AECOM

Proposal for Engineering and Related Services **IDIQ Contracts for Safety Studies - Statewide**

Contracts Nos. 4400023689 and 4400023690

February 22, 2022

Submitted to: Louisiana Department of Transporation and Development

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

Delivering a better world



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

February 22, 2022

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

Ref: Contract Nos. 4400023689, 4400023690; IDIQ Contracts for Safety Studies, Statewide

Ms. Darhlene Major:

The Highway Safety Section at the Louisiana Department of Transportation and Development (LADOTD) has long been an innovator in road safety, implementing unique and successful solutions that have improved the transportation environment for all users. Under the direction of Ms. Adriane McRae, LADOTD has continued to be a standard bearer for highway safety, not just in the southeast, but in the country.

At AECOM, safety isn't just a buzzword; it is a way of life. It permeates our culture, and we strive to see everyone, our employees, clients, vendors, and subconsultants operate with a safety-first mindset. It is through this foundation and our long-term relationship with LADOTD that AECOM understands how important road safety is to the State of Louisiana and all persons across our state. For these reasons, we realize the critical role quickly and efficiently delivering projects that implement safety improvements, at spot locations or systemically, plays in the achievement of Louisiana's Destination Zero Deaths goal.

The AECOM Team was created to combine our experience in providing industry leading technical expertise, a thorough understanding of analyzing and addressing highway safety needs, and exemplary customer services to LADOTD. AECOM has held LADOTD Safety retainers, as both the Prime Consultant and Subconsultant. AECOM's Louisiana offices offer LADOTD a one-stop shop for Feasibility/Safety/Traffic analysis, Road Safety Assessments (RSAs), the development of plans for low-cost safety improvements, and safety effectiveness evaluation on countermeasure, projects, and programs. AECOM is partnering with Alliance Transportation Group to provide depth in traffic and safety analysis, a foundation of project development.

We believe our team provides LADOTD a team unlike any other for this opportunity. Our Project Manager, Gregory Trahan, PE, is a passionate leader, who has developed strong relationships with LADOTD and across the state and can use those resources to gain a personal understanding of traffic safety issues that may not be apparent from raw crash data. He was formerly the Deputy Project Manager on a previous LADOTD Safety Studies IDIQ, allowing him to learn and thoroughly understand LADOTD's safety project processes. Gregory will be supported by a vast array of safety professionals, including two staff with an RSP₂₁ and additional staff with an RSP₁ certification. We know how to get your project efficiently from concept to construction.

The AECOM team is a proven leader in safety and view this opportunity to be partners with the State of Louisiana, serving its citizens in the implementation of data-driven safety solutions as an opportunity to achieve Louisiana's Destination Zero goal.

Yours Very Truly,

Gregory Trahan, PE Project Manager 225.922.5937 gregory.trahan@aecom.com

Michael Patorno, PE Vice President, Business Line Leader 504.218.0865 mike.patorno@aecom.com



AECOM's Roadway Safety Assessment Projects in Louisiana





LADOTD will benefit from AECOM's local knowledge of delivering projects similar to the IDIQ for Safety Studies contract, as evident by this map and table highlighting our Roadway Safety Assessment experience in Louisiana.

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 Safety Studies Statewide
2. Contract number(s) as shown in the advertisement	4400023689 and 4400023690
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	Gregory Trahan, PE Project Manager 225.922.5937 gregory.trahan@aecom.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Michael Patorno, PE Vice President 504.218.0865 mike.patorno@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 on such a false response.	Signature (shall be the same person as #9): Date: February 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	<u>Firm(s):</u> n/a

Sections 12-15

1. Safety Comparison



CAT Scan

AECOM is proficient in using the LADOTD CATScan tool as part of the Existing Safety Analysis.



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 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	
Traffic	60%	85%	15%
Road	20%	100%	0%
Planning	10%	90%	10%
Data Collection	5%	100%	0%
Environmental	5%	100%	0%
Identify the percentage of work for the overall contract to be performed by the prime consultant and each subconsultant.			ch subconsultant.
	100%	90%	10%

13. Firm Size:

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

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.

LADOTD PROJECT MANAGER



Page 9 of 117 Prime consultant firm name: AECOM Technical Services, Inc. (AECOM)

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	Mike Patorno, PE	AECOM	PE/PE.0024197	LA	09/30/2023
2, 3	Jonathan McDowell, PE	AECOM	PE/PE.0030508	LA	03/31/2023
3	Gregory Trahan, PE	AECOM	PE/PE.0036041	LA	03/31/2023
			PE/PE.0042486	LA	09/30/2022
4	Daniel Helms, PE, PTOE, RSP ₂₁	AECOM	PTOE / #2820	n/a	04/14/2022
			RSP ₂₁ / #11	n/a	12/09/2022
		450014	PE.0039257	LA	03/31/2023
4 Samuel Higgins, PE, PTOE		AECOM	PTOE / #3912	n/a	07/21/2024

Section 16

2018 Collision Diagram - Jones Creek Road Extension at Airline Hwy (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:

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 identified 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.

