road and frontage road connections. The project has considered implementation strategies, potential railroad alignment modifications, potential replacement of up to three at-grade crossings with underpasses, and possible modifications to an Amtrak station platform. Highway overpass for the mainline viaduct and the interchange ramps are being considered as well. In addition, Mr. McDowell will also perform tasks associated with highway geometrics, highway traffic, and environmental and public involvement tasks.					a NEPA s that 1 for ent II. In public
05/10-12/13	LADOTD State Project & Efficiency, Raceland Parishes, LA. Lead Roa improvements along tw Responsible for plannir and arterial roadways; p an implementation plan	involvement tasks. LADOTD State Project No. H.005171.1, I-49 South, Stage 0 (24 Stage 0 & 16 Stage 0) Interim Improvements for Safety & Efficiency, Raceland to Westbank Expressway, Lafourche & Richoc to Berwick, St. Charles, Jefferson & St. Mary Parishes, LA. Lead Road Design Engineer. Tasked to develop a program of Stage 0 projects providing interim capacity and safety improvements along two segments of the US 90 corridor that would upgrade the existing US 90 highway to interstate standards. Responsible for planning and geometric design of the interstate highway, interchange ramps, and intersections with local collector and arterial roadways; preparation of cost estimates for alternative concepts; completion of Stage 0 Checklists; and preparation of an implementation plan. Developed a median U-turn concept that was implemented by the District.				

01/11-01/13	Stage 0 Feasibility Study & Report, LA 935, LADOTD, Ascension Parish, LA (H.009998.1). Engineer. AECOM, as a subconsultant, performed a Stage 0 Feasibility Study in accordance with the results of the Roadway Safety Assessment (RSA). The study area is approximately a 4-mile segment of LA 935 from LA 431 to LA 22 in Ascension Parish. From the RSA three proposed alternatives were to be considered for a Stage 0.
03/15-01/17	Stage 0 Feasibility Study & Report, Westside Expressway, Iberville Parish Government, West Baton Rouge, Iberville, Ascension & St. James Parishes, LA. Project Manager and Lead Roadway Designer. Led the planning and development of a high level corridor study to locate a new highway that connects I-10 west of Baton Rouge to LA 3127 with a spur to connect to LA 30 using the Iberville Parish bridge crossing location identified in the Baton Rouge Loop EIS and a secondary bridge connection to I-10 utilizing the Sunshine Bridge (LA 70). Coordinated TransCAD model data with CRPC. Utilized traffic data published in available versions of the Baton Rouge Loop EIS. Completed DOTD Environmental Inventory and Stage 0 Scope and Budget Checklists for each identified independent segment of utility. Presented proposed alignments to LADOTD, Iberville and Ascension Parishes, and various stakeholders identified by Iberville Parish.
08/12-07/14	Stage 0 Feasibility Study & Report, Johnston Street Study (US 167), LADOTD, Lafayette Parish, LA (H.009997.1). Analyzed crash data to identify trends and suggest countermeasures for development of alternatives to improve safety within the corridor of an urban arterial with heavy bicycle traffic. Evaluated the proposed alternatives using Crash Modifications Factors provided in Part D of the Highway Safety Manual. Determined benefit costs for each alternative for use in the evaluation of the alternatives.
06/13-10/14	Stage 0 Feasibility Study & Report, Williams Boulevard, LADOTD, Jefferson Parish, LA (H.010570.1). Analyzed crash data to identify trends and suggest countermeasures to develop alternatives to improve safety within the corridor by converting a five-lane urban arterial to a four-lane road with bike lanes. Evaluated the proposed alternatives using the Predictive Method outlined in Part C of the Highway Safety Manual. Determined benefit costs for each alternative to evaluate the alternatives.
09/20-Ongoing	Feasibility Study & Report/TEPR, College Drive, City of Baton Rouge/Parish of East Baton Rouge, Baton Rouge, LA. Project Manager. Led Design Study, Traffic Study, and Preliminary Plans for the completion of capacity and safety improvements that also include Complete Streets and Green Infrastructure enhancements on College Drive and adjacent facilities between Perkins Road and Bawell Street including the I-10 interchange. Documented preliminary alternatives using LADOTD Stage 0 Project and Scope and Environmental Checklists to apply for state and federal funding grants. Developed preliminary concepts. QC Reviewed the Safety Analysis.
09/15-04/17	Multimodal Transportation & Traffic & Safety Analysis, & Transportation Plan (NODTA), City of New Orleans Department of Public Works, New Orleans, LA. Design Engineer. Multimodal transportation analysis and plan for the New Orleans Downtown and historic French Quarter neighborhood. Dozens on bicycle, pedestrian and vehicular alternatives were developed and evaluated and selected improvements were programmed, based on the integrated modal-access analysis, including pedestrian LOS modeling around transit stops. Extensive curb-use revisions, car-free zones, and other innovations were developed for the Quarter and CBD.

F	irm AECOM					
Ram	Ramya Rayapureddy			Years of Relevant Experience with this Employer 2		2
Traffic I	Engineer		Y	lears of l	Relevant Experience with Other Employer(s)	0
Degree	(s)/Years/Specialization	MSc/2020/Civil Engineerin BS/2015/Civil Engineering	ng			
Active Reg	istration Number/State/ Expiration Date	LADOTD Traffic Process a	and Report Parts 1, 2	2 and 3 (2	2021)	
	Year Registered	N/A	Dis	scipline	N/A	
Contract Rol	e(s)/Brief Description of Responsibilities	Warrant Analysis, Inters Data Collection.	ection/Corridor/N	etwork	Analysis, Signal Design, Traffic Modeling,	
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properion of the properion of the properties of the propertie	osed contract; i.e., "o he time specified in	designe I the app	d drainage", "designed girders", "designed Ilicable MPR(s).	
09/22-10/22	Cameron LNG Traffic including the signalized using Synchro 11 softw construction of CLNG p	mpact Study, Cameron P and stop-controlled inters are, using HCM 6th edition project.	arish, LA. Intersect ections for the exist methodologies. Eva	ion Anal ting, No aluated t	lysis. Responsible in analyzing 30 intersection Build, Build and Build with mitigation condition the potential traffic impacts associated with th	S IS 1e
08/22-10/22	Port Arthur Liquefact and Build conditions us intersection delay, LOS intersections to minimized	ion Project (PALNG), Port ing synchro 11 for the inter and 95th percentile queue ze the impact of project cor	Arthur, TX. Traffic I sections along SH & lengths were analyz nstruction traffic on	Evaluatio 37 from t zed. Opt the stuc	on. Responsible in evaluating the existing, No the project site to the traffic signal at SH 82. Th imized the traffic signal timing at the signalize dy intersections.	Build ne d
06/22-08/22	Loop 1604 at IH-10 IAJR, TX. Safety Analysis. Responsible in analyzing and documenting the existing safety conditions along the Loop 1604 from Farm to Market (FM) 1303 to FM 1346 in Bexar County, southeast of San Antonio. Analyzed five years of crash data, crash descriptive statistics, and identified problematic locations with more number of crashes. Recommended countermeasures to address the safety issues at these problematic locations.					ong :
01/21-Ongoing	MOVEBR Jones Creek Road Extension, Segments 1A & 1B, City of Parish of East Baton Rouge, LA. Traffic Signal Design. Responsible in designing the traffic signal using AutoCAD 2020 for the intersection Jones Creek at Tiger Bend Road. Assisted for the development of traffic analysis, collected traffic counts, geometric layout measurements and peak period observations at signalized and unsignalized intersections. Responsible for development of Appendix C – Existing Safety Analysis by reviewing more than 200 crash reports.					
02/22-02/22	Slaughter Lane Signal Improvements, City of Austin, TX. Signal Design. Responsible in reviewing the slaughter lane signal improvement traffic standard plan sets, update of the quantities and redlines in the signal design using the software Microstation.					nal tation.
02/22-03/22	US 59 Laredo, TXDOT the 95% submittal plan	ITS Plan. Responsible in responsible in responsible in response to the sheets. Assisted in printing	eviewing the ITS plar g the PSETS using A	n sets, s xiom to	ummary of quantities and updating the redline ol.	es in

01/22-03/22	United States Air Force Academy Transportation Master Plan. Traffic Operations Analysis. Assisted in the traffic operation analysis using the field and street light data in the Vistro software. Responsible for providing report graphics of intersection level of service and average daily traffic for the intersections within the scope of the study.
11/20-06/21	City of Dallas-McKinney Avenue/Cole Avenue-Two-way Conversion, Dallas, TX. Traffic Impact. Responsible for review of the traffic impact studies along the corridor and developed traffic volumes from the base conditions. Collected aged data and developed growth rates at each station.
11/20-03/21	City of Austin Crash Mapping, Austin, TX. Crash Investigation. Responsible for crash investigation and crash mapping of 10 intersections based on the impact type by reviewing the crash reports.

Fin	rm AECOM					
Bren	Brent Reeves, PE			Year	rs of Relevant Experience with this Employer	15
Senior F	Project Engineer		Yea	rs of	Relevant Experience with Other Employer(s)	0
Degree(s)/Years/Specialization	BS/2005/Industrial Engine	eering			
Active Regi	stration Number/State/ Expiration Date	PE/117340/TX/03.31.23				
	Year Registered	2014	Discip	line	Industrial Engineer	
Contract Role	e(s)/Brief Description of Responsibilities	Signal Design.				
Experience Dates (mm/yy - mm/yy)	Experience and qualificintersection", etc. Expe	cations relevant to the prop erience dates should cover	bosed contract; i.e., "de the time specified in t	signe ie ap	ed drainage", "designed girders", "designed plicable MPR(s).	
05/16-03/23	Fort Worth District, I Technical Lead. Develo	-30/SH 360 Highway Inter oped the fiber optic cable s	rchange Connectivity chematic for 6.5 miles	of fre	S Design Build), TXDOT, Tarrant County, TX eeway.	
01/16-12/22	Shepherd Reconstru engineer for designing	ction from US 59 to West permanent and temporary	heimer, City of Houst r traffic signals at three	on, H inter	Harris County, TX. Technical Lead. Responsib rsections along Shepherd Dr.	le
12/15-05/22	Houston District, SH Responsible engineer signal design concept	249 Corridor Study betw for analyzing traffic operati s for a future build condition	een Beltway 8 & IH 45 ons along the corridor n using Synchro and F	, <mark>TXI</mark> and d HWA	DOT, Harris County, TX. Technical Lead. developing various preliminary roadway and tr Capacity Analysis for Planning of Junctions.	affic
04/15-03/22	Cameron/Dessau Str Cameron/Dessau stre the lighting design pro firm working jointly on Quality Control Checks	eet Lighting, City of Aust et lighting to enhance safet cess. Coordinated with Aus an adjacent roadway segm s, and management of day-	in, Travis County, TX y lighting along roadw stin Energy, Austin's pr ent was necessary. Ot to-day schedule to me	Tecl ay. M ograr her ta et th	hnical Lead. Project professional for quick-pad anaged a small Engineering Team of four thro m management planning consultant, and a co asks included facilitating organizational meeting rigid deadlines.	xed ugh equal ngs,
04/15-03/22	SH 360 Highway Exte engineer for designing	ension (Design Build), TXD temporary signals for 8 dia	OOT, Fort Worth Distr amond interchanges d	i ct, T uring	Farrant County, TX. Technical Lead. Respons 4 phases of construction.	ible
06/19-01/22	Design Build, IH 635 (LBJ) Reconstruction, TXDOT, Dallas, County, TX. Technical Lead. Provided services for the design of the permanent traffic signals for six diamond intersections and two 4-leg intersections along and near IH 635. Also Lead Designer for all temporary traffic signals same locations.					
06/18-09/21	Slaughter Lane IDIQ, City of Austin, Travis County, TX. Technical Lead. Provided management and design services to the City of Austin to modify existing traffic signals to make room for new SUP. Technical Lead responsible for managing the design 15 signals. Other tasks performed were cost estimate, pavement marking/delineators, and utility coordination.					he sign 15
03/15-06/18	United Airlines New T Technical Lead. Respo for Bush Intercontinen	Ferminal C North (Ramp, F nsible engineer for redesig tal Airport.	ueling, & Utilities), Go ning permanent signir	g and	e Bush Intercontinental Airport, Houston, T d striping for landside vehicle access to Termi	' X. nal C

10/13-12/16	Shopping District Streetscapes-Dallas St., City of Houston, Harris County, TX. Technical Lead. Responsible engineer for modifications to existing signals and pavement markings to accommodate sidewalk widening along Dallas St. in downtown Houston. Designed, signed and sealed the accompanying traffic control plan and detour sheets.
07/15-07/16	Harris County, Traffic Signal Design at Greenhouse at Hollyhock, Harris County, TX. Technical Lead. Responsible engineer for designing the traffic signal in Harris County at Greenhouse Rd. at Holly Hock Dr. Tasks included adding a left turn lane, pavement markings, pedestrian facilities, and new curb radius to signal plans.
05/13-09/15	Cinco Terrace Dr. @ Fry Rd. & Cinco Terrace Dr. @ Spring Green Blvd. Proposed Traffic Signals, Fort Bend County, Fort Bend County, TX. Technical Lead. Assisted in designing both signals for conversion from stop-controlled intersections for Fort Bend County. This included placing all proposed signal equipment, developing the electrical schedule, calculating quantities for the summary sheet, and designing the pavement markings according to TMUTCD standards and Texas CAD Standards.

F	irm AECOM						
Carle	Carlos Duran, PE, PTOE			Years of Relevant Experience with this Employer	3		
Senior	Traffic Engineer			Years of Relevant Experience with Other Employer(s)	12		
Degree	(s)/Years/Specialization	MS/2010/Civil Engineering BS/2007/Civil Engineering	AS/2010/Civil Engineering 3S/2007/Civil Engineering				
Active Reg	istration Number/State/ Expiration Date	PE/125531/TX /12.22 PTOE/4188/03.23	E/125531/TX /12.22 TOE/4188/03.23				
	Year Registered	2017	C	Discipline Civil Engineer			
Contract Rol	e(s)/Brief Description of Responsibilities	Intersection/Corridor/N	etwork Analysis				
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the prope rience dates should cover t	osed contract; i.e. he time specified	., "designed drainage", "designed girders", "designed in the applicable MPR(s).			
	transportation support for the schematic and environmental, TXDOT, Lubbock, TX. Traffic Analysis. The project includes traffic and transportation support for the schematic and environmental phase of the Lubbock Outer Route, the second loop around Lubbock. The project includes the schematic for 20+ miles of new freeway. Carlos is providing traffic analysis, traffic growth projections, public involvement support, and schematic support for one of the complete corridor and major interchanges along the project. Carlos led a group of engineering in the development of the corridor simulation model using Vissim to capture various Measure of Effectiveness (MOE) along the corridor and intersections. The models were supported with Synchro results to update signal timings among the various scenarios. The corridor was also evaluated using the HCM software to capture the weaving between the ramps, main lanes and gatew						
08/17-08/18	Springwoods Master P team to conduct a traffic more than 10,000 emploi Interstate Highway 45 (I- analysis was used to det different phases of the d developed for the optimi of the project, and recom	lan Development & Traffic impact analysis for the prop- yees and visitors. The camp 45), at the intersection of I-45 ermine the potential impacts evelopment. Vissim models zation of signal timing for the mendations were provided f	Impact Analysis, osed ExxonMobil's us is located in Spr 5 and the Hardy To to traffic operatio were develop for the opening years. Int for the major inters	Houston, TX. Traffic Impact Analysis. Carlos served as part of a campus north of Houston which was planned to accommod ring, Texas, on 385 wooded acres immediately to the west of II Road, approximately 25 miles from downtown Houston. The ns in the vicinity of the proposed development during three he analysis of multiple scenarios. Synchro models were also ternal trip reduction were also calculated for the different lanc sections.	of the date duses		
06/09-11/10	Westside Master Plan recommendations to the planned for the growth a roadway improvements a The project included the and recommendations for considered. The traffic for Synchro.	Traffic Study, El Paso, TX. T a Loop highway 375 using the nd roadway improvements a along Loop 375 included a fu development of the forecast or two proposed freeway inter- precast was done using the T	raffic Analysis. Car e traffic projections long Loop 375 Fre Ill freeway with fror ted volumes in the erchange alternativ ransCAD regional	rlos served as part of the team to evaluate and provided s for the project during various analysis years. The City of El P eway (Transmountain Road) in the northwest part of the city. Intage roads from IH 10 to the Franklin Mountains Park bounda northwest area for the year 2025 and provided a comparisor yes at Loop 375. Several street grid scenarios within the area traffic forecasting model. Intersection analysis was done usir	'aso The ary. n were ng		

06/09-11/10	Westside Master Plan Traffic Study, El Paso, TX. Traffic Analysis. Carlos served as part of the team to evaluate and provided recommendations to the Loop highway 375 using the traffic projections for the project during various analysis years. The City of El Paso planned for the growth and roadway improvements along Loop 375 Freeway (Transmountain Road) in the northwest part of the city. The roadway improvements along Loop 375 included a full freeway with frontage roads from IH 10 to the Franklin Mountains Park boundary. The project included the development of the forecasted volumes in the northwest area for the year 2025 and provided a comparison and recommendations for two proposed freeway interchange alternatives at Loop 375. Several street grid scenarios within the area were considered. The traffic forecast was done using the TransCAD regional traffic forecasting model. Intersection analysis was done using Synchro.
08/11-12/13	El Paso Alameda Avenue, Medical Center of the Americas Traffic Study, TXDOT, El Paso, TX. Traffic Modeling. Provided services for Phase II of the Alameda reconstruction to include the University Medical Center and the Texas Tech research facility newly develop area in El Paso, TX. The study area includes the analysis of two major corridors in El Paso TX; the Paisano Dr (US 62) and the Almeda Ave. (Hwy 20). The project area also included the analysis of the intersections with the IH-10 gateway. The project was divided in different phases which included intersection alternative analysis, roundabout analysis and corridor analysis. Carlos developed Vissim simulation video clips for public meetings along the Alameda corridor and proposed roundabouts.
08/17-12/18	Children's Mercy Hospital Master Plan Development & Traffic Impact Analysis, Kansas City, MS. Traffic Impact Analysis. Carlos served as part of the team to conducted a traffic impact analysis for the proposed Children's Mercy Hospital Master Plan. The purpose of the study was to determine the potential impacts to traffic operations in the vicinity of the proposed development during three different phases. Additionally, a planning review of US 71 operations was completed to determine future configuration options for the freeway. Modeling analysis was performed utilizing Vissim and Synchro computer software packages. A multimodal review of the study area was also conducted.
01/10-08/10	City of El Paso Bus Rapid Transit (BRT) Corridor Analysis, El Paso, TX. Traffic Engineering Planning. Carlos served as part of the team to provided traffic engineering planning for of the implementation of the BRT along various corridors (Alameda Ave., Montana Ave., Mesa St. and Dyer St.). The simulation included the development of exclusive lane and share lane for the BRT corridor. Carlos developed BRT micro-simulation 3D model for the public meeting of the project.
06/14-11/14	City of El Paso Alabama Street Intersection Analysis & Modeling at Arizona & Grant Avenues, El Paso, TX. Traffic Modeling. Carlos provided traffic modeling at the Alabama intersection for roundabouts and signals as the City of El Paso considered converting Arizona and Grant Avenues into two-way streets. The intersections were modeled and evaluated to determine the best options to improve safety, access, and mobility.
06/08-04/10	Cell Transmission Model with Lane Changing & Vehicle Tracking for Port of Entry Simulations, El Paso, TX. The development of the modeling framework was motivated by the need to simulate lane-specific queuing yet permit lane changing of vehicles between queues-a behavior that was not accounted for or tested by the earlier cell transmission models and that cannot be easily replicated in microscopic traffic simulation models. The concept of CTM-LV was applied to simulate the northbound traffic at the Bridge of the Americas POE, for passenger cars entering El Paso, Texas, from Ciudad Juarez, Mexico. A method was proposed to track selected vehicles within the CTM-LV framework so that an individual vehicle's travel time can be calculated and vehicle trajectories compared against data collected by probe vehicles with Global Positioning System receivers.
06/08-01/10	EPA's SmartWay Technology Application for Drayage Trucks. Texas Statewide, Environmental Protection Agency. The project studied the availability, use, and effect of SmartWay technologies on emissions and fuel use from drayage trucks traveling between the U.S. and Mexico. The overall goal of this project is to provide a broad range of stakeholders (drayage truck owners and operators and public and private sector organizations) with information on effective SmartWay technologies for drayage trucks. The study focused on the El Paso-Ciudad Juárez border area. The area has a significant drayage truck circulation that is typical of other drayage activities along the U.S./Mexico border. El Paso is currently categorized as nonattainment for particulate matter (PM10), and border-crossing activities directly impact El Paso's air quality and attainment status.

F	Firm AECOM					
Cruz Alvarez, PE, CNU-A			Years of Relevant Experience with this Employer 3		3	
Senior	Traffic Engineer			Years of I	Relevant Experience with Other Employer(s)	9
Degree	(s)/Years/Specialization	BSCE/2011/Civil Engineer	ing			
Active Registration Number/State/ Expiration Date		PE/134425/TX/03.31.23				
	Year Registered	N/A Discipline Civil Engineer		Civil Engineer		
Contract Role(s)/Brief Description of Responsibilities		Intersection/Corridor/N wide range of projects and a innovative solutions during his project management an AECOM's QA-QC protocols requirements. He has provide	etwork Analysis. roles including mana construction servic ad design roles, Cruz s, in order to see tha ded project manage	Cruz is a p aging larg ces for the coordina t deliverat ement and	professional civil engineer with 12 years' experien the projects, developing installation details, and pr e City of El Paso, TxDOT, and private-sector client ates with lead designers on a continual basis, usin bles are on time, within budget, and meet contra d design for data collection as well as signal design	nce in a oviding :s. In ng ct gn.
Experience Dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).					
03/22-Ongoing	Various Intersection Safety Improvements (SH-20, FM659, SH-20, SH-17, US-67, SH17 at SH118, SH166 at SH17), El Paso/ Jeff Davis/Presidio, TX. Traffic Signal Design/Engineer-of-Record. Cruz designed all traffic signal improvements throughout multiple intersections providing logistics of pole placement, mast arm selection, signal elevations, wiring, and phasing. He also managed his team as the Engineer-of-Record to prepare all existing, removal, and proposed sheets to deliver high quality work by implementing technical quality review procedures.					
05/22-Ongoing	FM517 Intersection Signal Improvements, Galveston, TX. Traffic Signal Design/Engineer-of-Record. Cruz designed all traffic signal improvements throughout multiple intersections including logistics of pole placement, mast arm selection, signal elevations, wiring, and phasing. He also managed his team as the Engineer-of-Record to prepare all existing, removal, and proposed sheets to deliver high quality work by implementing technical quality review procedures.					
07/22-Ongoing	Igoing US90 at Greens Bayou & Purple Sage, Houston, TX. Traffic Signal Design/Engineer-of-Record. Cruz designed all traffic signal improvements throughout multiple intersections providing logistics of pole placement, mast arm selection, signal elevations, wiring, and phasing. He also managed his team as the Engineer-of-Record to prepare all existing, removal, and proposed sheets to deliver high quality work, by implementing technical quality review procedures.			g, [.] high		
07/20-11/21	Avenue B and Alamo Street Bike Imp., San Antonio, TX. Traffic Signal Design and Engineer-of-Record. Cruz designed all traffic signal improvements throughout multiple intersections providing logistics of pole placement, mast arm selection, signal elevations, wiring, and phasing. He also managed his team as Engineer-of-Record to prepare all existing, removal, and proposed sheets to deliver high quality work, by implementing technical quality review procedures.			nal g, and ality		

01/20-07/20	IH10 Queue Detection System, Hudspeth, TX. Engineer-of-Record. Cruz was responsible for all data collection in the field for system analysis for the project design. He was also responsible for proper documentation to evaluate current condition and provide potential locations for new ITS equipment associated with the CBP station. He also provided ongoing coordination with his team and the client to achieve project goals.
03/19-09/19	Street Reconstruction Design - McCune Road, El Paso TX. Survey and Data Collection. Cruz performed the data collection for the facility to obtain field concerns of the overall corridor, as well as to identify problematic residential driveways caused by the existing terrain or utilities identified on the topographic survey. He also provided review of the existing drainage flow patterns to adequately design the proposed improvements.
01/19-07/19	Bridge Reconstruction Design Project - Alabama, Davis, Delta, & Yarbrough, El Paso TX. Survey and Data Collection. Cruz performed data collection for existing roadway concerns to allow for the proper design of the horizontal/vertical alignment, proposed roadway and proposed pedestrian improvements along the urbanized roadways. Additionally, he obtained field data for the analysis of existing and proposed drainage areas to obtain peak runoff flows via the rational method to thus adequately size the proposed drainage structures.

Firm AECOM						
Kordel Braley, PE, PTOE				Year	s of Relevant Experience with this Employer	5
Senior	Traffic Engineer			Years of	Relevant Experience with Other Employer(s)	11
Degree	e(s)/Years/Specialization	MS/2007/Civil & Environm BS/2005/Civil & Environm	ental Engineering/7 ental Engineering	Transpor	tation Engineering	
Active Registration Number/State/ Expiration Date		PE/47329/LA/03.31.23				
	Year Registered	2010	Dis	scipline	Civil Engineering	
Contract Rol	e(s)/Brief Description of Responsibilities	Traffic Modeling Task Le	ead, Intersection/(Corridor	/Network Analysis.	
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Exper	ations relevant to the properion of the properion of the properties of the propertie	osed contract; i.e., " the time specified ir	'designe n the app	d drainage", "designed girders", "designed blicable MPR(s).	
09/18-Ongoing	LP 1604 & I-10 Schematic & IAJR, San Antonio, TX. Traffic Lead. Kordel is the traffic lead for the development and calibration of a Vissim model for over 20 miles of freeway and frontage road corridor in northern San Antonio. The model was used to evaluated numerous scenarios and to prepare a draft IAJR for the I-10 interchange area. The IAJR also included a detailed crash analysis and predictive safety analysis using ISATe. The IAJR was approved by FHWA in 2022. Kordel is now leading efforts to analyze dozens of traffic control plans for construction of this project ensuring safety of all modes.					
01/20-Ongoing	Oak Hill Parkway Design Build, Austin, TX. Traffic Engineering Lead. Kordel is the lead traffic engineer for traffic analysis and has developed Vissim models for Maintenance of Traffic (MOT) phases and steps for this freeway construction project converting an arterial to a grade-separated freeway.					
09/19-06/22	I-35W at US 67 IAJR, Alvarado, TX. Traffic Lead. Kordel was the traffic lead for the development of an IAJR for this project which improves safety and operations to I-35W near US 67 in Alvarado. The IAJR analyzes the impacts to mainlanes, frontage roads and frontage road cross streets both in terms of traffic operations but also safety. The IAJR was approved in 2022.					
10/19-Ongoing	LP 1604, SH 16 to I-35 Schematic, EA, & IAJR, TXDOT, San Antonio, TX. Lead Traffic Engineer. Provided services including capacity analysis of segments and intersections using HCS and Synchro. Collected and processed traffic from active and passive sources. Developed traffic forecasts. Analyzed travel times, delay, and LOS. Supported design of signing and pavement marking. Performed traffic engineering at intersections. Supported environmental analysis and oversaw predictive safety analysis.					
01/14-Ongoing	Lehi City On-Call Traffic Engineering Support, Lehi, UT. Traffic Engineering. Kordel works with Lehi City on an on-call basis to provide traffic engineering support for it's Engineering and Public Works departments. Work tasks include traffic signal warrants, pedestrian studies, safe routes to school studies, and speed studies. One larger task order included identifying and prioritizing several gaps in pedestrian facilities in the northeast portion of Lehi. With the opening of a new high school, the city desired to improve conditions for pedestrians. In addition to making several recommendations for controlled and uncontrolled pedestrian crossings, Kordel also helped identify gaps in sidewalk facilities and developed a simple and transparent prioritization process to assist the City in completing these missing portions.					

04/15-06/18	UDOT Traffic Study Support, Statewide, UT. Kordel led their efforts in assisting the Division of Traffic and Safety in performing traffic studies on an on-call basis. Comprehensive traffic studies were required to be delivered on short notice, usually within one week of request. Over a three-year period, Kordel's team completed nearly 300 studies, including signal warrants; HAWK warrants; advanced warning system warrants; left-turn studies; pedestrian crosswalk studies; speed studies; passing zone studies; and advisory curve speed studies. These studies were preformed across all four regions in the State of Utah. Individual tasks on these studies included data collection, analysis, report preparation, and coordination with the UDOT review team, who is responsible for approving the final studies. These studies also included a cursory safety review using data from UDOT's web-based crash portal (Numetric). Kordel also assisted the project team in evaluating and creating analysis methodologies, such as a warranting process for advance signal system installation, left-turn phasing, and pedestrian crossings. As a result, Kordel has collaborated with other consultants and UDOT staff to deliver quality traffic and safety engineering studies to the UDOT regions. [Prior to AECOM]
05/21-07/21	Benefit-Cost Analysis for US 101/Hearn Avenue Interchange Project, Santa Rosa, CA. Lead Traffic and Safety Engineer. Kordel was the lead traffic and safety engineer for the preparation of this report in support of the RAISE Funding Application. Kordel analyzed both traffic and safety data to quantify the economic benefit of adding vehicle, bike, and pedestrian capacity to the Hearn Avenue Interchange. The addition of capacity to a US 101 exit ramp was also considered as queued vehicles currently extend onto SB US 101. The analysis included both predictive safety analysis as well as the evaluation of crash modification factors (CMFs) from the Highway Safety Manual (HSM). Kordel also evaluated the benefits due to delay savings and air quality improvement in the region due to the proposed changes.
07/19-08/20	Ogden Bus Rapid Transit Final Design, Ogden, UT. Lead Traffic Engineer. Kordel was the lead traffic engineer for final design of the Ogden BRT project. The 10-mile corridor was modeled using Vissim including mixed-flow and exclusive bus lanes and transit signal priority (TSP). Kordel led the analysis of multiple intersection options to assist in providing transit functionality while maintaining efficient operations for other modes. Kordel worked collaboratively with UTA, UDOT Region 1, Ogden City, and Weber State University to accomplish the project goals.
12/15-10/18	Provo/Orem Transportation Improvement Project (PROTRIP), Utah County, UT. Traffic Engineering. Kordel provided traffic engineering and forecasting services for the Utah Department of Transportation (UDOT) and Utah Transit Authority (UTA) for the design of a 10.5-mile Bus Rapid Transit (BRT) line in Provo and Orem, later named Utah Valley Express (UVX). Kordel performed microsimulation analysis—using Vissim—of one of the three design segments to assist the designers in intersection and signal design including transit signal priority (TSP).
06/22-Ongoing	Phoenix 35th Avenue BRT, Alternatives Analysis & Preliminary Engineering, Phoenix, AZ. Lead Traffic Engineer. Kordel is the lead traffic engineer for the alternatives analysis and preliminary engineering (15%) of Phoenix's first BRT system. The 14-mile corridor is being modeled using Vissim including mixed-flow and exclusive bus lanes and transit signal priority (TSP).
08/20-06/21	Local Link Alternatives Analysis, Wasatch Front, UT. Deputy Project Manager. Kordel is the deputy PM and lead traffic engineer for this alternatives analysis of transit along 1300 East and Highland Drive in Salt Lake City, Millcreek, and Holladay. Kordel's team has developed travel times and prepared ridership estimates for several options including LRT, BRT, Streetcar, and Enhanced Bus along two alignments
06/19-12/20	Davis-Salt Lake Community Connector Bus Rapid Transit Environmental Assessment, Davis & Salt Lake Counties, UT. Vissim Support. Kordel has assisted in the development of a Vissim model in support of this EA for the Utah Transit Authority (UTA) which runs from Downtown Salt Lake City, UT to Woods Cross, UT. The Davis–Salt Lake traffic model includes more than 50 intersections and a train line. Kordel has also assisted with QC tasks and messaging if the traffic analysis to project stakeholders.
03/20-07/21	200 South Transit Corridor, Salt Lake City, UT. Deputy Project Manager. Kordel was the deputy PM and traffic engineering lead on the Salt Lake City 200 South Transit Corridor study which created concepts to prioritize transit and other modes along this important corridor in downtown Salt Lake City based on input from the community, stakeholders, and data driven analysis. Kordel also built Vissim models to compare traffic metrics including transit travel time, LOS, and queuing for each concept at key intersections along the corridor. This project is currently in final design.

Firm AECOM				
Sal Aldin, PMP			Years of Relevant Experience with this Employer 4	
Civil En	iginering II		Years of Relevant Experience with Other Employer(s) 1	
Degree	(s)/Years/Specialization	BSCE/2018/Civil Engineer	ing	
Active Registration Number/State/ Expiration Date		PMP/11.25		
	Year Registered	2022	Discipline Civil Engineering	
Contract Rol	e(s)/Brief Description of Responsibilities	Warrant Analysis, Signal	I Design.	
Experience Dates (mm/yy-mm/yy)	Experience and qualific intersection", etc. Exper	alifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed Experience dates should cover the time specified in the applicable MPR(s).		
04/21-Ongoing	Laredo District, US 59 Reconstruction, TXDOT, TX. Signal Design. Designed the temporary signals for multiple temporary control plan phases for two diamond intersections and ensure safe transition from the existing condition and followed by designing the permanent signals. Proposed installation of single and dual high mast, pedestrian poles, vehicle/pedestrian signal heads, push buttons, RVSDs, fish- eye camera for traffic detection, street signs, and identified electrical service locations. Developed charts including wiring quantity tables for inside conduits and mast arms, poles location, and summary of quantities and estimate.			
01/22-Ongoing	City of Austin, Slaughter Lane Improvement, Permanent Signal IDIQ, Austin, TX. Signal Design. Designed the permanent signals. Installed permanent mast arms, pedestrian poles, traffic signal controller, vehicle/pedestrian signal heads and push buttons, RVSDs and small signs. Identified and proposed electrical service locations. Developed wiring quantity tables for inside conduits and mast arms, cable termination charts, pole location, and summary of quantities for all other traffic systems in tables format for more installation details. Developed elevation and details, quantities, and estimate. Coordinated with teams and share project updates. Documented meetings and calls with client, prime, sub-consultant, vendors, Responded to comments and client design preferences.			
08/21-06/22	City of Austin, S. Congress at E. Alpine & Ramble Ln., Safety & intersection Improvement, Austin TX. Signal Design. Designed two signals and developed proposed design alternatives including intersection improvement to pedestrian ramps, drainage, and crosswalks. Discussed alternatives with the client to ensure the proper design is selected. Transformed the PHB (Pedestrian Hybrid Beacons) intersection into 4-legs intersections with crosswalks on all sides of the intersection. Designed the traffic signal and installed proposed mast arms, pedestrian poles, and designed intersection improvement including ramps and curbs. Installed traffic vehicle/pedestrian signal heads, pedestrian push buttons, street signs and other signing. Developed load switch layouts, phasing, tables, charts, and elevations for signal installation and engineering quantities and estimate.			
08/21-Ongoing	City of Austin, Lake Austin Blvd. & Redbud Ln. Safety improvement, Austin, TX. Signal Design. Designed the permanent signal, Signing, and Pavement markings, including traffic signal cabinet, single mast arms, pedestrian poles, vehicle, pedestrian, and cyclist signal heads and push buttons, PVSDs, illumination, electrical service, traffic signal mast arm street signs and ground mounted signs, and pavement markings. Developed all elevation, details, charts, summaries, and estimate.			
02/21-Ongoing	City of Austin, Slaughter Ln. Improvement for segments C1A, C1B, C2, & C5, Austin, TX. Signal Design. Designed 10 permanent signals including permanent mast arms, pedestrian poles, traffic signal controller, vehicle/pedestrian signal heads and push buttons, RVSDs and small signs. Identified and proposed electrical service locations. Designed the signing and pavement markings. Developed wiring quantity tables for inside conduits and mast arms, cable termination charts, pole location, and summary of quantities for all other traffic systems in tables format for more installation details. Also developed elevation layouts, quantities, and estimate for permanent signals and signing and pavement markings.			
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02/20-08/21	Dallas District, I-635 East Design Build Project, TXDOT, Dallas, TX. Signal Design. Designed temporary signals for eight intersections with multiple TCP phases in the city of Dallas segment. Designed the permanent signals for the same eight intersections. During temporary and permanent phases, the pedestrian signal heads and push buttons were a major challenge in the design. Identified and installed the proposed traffic signal controller prior to the beginning of construction so the controller will serve during all TCP phasing and transition between phases was quick and efficient. Designed and ensure the safe traffic transition for pedestrians and vehicles from temporary to permanent. the permanent signal was installed and wired partially and during the temporary phases until it was fully functional by the end of the last TCP step. Installed and wired the single and dual mast arms, vehicle/pedestrian signal heads, Illumination, RVSD, PTZ camera, for traffic detection and small signs and Illumination signs. Identify and proposed electrical service locations. Developed wiring summary and quantity tables for inside conduits and mast arms, cable termination charts, pole location, and summary of quantities for all other traffic systems in tables for more installation details. Developed high mast and pedestrian poles elevation sheets for more details. Coordination with several department of this large-scale type of project was essential since changes were made to design frequently and in a fast pace.			
04/21-10/22	Abilene District, I-20 & US84 Interchange, TXDOT, TX. Signal Design. Designed the high mast illumination using AGI-32 modeling software. Designed the High masts for most of the interchange, conventional lights for main lanes, safety lights for ramps and merging lanes. Underpass lights for main lanes areas underneath bridges and direct connectors. Designed conventional lights for areas where the installation of high mast poles were restricted by FAA restrictions. Performed calculations to provide the illumination with sufficient voltage and ensure the use of the conductor size and no drop exceed what is approved by the client. Developed summary, quantities, and estimate. Coordinated with FAA for height compliance for (high mast poles and ITS devices). Coordinated with electrical utilities for service locations and proposed new service meter locations. Performed interdisciplinary plans and estimate review for ITS. Worked with sub on C2 survey.			
02/21-10/21	Austin District, IH 35 High Mast Illumination Design, TXDOT, Georgetown & San Marcos, TX. Signal Design. Designed high mast illumination for stand-alone high mast illumination safety along I-35 from SH29 and US79. Prepared design plans, summary of quantities, and estimate. Identifed and proposed elec. service locations. Performed voltage drop calculation making voltage at each light sufficient and approved by client. Developed wiring diagrams and sheets. Designed metal beam guard fence and other roadway equipment.			
10/19-12/20	Houston District, FM 2818 Temporary signals,TXDOT, Brazos County, TX. Signal Design. Assisted with temporary signals to cover various numbers of TCP changes. installed 40-ft. wooden poles with span wires across the road. Installed vehicle and pedestrian signal heads, illuminations, and traffic detection systems. Developed signal poles elevations sheets. Developed wiring quantity tables for inside conduits and mast arms, cable termination charts, pole location, and summary of quantities for all other traffic systems in tables for more installation details.			
01/19-02/20	FM 1488 Access Management Study, TXDOT, Montgomery County, TX. Signal Design. Designed and deployed the recommendations for short-, medium-, and long-term improvement solutions to enhance safety and mobility along the 14-mile corridor with 19 signalized intersections. Conducted field visits to ensure potential design conflicts, collect various data, and study the existing condition. Discussed the recommendations with the analysis engineer. Attended and assisted in preparing the steering committee, stakeholder, and public meetings as part of the valuable public involvement process. Deployed the recommendation of installing raised medians with hooded left turn lanes and accommodate decorative landscaping, continuous green T intersection, bicycle connectivity through intersections, pedestrian crossings, and traffic signal improvements.			