Fi	irm AECOM				
Gree	Gregory Trahan, PE			Years of Relevant Experience with this Employer	16
Project	Manager			Years of Relevant Experience with Other Employer(s)	1
Degree(s) / Years / Specialization	BS / 2005 / Civil Engineerin	g		
Active Regis	tration Number / State / Expiration Date	PE.0036041 / LA / 03/31/20 LADOTD Traffic Process ar	023 ATSSA Tr nd Report Parts 1	affic Control Supervisor Refresher–LA State Specific (2 1, 2 and 3 (2018)	019)
	Year Registered	2011	E	Discipline Civil Engineer	
Contract Role(s) / Brief Description of Responsibilities		MPR 3. Project Manager; Roadway Design; Task 3.0 Support. Will serve as Proj for Roadway Design and Pla	Task 1.0 Stage D Development fect Manager/Roa ans.	0 Feasibility Studies - Roadway & Bridge Alternativ of Plans for Low-Cost Safety Improvements - Engin ad Safety Assessments Lead and provide Engineering S	es - l eering Support
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the propo rience dates should cover th	sed contract; i.e. he time specified	., "designed drainage", "designed girders", "designed d in the applicable MPR(s).	
08/14 – 07/17	S.P. No. H.011489.5: Sa Engineer. He conducted tasks associated with t cost estimates for the p photo and an existing c at each curve location, (CMFs) within the plan s size plan sets, a meetin	afety Studies Retainer Con d Safety Improvement Plans his project include; site visits olan set, and a pre-construct onditions documentation of preparing a letter size plan s sheet, and preparing cost es g will be held with each Distr	tract, Low Cost (SIP) for 282 syst to the curves, p tion meeting with each curve. The et of the safety of timates for the s rict to discuss the	Safety Improvements, LADOTD, Statewide, LA. Projectemic curves located throughout the state of Louisiana olan preparation of safety countermeasures for each curves and a preparation of safety countermeasures; a ball bank e plan preparation includes deriving safety countermeasures countermeasures, including the Crash Modification Fac afety countermeasures. After the completion of each left e countermeasures.	ect a. The rve, < test, sures tors etter
07/15 – 06/17	S.P. No. H.011935.5: Sa Project Engineer. He wa to conduct a meeting w consisted of a map of th severity types. This rep conditions. Upon comp during the meeting into ranked them in an orde	afety Studies Retainer Con as responsible for both the p vith LA DOTD officials, local of the general area, a review of t ort and findings would be dis oletion of the RSA meeting M a report that would be subm r that would be effective for l	tract, Roadside reparation of a R officials, and law the Crash1 Data, scussed at the R lr. Trahan would s nitted to LA DOT both safety and t	Safety Assessment (RSA), LADOTD, Statewide, LA. Roadside Safety Assessment (RSA) Field Report that is u enforcement and conducting the RSA meeting. Field re including graphs and charts of the existing crash patte RSA meeting before going out to the field to review the e summarize all findings and discussions that were docum D. This summary also included possible countermeasu financial constraints.	used ports rns and existing nented res and

06/13 - Ongoing	MOVEBR Jones Creek Road Extension, Segments 1A and 1B, City-Parish of East Baton Rouge, LA. Project Manager. Managing task for Traffic Engineering, Environmental Review, and Green Infrastructure/Landscaping for a new roadway project, extending a suburban arterial from its current terminus at Tiger Bend Road to Airline Highway. Mr. Trahan is responsible for the development of the traffic analysis, looking at different alternatives, including signalized intersections, roundabouts, and alternative intersections. This project also includes following LADOTD's Traffic Engineering Process and Report, coordinating analysis work with the City-Parish and LADOTD. He assisted in the development of Appendix C – Existing Safety Analysis, which utilizes the Crash1 and Crash3 databases, to conduct spot specific and segment crash analysis, using the CATScan tool.
11/11 - 01/13	S.P. No. H.009997.1: Stage 0 Feasibility Study and Report, LA 935, LADOTD, Ascension Parish, LA. Project Engineer that 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. Task included a conceptual alternatives for the realignment of LA 935, including the typical section, design criteria, plan, and cost estimate.
08/12 - 07/14	S.P. No. H.009998.1: Stage 0 Feasibility Study and Report, Johnston Street Study (US 167), LADOTD, Lafayette Parish, LA. Project Engineer. The US 167 (Johnston Street) Corridor Study is a study to collect and analyze 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.
06/13 - 10/14	S.P. No. H.010570.1: Stage 0 Feasibility Study and Report, Williams Boulevard, LADOTD, Jefferson Parish, LA. Project Engineer for 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 I-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.
07/16 - 08/17	S.P. No. H.012369.1: Safety Studies Retainer Contract, US 190 Barrier Feasibility Study, LADOTD, St. Tammany Parish, LA. Project Engineer for the study of a median barrier within the limits of an existing structure on LA 22. Tasks within this study include existing data collection, geometric layout analysis, safety analysis, field review, bridge rating and structural analysis. A compressive report detailing findings of existing conditions, preliminary plans of a preferred alternative for a barrier system on an existing structure, and a safety analysis of the barrier system.
09/20 - Ongoing	Feasibility Study and Report / TEPR, College Drive, City of Baton Rouge / Parish of East Baton Rouge, Baton Rouge, LA. Project Engineer. He is assisting for 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. 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.
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. He 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. The design tasks include the geometric design of the roadway, subsurface drainage, and the development of the sequence of construction. The drainage area encompassed approximately 225 acres that drains west to east across Siegen Lane and ultimately flowing into Bayou Fountain. A study was conducted on the multiple detention ponds, using a pond modeling program to determine if the box culvert system crossing Siegen Lane would need to be upgraded.