Prime consultant firm name: **AECOM**

F	irm AECOM					
Victo	or DelaGarza, Pl	Ξ		Years of Relevar	nt Experience with this Employer	3
Traffic/	Traffic/ITS Group Lead			Years of Relevant Ex	perience with Other Employer(s)	20
Degree	e(s)/Years/Specialization	MS/2003/Computer & Elec BS/2000/Computer & Elec	ctrical Engineering ctrical Engineering			
Active Reg	istration Number/State/ Expiration Date	PE/93717/TX/03.31.23				
	Year Registered	2004	D	scipline Civil Engine	eer	
Contract Rol	e(s)/Brief Description of Responsibilities	Technical Advisor-Traffic	c QA/QC	'		
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the proper rience dates should cover t	osed contract; i.e., he time specified	"designed drainage", n the applicable MPF	"designed girders", "designed {(s).	
04/22-Ongoing	Southeast Connector Design Build Lead Verifier, Dallas, TX. Lead Verifier. This project consists of 16.6 miles of non-tolled improvements to I-20 from Forest Hill Drive to Park Springs Boulevard, to I-820 from I-20 to Brentwood Stair Road, and to US 287 from Bishop Street to Sublett Road. Victor served as a Lead Verifier for the traffic elements on this project. Victor confirmed reviews were conducted and looked for fatal flaws and cost savings opportunities. These included temporary and permanent traffic signal, signing and payement. ITS and roadway illumination.				led S rmed ent	
10/20-04/22	Oakhill Parkway Design Build Lead Verifier, Austin, TX. Lead Verifier. Project consisted of 7.5 miles of 4-to-6 non-stop US 290 mainlanes for through traffic. Victor served as a Lead Verifier for the traffic elements on this project. Victor confirmed reviews were conducted and looked for fatal flaws and cost savings opportunities. These included temporary and permanent traffic signal, signing and payement TTS and roadway illumination.			JS 290 vs signal,		
04/20-02/21	Wrong Way Driver De Detection systems at the direction of vehicles en flashing beacons instal vehicle and send an em modem. This project als Countermeasure guide	tector I-10, Fabens, TX. Pr ne exit ramp of I-10 at FM 11 tering the off-ramp in the w led at Wrong Way sign locat nail to TransVista TMC opera so included signing and stri lines.	roject Manager. Pr 10. The system co rong way. At the e tions to get wrong ators about the ev ping improvement	oject consisted on de nsisted of a thermo vent of wrong way dri way driver's attentio ent. This system was s as recommended i	eploying two Wrong Way Driver cameras that detect presence and ver detection, the system trigger n. The system takes a snapshot of integrated to TransVista using ce n the El Paso District Wrong Way	d f the Ilular
02/20-07/20	Permanent Queue De infrastructure, five CCT installed at the approact system to a Central Pro- alerting the traveling pu Video feed was shared was integrated using ce Quality of Service	tection System, I-10, Sierr V cameras, 11 Radar Vehicl ch of Customs and Border P ocessing Unit. This Unit proc ublic of congestion ahead o with the Customs and Bord ellular modem. Data load ca	ra Blanca, TX. Pro le detectors, three Protection checkpo cesses vehicle spe n the roadway. Pro ler Protection chec lculation were per	ect Manager. Projec Dynamic Message S int. The design cons ed and volumes and posed CCTV camera kpoint and integrate ormed and ITS was b	t included five miles of fiber optic Signs and Central Processing Unit isted on integrating vehicle detec automatically displays warning m as are for traffic surveillance only. d into the TransVista TMC. Syster proken into multiple systems to en	tion essage n ısure

04/20-12/20	Wrong Way Driver Countermeasure LP375, El Paso, TX. Project Manager. Directed the design that consisted of ramp reconfiguration along LP375 at two of El Paso's downtown exits. Included median improvements along Oregon St, roadway illumination, improved signing and pavement markings, ITS and Lidar Wrong Way Driver Detection system. The proposed system monitors roadway off ramp and triggers flashing beacons when a wrong way driver gets detected. If the wrong way drive continues, the system triggers alert to the El Paso Police Department 911 call center, TransVista Traffic Management Center and has the capability to activate a DMS with a caution message about a wrong way driver with or without TransVista operator confirmation. This project required extensive coordination with multiple agencies and had a very tight scheduled.
04/19-08/22	Transportation System Management & Operations (TSMO), El Paso, TX. Project Manager. Led the development of the TSMO program plan for El Paso region. This included extensive coordination with region stakeholders from New Mexico and Mexico counter parts and representatives from local, state and federal levels. Victor and his team were able capture TSMO strategies to be implemented in the near future. This project consisted on multiple outreach meetings, surveys and one-on-one conversation with key stakeholders. Project included Capability Maturity Model evaluation, Capability Maturity Framework and State of the Practice report.
06/19-Ongoing	I-635 LBJ Design Build Lead Verifier, Dallas, TX. Lead Verifier. The project spans 11 miles beginning just east of US 75 in North Dallas to I-30 in Mesquite. The purpose of this project is to improve mobility, operations and safety along Interstate 635 (I-635) in Dallas County. Victor served as a Lead Verifier for the traffic elements on this project. He confirmed reviews were conducted and looked for fatal flaws and cost savings opportunities. These included temporary and permanent traffic signal, signing and pavement, ITS and roadway illumination.
04/19-01/20	ITS Master Plan, El Paso, TX. Project Manager. Led the development of the TXDOT's ITS Master Plan for the next ten years. Work consisted on analyzing existing ITS network and identify gaps in CCTV coverage, vehicle detection, and communication to travelers via DMS. This plan also included ITS elements to keep drivers engaged and alert while driving in rural high-speed areas within the El Paso district. Plan recommended emerging ITS technologies and systems and data communication upgrades to improve TMC operations and emergency personnel response time.
04/14-09/15	City of El Paso Traffic Management Center Relocation, El Paso, TX. Project Manager and Lead Design Engineer. When the City of El Paso approved the construction of a new AAA baseball stadium for the El Paso Chihuahuas, the selected site needed to be cleared immediately of existing structures, namely City Hall, which housed the TMC. For the City to continue to monitor and control traffic flow on the City's freeways and surface streets, a new TMC had to be designed, along with the relocation of all City fiber optic systems coming into and out of the City's IT Network Center, also located in City Hall. Selection of the site initiated a rapid design and deployment project to establish an interim TMC in just under two weeks—an almost impossible task, but one that earned the project recognition at the 2014 ITS (Intelligent Transportation Society of America) Texas Chapter's annual conference. System downtime was unacceptable, requiring unique, multi-entity approved solutions to be achieved efficiently. Project included complex ITS design and integration and development concept of operations for the new TMC.

F	irm AECOM					
Joe	Carter, PE, IMSA	Ą		Yea	rs of Relevant Experience with this Employer	1
Civil Er	Civil Engineer			Years of	Relevant Experience with Other Employer(s)	11
Degree	(s)/Years/Specialization	BSCE/2010/Civil Engineeri	ing			
Active Reg	istration Number/State/ Expiration Date	PE/31076/KY/06.30.23 Traffic Signal Technician Le	evel II/106588/12.27	7.24		
	Year Registered	2018	Dis	scipline	Civil Engineer	
Contract Rol	e(s)/Brief Description of Responsibilities	Traffic Signal Inventory				
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the propo rience dates should cover th	osed contract; i.e., ' he time specified ir	designe hthe app	ed drainage", "designed girders", "designed olicable MPR(s).	
	timing plans for 127 intersections in the Far East grid network of traffic signals to improve travel time, reduce delay, enhance safety, and cut back on emissions. Traffic engineer developed the existing synchro models to meet baseline conditions. The models include an AM, PM and Midday peak periods. The models were developed by using city provided signal timing sheets and field collected data along the corridors and intersections. Managed a team and validated the 7-Day 24-hour counts, turnir movement counts, before travel time runs, and field collected data review forms. Lead engineer that optimized and developed proposed models in Synchro for AM, PM, and Midday/Weekend peaks. Managed and performed updated yellow change, red interval, and pedestrian clearance calculations per city policy for proposed timing plans. Wrote support memos and documer throughout project Lifecycle. Lead engineer on biweekly progress meetings with the client. This is an active project that will include bench testing of proposed timings, field implementation, fine tuning, and a final report.					e ts ning ed d nents
07/22-Ongoing	MO 100 & US 61/67 St Implemented newly des timing was pushed dow split, ring sequence, an schools per agency rec interchange by modifyi limited access for right- reduced the queue leng	reetlight Signal Optimizat signed signal timing plans a <i>n</i> and fine-tuned using MoE d offset adjustments along quest. Traffic engineer impro- ng the phase operation. At p -turn vehicles and queues th gth by 90% and while keepir	tion, Missouri Dep t 36 traffic signals a DOT's ATMS and IT the corridor. Speci oved a safety issue peak conditions, co he length of the off ng the integrity of r	along US S infrast al signal for sout ongestic ramp, ap nainline	At of Transportation, St. Louis, MO. Traffic Er S 61 and US 67 in southwest St. Louis. The sign tructure. The fine-tuning process included pha- l timing accommodations were implemented a thbound right-turn traffic at MO 100 and MO 14 on in front of the offramp approach had resulte oproaching spillback conditions. The modifical progression.	igineer. hal ise it 2 41 id in tion
11/16-11/16	KY 36 at I-75 SB, Kent intersection Synchro and analyzed including No E roundabout was an ove million. [Prior to AECOM	ucky Transportation Cabi nd HCS analysis. This projec Build, traffic signal, or sched er-design and the current sto M]	net (KYTC), Willia ct was scheduled t luled/designed mul op control was suff	mstowr o be let f ti-lane r icient. T	n, KY. Traffic Engineer. Provided a quick but the two months prior to analysis. Three scenarios oundabout. The conclusion was the multi-lane his project saved the Cabinet and taxpayers \$	orough were 3 57.6

04/20-01/22	2070 ATC Controller Upgrade, KYTC, Frankfort, KY. Civil Engineer. Managed the implementation of 400 traffic signal controller upgrades from model 170 ATC controllers to 2070 ATC controllers capable of high-resolution data collection. This included systematically choosing the intersections of priority. Administering the conversion or performing the conversion. Fielding timing issues and resolving those during the conversion. Improving intersection phasing to meet the state's phasing standards. Arranging the communications upgrade to locations for the advanced traffic signal controllers. Assisting the district personnel with implementation in the field. Adding the new controllers to the Advanced Traffic Management System. [Prior to AECOM]
10/21-12/21	KY 480 - ATMS Traffic Responsive Optimization, KYTC, Shepardsville, KY. Traffic Engineer. Assisted in final optimization of Seasonal KY 480 Corridor and Amazon sorting facility. This required optimizing the traffic responsive operation through Advanced Traffic Management System (ATMS) and seasonal midday off-peak and PM peak TOD plans. The delay was reduced by cutting the cycles in queue from 2-3 to 1-2. This reduced Interstate Ramp Queues from 3,200 ft to 2,000 ft and limiting the impact on critical interstate thru traffic. [Prior to AECOM]
09/21-12/21	Dixie Highway TIGER Grant Transit Signal Priority, Louisville Metro Government, Louisville, KY. Traffic Engineer. Provided technical support to Louisville Metro Government & TIGER Grant Transit Signal Priority project. This assistance included Railroad (RR) preemption operation with gate-down input to terminate track clearance to meet state policy, and conflict monitor unit (CMU) configuration. This complex traffic signal required additional cabinet output module, flashing yellow left-turn arrow, right-turn overlaps, RR preemption, and transit traffic signal priority. Also tested the timing database, discovered timing issues, and corrected them. Delivered guidance on the safest configuration for the CMU with an extra output module with flashing yellow left-turn arrow. [Prior to AECOM]

F	irm AECOM					
Jona	athan Martinez			Year	s of Relevant Experience with this Employer	17
Enviror	nmental Planner			Years of I	Relevant Experience with Other Employer(s)	0
Degree	e(s)/Years/Specialization	BS/2002/Forestry/Econor	mic Management			
Active Reg	istration Number/State/ Expiration Date	ACOE Wetland Delineation (Reg. IV) Training Certified	n and Managemei	nt		
	Year Registered		E	Discipline		
Contract Rol	e(s)/Brief Description of Responsibilities	Stage 0.	l	I		
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properience dates should cover t	osed contract; i.e. he time specified:	., "designed in the app	d drainage", "designed girders", "designed licable MPR(s).	
07/15-Ongoing	State Project No. H.00 conducted for this 5.5- urban Lafayette. The we While the project initiall in the environment and a Supplemental Enviror sections of the SEIS an performed the wetland development of the pro	M4273.5, I-49 Connector S mile segment of I-49 South ork advances the project be y required a Reevaluation of community concerns have mental Impact Statement d assist with the review of t delineation and preparatio oject.	between I-49 / I- eyond the Record of the concept of t resulted in refine (SEIS). Jonathan N he Phase I ESA ar n of the Section 4	5, LADOTE 10 intercha of Decisic he 2003 S ments to t Martinez's nd the Sec 04 permit	D, Lafayette, LA. Project Planner for the SEIS ange and the Lafayette Regional Airport throu on issued for the project by FHWA in January elected Alternative, the passage of time, cha that concept that are substantial enough to w role is to write all of the natural environmenta tion 106 Consultation process. To date, he has as well as to work closely with other staff in th	being igh 2003. nges arrant l is ne
09/15-02/19	Port of St. Bernard St. LA. Environmental Plan Weinberger Road (Arab performed a wetland de Determination. He also	ate Project No. H.012752: Iner for project includes the i Terminal Port Entrance Ro elineation for the project an wrote the Categorical Exclu	Categorical Exc e realignment east bad) and Louisiana Id submitted that usion which was a	lusion – M tward and a Highway report to th pproved b	Veinberger Road at Hwy 46, St. Bernard Pa construction of a new intersection between (LA) 46 (St. Bernard Highway). Jonathan Mart he USACE receiving an approved Jurisdiction by FHWA.	rish, inez ial
01/03-04/12	State Project No. H.00 Field Biologist for the E presence of threatened of the Bayou Dorcheat Shreveport, Louisiana	06447.2 I-69 SIU, EIS, LAD nvironmental Impact Stater d and endangered species i scenic stream. The Intersta and El Dorado, Arkansas thr	OTD, Claiborne ment for the prope in the area, as well ate 69 Corridor's s rough a rural timbe	& Webste osed I-69 p I as wetlan section of in er and pou	r Parishes, LA, Columbia & Union Counties project. Responsible for fieldwork to determin d delineations and the study of a suitable cro ndependent utility number 14 spans betweer lltry farming area.	, AR. le the ssing 1
09/11-02/12	State Project No. H.00 LA. Environmental Plan including the construct and FONSI completed i as well as a Threatened coordination with state	04580.5 Re-evaluation of oner and Biologist for the pr ion of two new bridge struct n 1999 and revised in 2006 I and Endangered Species s and Federal agencies and	EA & FONSI US 1 oposed reconstru- ctures over Bayou c. Responsible for survey and cleara submittal of a We	90 in Man uction of U Chinchub applying fo nce for the tland Findi	deville from LA 22 to Lonesome Road, LAI S 190 extending from LA 22 to Lonesome Ro a. This project is a Re-Evaluation of the origin or a new 404 Wetland Permit and Coastal Use e project as well as additional field work, surve ngs Report and T&E Species Survey Concurr	OTD, ad, al EA Permit eys, and ence.

01/12-05/14	State Project No H.004730 Environmental Assessment – US 61/Tulane Avenue Corridor Improvements, LADOTD, Orleans Parish, LA. Environmental Planner for project includes improvements such as median widening, cold mill and overlay with restriping and reconstruction of sidewalks along Tulane from S. Carrollton Avenue to S. Claiborne Avenue in Orleans Parish, New Orleans, Louisiana. The project will implement corridor improvements that will enhance quality of life, livability, and sustainability in the corridor and will support future transportation demand and adjacent land use including pedestrian, bike, and transit system operations. The now completed corridor improvements consist of amenities associated with a complete streets concept.
11/10-10/13	State Project No. H.004932: Environmental Assessment, US 90 at LA 318, LADOTD, St. Mary Parish, LA. Environmental planner for an EA associated with a new interchange at US 90 and LA 318 in St. Mary Parish. The project is in a rural setting with concerns related to effects on existing utilities, agricultural lands, natural environment, and human environment. The interchange is located on a major east-west route that provides for hurricane evacuation and is part of the future Interstate 49 Corridor. LA 318 Parkway is the major north-south connector from US 90 to the St. Mary Sugar Co-op and the Port of West St Mary. The project is also critical to accommodate the future upgrading of US 90 to part of the Interstate System as I-49.
07/15-11/15	State Project No. H.004932: Supplemental Environmental Assessment, US 90 at LA 318, LADOTD, St. Mary Parish, LA. Completed the Supplemental EA (SEA) as part of the Design Build process for the project that included review and revision of the previous EA. Obtained a FONSI on a very aggressive schedule set by the DB contractor, FHWA and DOTD.
03/09-02/14	State Project No's H.005201 (H.008732): Baton Rouge Loop, Implementation Plan & Tier 1 Environmental Impact Statement Alternatives Evaluation & Travel Demand Modeling, LADOTD, Baton Rouge, LA. Mr. Martinez was a lead author for portions of the implementation plan and Tier 1 EIS were prepared for the proposed Baton Rouge Loop, a predecessor to this project to site a new Mississippi River Bridge in Metropolitan Baton Rouge. The alternatives evaluation examined a toll roadway concept that was studied in three units: South - I-10 on the west bank of the Mississippi River to Interstate 10 on the east bank; East I-10 on the east bank of the Mississippi River to I-12 near Livingston; and North – I-12 near Livingston to I-10 on the west bank.
10/10-05/15	SP No H.004424 Environmental Assessment – US 61 at LA 3125/Clearview Parkway, LADOTD, Jefferson Parish, LA. Environmental Assessment associated with intersection improvements at US 61 and Clearview Parkway in Jefferson, Louisiana. The project is in a densely urban setting with numerous concerns related to effects on existing utilities, infrastructure, and human environmental. The intersection is location on a major east-west route that provides for hurricane evacuation as well as a bypass to Interstate 10. Clearview Parkway is the major north-south connector from the Huey Long Bridge to Interstate 10. The project is also critical to accommodate increased traffic projected with completion of the Huey Long Bridge widening.