F	irm AECOM				
Mike	Mike Patorno, PE		Years of Relevant Experience with this Employer 27		
Vice Pr	resident		Years of Relevant Experience with Other Employer(s) 12		
Degree(s) / Years / Specialization	BS / 1983 / Civil Engineerii	ng		
Active Regis	tration Number / State / Expiration Date	PE.0024197 / LA / 09/30/2	PE.0024197 / LA / 09/30/2023		
	Year Registered	1991	Discipline Civil Engineer		
Contract Role	e(s) / Brief Description of Responsibilities	MPR 1. Principal. Will ser	ve as Principal-In- Charge - AECOM.		
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properience dates should cover	osed contract; i.e., "designed drainage", "designed girders", "designed the time specified in the applicable MPR(s).		
03/98–04/02	S.P. No. H.004580.5: Re–evaluation of EA and FONSI US 190 in Mandeville from LA 22 to Lonesome Road, LADOTD. Roadway design and preparation of hydraulic calculations and reports for US Highway 190 in accordance with LADOTD requirements. Project involves analysis of cross drains, and roadside subsurface and ditch drainage. Bridge sections and major waterways for a 66–mile section of Highway 190 in St. Tammany Parish for Urban and rural roadways.				
03/08–10/12	USACE, Indefinite Delivery Order for General Design Services for New Orleans District, New Orleans, LA. Program Manager. Managed all civil/structural design components on a variety of projects throughout the District including Melville Ring Levee, West of Algiers Levees and Pumping Stations, Westminster to Lincolnshire Generator and Drainage Pumping Station as well as a variety of other floodwall and levee programs.				
12/07–11/12	USACE, Algiers Canal & Flood Protection, Algiers, LA. Program Manager for civil, structural and geotechnical designs for over 4.5–miles of levees and floodgates. Floodgates numbered over 17 with spans varying from 30–feet to 68–feet in width and many founded on foundations able to support various cranes utilized by industry located along the corridor of a major levee in Jefferson and Plaquemines Parish. Unique challenges on the project were the large crane loads transferred to the levee and flood gate system by the local industry which services Louisiana's local offshore oil industry.				
01/01–12/11	Program Management and Engineering Support Services, New Orleans, LA USACE Hurricane Protection Office (HPO). Directed AECOM's response to this 10-year program to repair and upgrade the City's Hurricane Protection System damaged during hurricane Katrina and Rita. This program included working with the USACE side by side as well as with contractors on design build delivery systems for over \$2B dollars in improvements. In a follow–up contract to the Task Force Guardian program to make repairs after Hurricane Katrina, we marketed and were awarded a contract to assist the HPO with providing improvements to the levee system. Three of the projects were ECI, Early Contractor Involvement which is the USACE's CMAR Process for Design Build.				

08/05–12/07	USACE, Task Force Guardian, Hurricane Katrina Storm Repairs to Levee System New Orleans, LA. Program Manager. Managed multiple task orders simultaneously and completed repairs of thousands of feet of concrete floodwall and levee systems. Provided design and construction oversight services for 29 USACE projects concerning damages to the Orleans Parish Levee System from Hurricanes Katrina and Rita. Managed this very fast–paced project, with the first 17 projects completed and ready for bids within 60 days. Managed a team of over 100 experts in structural, geotechnical, electrical, mechanical, and civil engineering to complete the repairs. Mobilized the management team within 24 hours and the remainder of the team within less than a week from experts in Louisiana and around the country, and in some cases out of the country. Tasks included construction submittal reviews and coordination of construction activities within a total 9–month period. Team won award for performance.
11/05–02/09	USACE-Hurricane Protection Office (HPO) LPV 105–111, New Orleans, LA. Program Manager. In a follow–up contract to the Task Force Guardian program, awarded contract to assist the HPO with providing improvements to the levee system in New Orleans East. Managed all aspects of this \$1.3B geotechnical investigations, feasibility reports, Engineering Alternatives Reports (EARs), design and plans, and specifications for approximately 30 miles of Hurricane Flood Protection System. Worked closely with the HPO team to investigate cost–effective and workable solutions to meet the short time frame. Managed team using staff from multiple offices to maintain HPO's schedule.
08/05–12/07	London Avenue Canal, Interim Closure Structure and Pumping Station, Orleans Parish, LA (Design/CM). Program Manager for the design and analysis of a gated closure structure and a 2,000 cfs pumping station and development of a set of plans and specifications. The project is used to protect outfall canals from surges but permits operation of pumps within the parish during normal rain events. The total project cost was over \$50M. (Professional Services completed 2006, Construction Services completed 2007).
08/05–12/07	Orleans Avenue Canal, Interim Closure Structure and Pumping Station, Orleans Parish, LA (Design/CM). Program Manager for the design and analysis of a gated closure structure and a 1,500 cfs pumping station and development of a set of plans and specifications. The project is used to protect outfall canals from surges but permits operation of pumps within the parish during normal rain events. Most of this project was designed and built during Task Force Guardian under strict time constraints and therefore significant interaction between the contractor and the designers was required. The total project cost was over \$50M. (Professional Services completed 2006, Construction Services completed 2007).