F	irm AECOM				
Moh	Mashkur		Yea	ars of Relevant Experience with this Employer	1
Civil En	gineer		Years o	f Relevant Experience with Other Employer(s)	0
Degree	(s)/Years/Specialization	BSCE/2022/Civil Engineer AS/2020/Engineering BSCE/2010/Civil & industr	ing ial Engineering		
Active Reg	istration Number/State/ Expiration Date	EIT/76103/TX/07.26.30			
	Year Registered	2022	Discipline	Civil Engineering	
Contract Rol	e(s)/Brief Description of Responsibilities	Warrant Analysis, Signa	l 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 time specified in the applicable MPR(s).				
03/22-05/22	Laredo District, US 59 Reconstruction, LADOTD, Laredo, TX. Quality Control. Provided services including helping designers on CAD works of 90% design of 6.5 miles of ITS temporary and permanent signals for two intersections (University Blvd. and Del Mar Blvd.) and signing and pavement markings.				
03/22-04/22	FedEx Traffic Signal D signal equipment.	esign, Houston, TX. CAD.	Helped the designers on	CAD work for existing utilities and proposed tra	ffic
03/22-04/22	City of Austin, Slaughter Lane Design, Austin, TX. CAD. Helped the designers on CAD work, QC of sheets, take of quantities, identification of utility conflict, and const. estimate for some of 20 traffic signals and signing/marking design including PS&E and IDIQ submittals along the 10-mile segment of Slaughter Lane from RM 1826 to Brandt Road.				
05/22-10/22	City of Austin, Slaughter Lane IDIQ Signals, Austin, TX. CAD. Helped designers on CAD work, design, take of quantities, utility conflict identification, and cost estimate for 16 traffic signals along Slaughter Lane due to the SUP improvements.				utility
07/22-Ongoing	The City of El Paso, TX. Traffic Engineering. Prepared different work orders for the City of El Paso such as improvement and design of signing and pavement markings, traffic signals, access management, and design of guard rails and posts.				
08/22-Ongoing	City of Houston, Harris County Toll Road Authority Signals, Houston, TX. Traffic Signal Design. Designed traffic signals, pedestrian signal heads and pushbuttons, paving, and ped and pavement marking.				
09/22-Ongoing	Houston METRO, MET signal heads and pusht other disciplines involve	RORapid University Corr buttons. Drawn existing traf ed in the project such as ro	idor, Houston, TX. Traffic fic signals and pedestrian adway and bridge designe	Signal Design. Designed traffic signals, pedest signal heads and pushbuttons. Coordination w rs to avoid conflicts.	rian ith

F	irm AECOM					
Pete	er Bakhit, PhD, P	E		Year	s of Relevant Experience with this Employer	<1
Civil Er	ngineer			Years of	Relevant Experience with Other Employer(s)	4
Degree	s(s)/Years/Specialization	PhD/2018/Civil Engineering MS/2015/Civil Engineering BS/2012/Civil Engineering	ig] 			
Active Reg	istration Number/State/ Expiration Date	PE/143705/TX/12.31.23				
	Year Registered	2021	C	Discipline	Civil Engineering	
Contract Role(s)/Brief Description of Responsibilities		Traffic Modeling. Peter is on the transportation indu Research Assistant in the experience working on pro pertaining to traffic and sa NEPA studies. His softwar SPSS, MicroStation and H	a professional er istry. Over the cou department of Cir ojects for Louisiar afety studies, feas e skills include: Sy CS. Dr. Bakhit is a	ngineer wit urse of his vil Enginee na Departr sibility stuc ynchro, Vis Ilso a mem	th more than four years of experience focusin academic career, He has served as a Gradua ering at Louisiana State University. He has ment of Transportation and Development (LAI dies, permanent signing design, signal design, ssim, VISTRO, ArcGIS, Freeval, MATLAB, R Stu aber of ASCE and ITE organizations.	g te DOTD) and idio,
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the prop rience dates should cover t	osed contract; i.e. he time specified	., "designe I in the app	d drainage", "designed girders", "designed blicable MPR(s).	
04/19-01/22	Pete's Highway Interconnection Responsible for traffic a	hange Alternatives & Env analysis of proposed alterna	rironmental Asse atives using Vissir	essment, l m software	LADOTD, Denham Springs, LA. Traffic Engir e.	leer.
04/18-05/19	Freeval Lane Closure developing and calibra to provide a tool to ana	Analysis: Major Metropol ting the Freeval models for lyze different lane closure s	itan Areas, LAD(multiple freeway c cenarios for the in	OTD, Bato corridors in nterstate f	n Rouge, LA. Freeval Modeling. Responsible n New Orleans, and Baton Rouge. This project reeways in major metropolitan areas of Louisi	for aimed ana.
06/19-12/19	/19 US 61 Corridor Study (Airline Hwy), LADOTD, Baton Rouge, LA. Traffic Analyst. Responsible for the corridor safety analysis. The purpose of the study is to assess traffic operations and potential safety improvements for this urban, four-lane divided highway. Scope of services include existing traffic data collection and analyses, safety data analyses, future traffic projections considering corridor growth rates, assessment of access management improvements (implementing "Superstreet" concept), and evaluation of concept using HCM methodologies.			ysis. ons pt), and		
07/13-12/15	Development of an Optimal Ramp Metering Control Strategy For I-12, LADOTD, Baton Rouge, LA. Traffic Vissim Modeling. Responsible for developing different traffic Vissim models with various ramp metering plans. The purpose of the study is to evaluate different ramp metering strategies to identify the optimal algorithm that can improve traffic operations on I-12.			eling.		
04/18-02/20	I-10 (LA 73 TO LA 429) Providing technical sup and conceptual drawin interchange and config	Ascension Parish IMR & port for various tasks inclu gs of critical roadway geom uration of two new intercha	I JR Study, LADO ding data collection netry. The purpose anges along I-10 ir	TD, Ascen on, develo e of the pro Ascensio	nsion Parish, LA. Transportation Engineer. opment of build alternatives through a tiered a oject is to evaluate improvements to an existin on Parish.	nalysis, 1g

F	irm AECOM				
Jona	Jonathan Vavasseur, PWS			ars of Relevant Experience with this Employer	4
Senior	Project Biologist		Years	of Relevant Experience with Other Employer(s)	15
Degree	(s)/Years/Specialization	BS/2002/Wildlife and Fish	eries Sciences		
Active Reg	istration Number/State/ Expiration Date	PWS/3029/LA/12.31.22			
	Year Registered	2018	Discipline	e Civil Engineering	
Contract Rol	e(s)/Brief Description of Responsibilities	Stage 0.		·	
Experience Dates (mm/yy - mm/yy)	 Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s). 				
12/21-Ongoing	EDR Renewables North America, LLC/Crooked Lake Solar Project, Mississippi County, AR. Lead Field Biologist. Responsible for coordinating and conducting all wetland delineation, T&E field surveys, and raptor nesting surveys for the proposed 2,625-acre solar farm site.				
05/21-Ongoing	Air Products & Chemic Responsible for leading state resource permitti	cals, LLC/Darrow Blue End y wetland and T&E field surv ng efforts.	ergy Project, Ascensior ey efforts as well as perm	Parish, LA. Senior Project Biologist/Permitting itting lead responsible for coordinating all feder	ı Lead. 'al and
09/20-Ongoing	Feasibility Study & Report/TEPR, College Drive, City of Baton Rouge/Parish of East Baton Rouge, Baton Rouge, LA. Senior Project Biologist/Permitting Specialist. Conducted wetland delineations and T&E Surveys as well as Section 04/10 Permitting for all roadway segments within the proposed improvement corridors.				
07/20-Ongoing	City of Baton Rouge, Parish of East Baton Rouge, Jones Creek Road Extension Project, LA. Senior Project Biologist/ Permitting Specialist. Conducted Wetland Delineation and T&E Surveys as well as Section 404/10 USACE Permitting.				
02/19–08/20	NASJRB New Orleans, LA. Project Manager and Senior Project Biologist. Led wetland and T&E species field surveys, technical reporting and NEPA documentation for a 500+ acre proposed vegetation clearing project for the Department of Defense.				
11/18-05/19	Pine Gate Renewables Responsible for coordin located in MS.	a, LLC/Cane Creek & Moor Nating and conducting wetla	nshot Solar Projects, Ha and, T&E, and wildlife hab	ncock & Clarke Counties, MS. Senior Field Bio tat field surveys for two proposed solar farm sit	ologist. es

07/18–06/19	Wanhua Chemical US Holdings. Project Manager and Senior Project Biologist. Responsible for conducting wetland delineations and T&E species surveys for 5 sites in St. James Parish, LA. Head permitting specialist responsible for obtaining USACE Section 404/10 permits and LADNR Coastal Use Permitting (CUP). Work included conducting wetland and T&E species field surveys and reporting as well completing and submitting all required federal and state regulatory permits.
08/15–08/18	LADOTD Environmental Impact Specialist (Biologist)-DCL for FHWA Funded Highway Projects, LA. Environmental Impact Specialist (Biologist). Responsible for coordinating and overseeing all wetland projects for LADOTD. Lead biologist responsible for coordinating all linear and tract wetland delineations and technical reporting for numerous federally funded highway projects all over the state of Louisiana. Work included serving as the environmental coordinator, coordinating and conducting the wetland and T&E field surveys, NEPA processing for federally funded highway projects, as well as technical reporting for state highway projects.

Firm Civil Design & Construction, Inc.					
Ralp	h Burgess, PLS			Years of Relevant Experience with this Employer	11
Princip	Principal Land Surveyor Principal Land Surveyor			Years of Relevant Experience with Other Employer(s)	12
Degree	e(s)/Years/Specialization	BS/2004/Industrial Desigr	n and Supervision		
Active Reg	istration Number/State/ Expiration Date	PLS/5040/09.30.24			
	Year Registered	2010	C	Discipline Civil Engineering	
Contract Rol	le(s)/Brief Description of Responsibilities	Signal Design. Ralph has in accordance with Location traditional means and met Scanning.	an extensive bac on and Survey po hods of collecting	kground in providing topographic surveys for LADOTD licies and procedures. He has overseen projects utilizing g data as well as those that include the use of 3D Terrestr	rial
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the prope rience dates should cover t	osed contract; i.e. he time specified	, "designed drainage", "designed girders", "designed in the applicable MPR(s).	
07/20-04/21	H.001352.5 & H.002273.5, Comite River Diversion Bridge at LA 67, LA 19 & LA 19 Railroad Bridge, East Baton Rouge Parish, LA. Survey Manager. Provided services for this project. CD&C as a sub-consultant on this project was responsible for topographic surveying the LA 67 and LA 19 sites of the Comite River Diversion project. This included merging of data from a previous survey on one portion of the site and field verifications of that data. The topographic data for this project was collected traditionally.)r)ted
01/18-01/20	H.004100 I-10, LA 415 to Essen Lane on I-10 & I-12, West & East Baton Rouge, LA. Surveying Manager. Provided services for this project. CD&C as a sub-consultant on this project is responsible for topographic surveying the portion of I-10 in West Baton Rouge Parish beginning at the start of the project limits to a point just before the approach of the I-10 Bridge and the limits of the project along LA 415 including work on Tributaries of the Intercoastal Canal. This work included using 3D Scanning for the bridge at I-10 bridge @ LA 415 as well as scanning every 500' for control verification and incorporation of the Mobile Lidar for the I-10 pavement.				
07/17-12/18	H.010960.5-2, LA 30 Roundabout at Tanger I-10, Ascension Parish, LA. Survey Manager. Provided services for the project. Duties included meeting with LADOTD & Cardno, Inc for utility locations, coordination of crews and 3D terrestrial scanning crew along with office personnel, coordination. Special duties were merging of two state projects with project survey for final submittal to combine all projects together.				
01/16-08/16	H.005733.5, US 190 So drainage map for this p Frontage Road. From the that is 700 feet South o River and utilized 3D Te	uperstreet, St. Tammany I roject including all utility co his point, the survey procee f Intersection of US 190 and rrestrial Scanning for the m	Parish, LA. Surve ordination. The su ded in a northerly d E. Boston St. in (ain route.	ey Manager. Duties included complete topographic surve urvey began at the intersection of US 190 and Holiday Sq direction along US 190 for approximately 2.9 miles to a p Covington, LA. This project also included work in the Abit	y and uare point a

10/15-12/18	H.003184.5 I-10 Texas State Line-East of Coone Gully, Calcasieu Parish, LA. Survey Manager. Duties included meeting with LADOTD, coordination of traditional crews and 3D terrestrial scanning crew, coordination of utility companies on the project, review and verification of drainage crossing I10, merging of existing topographic survey of bridges from LADOTD and final review of all survey data for submittals
08/16-12/17	H.011235, I-49 South at Verot School Road, Lafayette, LA. Survey Manager. Duties included meeting with LADOTD, and all consultants on the team, coordination of both traditional crews and 3D terrestrial scanning crew, coordination of survey crews with Cardno, Inc, utility locations on the project, met and review right of entry with landowners for project, review of drainage map, merging of existing topographic survey of the I-49 Connector project from LADOTD with current survey of project, review of apparent Right-of-Way mapping for prime consultant, and final review of all survey data.
07//14-10/15	H.011088.5, I-110 North Street to Plank Road, EBR Parish, LA . Survey Manager. Duties included meeting with LADOTD, coordination of traditional crews and 3D terrestrial scanning crew, review and verification of drainage map, merging and final review of all survey data for submittals. Other special duties were coordinating with LADOTD District 61 for a rolling lane closure for location of drainage located in the interior of the project along the existing crash wall. Also, coordination with LADOTD Records and EBR City Parish regarding the research of all drainage structures that enter and leave the project area.
04/17-07/17	H.010006.5-3, LA 58 Petit Caillou Bridge Rehabilitation (Sarah Bridge), Terrebonne Parish, LA. Survey Manager. Project which included a complete topographic survey, utility coordination, channel cross-sections and the scanning of the existing vertical lift bridge for the design of its repairs/replacement. Project included data collection of the topography via traditional means and methods along with 3D terrestrial scanning and hydrographic surveying.
03/14-06/14	H.008369, Cleo Road Roundabout, St. Tammany Parish, LA. Project Manager. CD&C was responsible for the topographic survey that began approximately 2400 ft. NW of intersection of I-59 and US Hwy 1090 and ended approximately 1000 ft. NW of intersection of I-59 and US Hwy 1090 and ended approximately 1000 ft. NW of intersection of I-59 and US Hwy 1090. The survey also included 500 ft. of Cleo Road and 175 ft. of Avenue D.
05/13-07/13	H.009288, LA 1 Railroad Bridge at DOW, West Baton Rouge, LA. Survey Manager. Provided services for this project located in West Baton Rouge Parish. The intent is to create a grade separation at the intersection of LA 1 and the R/R spur for DOW. CD&C is performing all of the topographic survey for this project including utility coordination and R/R coordination and permits so that CD&C can survey the spur and parallel line.
10/14-12/14	H.011088.5, West Prien Lake, Lake Charles, LA. Survey Manager. This project was to provide topographic survey for a new route to be constructed. Topographic survey and DTM was required along the proposed alignment including all utilities and all drainage with the survey limits.
02/14-03/17	H.010620, I-49 Design Build. Field Work Supervisor. Ralph managed and supervised all field work, utility coordination, and review of existing survey data for final topographic survey submittal. CD&C also produced ROW maps for the project. Ralph's duties for this portion also included title reports, review of property surveys and final submittal of final existing Right-of-Way plans.

Firm Intelligent Trans	portation Systems			
Kimberly McDanie	el, PE, PTOE, PTP	Yea	rs of Relevant Experience with this Employer	1
Civil Engineer		Years of	Relevant Experience with Other Employer(s)	19
Degree(s)/Years/Specializat	on MSCE/2005/Civil Enginee BSCE/2003/Civil Enginee	ering ring		
Active Registration Number/Sta Expiration D	te/ ptoE/2072/10.02.25 ptp/802/03.14.25			
Year Register	ed 2007	Discipline	Civil Engineer	
Contract Role(s)/Brief Descriptior Responsibilit	of es She is very knowledgeably requirements, access cor justification studies, traffic and traffic impact analyse Engineer (PTOE) and Profe Safety Manual, NEPA, and	al QA/QC, Intersection/CC or Transportation Engineer M d planning, traffic engineering Mar olete Streets, Access Mana access management and the nt performing a wide variety d planning projects through e in the areas of innovative mection safety and design, c impact studies, crash and s. Kimberly holds national co essional Transportation Pla OTD Traffic Engineering Pro-	Anager. She has over 19 years of experience and project management. She spent 6 yea anagement where she developed policies and gement, and Traffic Impacts and served as the raffic impacts. The remainder of her career ha of traffic engineering, safety assessments, a out the states of Louisiana, Texas, and Michiga intersection design and operation, feasibility s corridor studies, interchange modification an lyses, safety studies, low-cost safety improve certifications as a Professional Traffic Operation nner (PTP). Kimberly has completed trainings pocess and Reports (Parts I, II, and III), the Highwan courses.	/ in rs e s nd an. study id ements, ons and vay
Experience Dates Experience and qua (mm/yy - mm/yy) intersection", etc. E	lifications relevant to the prop perience dates should cover t	osed contract; i.e., "designe the time specified in the app	ed drainage", "designed girders", "designed blicable MPR(s).	
08/21-05/22Railroad Trail Project Lincoln Parish, LA Signal and Pedestri of accessible/audible improvements thro project coordinatio09/20-05/21LA 93 Traffic Impa City of Scott. The side (ICE), and a safety edited roquirements	ect Signal & Pedestrian Cross Project Manager. Led the desi an Crossing, which included tra le countdown pedestrian signa ughout the Louisiana Tech cam n, technical and planning review ct Study, Lafayette Parish, L udy included traffic impact stu valuation, all of which was requ	sing Design, Tipton Association and development of correct affic evaluation, engineering als, and pavement markings inpus and the City of Ruston w, and overall project management of the Project Principal. Provide adies for three proposed de aired to conform to the LAD	ciates on behalf of Louisiana Tech Universi nstruction plans for the Tech Drive at Railroad g design, construction plans for the installatio s as part of FHWA BUILD Grant for pedestrian A S Project Manager, her duties included LAD gement. ed services for a traffic and safety evaluation f velopments, two Intersection Control Evaluati OTD Traffic Engineering Process and Report	ty, Avenue n)OTD or the ions

08/19-03/20	LA-93 at Westgate Signal, Scott. LA. Engineer-of-Record and Project Manager. Led the preparation of the Intersection Control Evaluation (ICE) report which resulted in the approval of a temporary traffic signal at the intersection in to relieve traffic congestion due to an adjacent road closure. She also managed the design of the temporary signal and associated construction plans and LADOTD Permitting Process. This study was completed in accordance with the LADOTD TEPR requirements.
07/20-03/21	Tech Drive Pedestrian Crossings, Louisiana Tech University, Ruston, LA. Project Principal. New student housing being constructed across a state highway from the main campus posed challenges for the thousands of students who would have to cross the highway each day. The University sought improvements to safety at these crossings. The scope included traffic engineering and permit assistance, along with coordination between Louisiana Tech and the Louisiana Department of Transportation and Development (La DOTD) for the development of construction plans for the installation of Rectangular Rapid Flashing Beacons (RRFB) at two midblock crossings. Kimberly's duties included coordination with LADOTD, client coordination, review of plans and cost estimates/comparisons, permit and bidding coordination, and review of bid package documentation/ distribution and meetings.
01/19-04/20	S.P. No. H.001271, Cane River Bridge Church Street EA, Natchitoches Parish, LA. Lead Traffic Engineer. Provided services for this Environmental Assessment for the replacement of the Cane River Bridge. She was responsible for the analysis of multiple future traffic scenario alternatives as well as three different complex detour scenarios for the replacement of the Cane River Bridge. She assisted with the development of the final EA document which received approval on the first known LADOTD and FHWA "net benefit determination" for Section 4(f) properties in Louisiana. She assisted in the development a Finding of No Significant Impact (FONSI) document, which was approved by FHWA and LADOTD. Ms. McDaniel also assisted in coordinating public and agency outreach activities
06/17-06/21	S.P. No. H.009932, US 80 Widening Vancil Rd. to Well Rd., Ouachita Parish. LA. Traffic and Safety Project Engineer. Provided services for the Environmental Assessment study for capacity/safety improvement of a 1.4- mile portion of US 80. She developed traffic models for a variety of alternatives, identified safety improvements, and determined geometric configurations to increase traffic capacity. Alternatives included roundabouts.
04/15-12/18	Contract No. 4400007736, Traffic Engineering Services Retainer Contract, Statewide, LA. Engineer-of-Record and Project Manager. Led a \$3 million traffic engineering services on-call contract with LADOTD. Services included traffic engineering studies, corridor studies, safety and crash analyses, traffic signal design, traffic data collection, signing and pavement marking designs, traffic signal timing studies, and intersection design.
10/08-08/14	LADOTD Access Management Program, Statewide, LA. Subject Matter Expert. 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. Kimberly served as the state's Subject Matter Expert on Access Management throughout this time.