Firm Alliance Transportation Group					
JD A	JD Allen, AICP, WSO-CSSD, TSSP-Rail/Bus			Years of Relevant Experience with this Employer 21	
Executive Vice President		Years of Relevant Experience with Other Employer(s) 9			
Degree(s) / Years / Specialization	MS / 1991 / Community ar BS / 1988 / Economics	id Regional Planni	ining	
Active Regis	tration Number / State / Expiration Date	American Institute of Cert World Safety Organizati	American Institute of Certified Planners: #10501 Transit Safety & Security Professional – Bus/Rail (TSI) World Safety Organization - Certified Safety & Security Director (Bus & Rail)		
	Year Registered	n/a	C	Discipline n/a	
Contract Role	(s) / Brief Description of Responsibilities	Principal. Will serve as Pri	incipal-In- Charge	ge – Alliance Transportation Group.	
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the proper rience dates should cover	osed contract; i.e. the time specified	.e., "designed drainage", "designed girders", "designed ed in the applicable MPR(s).	
11/15 – Ongoing	Technical Assistance for State Safety Oversight, LADOTD, Statewide, LA. Project Manager. LADOTD selected ATG twice (2015 and 2018) to assist with designing, implementing, and maintaining a MAP-21/FAST Act compliant State Safety Oversight (SSO) Program. This project first focused on developing an enhanced oversight program to ensure public safety on the New Orleans streetcar system. The first term resulted in Louisiana being certified under the new FTA SSO rule. The second term is focused on overseeing accident reductions and identifying hazards in current system. Tasks include developing new audit procedures, assisting with submissions to FTA, developing and reviewing new accident investigation procedures for the RTA, and reviewing any new revenue services.				
01/02 - Ongoing	Statewide Technical Assistance for Transit (STAT), LADOTD, Statewide, LA. Project Manager. This project is focused on developing an enhanced oversight program to ensure public safety on the New Orleans streetcar system. The project is critical to securing future federal funding streams in Louisiana. Tasks include implementing the Certification Work Plan, developing the State Safety Oversight Program Standard, developing new audit procedures, assisting with submissions to FTA, developing and reviewing new accident investigations procedures for the RTA, and reviewing any new revenue services.				
05/20 - 8/20	Plank Road/Florida Bo forecasts, existing cond matrix to assist in the pl transit and improvement	Dulevard BRT Feasibility A dition analysis, alternative a rioritization of potential BRT at in transportation interfac	assessment, CAT nalysis. Analysis stops. Goals for es.	ATS, Baton Rouge, LA. Project Principal oversaw the volume s of each location includes the development of an evaluation or the project include improving pedestrian and bicycle-oriente	
09/20 - Ongoing	College Drive OVS, LA Traffic Control Plans, IA corridor-level improven	DOTD, Baton Rouge, LA. JR submittal and traffic del nents to improve safety and	Project Principal (iverables from De l levels of conges	I oversaw the technical oversight of Traffic Management Plans Design Builder. The project includes ramp reconfiguration and estion in the project area.	