F	irm Intelligent Transpor	tation Systems				
Dian	e Hammonds, F	PE, PTOE, RSP1	Y	ears of Relevant Experience with this Employer	1	
Civil Er	ngineer		Years	of Relevant Experience with Other Employer(s)	17	
Degree	(s)/Years/Specialization	BSCE/2002/Civil Engineer	ring			
Active Reg	istration Number/State/ Expiration Date	PE/40749/LA/09.30.24 PTOE/7113/12.19.22 RSP1/798/03.14.25				
	Year Registered	2016	Disciplir	e Civil Engineer		
Contract Rol	e(s)/Brief Description of Responsibilities	Intersection/Corridor/N Engineer. She has over 17 Engineering and Transpor design systems, traffic sin analysis and design as we hundreds of successful tra and reviewing agency to a She has completed trainin SimTraffic, HCS, VISTRO, S as a Professional Traffic O completed trainings and c and III), the Highway Safety	etwork Analysis. Diane years of experience in tr tation Planning projects nulation modeling, acces Il as permit reviews and c affic & transportation pro- greement on the final pro- gr	currently serves ITS LLC as a Senior Transport affic engineering specializing in Traffic/Transpo including traffic impact assessments, traffic sig s management reviews, safety studies, roundal coordination. Diane has successfully completed jects. Her unique skills to bring both the client oduct is an asset to the projects she is involved dabouts and the HSM and is proficient in Synch 3 and Microstation. Diane holds national certifi E) and Road Safety Professional (RSP1). Diane h OTD Traffic Engineering Process and Reports (F nuing education courses.	ation rtation nal bout in. iro, cations nas Parts I, II,	
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properience dates should cover t	osed contract; i.e., "desig he time specified in the a	ned drainage", "designed girders", "designed applicable MPR(s).		
08/19-03/20	LA-93 at Westgate Signal, Scott, LA. Project Manager, Technical Lead, Analyst and Design Engineer. Led the modification of the intersection to add a traffic signal. The temporary traffic signal at the intersection was needed 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 staff as well as Headquarters and the Lafavette Consolidated Government.					
01/22-05/22	Traffic Signal-LA-433 at Town Center Parkway, St. Tammany Parish, LA. Engineer-of-Record and Lead Traffic Engineer. Provided services for an Intersection Control Evaluation (ICE) analysis for the intersection of LA-433 (Old Spanish Trail) at Town Center Parkway. The scope of services includes providing traffic engineering analyses, traffic signal design, and permit assistanc to Stirling Properties as required by the LADOTD. 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 for a traffic signal, an all-way stop, a roundabout, an R-Cut, and median UTurns					
08/21-05/22	Railroad Trail Project S services for the design a which included traffic ev as part of FHWA BUILD C	ignal & Pedestrian Crossin nd development of construc aluation, engineering design Grant for pedestrian improver	g Design, Louisiana Tec tion plans for the Tech Dri for the installation of acce ments throughout the Lou	Duniversity, Ruston, LA. Lead Traffic Engineer. P ve at Railroad Avenue Signal and Pedestrian Cross ssible pedestrian signals (APS), and pavement ma isiana Tech campus and the City of Ruston.	rovided sing, rkings	

08/19-06/21	S.P. No. H.009932 US 80 Widening: Vancil Rd. to Well Rd. EA, Ouachita Parish, LA. Traffic Engineer. Provided services for this Environmental Assessment 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, LA. Traffic Engineer. 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 Rd., East Baton Rouge Parish, LA. Lead Traffic Engineer. Responsible for managing and reviewing all submittals by the traffic sub-consultant, Gresham Smith. Diane ensures quality control and is assisting in the development of the Stage 0 Feasibility Study, Environmental Inventory, and conceptual plans
08/19-05/22	LA-93, Westgate Rd. at Eraste Landry Rd., Scott, LA. Technical Lead, Analyst and Design Engineer. Provided services 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, LA. Project Manager, Engineer-of-Record, and Analyst. Led 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.

F	irm Intelligent Transpor	tation Systems					
Clark	ke Chauvin, PE,	PTOE, PMP		Years of Relevant Experience with thi	is Employer	6	
Civil Er	gineer			Years of Relevant Experience with Other Employer(s) 4			
Degree	(s)/Years/Specialization	BSCE/2013/Civil Engineer	ing				
Active Reg	istration Number/State/ Expiration Date	PE/41770/LA/09.30.23 PTOE/4337/International/11.20.23 PMP/1812148/National/11.31.23 IMSA No. BE_125780/National/09.28.25 (Tra		Signal Field Technician II) IMSA No. SI_125780/National/08.25.25 (Traffic Signal Inspector) affic			
	Year Registered	2007	C	cipline Civil Engineer			
Contract Rol	e(s)/Brief Description of Responsibilities	Signal Design, Traffic Signal Inventory. Professional Traffic Operations Engineer with minimum 5 years' experience. LADOTD Traffic Engineering Process & Report-Modules I, II, and III. IMSA Technician II and Inspector.					
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properion of the properties of the properties of the properties of the properion of the properties of	osed contract; i.e. he time specified	designed drainage", "designed girders", "d 1 the applicable MPR(s).	designed		
08/15-07/19	SASOL Lake Charles Chemical Project-Adaptive Traffic Signal Systems, Westlake, LA. Signal Design. In support of the \$8.9 billon ethane cracker chemical plant expansion, 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. Clarke's experience in CE&I make him an excellent resource for design since he's able to identify constructability issues. Additionally, Clarke provided support for the first Adaptive corridor installed in the state of Louisiana. Along Sampson St., an adaptive corridor was implemented and is currently operational.						
02/18-07/19	System B, LA 108 Ada adaptive traffic signal c signal operation), and m system through cellular signal equipment. He co oversaw the installation and the signals have be performance monitorin with issues.	ptive Traffic Signal Corrie orridor. In addition to alloca nanaging construction and r communication. Clarke we onfigured the cellular mode n and configuration for all of een integrated into DOTD's ag and has set up network m	dor, Westlake, LA ting IP addresses coordination, Clar orked with DOTD t em to allow port fo the equipment for adaptive system. nanagement softw	Project Manager. Led the implementation configuring devices (both for network corr e worked to bring an isolated traffic signal use a private cellular network to remotely varding of the devices required for the act these signals. The communication syste- larke is currently responsible for ongoing are to collect performance data and notif	n of the Syst mmunication al into the ada y connect to daptive syste m is currently maintenanc y ITS LLC an	em B and aptive the m and y active e and d DOTD	

06/18-07/19	US 90 Adaptive Corridor, Westlake, LA. Construction Project Manager and Communication Network Designer. Clarke performed network design and construction project management for the US 90 adaptive traffic signal corridor in Westlake, LA. In addition to performing the initial field wireless testing to determine appropriate frequency, power, mounting heights, etc., Clarke designed and allocated IP addresses for the various equipment at these intersections. He programmed controllers, switches, radar detection, and wireless Ethernet radios. The communication system is currently active and the signals have been integrated into DOTD's adaptive system. Clarke is currently responsible for ongoing maintenance and performance monitoring and has set up network management software to collect performance data and notify ITS LLC and DOTD with issues.
03/19-04/20	H.012661 D07 FYA-US 171 Adaptive Traffic Signal Corridor, Sulphur, LA. Project Manager. Led project and performed network design, integration, and performance monitoring for the Adaptive traffic signal corridor installed in Sulphur, LA. From initial field wireless testing to device configuration and installation to network and traffic performance monitoring, Clarke was involved in creating a quality project with proven reliability and proven performance. Phasing construction to set up communications prior to the Adaptive turn on in November 2019 allowed ITS LLC to create a baseline for traffic operations to compare against active Adaptive system operation. ITS LLC also utilized NMS software to evaluate the network communications for speed, uptime, and reliability. Performance monitoring for the project is ongoing.
04/19-05/20	LA 1256 Ruth St. Adaptive Traffic Signal Corridor, Westlake, LA. Communication Network Design. In order to create an adaptive traffic signal corridor along LA 1256, Clarke designed the communications network which would be responsible for handling all of the live traffic data for the corridor. For the adaptive corridor to function optimally, constant communication is required between the traffic signal and adaptive server at DOTD D07's TMC. Clarke allocated IP addresses for the devices and equipment at each signal along the corridor. He evaluated the path required for VLAN through an existing DOTD fiber optic ring for communication between the project site and DOTD D07 TMC. He performed wireless testing to evaluate whether 2Ghz or 5Ghz band frequencies would provide better performance along the corridor. He determined proper configuration for each network switch and wireless radio along the corridor. Clarke serves as Project Manager in addition to performing network design.
02/16-Ongoing	DOTD ITS Maintenance, 44-7102. 44-16811, Statewide, LA. ITS Engineer. Clarke has served as a pre-professional and now as engineer for the existing 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, but are not limited to, 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. Let's not forget his investigation to find solutions for maintenance problems. For example, Clarke recently located a short and replaced access control boards in the Twinspan crossover gate system which allowed it to be brought back into operation. In addition to setting up monitoring for recent hub site generators, Clarke determined a solution for monitoring all existing generator sites. Clarke also designs platforms for hard to reach handholds at camera sites, usually on three-way slopes. Clarke carries a Class D license to drive bucket trucks used in maintenance operations.

F	irm Intelligent Transpor	tation Systems				
Jona	athan Fox, PE, P	TOE, PMP	_	Year	rs of Relevant Experience with this Employer	8
Civil En	ngineer			Years of	Relevant Experience with Other Employer(s)	13
Degree	(s)/Years/Specialization	BSCE/2003/Civil Engineer	ing			
Active Reg	istration Number/State/ Expiration Date	PE/33277/LA/09.30.23 PTOE/2329/11.07.25 PMP/1812148/04.27.24				
	Year Registered	2007	Di	scipline	Civil Engineer	
Contract Rol	e(s)/Brief Description of Responsibilities	Intersection/Corridor/Na serves ITS LLC as a Princip design and maintenance, a design of traffic signal sys systems, and the innovativ as a Professional Traffic Op for the LADOTD Traffic Eng education courses. He is a Supervisor/Technician.	etwork Analysis, pal. He has over 20 and project manag tems, communicat ve application of ac perations Enginee gineering Process a certified Project N	Signal D years of gement. J tion syste daptive tr r (PTOE). and Rep Managem	esign, Traffic Signal Inventory. Jonathan co f experience in traffic engineering, signal desi- lonathan has developed specific expertise in ems, detection systems, intelligent transporta raffic signals. Jonathan holds a national certifi Jonathan has completed trainings and certifi orts (Parts I, II, and III) and other continuing nent Professional (PMP) and an ATSSA Traffic	urrently gn, ITS the ation ication ication Control
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the proper rience dates should cover t	osed contract; i.e., he time specified i	"designe n the app	d drainage", "designed girders", "designed blicable MPR(s).	
08/15-07/19	SASOL Lake Charles (services for new traffic plans, simulation mode Six of these intersectio the state of Louisiana (S connection. This effort Technology Service, Tr accepted, Jonathan ov cellular service charges System B (LA 108 signa adaptive functionality v as wireless and cellular signal on Old Spanish T	Chemical Project-Adaptiv signal designs, upgrades, c ls, communication layouts, n upgrades were integrated System A). One of the bigge took continuous communic afficware, and Verizon Wirel ersaw the design and instal s for the adaptive system. J al corridor) as well as LA 27 vas turned on in July of 2019 communications. Efforts for rail at Prater Road. Jonatha	e Traffic Signal S communication des network design, su by Jonathan's tea est challenges over cations between D ess. Once the DOT lation of an unlicer onathan has overs (Beglis Rd.) @ LA 3 9. These intersection or Sasol also includ n oversaw the des	ystems, sign, and urveilland am as the rcome wa OTD Dist OTD Lake (nsed wire seen the seen the 379 (Hous ion desig ded desig ign and c	Westlake, LA. Lead Traffic Engineer. Provide integration. He oversaw developing traffic sig ce, travel time management, and permit applic a first Adaptive Traffic Signal System deployed as integrating DOTD's first private cellular netw trict 07, DOTD ITS Section, Div. of Admin. Offic Charles ITS Phase 2 project was constructed eless network which removed the recurring modesign, implementation and integration of the ston Rive Rd.). These were constructed and th ns used stop bar and setback radar detection on and construction support for a temporary t construction inspection.	d gnal cations. I in work ce of and onthly Sasol e as well raffic
06/18-07/19	US 90 Adaptive Corric in Westlake, LA. Design of two isolated traffic si communications. Jona	Jor, Westlake, LA. Project I s included preparing update gnals. Equipment included i than oversaw the integratio	Manager and Over ed traffic signal inv in the design cons n of the intersection	all Desig ventory (isted of r ons into t	n Lead. Led the US 90 adaptive traffic signal of TSI) forms as well as communications suppor new radar detection and unlicensed wireless the adaptive system in Lake Charles	corridor t

Prime consultant firm name: **AECOM**

12/14-Ongoing	DOTD ITS Maintenance, 44-2500, 44-7102. 44-16811, Statewide, LA. Supervisor Engineer. Provided services for ITS LLC under existing ITS Maintenance Retainer contract. Roles include project management support, quality control checks, site reviews, and investigating options and developing concepts to improve sites. Jonathan's knowledge of ITS from planning through operations makes him a valuable asset to ITS Maintenance, especially his knowledge of the ITS as it was designed and operated.
2007-2012	L'Auberge Baton Rouge Casino & Hotel Off-Site Improvements, Baton Rouge, LA. Signal Design. This project involved developing signal plans for offsite signal improvements at the intersections of Nicholson and Gardere, Bluebonnet and Nicholson, Burbank and Bluebonnet, and Perkins and Siegen. The project called for completely new traffic signal equipment at the Nicholson and Gardere intersection. Modifications and additions to the existing traffic signal equipment were required at the other intersections. Jonathan led the design efforts for the traffic signals and fiber optic communications plans as well as obtained DOTD traffic signal permits.
2007-2010	I-12 Ramp Metering Design & Implementation, East Baton Rouge Parish, LA. Signal Layout Design, Quality Control and Fiber Optic Communications Design. Provided services 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 of Louisiana.
10/12-12/14	Baton Rouge ITS Phase 3, Baton Rouge, LA. System Engineering Analysis (SEA). Oversaw the 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 deployments projects were solely focused on the core urban area, leaving gaps west of the west of the Mississippi River (Iberville and West Baton Rouge Parishes), and east of the City in Livingston Parish. The solution to meet the LADOTD's goal of the Baton Rouge ITS Phase 3 project was to supplement the area with 16 additional closed circuit television video cameras, 5 dynamic message sign sites, 1 HUB site, 30 Bluetooth detection sites, 1 travel time message sign (first in the state), and 8 ramp meters that cover five parishes over, 50 miles, to help with key blind areas. Jonathan led the development of the full plan set from conception to Final Plans.
11/12-12/14	H.010138 Sunshine Bridge ITS Deployment, Sorrento, LA. System Engineer. 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.
2008-2009	Baton Rouge Downtown Two-Way Streets Project, Baton Rouge, LA. Signal Design. This project involved developing signal plans for intersections affected by the transition from one-way operation to two-way, including the intersections of South Blvd. at S. Phillip and St. Louis Streets, Government St. at St. Louis and St. Ferdinand Streets, and North Blvd. at St. Louis and St. Ferdinand Streets. Jonathan led the signal design efforts which included signal plans, wiring diagrams, timing plans, and fiber optic communications.
04/16-07/18	Alabama Department of Transportation, ALDOT, ITS Specifications, Statewide AL. ITS Design and Deployment. ALDOT desired an upgrade of their special provisions into a standard specification in order to bring consistency throughout the state on ITS equipment. Jonathan's vast experience in design of ITS deployment projects as well as firsthand knowledge of what works from being part of ITS maintenance, made him the ideal project manager. The specifications developed included material and construction for a plethora of items: 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 miscellaneous 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.

F	irm Gram Traffic Counti	ng						
Stac	eie Bittner		Yea	ars of Relevant Experience with this Employer	6			
Project	t Manager/Traffic Data Co	ollection - Meets MPR 5	Years o	Years of Relevant Experience with Other Employer(s) 6				
Degree	e(s)/Years/Specialization	Associate of Arts/2012/Ac	counting					
Active Reg	istration Number/State/ Expiration Date	N/A	J/A					
	Year Registered	N/A	Discipline	N/A				
Contract Rol	e(s)/Brief Description of Responsibilities	MPR 5. Data Collection.						
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the prope rience dates should cover t	osed contract; i.e., "design he time specified in the ap	ed drainage", "designed girders", "designed plicable MPR(s).				
04/22-05/22	IH 35, HDR, Inc., Austin, TX. Project Manager and Field Coordinator. Stacie monitored and managed the successful completion of this project, which included 28-day main lane basic classification counts, 3-day ramp volume counts, and coupled turning movement counts along IH 35 from Stassney Ln. to US 183 North. Stacie coordinated with the Prime and two field teams to ensure proper, safe, accurate, and efficient data collection.							
09/21-09/21	LAF Travel Survey, GRAM North Texas/North Central Texas Council of Governments (NCTCOG), Dallas/Fort Worth, TX. Project Manager and Field Coordinator. Stacie monitored and managed the successful completion of this project, which included license plate capture and recognition for NCTCOG in order to generate a travel survey sample for our partners on this project GRAM North Texas and ETC Institute. Stacie coordinated with the Prime and field teams to ensure proper, safe, accurate, and efficient data collection.							
10/19-10/19	SH 46, RPS, New Braunfels, TX. Project Manager and Field Coordinator. Stacie monitored and managed the successful completion of this project, which included turning movement counts and 24-hour volume counts along SH 46 in New Braunfels, as well as video classification counts and an origin and destination study around the IH 35 and SH 46 interchange. Stacie coordinated with the Prime and three field teams to ensure proper safe accurate and efficient data collection							
09/19-09/19	US 183 South, HDR, Inc., Austin, TX. Project Manager. Stacie monitored and managed the successful completion of this project, which included travel time runs along US 183 South from SH 71 to SH 45 SE, as well as turning movement counts and 24-hour bi-directional volume counts at multiple locations. Stacie coordinated with the Prime and field team to ensure proper, safe, accurate, and efficient data collection.							
09/18-10/18	CTTS – Capital Improvement Planning Study, HDR, Inc., Austin, TX. Project Manager. Stacie monitored and managed the successful completion of this project, which included coupled turning movement counts, 24-hour volume counts, 24-hour classification counts, speed spot studies, and travel time runs along SH 130, SH 45 SE, Loop 1, and SH 45 N in Austin. Stacie coordinated with the Prime and field team to ensure proper, safe, accurate, and efficient data collection.							
11/17-11/17	North Lamar Blvd & G completion of this proje hour speed and classifi field team to ensure pro	iuadalupe St, WSP, USA, ect, which included collect t cation counts along North I oper, safe, accurate, and eff	Austin, TX. Project Mana urning movement counts _amar Blvd. and Guadalup cient data collection.	ger. Stacie monitored and managed the succe including bicycle and pedestrian movements a e St. in Austin. Stacie coordinated with the Prim	ssful and 24- าe and			

F	irm Gram Traffic Counti	ng						
Rano	dall Smith		Years of Relevant Experience with this Employer 5					
Field S	upervisor/Traffic Data Co	ollection	Years of Relevant Experience with Other Employer(s) 13					
Degree	(s)/Years/Specialization	N/A						
Active Reg	istration Number/State/ Expiration Date	N/A						
	Year Registered	N/A	Discipline N/A					
Contract Rol	e(s)/Brief Description of Responsibilities	Data Collection.						
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the prop rience dates should cover t	osed contract; i.e., "designed drainage", "designed girders", "designed he time specified in the applicable MPR(s).					
02/20-Ongoing	Fort Bend County Traffic Count Services, Fort Bend County, TX. Field Supervisor. Randall supervised and performed field collection for the successful completion of this project, which includes numerous 24-hour volume approach counts for single-lane and multi-lane approaches, as well as 24-hour classification, gap, and speed counts for single-lane and multi-lane approaches at various locations around Fort Bend County. He maintains proper protocols and procedures to ensure the safe and accurate data collection.							
04/22-05/22	IH 35, HDR, Inc., Austin, TX. Project Manager and Field Coordinator. Randall performed field collection the successful completion of this project, which included 28-day main lane basic classification counts, three-day ramp volume counts, and coupled turning movement counts along IH 35 from Stassney Ln. to US 183 North. Randall maintained proper protocols and procedures to ensure the safe and accurate data collection.							
02/19-03/19	SH 288, Almeda Geno the successful complet Harris County. Randall r	a Contractors, Harris Cou ion of this project, which in naintained proper protocol	inty, TX. Field Supervisor. Randall supervised and performed field collection for cluded 4-hour bi-directional and uni-directional volume counts along SH 288 in s and procedures to ensure the safe and accurate data collection.					
03/19-03/19	ICH Project, Walker Consultants, Houston, TX. Field Supervisor. Randall supervised and performed field collection for the successful completion of this project, which included weekday and weekend turning movement counts for various collection periods along Allen Parkway and Dallas Street. Randall maintained proper protocols and procedures to ensure the safe and accurate data collection.							
10/18-02/19	Freeval Lane Closure Analysis, Arcadis, Shreveport/Baton Rouge/New Orleans, LA. Field Supervisor. Randall supervised and performed field collection for the successful completion of this project, which included collect two-day video classification counts for interstate mainlanes as well as three-day automated tube classification counts along I-10, I-110, I-310, I-220, and I-49 in Shreveport, Baton Rouge, and New Orleans, Louisiana. Randall maintained proper protocols and procedures to ensure the safe and accurate data collection.							
11/17-11/17	IH-20 Shreveport Proj the successful complet three-day classification maintained proper prot	ect, Arcadis, Shreveport tion of this project, which in a counts at multiple intersta ocols and procedures to er	, LA. Field Supervisor. Randall supervised and performed field collection for cluded turning movement counts, two-day and three-day volume counts, and te mainlane and ramp locations along I-20 in Shreveport, Louisiana. Randall nsure the safe and accurate data collection.					

Section 17

MRB South GBR LA 1 to LA 30 Connector

AECOM evaluated the LA 1 corridor for constructability, safety, and operation feasilibility.

AECOM was responsible for the following:

- ► Collecting Traffic Data
- Performing Travel Times
- ► Signal Warrants
- Delay Studies
- Speed Studies
- Review of Crash Histories to Develop Alternatives to Sustain and Improve Traffic Flow Along Corridor



Firm Name	AECOM						Past Performance Evaluation Discipline(s)* Traffic, Data Collection				Collection		
Project Name	Jones Creek Road Extension Traffic Study					Firm Responsibility (Prime or Sub?			b?)	Sub			
Project Number	19-CS-HC-0036 Owner's Name						City-Parish of East Baton Rouge						
Project Location	East Baton Rouge Parish, LA				Owner's Project Manager Cyndi Pennington								
Owner's Address, Phone, Email 329 Cl			ippewa S	Street, S	Suite A, B	aton Rou	uge, LA	70802/(225) 389	-3246/cpenningtor	n@brl	a.gov	
Services Commenced by This Firm (mm/yy)		12/	/20	Total Consultant Contract Cost (\$1,000's)				\$401					
Services Completed by This Firm (mm/yy)			N	/A	Cost of	Cost of Consultant Services Provided by This Firm (\$1,000's)			s)	\$401			

AECOM provided traffic engineering, Phase I Environmental Site Assessment, Cultural Resource Survey, and a Wetlands Delineation to complete a Design Study for both the Green Light Program and MOVEBR Program to extend Jones Creek Road from Tiger Bend Road to Jefferson Highway (LA 73) in Baton Rouge. AECOM was then contracted by the MOVEBR Program to update the traffic engineering and Cultural Resources for the extension of Jones Creek Road from Jefferson Highway (LA 73) to Airline Highway (US 61).

The improvements for the extension of Jones Creek Road included:

- Extending Jones Creek Road with a four-lane urban boulevard with a Complete Streets section
- Addition of subsurface drainage with green infrastructure along the limits of the project
- Improved traffic signal and geometric improvements at the Jones Creek Road and Tiger Bend Road Intersection
- A roundabout at the intersection of Jones Creek Road Extension and Jefferson Highway (LA 73)
- A roundabout at the proposed connections of new residential developments of Mettera and Long Farm
- Geometric improvements along Jefferson Highway (LA 73) to increase capacity

Firm Members Involved: Louis Costa, Daniel Helms, PE, PTOE, RSP₂₁, Ramya Rayapureddy, Greg Trahan, PE, RSP₁

RELEVANCY TO IDIQ FOR STATEWIDE TRAFFIC ENGINEERING SERVICES

✓ Traffic Studies - Traffic Engineering
✓ Traffic Studies - Safety



Firm Name	AECOM						Past Pe	rforman	ce Evalu	ation Discipline(s)*	Traff	fic, Data	Collection
Project Name	Downtown Tra	ffic Con	ditions	tions Analysis Firm Responsibility (Prime or Sub?) Pr							Prime		
Project Number	N/A			Owner	's Name			City of Comm	New Orle ission	eans/New Orleans F	Regior	nal Planr	ning
Project Location	New Orleans, L	A				Ownei	's Projec	t Manag	er	Nik Richard (RPC)			
Owner's Address, Ph	one, Email	10 Vete	ran's Me	emorial l	Boulevar	d New (Drleans, L	_A/(504)	483-85	00 (RPC)/Nik Richar	d nric	hard@n	orpc.org
Services Commence	ed by This Firm (n	nm/yy)	09/	/15	Total Co	onsulta	nt Contra	ict Cost	(\$1,000	'S)		\$960	
Services Completed	by This Firm (mn	n/yy)	04	/17	Cost of	Consu	Itant Serv	vices Pro	ovided b	y This Firm (\$1,000'	s)		

AECOM was hired to lead a team of consultants to identify existing traffic, inventory certain aspects of the transportation infrastructure, determine future transportation needs, and develop recommendations for downtown New Orleans Multimodal Transportation Network. The project included a large data gathering phase, which included all traffic control features in the greater downtown area, including cabinets, detection types, and more.

Traffic data collection, synchro modeling, and modal LOS analyses were completed for a total of 20 corridors, many of which were arterials, some of which were part of the state highway network, serving as frontage roads, and ramps leading to newly installed ramp meters on US 90 as well. A total of 40 intersections were coded into Synchro models and assessed for impacts under various scenarios.

AECOM led the analysis and development of improvement recommendations in many categories:

- Intersection Investments
- Roadway Improvements
- Bike, pedestrian, and transit investments
- Transportation Demand Management Opportunities

Complementing the technical work described above, AECOM led the organization and facilitation of a project advisory committee consisting of community stakeholders and project sponsors group made up of agencies with a financial contribution to the study. Map.social was used to allow stakeholders to make location-specific comments online in an interactive geospatial public comment portal. These surveys and the related stakeholder process also led to the development of a new curb use allocation and a plan with recommendations on additional pedestrian only corridors within the French Quarter. For that analysis, additional traffic analysis was necessary, not just accommodating forecast growth but also evaluating the feasibility of radically-rerouted traffic. Scenarios included new car-free corridors and schemes to preclude

any cut-through traffic, in the French Quarter. The figure shown here is from one of those scenario analyses in the Quarter.

Percentage performed in LA: 96%

Firm Members Involved: Derek Chisholm, AICP, ENV SP, LEED GA, Jonathan Martinez, Jonathan McDowell, PE, Greg Trahan, PE, RSP,

- ✓ Pedestrian Corridor Development
- ✓ Transportation Infrastructure Inventory
- Traffic Forecasting

- ✓ Traffic Data Collection
 ✓ Community Outreach
- ✓ Traffic Modeling







Firm Name	AECOM						Past Per	forman	ce Evalu	ation Discipline(s)*	Planni	ing, Tra	affic	
Project Name	Project Name:	LP 1604	l at I-10						Firm Re	esponsibility (Prime o	or Sub?	?)	Prime	
Project Number	N/A			Owner	's Name			TXDOT	_					
Project Location	San Antonio, T>	<				Owner	's Projec [:]	Manag	ler	Scott Nelson				
Owner's Address, Ph	one, Email	125 E 1	1th St., A	Austin, T	X/(903) 6	675 - 419)6/scott.r	ielson@	TXDOT.	gov				
Services Commence	ed by This Firm (n	nm/yy)	10/	/18	Total Co	onsulta	nt Contra	ct Cost	(\$1,000	'S)	\$	\$7,833		
Services Completed	by This Firm (mn	n/yy)	05/	/22	Cost of	Consu	ltant Serv	vices Pro	ovided b	y This Firm (\$1,000':	s)			

The LP 1604 schematic/environmental document project covers a 23-mile stretch of LP 1604 from SH 16 to I-35 and about 3 miles of I-10 on the north side of San Antonio, Texas, including the improvement of a system interchange at Loop 1604 at I-10. The existing fully directional cloverleaf interchange needed operational and safety improvements. The loop ramps were over capacity and the weave points were causing significant congestion and safety issues, not just at peak periods, but throughout the day. An observation report was collected during traffic data collection efforts to ascertain existing operational and safety issues along the corridor. A comprehensive Vissim model was developed to provide guidance on the development of the geometric schematic by evaluating level of service (LOS), travel times, congestion, and weave issues. To aid in calibration, big data was used to help determine a typical date on this heavily congested system.

An IAJR for the I-10/LP 1604 Interchange was developed for this project. The development of this document was fully coordinated with TxDOT San Antonio District, TxDOT Design Division, and FHWA using the FHWA's latest updated to the Traffic Analysis Toolbox (TAT) and DES Division's latest SOP guidelines.

The IAJR examined nine major alternatives, with subsets of alternatives addressing isolated portions of the study area. The alternatives were evaluated to balance operations and safety and included: keeping existing infrastructure to maintain local access, frontage road bypasses, implementation or removal of C/D roads, multiple ramp sequencing and configurations, and full reconstruction.

Along with the Vissim model that assessed the operational performance of the proposed alternatives, an Enhanced Interchange Safety Analysis Tool (ISATe) model was also developed to analysis the existing, no build and build alternatives predicted safety performance. The tools were incorporated into the IAJR to aid in the selection of the recommended alternative.

The recommended alternative was to complete reconstruct the interchange to a 5-level interchange with direct connectors (DC) and collector distributor (C/D) road system and ramp access. CD roads parallel to I-10 were slightly widened to allow a 3-lane capacity during the construction phase that reconstructs the I-10 mainlanes. At the frontage road level, a unique and innovative interchange of four at grade partial roundabouts will provide complete free-flowing access thru the interchange.

Firm Members Involved: Daniel Helms, PE, PTOE, RSP₂, Ramya Rayapureddy, Kordel Braley, PE, PTOE

- Traffic Analysis and Modeling
- Crash Analysis
- ✓ Traffic Data Collection



- ✓ Intersection Layout and Design
- ✓ LOS Evaluation



Firm Name	AECOM						Past Per	formanc	e Evalua	ation Discipline(s)*	Plann	n <mark>ing</mark> , Tr	raffic
Project Name	Stage 0 Studie	s for Sa	fety IDI	Q Task	Orders				Firm Re	esponsibility (Prime	or Sub	?)	Prime
Project Number	H.009998.1/H.C	Owner'	s Name			LaDOTE)						
Project Location	Lafayette & Jef	ferson Pa	arishes,	LA		Owner	's Projec	Manage	er	Adriane McRae, Pl	Ξ		
Owner's Address, Ph	one, Email	1201 Ca	apital Ac	cess Ro	oad, Bato	n Roug	e, LA 708	802; 225.	379.1950); Adriane.McRae@	la.gov		
Services Commenced by This Firm (mm/yy) 06/13 Total (Total Co	onsulta	nt Contra	ct Cost (\$1,000's	3)		\$64/\$	108
Services Completed	by This Firm (mn	n/yy)	10/	/14	Cost of	Consul	ltant Serv	vices Pro	vided by	[,] This Firm (\$1,000's	;)	\$64/\$	108



Johnston St. Task Order:

The US 167 (Johnston Street) Corridor Study collected and analyzed data to help develop immediate, short-term, and long-term recommendations in accordance with "DOTD's Stage 0: Manual of Standard Practice" for the Johnston St. (US 167) corridor between Coulee Mine Bayou Bridge and Cajundome Avenue. AECOM was tasked to identify crash trends, develop collision diagrams, determine the effectiveness of counter measures in alternative concepts, and identify and assemble environmental conditions along the corridor into a GIS database.

Firm Members Involved: Jonathan McDowell, PE, Greg Trahan, PE, RSP,, Gino DiGiovanni



Williams Blvd. Task Order:

The LA 49 (Williams Blvd.) Corridor Study collected and analyzed data to help develop immediate, short-term, and long-term recommendations in accordance with "DOTD's Stage 0: Manual of Standard Practice" for the Williams Blvd. (LA 49) corridor between Airline Highway and 32nd Street which is just north of Interstate 10. AECOM was tasked to identify crash trends, develop collision diagrams, determine the effectiveness of counter measures in alternative concepts, and identify and assemble environmental conditions along the corridor into a GIS database.

Firm Members Involved: Jonathan McDowell, PE, Greg Trahan, PE, RSP,

- ✓ Traffic Studies Safety
- ✓ Traffic Studies GIS
- ✓ Environmental and Scoping Services

Firm Name	AECOM						Past Per	forman	ice Evalu	ation Discipline(s)*	Traffi	ic Data (Collection
Project Name	Airline Highwa	y Traffio	c Study						Firm Re	sponsibility (Prime c	or Sub)?)	Sub
Project Number	oject Number 19-CS-HC-0036 Owner's Name							City-Pa	arish of E	ast Baton Rouge			
Project Location	tion East Baton Rouge Parish, LA C							Manag	jer	Cyndi Pennington			
Owner's Address, Ph	one, Email	329 Ch	ippewa S	Street, Si	uite A, Ba	aton Rc	uge, LA	70802; ((225) 389)-3246; cpenningtor	n@brla	a.gov	
Services Commenced by This Firm (mm/yy) 12/20 Total				Total Co	onsulta	nt Contra	ct Cost	: (\$1,000	'S)		\$434		
Services Completed	by This Firm (mm	n/yy)	N	/A	Cost of	Consu	ltant Serv	vices Pr	ovided b	y This Firm (\$1,000's	5)	\$434	



AECOM collected traffic and crash data in support of this project, including 72-hour approach counts, turning movement counts, demand counts, field observations, geometric review, and crash reports from Crash1 and Crash3 databases.

The project began during the midst of the COVID-19 pandemic, which required additional effort to validate pandemic level traffic data with historic data. AECOM was tasked with developing the methodology to validate the 2021 data for use in the development of final Existing volumes, which would be used to develop No Build and Build forecast volumes.

The Existing Safety Analysis (Appendix C) utilized a review 2018 crash data on and adjacent to Airline Highway. Each crash report was read and summarized. Crash reports with inconclusive or incorrect information was noted, to provide to LADOTD's Highway Safety Section for further review. The CATScan tool was used to determine the Level of Service Safety (LOSS) of individual segments and intersections within the footprint of the corridor. Over-represented crash types were also recorded to help identify potential solutions that could be incorporated in the design project. The crashes along the corridor were also plotted on an aerial photograph to identify hot spots and crash clustering.

The traffic analysis will require the development of Existing and No Build analysis. The Build analysis will include the development of Tier 1 and Tier 2 matrices for the new Jones Creek Road intersection at Airline Highway, along with other major intersections on the corridor. Alternative intersections, such as the RCUT, MUT, DLT, and quadrant roadway intersections, will be reviewed as part of the Alternative Analysis process.

A full and complete TEPR compliant Traffic Study will be submitted for this project.

Firm Members Involved: Louis Costa, Daniel Helms, PE, PTOE, RSP, Greg Trahan, PE, RSP, Ramya Rayapureddy

RELEVANCY TO IDIQ FOR STATEWIDE TRAFFIC ENGINEERING SERVICES

- Crash Data Collection and Analysis
- LADOTD TEPR Coordination

✓ Tier 1 and 2 Development

✓ Existing and No-Build Analysis

Traffic Counts

✓ Proposed Traffic Analysis

Firm Name	Civil Design &	Constru	ction, Ir	nc.			Past Pe	rforman	ice Evalu	ation Discipline(s)*	Surv	reying		
Project Name	LA 30 Roundal	bouts at	Tanger	I-10					Firm Re	esponsibility (Prime c	or Sub	o?)	Sub	
Project Number	H.010960.5-2	I.010960.5-2 Owner's Name						LADOT	ГD					
Project Location	Ascension Paris	sh, LA				Owner	's Projec	t Manag	jer	Josh Harrouch				
Owner's Address, Ph	one, Email	1201 Ca	apitol Ac	cess Ro	d., Baton	Rouge,	LA 7080	2 (225)	379-123	32				
Services Commence	ed by This Firm (n	nm/yy)	07/	'17	Total Co	onsulta	nt Contra	ict Cost	: (\$1,000	'S)	N/A			
Services Completed	by This Firm (mn	n/yy)	Ongo	oing	Cost of	Consu	Itant Serv	/ices Pr	ovided b	y This Firm (\$1,000's	5)	\$485		

Project Description: This project located in Ascension Parish was an addition to existing topographic surveys for H.011897.5 and H.011873.5. A complete topographic survey including all utilities with depths and all drainage was required, along with finish floor elevations of all buildings that fall within the survey limits. Project begins at a point approximately 765' west of the intersection of LA 30 and S. St. Landry Avenue and from this point the project shall proceed east, along LA 30 ending approximately 500' west of the intersection of LA 30 and Veterans Blvd. for a total distance of approximately 3,352'. The width of survey and DTM shall vary.

 In 2018, CD&C was supplemented to update this survey to account for construction that was being completed along the route. As part of this supplement, the firm also was scoped to complete an existing drainage map for the project

CD&C's Role: CD&C completed a topographic survey between H.011897.5 and H.011873.5 along La 30 in Gonzales. The survey utilized 3D terrestrial scanning of all hard surfaces and traditional methods for all other features. CD&C coordinated with Cardno, Inc (on utility location retainer with LADOTD) for all the utility information and supply the survey data back to Cardno for their submittal. Another aspect of this project is CD&C had to merge the previous other surveys with this project in order to make a complete survey of the LA 30 at the request of LADOTD.

Performed in LA: 100%

Firm Member Involved: Ralph Burgess, PLS

RELEVANCY TO IDIQ FOR STATEWIDE TRAFFIC ENGINEERING SERVICES✓ Topographical Survey✓ Utility Survey





Firm Name	Civil Design &	Constru	iction, I	nc.			Past Per	forman	ice Evalu	ation Discipline(s)*	Surv	reying	
Project Name	US 171 at Boor	ne Stree	t Round	labouts				Firm Responsibility (Prime or Sub?) Sub					
Project Number	H.011909.5-2			Owner'	Owner's Name LADOTD								
Project Location	Vernon Parish,	LA				Owner	's Projec	Manag	jer	Stanley Consultant	ts		
Owner's Address, Ph	one, Email	1201 C	apitol Ac	cess Ro	d., Baton	Rouge,	LA 7080	2 (225)	379 - 123	32			
Services Commence	ed by This Firm (n	nm/yy)	05	/17	Total C	onsulta	nt Contra	ct Cost	: (\$1,000	'S)		N/A	
Services Completed	by This Firm (mn	n/yy)	07/	/17	Cost of	Consu	Itant Serv	vices Pr	ovided b	y This Firm (\$1,000's	5)	\$146	

Project Description: This project located in Vernon Parish was for the construction of a new roundabout and J-turn at the intersections of US 171 at Boone St. The project limits originally began 600 feet south of the intersections of US 171 at Boone St and proceeded north along US 171 for a distance of 1,200 feet ending at point 600 feet north of the intersection of US 171 at Boone St., the project proceeded northwesterly, along Boone St. for approximately 650 feet. The width of the survey and DTM extended 200 feet along each approach (100 feet each side of centerline) with 200' flares around center of proposed roundabout. The project was then extended to the south by approximately 0.56 miles to accommodate the addition of the required J-turn. A complete Topographic survey including all utilities with depths and all drainage was required, along with Finish floor elevations of all buildings that fall within the survey limits. The survey shall also included topography limits on all Parish/City side roads that intersect US 171.

CD&C's Role: CD&C provided the complete topographic survey for this project. The topographic survey was completed using traditional means and methods and in accordance with Location and Survey procedures. CD&C also coordinated with all local utility companies and municipalities in the area to locate their assets for the survey so the engineers can determine the extent of encumbrance of the design on these assets. The survey was completed and finalized by the required processing techniques established by LADOTD.



Performed in LA: 100%

Firm Member Involved: Ralph Burgess, PLS

RELEVANCY TO IDIQ FOR STATEWIDE TRAFFIC ENGINEERING SERVICES✓ Topographical Survey✓ Utility Survey

Firm Name	Civil Design &	Constru	iction, I	nc.			Past Pe	forman	ce Evalu	ation Discipline(s)*	Surv	reying	
Project Name	US 190 Supers	street							Firm Re	esponsibility (Prime d	or Sub	o?)	Sub
Project Number	H.005733.5			Owner'	s Name			LADOT	D				
Project Location	St. Tammany Pa	arish, LA				Owner	's Projec	t Manag	ler	Josh Harrouch			
Owner's Address, Ph	one, Email	1201 C	apitol Ac	cess Ro	d., Baton	Rouge,	LA 7080	2 (225)	379-123	32			
Services Commence	ed by This Firm (n	nm/yy)	01,	/16	Total C	onsulta	nt Contra	ict Cost	(\$1,000	'S)		N/A	
Services Completed	by This Firm (mn	n/yy)	08	/16	Cost of	Consul	Itant Serv	vices Pro	ovided b	y This Firm (\$1,000's	s)	\$207	

Project Description: This project was the topographic survey of US 190 in Covington. The survey limits were along a portion of the existing routes of US 190, Holiday Square Frontage Road, US 190 Service Road, Holiday Blvd., Holycrest Plaza Driveway, Louis Prima Drive, Park Place Drive, Lake Drive, Crestwood Blvd., 9th Avenue, Three Rivers Road, River Highlands Blvd., Harrison Ave., Maple Ridge Ave., North 12th Street, Sunshine Ave., North 6th Street, Riverside Drive, and North 2nd Street and is approximately 2.9 miles in length.