06/17 - Ongoing	State Safety Oversight (SSO) On-Call Services, ARDOT, Little Rock, AR. ARDOT selected ATG twice (2017 and 2019) to develop and implement a recommended approach to 49 CFR Part 674 compliance. Compliance implementation will include providing Arkansas with the enhanced enforcement authority necessary to oversee the RFGPTS to obtain FTA certification under Part 674. In addition, ATG will review all Rock Region Metro documents and make recommendations to comply with the new Part 674 State Standard and assist ARDOT with findings of noncompliance that may result from the recent FTA Audit. JD is serving as project manager.
01/19 – 4/19	Safety Management Systems Gap Analysis, Houston METRO, Houston, TX. JD was project manager for a Safety Management Systems (SMS) gap analysis for the METRO rail safety department. The SMS gap analysis was a deep dive assessment of the processes and procedures implemented by the METRO rail department and all other departments that have a role in implementing METRO's rail safety program. The gap analysis focused on areas of improvement in safety culture; infrastructure; organizational and management structure surrounding the safety program; the structure and functions of safety committees and initiatives; the daily function and responsibilities of all METRO rail personnel; the lines of communication across all METRO departments; agency-wide training requirements; and the incorporation of SMS into the agency's plans, policies, and procedures. The results of the gap analysis were utilized by METRO to develop a 49 CRF Part 674 compliant safety program and an Agency Safety Plan.
10/17 – 12/17	P3 Feasibility Study, LADOTD, Statewide LA. Principal responsible for Strategic Implementation Planning, performed feasibility of the tolling highways and bridges in Louisiana. The project included a series of traffic and revenue analyses to assess the viability of six of the mega projects identified in the Louisiana Statewide Transportation Plan for implementation as tolled facilities. Additionally, market demand and mobility improvements obtained from each project and provided LADOTD with an assessment each respective project's viability as a tolled facility.
04/15 – 05/16	Shreveport-Bossier City LRTP 2040 Update, NLCOG, Shreveport, LA. Project Manager responsible for the supervision of all technical analysis and writing aspects of the project, led the public/stakeholder outreach and Delphi demographics update, interacted with the TAC and TPC.
12/14 – 12/15	Monroe 2040 MTP Update, LADOTD, Monroe, LA. Project Manager responsible for the supervision of all technical analysis and writing aspects of the project, led the public/stakeholder outreach, interacted closely with the TAC and TPC.

F	irm AECOM					
Daniel Helms, PE, PTOE, RSP ₂₁		Years of Relevant Experience with this Employer 2		2		
Traffic S	Safety Technical Lead – '	West Region		Years of F	Relevant Experience with Other Employer(s)	19
Degree(s) / Years / Specialization	BS / 1998 / Civil Engineeri ME / 2003 / Civil Engineeri	ng ing			
Active Regis	tration Number / State / Expiration Date	PE.0042486 / LA / 09/30/2 Control Technician – LA St (2018) LADOTD Traffic	022 PTOE #287 tate Specific (2018 Process and Repo	0 / 04/14/2) ATSS ort Parts 1,	2022 RSP ₂₁ #11 / 12/09/2022 ATSSA Tr A Traffic Control Supervisor –LA State Specit , 2 and 3 (2018)	affic fic
	Year Registered	2018	Di	iscipline	Civil Engineer	
Contract Role(s) / Brief Description of Responsibilities		MPR 4. Task 1.0 Stage 0 Effectiveness Evaluation Plans for Low-Cost Safe Effectiveness Evaluation L Design.	Feasibililty Studie n (Task Lead); Tas ety Improvements ead and provide st	es - Traff sk 2.0 Roa s - Bike & upport for	ic Studies (Task Lead); Task 4.0 Safety ad Safety Assessments; Task 3.0 Developr Pedestrian. Will serve as Traffic Studies and r Road Safety Assessments and Bike and Peo	nent of Safety Iestrian
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properience dates should cover	osed contract; i.e., the time specified	"designed in the app	d drainage", "designed girders", "designed blicable MPR(s).	
07/21 – Ongoing	g Road to Zero Performance Dashboard, Texas Department of Transportation (TxDOT), Texas. Highway Safety Technical Lead. Highway Safety Technical Lead for the assessment of Texas' Road to Zero Safety Initiative – looking to eliminate fatal and serious injury crashes from their roadways. The project looks to evaluate the efficacy of the program – at the statewide, district and county level, individual projects, countermeasures, and evaluate Crash Modification Factors (CMFs), using a naïve beforeafter evaluation. Mr. Helms works with staff developing the dashboard to integrate safety performance metrics. He takes the work developed through the dashboard efforts and collaborates with TxDOT Staff to discuss the data analysis and findings.					
09/20 – Ongoing	Feasibility Study and Report / TEPR, College Drive, City of Baton Rouge / Parish of East Baton Rouge, Baton Rouge, LA. Traffic Task Lead. Mr. Helms is responsible for working with various subconsultants on the development and documentation of various traffic operations and safety analyses and provides quality checks to work prior to submittal. This project requires adherence to LADOTD's Traffic Engineering Process and Report.			LA. า ร		
02/20 – Ongoing	MOVEBR Jones Creek Helms is responsible for roundabouts, and altern Report, coordinating an Safety Analysis, which is CATScan tool. For new Any intersections when along with any coordina	Road Extension, Segme In the development of the transitive intersections. This phalysis work with the City-P utilizes the Crash1 and Crass intersections of the project e signalization is the prefer- ation with adjacent traffic si	nts 1A and 1B, Cit raffic analysis, look project also include arish and LADOTD sh3 databases, to o t, signal warrant an red alternative, Mr. gnals.	y-Parish ing at diffe s followin b. He also conduct s alysis will Helms wi	of East Baton Rouge, LA. Traffic Task Lead. erent alternatives, including signalized interse g LADOTD's Traffic Engineering Process and leads the development of Appendix C – Exist spot specific and segment crash analysis, usin be included in the alternative selection proce II develop the signal timings for the intersecti	Mr. ections, ing ng the ess. on,

02/18 – 01/20	East Baton Rouge Parish Ped–Bike Master Plan, LADOTD, Baton Rouge, LA. Project Manager. Consultant project manager, overseeing the day–to–day development of the East Baton Rouge Parish Ped–Bike Master Plan, in partnership with an out–of–state subconsultant. The project included the analysis of crash and infrastructure data, coordination and collaboration with a large and varied group of passionate stakeholders, including participants from all 4 safety E's.
02/19 – 01/20	District 8 Systemic Safety Project, Pedestrians, Ohio Department of Transportation (ODOT). Senior Transportation Engineer. Mr. Helms was responsible for review of data of crash, roadway inventory and socio-economic data, coordinating with and providing guidance for project staff, and working with Project Manager in development of systemic safety analysis and framework for addressing pedestrian crashes using the 4 Safety E's. Data analysis determined focus facilities and areas where pedestrian crashes were over-represented. This process allowed project team to not only develop engineering treatments, but also for education and enforcement strategies.
06/07 – 12/17	Traffic Safety Engineering Manager, Mississippi DOT (MDOT). 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:
	Implement FYA, update signal timings (2014 – 2019): US 51 and SR 463 in Madison and Ridgeland; SR 12 in Starkville; SR 145 in Tupelo; US 49 in Hattiesburg; US 90 in Waveland/Bay St. Louis (engineering was completed prior to departure); US 90 in Pascagoula (crash analysis, countermeasure selection, benefit-to-cost and some engineering completed prior to departure).
	Signalized intersection safety projects included (2007 – 2017): SR 25 in Rankin County (safety and capacity analysis); US 61 at Delta View Road (signal and warrant analysis); US 45 at Ripley Road (safety, signal and warrant analysis); US 98 at Rocky Creek Road, Beaver Dam Road (safety, signal, and warrant analysis); US 45 at Hamilton Road (safety, signal, and warrant analysis); SR 15/SR 67 at Lickskillet Road (safety, signal, and warrant analysis); US 84 at Auburn Road (safety, signal, and warrant analysis); SR 18 at Midway Road (safety, signal, and warrant analysis).
	Other intersection safety projects included (2007 – 2017): US 49 / US 61 at Eagles Nest Road intersection improvement (safety and warrant analysis); SR 67 at Traditions Parkway intersection improvement (safety and warrant analysis); US 84 at SR 35 intersection improvement (safety and warrant analysis); SR 27 at Lee Avenue (safety and warrant analysis); US 84 at SR 184 intersection improvement (safety, signal, and warrant analysis).
	Developed systemic and low-cost safety improvement projects, including paper plan sets/proposals. Projects included:
	• Rural Safety Innovation Program: Crash analysis, field reconnaissance; \$2M Grant to install centerline rumble strips.
	• Cable Barrier installation: Crash analysis, field reconnaissance for median cable barrier on controlled access roadways.
	District 1 Intersection Improvement Project: Crash analysis; screening criteria; Systemic treatments – upsized signing, pavement markings, transverse rumble strips, reflectorized signposts. Treatments based on screening of each intersection.
	• SR 613 Systemic Curve Improvement Project: Crash analysis; screening criteria; Systemic treatments – upsized signing, pavement markings, flashing chevrons, high friction surface treatments (HFST). Treatments based on screening of each curve.
	• Widen shoulders to provide rumble strips: US 61 (Washington County), MS 12 (Washington and Humphreys County)
	SR 2 (Alcorn County): Crash analysis; Clear zone re-establishment; Curve signing; Pavement markings