CD&C's Role: CD&C's role was to provide the complete topographic survey and drainage map for this project including all utility coordination. The survey begins at the intersection of US 190 and Holiday Square Frontage Road. From this point, the survey proceeded in a northerly direction along US 190 for approximately 2.9 miles to a point that is 700 feet South of Intersection of US 190 and E. Boston St. in Covington, LA. The width of the survey and DTM



extended to the Western Edge of Pavement to Eastern Edge of Pavement along US 190 and tied in with the existing topographic features picked up on the previous survey done under H.011137.5 and H.011152.5 (Interstate 12 Survey). All topographic survey elements were performed in accordance with the latest LADOTD Location and Survey Manual and conformed to the latest standard practices/procedures and all deliverables were in LADOTD required formats, with the previous I 49 Connector Survey being merged with the CD&C survey to be submitted as one final product.

Performed in LA: 100%

Firm Member Involved: Ralph Burgess, PLS

RELEVANCY TO IDIQ FOR STATEWIDE TRAFFIC ENGINEERING SERVICES✓ Topographical Survey✓ Utility Survey

Firm Name	Intelligent Tra	nsporta	tion Sys	stems L	LC		Past Pe	rforman	ce Evalu	ation Discipline(s)*	Traf	fic	
Project Name	Ascension Par	rish Traf	fic Impa	ict Stud	ies IDIQ				Firm Re	esponsibility (Prime o	or Su	b?)	Sub
Project Number	N/A	Owner'	s Name			Ascens	sion Pari	sh					
Project Location	Ascension Pari	ension Parish, LA Owner's Project Manager Jerome Fournier											
Owner's Address, Ph	ione, Email	615 Wc	orthey Rc	bad; Gor	izales, LA	70737	7; (225) 45	50-1371;	; Jerome	e.fournier@apgov.us	5		
Services Commence	ervices Commenced by This Firm (mm/yy) 10/22 Total Co					onsulta	nt Contra	ict Cost	(\$1,000	'S)		N/A	
Services Completed	by This Firm (mn	n/yy)	Ong	oing	Cost of	Consu	Itant Serv	vices Pro	ovided b	y This Firm (\$1,000's	s)	N/A	

ITS LLC was selected by Ascension Parish for an indefinite delivery, indefinite quantity (IDIQ) contract to perform traffic impact studies for proposed commercial and residential developments throughout the Parish.

Due to rapid growth throughout the Parish, the leadership of Ascension Parish receives multiple requests for permitting of new developments every month. While the parish required traffic impact studies to be completed by the developers' chosen consulting engineer, the Parish staff found the reports and results the Parish received were inconsistent and were not always objective. As a result, the Parish Council recently passed an ordinance that would allow the Parish to contract consulting firms directly to perform the studies for the proposed developments. The Parish selected ITS LLC for an as-needed contract to perform these traffic impact studies.

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 will have differing requirements for the studies. In cases where the development lies within an area that would trigger the need for a study submitted to LADOTD, the study performed under this contract will fully-comply with all Traffic Engineering Process and Report requirements so that the Parish' and LADOTD's review and approval processes can occur simultaneously, adding efficiencies to the process.

Firm Members Involved: Kimberly McDaniel, PE, PTOE, PTP; Diane Hammonds, PE, PTOE; Clarke Chauvin, PE, PTOE, PMP; Jonathan Fox, PE, PTOE, PMP

- ✓ Traffic Impact Studies Some of Which Follow **TEPR** Process
- ✓ Alternatives Analysis with Recommendations on Impact Mitigation
- Managing Multiple Task Orders Simultaneously on an IDIQ Contract
- Coordination with LADOTD District 61



Firm Name	Intelligent Tra	nsporta	tion Sys	stems L	LC		Past Per	rforman	ce Evalu	ation Discipline(s)*	ITS, Tra	affic			
Project Name	Calcasieu Poir	nt LNG D	LNG Development Firm Responsibility (Prime or Sub?) Sub							Sub					
Project Number	N/A			Owner'	vner's Name John Kelly										
Project Location	Lake Charles, L	A				Owner	r's Project	t Manag	ler	Jerome Fournier					
Owner's Address, Ph	ione, Email	1300 N	lain Stre	et, Hous	ton, TX 7	77002	713-989	-7411 jo	ohn.kelly	@energytransfer.cc	m				
Services Commence	ed by This Firm (n	nm/yy)	09/	/15	Total Co	onsulta	nt Contra	ict Cost	(\$1,000	'S)	С	Confidential			
Services Completed	by This Firm (mn	n/yy)	12/	/16	Cost of	Consu	Itant Serv	vices Pro	ovided b	y This Firm (\$1,000's	s) C	Confide	ntial		

The new Lake Charles LNG plant was constructed to provide new liquification facilities as well as nonliquification support facilities to expand LNG processing at existing facilities in Lake Charles, LA. Because of the significant increase in workforce to support these operations, traffic in and around the new plant was expected to also see significant increases. Additionally, during construction, there would be a need for routes to transport oversized load with large and heavy equipment that was constructed offsite and brought in for the facility.



Proposed Adaptive Signal Installation: Country Club Road at Weaver Road.

Traffic Study: ITS LLC was initially tasked with performing an updated traffic study along three major corridors crossing I-210 in Lake Charles, LA, to determine the impacts of the facility development, both during and after construction, and identify areas for improvements. Because at that time the region was undergoing unprecedented industrial growth, and subsequently residential and commercial growth, the traffic study was expansive and changed scope throughout the process as more information was known about future developments in the area. The study mainly focused on three plant construction projects with different levels, phasing, and timelines of construction. The study ultimately led to proposed signal improvements along the three corridors as well as some additional isolated and temporary signals. ITS LLC

was also tasked with creating permit plans for almost 30 unique traffic signals including along coordinated corridors, isolated permanent, and isolated temporary signals which were fully actuated.

Adaptive Traffic Signal Design: ITS LLC was later tasked with accommodating some of the planned construction activities. For site prep, one developer intended to bring multiple loads of dirt from one side of the facility to the other, crossing LA 384 (Big Lake Rd.). ITS LLC performed an additional separate traffic impact study for the addition of a signal for the temporary haul road at a state highway crossing. This was a unique situation that required ITS LLC to manipulate intricate defaults of the analysis software to accurately portray the size, startup time, and top speed of these oversized, articulating dump trucks. Factors evaluated in the analysis included safety, quantifying volumes, designing signal timings, and evaluating the long-term duration of these activities as well as the daily schedule of activities. Ultimately, the traffic study provided adequate signal warrant data and resulted in a temporary signal waiver. As a result, ITS LLC produced a TSI plan set for this intersection for permitting.

Firm Members Involved: Clarke Chauvin, PE, PTOE, PMP; Jonathan Fox, PE, PTOE, PMP

- ✓ Traffic Study (3 Main Corridors + I-210)
- ✓ Multiple development phases in construction
- ✓ Safety & Signal Timing Studies

- ✓ Coordinate with LADOTD District 07 (Lake Charles)
- Innovative Traffic Management Solutions
 Permit Plans for Upgrading/Redesigning/Designation
 - Permit Plans for Upgrading/Redesigning/Designing 30 Signalized Intersections
- ✓ Communications Network Design (Cellular, Unlicensed Wireless Radio)

Firm Name	Intelligent Tra	nsporta	tion Sys	stems L	LC	Pa	ast Per	forman	ice Evalu	ation Discipline(s)*	TS, Traffic	
Project Name	Lake Charles (Chemicals-Adaptive Traffic Signal Systems A & B Firm Responsibility (Prime or Sub?) Si								Sub		
Project Number	L2CC-990-11-[DW-24		Owner'	s Name			Sasol				
Project Location	Westlake and S	ulphur, L	A			Owner's F	Project	Manag	jer	Eric Flemming		
Owner's Address, Ph	one, Email	2201 O	ld Spani	sh Trail	Westlal	ke, LA er	ric.flen	nming@	worleyp	arsons.com		
Services Commence	ed by This Firm (n	nm/yy)	08/	/15	Total Co	onsultant (Contra	ct Cost	(\$1,000	'S)	Confi	dential
Services Completed	by This Firm (mn	n/yy)	07/	/19	Cost of	Consultar	nt Serv	vices Pr	ovided b	y This Firm (\$1,000's)	Confi	dential

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.

The City Inded

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 Involved: Clarke Chauvin, PE, PTOE, PMP; Jonathan Fox, PE, PTOE, PMP

RELEVANCY TO IDIQ FOR STATEWIDE TRAFFIC ENGINEERING SERVICES

- ✓ Traffic Signal Design
- ✓ Coordination with LADOTD District 07 (Lake Charles)
- ✓ ATC Controller Upgrades, CCTV for Data Collection and Monitoring
- ✓ BlueToad Units for Travel Time and Speed Data Collection
- ✓ Communications Network Design (Cellular, Unlicensed Wireless Radio)

✓ Innovative Traffic Management Solutions

Firm Name	Gram Traffic C	ounting	, Inc.				Past Per	forman	ice Evalu	ation Discipline(s)*	Traff	fic, Data	Collection
Project Name	I-35 Remodeli	ng Study	Study - 2022 Firm Respon						esponsibility (Prime o	or Sul	b?)	Sub	
Project Number	TXDOT 48-9IDI	P5006	6 Owner's Name HDR Engineering										
Project Location	Austin, TX					Owner	's Project	t Manag	jer	Matthew Best			
Owner's Address, Ph	one, Email	504 Lav	/aca St,	Ste 900	, Austin, [*]	TX 786	26/512-9	04-370	2/Matthe	ew.Best@hdrinc.cor	n		
Services Commence	ed by This Firm (n	nm/yy)	04	/22	Total Co	onsulta	nt Contra	ict Cost	: (\$1,000	O's)			
Services Completed	by This Firm (mn	n/yy)	08,	/22	Cost of	Consu	Itant Serv	vices Pr	ovided b	y This Firm (\$1,000's	s)	\$353	

The purpose of this project was to collect main lane basic classification counts, 3-day ramp volume counts, and coupled turning movement counts along IH 35 in Austin, between US 183 & Stassney Ln. Along the corridor, one hundred and three (103) intersections, ninety-five (95) ramp and frontage roads, and ten (10) main lane locations were collected for this project. The collection method for each site location was planned, evaluated, chosen, and executed based on years of experience and expertise.

GRAM Traffic Counting, Inc completed this project on time and on budget.

Firm Members Involved: Stacie Bittner, Randall Smith

RELEVANCY TO IDIQ FOR STATEWIDE TRAFFIC ENGINEERING SERVICES

- ✓ 12-hour and 24-hour Turning Movements Counts
- ✓ 24-hour Classification Counts.
- ✓ Travel Time Runs
- ✓ 24-hour Volume Counts
- 24-hour Main Lane Counts

✓ Origin and Destination Studies


Firm Name	Gram Traffic Counting, Inc.				Past Performance Evaluation Discipline(s)* Tra			Traffic, Dat	affic, Data Collection	
Project Name	Freeval Lane Closture Analysis: Major Metropolitan AreasFirm Responsibility (Prime or S						or Sub?)	Sub		
Project Number	TM 70011.0001.30DAT- Owner's Name LADOTD Contract # 4400004011				Arcadi	S				
Project Location	Shreveport, Baton Rouge, New Orleans, LA Owne			Owner	's Projec	Project Manager Luis Alvergue				
Owner's Address, Phone, Email 10352 P			Plaza An	za Americana Drive Baton Rouge LA 70816/225-244-8701/Luis.Alver				3701/Luis.Alvergue@	@arcadis.co	m
Services Commenced by This Firm (mm/yy)			10	/18	Total Consultant Contract Cost (\$1,000's)					
Services Completed by This Firm (mm/yy) 07			01	/19	Cost of Consultant Services Provided by This Firm (\$1,000's)			s) \$75		

The purpose of this project was to collect 2-day video classification counts for interstate mainlanes as well as 3-day automated tube classification counts along I-10, I-110, I-310, I-220, and I-49 in Shreveport, Baton Rouge, and New Orleans, Louisiana. Over one hundred and sixty (160) 2-day classification count locations and thirty-eight (38) three-day classification count locations were collected for this project. The collection method for each site location was planned, evaluated, chosen, and executed based on years of experience and expertise.

GRAM Traffic Counting, Inc completed this project on time and on budget.

Firm Members Involved: Randall Smith

RELEVANCY TO IDIQ FOR STATEWIDE TRAFFIC ENGINEERING SERVICES

- ✓ 12-hour and 24-hour Turning Movements Counts
- ✓ 24-hour Volume Counts
- ✓ 24-hour Main Lane Counts

- ✓ 24-hour Classification Counts.
- ✓ Travel Time Runs
- ✓ Origin and Destination Studies



Firm Name	Gram Traffic Counting, Inc. Past Per					rforman	ce Evalu	ation Discipline(s)*	Traffi	ic, Data	Collection
Project Name	US 281-Evant to Hico Firm Responsibility					esponsibility (Prime o	or Sub)?)	Sub		
Project Number	30901879.WA1 Owner's Name					WSP, U	SA				
Project Location	Evant to Hico, TX Owner's Projec				t Manag	er Shalini Sankaranarayanan					
Owner's Address, Phone, Email 1601 S Mo			MoPac I	MoPac Expy, Ste 325, Austin, TX 78746/737-703-38995/Shalini.Sankaranarayana					iyanar	n@wsp.	com
Services Commenced by This Firm (mm/yy) 0			05/	/22	Total Consultant Contract Cost (\$1,000's)						
Services Completed by This Firm (mm/yy) 05/22			/22	Cost of Consultant Services Provided by This Firm (\$1,000's)			s)	\$21			

The purpose of this project was to collect main lane basic classification counts, 24-hour FHWA 13-bin classification counts, and turning movement counts along US 281 between Evant and Hico. Along the corridor, fourteen (14) intersections, twenty-five (25) basic classification count locations, and two (2) FHWA 13-Bin classification count locations were collected for this project. The collection method for each site location was planned, evaluated, chosen, and executed based on years of experience and expertise.

GRAM Traffic Counting, Inc completed this project on time and on budget.

Firm Members Involved: Stacie Bittner; Randall Smith

RELEVANCY TO IDIQ FOR STATEWIDE TRAFFIC ENGINEERING SERVICES

- ✓ 12-hour and 24-hour Turning Movements Counts
- ✓ 24-hour Classification Counts.

- ✓ 24-hour Volume Counts
- 24-hour Main Lane Counts

- Travel Time Runs
- ✓ Origin and Destination Studies



Section 18

Earhart Expressway Extension to US 61, Jefferson Parish, LA

AECOM was contracted to conduct a traffic study to identify a viable alternative to connect a new extension of the Earhart Expressway, a six-lane urban freeway, to Airline Drive, a four-lane highway.

AECOM was responsible for the following:

- ► Collecting Traffic Along the Corridor
- Conducting Warrant Analysis
- Crash Analysis
- Existing & No-Build Analysis
- ► Alternative Analysis
- ► Holding Public/Stakeholders Meetings
- ► Final Traffic Analysis



18. Approach and Methodology:

AECOM has assembled a locally based team ready to serve the Louisiana Department of Transportation and Development (LADOTD) and the transportation network users of our state from Day 1 of this Indefinite Delivery/Indefinite Quantity (IDIQ) contract. When our local team requires specialized resources or additional capacity to fast track specific services, we are able to supplement staff from across the country. As an example, AECOM has a robust traffic staff within Texas who can be in Louisiana in hours to assess issues and define solutions. In certain parts of this state, they may be able to be at a project site even before staff from Baton Rouge and New Orleans. These resources will act as an extension of our staff and not supplant a local connection. Our team also does not carry a backlog within the LADOTD Traffic group that would negatively impact our ability to provide focus on addressing traffic engineering issues in Louisiana.

PROJECT MANAGEMENT - SCOPING, MEETINGS, COORDINATION

The scoping process will help set the stage for our team to understand LADOTD's vision of providing the deliverables necessary to minimize the impact, interruption to, and intervention by LADOTD resources, while maximizing the benefits to LADOTD and its customers by helping to provide an efficient and safe transportation network. Scope development will build the foundation for a system of communication that will commence here and continue throughout the entire project.

Once the scope has been finalized and a Notice to Proceed has been issued, AECOM's Project Manager, Daniel Helms, will reach out the Traffic Engineering Division to request a kickoff meeting. AECOM will prepare a proposed agenda for LADOTD review and concurrence. It is anticipated this kickoff meeting would include the AECOM team project manager, the AECOM team task leads for the specific services, LADOTD



staff—including representatives from Traffic Engineering, District staff, Highway Safety, Environmental, Road Design, and Bridge Design—and any local stakeholders (cities or Parishes) deemed necessary for the discussion. Agenda items may include data collection process (counts, peak hour observations, travel times, demand), potential analytical tools (e.g., Highway Capacity Software [HCS], Synchro/SimTraffic, Vissim, Dynameq) to be used throughout the project, and various project management topics.

The AECOM team will develop the meeting minutes, which will be submitted for review, comment, and/or concurrence within three business days following the meeting.

INITIAL DATA COLLECTION

AECOM will evaluate the days and times when traffic counts can be taken and then deploy traffic counters on the study corridors to determine the peak periods for the corridor and/or individual impacted routes. This includes 7-day, 24-hour tube counts to determine the peak periods. AECOM will review the data and develop documentation to discuss the peak periods for each count, to determine if there are regional peak periods, individual route peak periods, or spot peak periods (e.g, near generators that are temporal in nature – schools, etc). The information will be provided to DOTD as Appendix A for review and approval.

FINAL DATA COLLECTION

Following DOTD approval of Appendix A and the peak period(s) for the study area, AECOM will begin the collection of individual intersection turning movement counts (TMCs), 48-hour approach tube counts, and unmet demand data. If Vissim has been selected as the analytical software, no less than five travel time runs per route will be collected, using the average car method, so that the mean travel time is within the 95% confidence level.

It is during this stage that the AECOM team will perform field checks and observations. As required, the AECOM team will provide transportation professionals to go into the field to record lane widths, lane configuration, signal operations, encroachments, intersection demand, and all necessary and pertinent information to properly analyze traffic operations. These observations can be converted into a CADD format or plotted against aerial photography, to aid in future discussions with LADOTD on current conditions or proposed Tier 1 alternatives.

AECOM will process the data, creating count volumes and final (count + demand) volumes, which will be used in the Existing Analysis. These volumes will be displayed in an easy-to-read-and-follow map, with aerial photography in the background.

This is also the stage when AECOM will develop a proposed growth rate, using either the regional Travel Demand Model (TDM) – for areas within the state covered by a Metropolitan Planning Organization (MPO), or historic Annual Average Daily Traffic (AADT) counts from the LADOTD website. The growth rate will be used on the Existing Volumes to develop a set of design year No Build Volumes.

Build traffic volumes will also be developed during this time. The AECOM team will use guidance from NCHRP Report 765 to forecast Build Volumes. The project team will develop a Volume Forecast Methodology Memo, along with the Existing, No Build, and Build volumes for LADOTD review and approval, prior to proceeding into the Existing and No Build analysis.

The data collected and volumes derived during the Final Data Collection phase, including but not limited to growth rate calculation, the development of final TMC volumes (with demand) and no build volumes, and any travel time runs that may be necessary, will be compiled as Appendix B. Appendix A and Appendix B are the foundation for Chapter 1 of the Traffic Report. Chapter 1, along with Appendix B, will be submitted to DOTD for review and approval.