F	irm AECOM					
Jona	athan McDowell	, PE		Year	rs of Relevant Experience with this Employer	18
Senior	Project Manager			Years of	Relevant Experience with Other Employer(s)	6
Degree(s) / Years / Specialization	BS / 1996 / Civil Engineerir	ng			
Active Regis	tration Number / State / Expiration Date	PE.0030508 / LA / 03/31/2 Control Supervisor–LA Sta (2018) NEPA and Transp	2023 PE.18686 ate Specific (2023 portation Decisior	/ MS / 12) LAD(Making (/21 PE.19772 / AR / 12/21 ATSSA Traffic DTD Traffic Process and Report Parts 1, 2 and 2011) AASHTO Highway Safety Manual (20	3)13)
	Year Registered	2003	D	iscipline	Civil Engineer	
Contract Role	e(s) / Brief Description of Responsibilities	MPR 2, 3. Task 3.0 Devel 1.0 Stage 0 Feasibility St Assessments. Will be res, for Low Cost Safety Impro	opment of Plans tudies - Roadway ponsible for provid vements Lead.	for Low- & Bridge ding Road	Cost Safety Improvements (Task Lead); Ta Alternatives (Task Lead); Task 2.0 Road S Iway and Bridge Alternative and Plan Develop	sk afety ment
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the prope prience dates should cover t	osed contract; i.e., the time specified	"designe in the ap	d drainage", "designed girders", "designed plicable MPR(s).	
01/11–01/13	Stage 0 Feasibility Stage 0 Feasibility Stage of	udy and Report, LA 935, L ned a Stage 0 Feasibility Stu eximately a 4-mile segment were to be considered for a	ADOTD, Ascensi ady in accordance of LA 935 from LA Stage 0.	on Parisl with the A 431 to L	h, LA (H.009998.1). Engineer. AECOM, as a results of the Roadway Safety Assessment (R .A 22 in Ascension Parish. From the RSA three	SA). e
08/12-07/14	Stage 0 Feasibility Study and 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					
09/20–Ongoing	Feasibility Study and Report / TEPR, College Drive, City of Baton Rouge / Parish of East Baton Rouge, Baton Rouge, LA. Project Manager for the 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.					
09/07–07/15	Stage 0 Feasibility Stage	udy and Report and EA, L/ -08-0114). Project Manage and co-author of the engine lestrian and bicycle accomr the Red River to US 71. Task geometric alternatives of th d a median U-turn alternative thur Teague Parkway and US	A 511 Red River B er and Lead Road I eering report for the modations for the is included the dev ne bridge, intercha- ve and off corridor S 71.	Fridge at Design Er he EA. De bridge cru velopmer ange ramp access i	Jimmie Davis Highway, LADOTD, Baton Ro ngineer for the Stage 0 Feasibility Study; Lead signed geometric layout alternatives for capa ossing of the Red River and along Jimmie Dav at of the purpose and need statement, the pro- os on each side of the bridge, and roadway mprovements to improve corridor connectivit	uge, city is ject ty for

07/15 - Ongoing	I-49 Connector, Lafayette Regional Airport to I-10/I-49/US 167 Interchange, LADOTD, Lafayette Parish, LA. (H.004273.5). Project Manager, Leadership Team Member, and Railroad Coordination & Design Task Manager for 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, Jonathan will also perform tasks associated with highway geometrics, highway traffic, and environmental and public involvement tasks.
03/15 -01/17	Stage 0 Feasibility Study and Report, Westside Expressway, Iberville Parish Government, West Baton Rouge, Iberville, Ascension, and St James Parishes, LA. Project Manager and Lead Roadway Designer for 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.
09/15–04/17	Multimodal Transportation and Traffic & Safety Analysis, and 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				
Sam	uel Higgins, PE,	PTOE		Years of Relevant Experience with this Employer	5
Senior	Traffic Engineer			Years of Relevant Experience with Other Employer(s)	13
Degree(s) / Years / Specialization	MSE / 2013 / Transportatio BSCE / 2000 / Transportat	on Engineering tion Engineering		
Active Regis	tration Number / State / Expiration Date	PE.0039257 / LA / 03/31/2	2023 PTOE #39	12/07/21/2024	
	Year Registered	2014	E E	Discipline Civil Engineer	
Contract Role	e(s) / Brief Description of Responsibilities	MPR 4. Task 1.0 Stage 0 responsible for providing	Feasibililty Stud	l ies - Traffic Studies - Traffic Engineering. <i>Will be</i> g <i>Support.</i>	
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properience dates should cover	osed contract; i.e the time specified	., "designed drainage", "designed girders", "designed d in the applicable MPR(s).	
05/17 – 08/18	Jimmie Davis Bridge, Davis Bridge in Shrevep	Shreveport, LA. Task Lead port, LA. Samuel served as	d. AECOM is conc task lead for the t	lucting schematic design and traffic analysis of the Jimn raffic analysis of the bridge and surrounding study area.	nie
08/17 - 07/18	Earhart Expressway Connector, New Orleans, LA. AECOM is conducting schematic design of the Earhart Expressway Connector from US 61 / Airline Drive to Dickory Avenue. In support of the schematic alternatives, Samuel is performing a traffic evaluation including development of traffic projections and analysis of key intersections.				affic
08/17 - 07/17	Jimmie Davis Bridge, Shreveport, LA. Samue	Shreveport, LA. AECOM is I served as task lead for the	s conducting sch e traffic analysis c	ematic design and traffic analysis of the Jimmie Davis Br of the bridge and surrounding study area.	ridge in
06/16 - 03/20	120 LNG Storage and Transfer Facility Safety Study, Calcasieu Parish, LA. Samuel served as project manager for the Hazardous Materials Safety Study for a Liquid Natural Gas storage and transfer facility in Calcasieu Parish, LA south of Sulphur. He downloaded crash statistics for nearby roads based and analyzed the impacts that additional hazardous materials trucking might have on safety of the study area.				
05/17 – 12/20	Mobility35 – Capital R program in the Capital F corridor wide projects a corridor. Samuel serves including: safety analys of problem areas for as and a comparison of ex Capital Express, Rundb 45N, US 183, US 290, S	egion, Austin, TX. AECON Region from FM 1431 in Rou aimed at improving mobility s as the traffic lead respons is reviews, feasibility review sistance in design, traffic ar press lane alternatives. His erg to US 290E, and the Pa H 71, and SH 45S. Analysis	I serves as the Ge and Rock to SH 4 and safety goals bible for a wide rar vs, IAJR reviews, I nalyses requeste support, reviews rmer DDI. Analysi tools include ISA	eneral Engineering Consultant for TxDOT for the Mobility 5 SE near Buda. Improvements include stand alone and through the Austin area segment of this critical statewic nge of tasks associated with safety and traffic modeling Design Exception form preparation, TIA reviews, spot an d by key stakeholders, corridorwide analyses for fatal fla , and coordination have been central to key projects suc is segments included direct connector interchanges at § Te and IHSDM.	'35 de alysis iws ch as SH