EXISTING AND NO BUILD ANALYSIS

The approval by DOTD of Chapter 1 and Appendix B signals the start of the Existing and No Build Analysis. The analytical tool to be used in this phase will be chosen during the scoping process and the kick-off meeting. The AECOM team has a wealth of experience and a depth of staff who are proficient in the use of both HCS and Vissim, and the team will be available to start work as soon as given the go-ahead by LADOTD. The establishment of Existing and No Build operational conditions is key to the next step in the process, the Tier 1 alternative analysis process.

The Tier 1 process is a high-level assessment of major access points within the study area. This high-level assessment will look at key intersections or interchanges, depending on a project, using tools such as CAP-X or SPICE to evaluate alternatives. It is assumed there would as many Tier 1 matrices developed as necessary to evaluate all key access points.

The Existing and No Build Analysis, along with the documentation of the Tier 1 process, will be packaged as Chapter 2 and Appendix D. These documents will be submitted to LADOTD for review, comment, and approval.

EXISTING SAFETY ANALYSIS

The identification of hot spots, systemic issues and the general safety performance of routes in the adjacent study area is an important aspect to consider in the development of the proposed project. The AECOM team will pull three to five years of crashes from the Crash 1 and Crash 3 database for review. These crashes will be run through the CATScan tool, developed by LADOTD, a predictive safety analytical tool that evaluates the Level of Service Safety (LOSS) for routes and intersections. This tool will help to inform the alternative evaluation process, in determining which alternatives will best mitigate operational and safety issues.

At the conclusion of the Existing Safety Analysis process, the AECOM team will package up all relevant data, including a summary of the crash analyses, CATScan printouts, a crash diagram, a summarization of individual crashes, into Appendix C for LADOTD review and approval.

EXISTING AND NO BUILD MEETING

During this stage, the AECOM team would coordinate with the LADOTD Project Manager to set up a meeting to discuss the findings of the Existing and No Build Analysis. Similar to the kickoff meeting, included stakeholders would be Traffic Engineering staff, District staff, personnel from the Highway Safety, Environmental, Road Design, and Bridge Design (if a bridge is impacted) Sections, and any local stakeholders deemed necessary for the discussion.

The Existing and No Build analysis would be presented at the meeting, highlighting any areas with safety or capacity deficiencies. A discussion would include the Tier 1 analysis and proposed alternatives that were eliminated and those considered for further analysis during the Tier 2 phase. It would also be discussed, at this stage, the analysis tool necessary to conduct the alternative analysis—either sticking with the tool used for the Existing and No Build Analysis or move to a new tool. Following this meeting, the AECOM team would produce meeting minutes, for submission to the LADOTD Project Manager and meeting attendees within three days of the Existing and No Build Meeting.



PRELIMINARY TIER 2 ALTERNATIVES ANALYSIS

Those alternatives that are not eliminated during the Tier 1 analysis will be further studied in a Preliminary Tier 2 phase. Whether this phase is necessary or not will be decided during the Existing and No Build Meeting. If directed to proceed by LADOTD, the AECOM team will perform this high-level analysis of the remaining alternatives, which will include the development of alternative sketches, the redistribution of volumes, if any alternative would prove to re-route traffic, and an Alternative Comparative Evaluation (ACE) Matrix.

The AECOM team would request a meeting with the LADOTD Project Manager to discuss this Preliminary Tier 2 work, presenting the alternative sketches, any redistributed volumes, and the blank ACE Matrix, with recommended weights and ratings scale. Participants at this meeting would be those who attended the Existing and No Build Meeting. Following the meeting, the team would provide minutes back to LADOTD and attendees within three days.

FINAL ALTERNATIVES ANALYSIS

Following the Preliminary Tier 2 Analysis, a deeper dive into the remaining alternatives will occur, with an Operational Analysis, Critical Geometry review, and a Safety Analysis, with the findings being populated into the ACE Matrix to determine the recommended operational alternative.

A deeper dive into Operational Analysis may include traffic signal warrant analyses. The eight possible signal warrants are defined in the Manual of Uniform Traffic Control Devices (MUTCD). While the MUTCD does provide for eight warrants, the LADOTD Engineering Directives and Standards Manual (EDSM) is clear that if the installation of a traffic signal is chosen as the recommended alternative, only Warrants 1A or 7 (if sufficient trials have been conducted and have not been successful in mitigating a crash problem) will be considered. Additional requirements, listed in EDSM VI.1.1.2 will also need to be met prior to traffic signal installation approval.

The Critical Geometry Analysis will require developing a Design Criteria Report that details the design criteria of each of the options, and whether they can meet the values stated in LADOTD's Minimum Design Guidelines.

The Safety Analysis may require the AECOM team to develop a predictive safety analysis model, with either the Enhanced Interchange Safety Analysis Tool (ISATe) or the Interactive Highway Design Safety Model (IHSDM) software. The AECOM team has developed complex predictive safety analysis models that test the limit of the current science of safety.

Once the Tier 2 Analysis is complete and the ACE Matrix is populated, the AECOM team will develop Chapter 3 and Appendix E. This is also the time when the Report Introduction and Executive Summary are crafted. Once the documentation has been pulled together, the package will be submitted to LADOTD for review.

FINAL ALTERNATIVES ANALYSIS MEETING

Following submittal of the documents produced during the Final Alternatives Analysis, the AECOM team will coordinate with the LADOTD Project Manager to meet with the project stakeholders involved in previous meetings to discuss the findings of their analysis. Following this, the team will be develop minutes for review by LADOTD and meeting participants and deliver those within three days.

FINAL REPORT

Following the approval of all previous submittals and notification by LADOTD, the AECOM team will submit a signed/sealed Final Traffic Report.

ADDITIONAL SERVICES

Additional services may be required during this contract to fulfill needs or requirements of a complete study. A Stage 0 may be required to run concurrently with the TEPR process to expedite the study. The Final Report may define other necessary downstream traffic engineering services, such as traffic signal design. The AECOM team brings a wealth of talented signal designers who have performed for both local and state clients, efficiently integrating various design guidelines.

STAGE 0

A Stage 0 process may be required to preliminarily assess a road issue or to be used as part of the Federal Highway Administration (FHWA) documentation process. AECOM has developed a standard approach to Stage 0 projects using the LADOTD Stage 0 Manual of Standard Practice and lessons learned from our past experiences on Stage 0 Studies and other design study projects. Stage 0 projects vary significantly in size and complexity, from dense urban areas to rural sections, and developing a well-defined scope is crucial. The Stage 0 should also track with the TEPR process in such a way that the two processes can work together to develop a successful project that meets the intended traffic goals. As part of the Stage 0, the AECOM team will also collect and review existing and previous data provided by LADOTD. Following field data collection and the Existing and No-Build Traffic Analysis from the TEPR process, typical sections and geometric layouts will be developed.

Following concurrence from LADOTD and the initial traffic analysis, the AECOM team will further refine the geometric layouts and perform a preliminary traffic alternatives analysis to evaluate refine the alternatives. Costs for each alternative, including engineering, construction, ROW, and contingencies, will be documented along with the required scope and budget and environmental checklist for the Final Alternative Meeting. Following this meeting, the AECOM team will assemble a Draft Report of all data and analysis collected during the Stage 0 process, followed by a Final Report with LADOTD concurrence of the Draft Report.

TRAFFIC SIGNAL DESIGN

The design of a traffic signal for LADOTD is governed by EDSM IV.7.1.5 and the Traffic Signal Special Details (TSD-00 through TSD-13). The AECOM team will follow the guidance provided by these documents to develop a set of engineering plans that shows the traffic signal design. The design sheets intended for a set of signal plans show the general location of the signal, including placement of poles, ground/junction boxes, conduit, detection, pavement markings. The electrical schedule, showing the conduit size, type, and wiring, will also be developed. The AECOM team has designed hundreds of traffic signals and can provide LADOTD the services necessary to quickly bring a signal from concept to field inspection / plan-in-hand meeting to final plans.

Additionally, LADOTD may request, as a part of a signal design task, timing plan development (or plans, if looking at a corridor or implementing a signal within a coordinated system) and a phasing diagram. The AECOM

team has the expertise in applying the Highway Capacity Software, Synchro, and other traffic operational analysis tools. Once the signal is designed and the timing and phasing of the signal is complete, a Traffic Signal Inventory (TSI) sheet will be created and provided as a part of the submittal.

The AECOM team also has experience and expertise in the use and implementation of next generation technology and infrastructure and can draft and deliver specifications for these elements if LADOTD does not currently have a spec in their Purple Book or supplemental specifications.

TRAFFIC SIGNAL INVENTORY

The AECOM team will provide LADOTD with International Municipal Signal Association (IMSA)-certified professionals to access traffic signal controller cabinets on the state system. Our team is dedicated to additional staff certifications when training courses are reopened in mid-2023. Professionals provided to LADOTD under any task order, including Traffic Signal Inventory, are adept at pulling information from traffic signal controllers, including signal timing parameters such as clearance intervals, min/max green, passage time, splits, offsets, and cycle length, etc.

The AECOM team has both personnel and expertise in disaster recovery for traffic signals, street lighting, and signage inventories who can be quickly deployed. We have been called to action following hurricanes with significant impact to New Orleans that left a damaged infrastructure that involved a short window of time to get operations restored.

Traffic Engineering Study Schedule



AECOM Task DOTD Review Reting

Section 19

Intelligent Transportation Systems LLC (ITS) Certifications

ITS employs 18 personnel including both engineering staff and field technicians. The firm currently employs four Professional Engineers (PE), licensed in Civil Engineering in Louisiana, four of whom are also certified Professional Traffic Operations Engineers (PTOE). Additionally, two of those engineers are credentialed as a Professional Transportation Planner (PTP) and a Road Safety Professional (RSP1). The company's field technicians include two IMSA Level II Technicians and one IMSA Signal Inspector. These specialized certifications are required by the Louisiana Department of Transportation and Development (LADOTD) for any personnel who service the state's traffic signal equipment.





19. Workload:				
Firm(s)	Past Performance Evaluation Discipline(s) *	State Project Number	Project Name	Remaining Unpaid Balance**
	Road, Bridge	H.004367.5	Earhart Expressway to US 61	215,483
AECOM	Traffic	H.004367.5	Earhart Traffic Evaluation	27,990
	CE&I/OV	H.003570	I-220 Barksdale Quality Manager (Sub)	247,255
	H.004273.5		I-49 Connector (Sub)	
	Planning		Tasks 1, 5, 6, 12	591,743
	Traffic		Task 2	34,207
	Road		Task 4	14,923
	Bridge		Task 8	67,081
	Environmental		Task 10	412,266
	Surveying	4400017091/TO-2	LWI Statewide Modeling R5-Task Order #2	14,345
INCORPORATED	Surveying	4400017091/TO-3	LWI Statewide Modeling R5-Task Order #3	13,360
	ITS	H.013256.6	I-10 ITS Scott to Lake Charles - Construction	20,284
	ITS	H.014515	511 & ATMS SEA	49,382
OTSTEMS	ITS	H.013710.6	I-10: US61 to LaPlace Deployment	104,086
	ITS	H.011152	I-12- US 190 to LA 59	14,291
	ITS	H.007160	EBR Computerized Signal Phase VB	339,316
	ITS	H.001234.6	LA1 Port Allen Canal BR Replacement	108,114
	ITS	H.013868.6(A)	ITS Routine Maintenance Engineering and Inspection (ME&I)	46,941
	ITS	H.013868.6 (B)	ITS Responsive/Emergency ME&I Statewide	109,668
	ITS	H.013868.5	ITS Maintenance Program Management and Operations	4,970
	Gram	N/A	N/A	N/A

(Add rows as needed)

DO NOT SUM

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

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

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Sections 20-23

23 Stage 0 Improvements for Safety and Efficiency Route I-49

AECOM completed 23 Stage 0 Studies along 38.6 miles of the I-49 South Corridor. The Stage 0 projects were considered for value Engineering with innovative traffic techniques and low cost safety improvements.

Types of projects included in the interim packages included:

- Signal Design
- Superstreet Designs
- ► Partial Diverging Diamond at US 90 & I-310
- ► Frontage Roads
- ► Barrier Projects
- Control of Access Improvements
- ► Final Traffic Analysis



20. Certifications/Licenses:

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

Gregory Trahan, PE, RSP₁

Certificate of Completion Certificate of Completion presented to presented to Gregory Trahan Gregory Trahan for completing the for completing the **Traffic Engineering Analysis Process & Report Traffic Engineering Analysis Process & Report** Module 2 Module 1 July 23, 2018 July 16, 2018 Professional Development Date: Professional Development Date: Baton Rouge, Louisiana Hours (PDHs) Awarded: 3 Location: Baton Rouge, Louisiana Hours (PDHs) Awarded: 2 Location: dy f Cherre al y Bucht al y Bunchs Certificate of Completion <u>any any any an</u> presented to The American Traffic Safety Gregory Trahan Services Association for completing the Hereby recognizes that Gregory Trahan **Traffic Engineering Analysis Process & Report** has attended Module 3 Traffic Control Supervisor Refresher-LA State Specific Training Course October 29, 2018 Professional Development Date: Hours (PDHs) Awarded: 3 Location: Baton Rouge, Louisiana Revie margle 5/24/2019 to 5/24/2019 Training & Products Dept. Director Ryn A. West Baton Rouge, LA SAFER BOADS SAVE LIVES President, CEO Location

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Page 83 of 100

Daniel Helms, PE, PTOE, RSP_{2i}



Page 84 of 100

Jonathan McDowell, PE



Derek Chisholm AICP, ENV SP, LEED GA



Certificate of Completion								
	Derek Chisholm							
	for completing the							
Traffic Engineering Analysis Process & Report Module 3								
Date: March 11, 2021 Location: Baton Rouge, Lo	uisiana	Professional Development Hours (PDHs) Awarded: 3						
1339	New Left	DB						
Authorized Instructor	Authorized Instructor	Authorized instructor						

Kordel Braley, PE, PTOE



Peter Bakhit, PhD, PE



Certificate of Completion presented to Peter Bakhit for completing the Traffic Engineering Analysis Process & Report Module 3 Professional Development Hours (PDHs) Awarded: 3.5 July 2, 2019 Date: Location: Baton Rouge, Louisiana John Durald

Ramya Rayupureddy





Prime consultant firm name: **AECOM**

TEPR IN PROGRESS Victor De La Garza, PE

Helms, Daniel

From:	De la Garza, Victor
Sent:	Monday, November 7, 2022 5:15 PM
To:	Helms, Daniel
Subject:	FW: Registration Confirmation for Traffic Engineering Process & Report (Pre-Booking Dates to be Announced)

 From: LTRC Registration Website <<u>no_reply@lsu.edu</u>>

 Sent: Monday, November 7, 2022 4:14 PM

 To: De la Garza, Victor <<u>victor.delagarza@aecom.com</u>>

 Subject: Registration Confirmation for Traffic Engineering Process & Report (Pre-Booking - Dates to be Announced)

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This message came from outside your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Report Suspicious

Louisiana Transportation Research Center

Thank you for submitting your student registration. This confirmation is for Pre-Booking only. you will receive a new confirmation once you are enrolled in an active course.

Course: Traffic Engineering Process & Report (Pre-Booking - Dates to be Announced) First Name: Victor Last Name: De La Garza Company: AECOM Title: Associate Vice President Phone: 915-701-8796

If you need assistance with managing your submission, please contact Layne Brown at layne.brown@la.gov.

Visit Website | (225) 767-9183

Prime consultant firm name: **AECOM**

Page 90 of 100

TEPR IN PROGRESS Brent Reeves, PE

Helms, Daniel

From:	Reeves, Brent
Sent:	Monday, November 7, 2022 10:24 AM
To: Subject:	Helms, Daniel FW: Registration Confirmation for Traffic Engineering Process & Report (Pre-Booking - Dates to be Announced)

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Louisiana Transportation Research Center

Thank you for submitting your student registration. This confirmation is for Pre-Booking only. you will receive a new confirmation once you are enrolled in an active course.

Course: Traffic Engineering Process & Report (Pre-Booking - Dates to be Announced) First Name: Brent Last Name: Reeves Company: AECOM Title: Traffic Engineer Phone: 713-492-3639

Visit Website | (225) 767-9183

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Page 91 of 100

TEPR IN PROGRESS Moh Mashkur

gineering Process & Report (Pre-Booking - Dates to be Announced)

su.edu>

ick here to view it in a web browser.

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Louisiana Transportation Research Center

Thank you for submitting your student registration. This confirmation is for Pre-Booking only. you will receive a new confirmation once you are enrolled in an active course.

Course: Traffic Engineering Process & Report (Pre-Booking - Dates to be Announced) First Name: Moh Jawad Last Name: Mashkur Company: AECOM Title: Graduate Engineer Phone: 337-485-8125

If you need assistance with managing your submission, please contact Layne Brown at layne.brown@la.gov.

Visit Website | (225) 767-9183

Prime consultant firm name: **AECOM**

Page 92 of 100

TEPR IN PROGRESS Bonnie Dial, PE, PTOE

<u>Dial, Bonnie</u>

To:

Subject:

Date:

Registration Confirmation for Traffic Engineering Process & Report (Pre-Booking - Dates to be Announced Monday, November 14, 2022 5:06:06 PM

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Louisiana Transportation Research Center

Thank you for submitting your student registration. This confirmation is for Pre-Booking only. you will receive a new confirmation once you are enrolled in an active course.

Course: Traffic Engineering Process & Report (Pre-Booking -Dates to be Announced) First Name: Bonnie Last Name: Dial Company: AECOM Title: Project Manager Phone: 281-675-7692

If you need assistance with managing your submission, please contact Layne Brown at layne.brown@la.gov.

Visit Website | (225) 767-9183

TEPR IN PROGRESS Cruz Alvarez, PE

<u>Alvarez, Cruz</u>

To:

Subject:

Date:

Registration Confirmation for Traffic Engineering Process & Report (Pre-Booking - Dates to be Announced Wednesday, November 09, 2022 4:10:24 PM

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Louisiana Transportation Research Center

Thank you for submitting your student registration. This confirmation is for Pre-Booking only. you will receive a new confirmation once you are enrolled in an active course.

Course: Traffic Engineering Process & Report (Pre-Booking -Dates to be Announced) First Name: Cruz Last Name: Alvarez Company: AECOM Title: Engineer Phone: 915-504-9481

If you need assistance with managing your submission, please contact Layne Brown at layne.brown@la.gov.

Visit Website | (225) 767-9183

Prime consultant firm name: **AECOM**

Page 94 of 100

Jonathan Fox, PE, PTOE, PMP



Kimberly McDaniel, PE, PTOE, PTP



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

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

(This page intentionally left blank, as instructed per the RFP)

22. Sub-consultant information:

If one or more sub-consultants will be used, provide the name, address, point of contact and phone number for each. Otherwise, leave this section blank.

Firm Name (as registered with Louisiana's Secretary of State)	Address	Point of Contact and Email Address	Phone Number
GRAM Traffic Counting, Inc.	3751 FM 1105, Bldg. A, Georgetown, TX 78626	Stacie Bittner Stacie@gramtraffic.com	(512) 832-8650 (512) 642-8912
Civil Design & Construction, Inc.	PO Box 857, Port Allen, LA 70767/3251 Southern Pacific Rd.	Karla E. Weston, PE kweston@cdcbr.com	(225) 765-1802
Intelligent Transportation Systems LLC	20405 Highland Road, Baton Rouge, LA 70817	Kimberly McDaniel, P.E., PTOE, PTP kimberly@itsanswers.com	(225) 751-9300

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.

(This page intentionally left blank, as instructed per the RFP)

About AECOM

AECOM is the world's trusted infrastructure consulting firm, delivering professional services throughout the project lifecycle – from advisory, planning, design and engineering to program and construction management. On projects spanning transportation, buildings, water, new energy and the environment, our public- and private-sector clients trust us to solve their most complex challenges. Our teams are driven by a common purpose to deliver a better world through our unrivaled technical and digital expertise, a culture of equity, diversity and inclusion, and a commitment to environmental, social and governance priorities. AECOM is a Fortune 500 firm and its Professional Services business had revenue of \$13.1 billion in fiscal year 2022.

See how we are delivering sustainable legacies for generations to come at aecom.com and @AECOM.