08/16 - 07/18	IH-37 Corridor Study, Corpus Christi to San Antonio, TX. The limits of the project are from I-410 in San Antonio to I-69 in Corpus Christi including the direct connector interchange of I-37 and US 77. The study involves the analysis of the existing transportation system, corridor feasibility analysis, analysis of current and future transportation needs, preparation of cost estimates, support for meetings with stakeholders to be established for the study, travel demand modeling and concept design development, preliminary environmental analyses, the development of program and project implementation documents, and the development and use of various public outreach activities. A performance-based approach is included in the feasibility planning program activities that support statewide and national transportation goals. The study included identification of performance (Safety, Mobility, Freight, Pavement, and Bridge). Samuel led multiple efforts including GIS, safety and mobility data collection, and the existing conditions summary including mobility and safety performance. The safety evaluation included heat maps and crash statistic summaries to better identify safety needs and mitigation.
05/18 – 02/22	Transportation Engineering Services, Austin, TX. AECOM is currently serving the Austin Transportation Department in a four- year \$10M contract that provides a wide range of transportation and traffic engineering services such as detailed intersection crash mapping, speed studies supporting Vision Zero initiatives, intersection safety improvement design, an update to the downtown transportation plan, and roundabout feasibility studies. Samuel serves as the Project Manager for the project.
01/15 - 12/15	US 270 Operational Analysis, Piney, AR. US 270 project near Piney, Arkansas extends over 3 miles from the Oachita River bridge to Highway 227. The section is being widened from a two-lane facility to a five-lane facility including bike lanes in the eastern segment of the project. Samuel served as project manager for the study of the US 270 corridor in support of the schematic roadway design. Nine intersections were studied along the corridor, and the corridor study included evaluations of intersection LOS, historical crash data, traffic signal warrants, and identification of proposed intersection improvements. Included in those intersections is the highly skewed intersection at Highway 227 which posed several challenges: the intersection was highly skewed, the north and south legs were not well aligned, there were several driveways within 400' of the intersection, and high demand created congestion in the peak hours. Several alternatives were evaluated for this intersection including: two conventional turn bay alternatives, a multilane roundabout, and realignment of the southern leg to form two T intersections spaced 700' apart.
09/13 - 04/14	IH-35 from IH-410 to US 90, San Antonio, TX. Samuel performed an operational and safety analysis for IH-35 from IH-410 North to US 90, as part of an overall corridor improvement project on IH-35. For the IH-37 / US 281 Interchange Weave project, He downloaded existing crash data, prepared summary statistics, and performed a predictive crash analysis for No Build and Build conditions.

F	irm AECOM				
Thomas Hunter				Years of Relevant Experience with this Employer	24
Princip	al Planner		Ye	ars of Relevant Experience with Other Employer(s)	12
Degree(s) / Years / Specialization	BLA / 1984 / Landscape A	rchitecture		
Active Regis	tration Number / State / Expiration Date	Certified AECOM Project Making Course / 2008	Manager National Improving the Quality	Environmental Policy Act (NEPA) & Transportation De of Environmental Documentation Course (NEPA) 20	ecision
	Year Registered	n/a	Disc	ipline n/a	
Contract Role	e(s) / Brief Description of Responsibilities	QA/QC / Technical Advis <i>Advisor.</i>	sor - Environmental	Stage 0. Will serve as Environmental/Stage 0 Techn	ical
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properience dates should cover	osed contract; i.e., "d the time specified in	esigned drainage", "designed girders", "designed he applicable MPR(s).	
10/06–12/07	I-210 Stage 0 Corridor Study Route I-210, LADOTD, Lake Charles, LA. (701-65-0710 & 701-65-0899). Planner. AECOM conducted a comprehensive traffic and transportation study for the Interstate 210 (1- 210) Corridor in Lake Charles to quantify deteriorating traffic operational conditions and to define transportation strategies that would contribute to long term mobility and the economic viability of the area. The 12-mile corridor spans between Interstate 10 (1-10) at Exit 34, to 1-10 west of the Calcasier River and includes nine interchanges. The objective of the study was to identify and evaluate existing transportation resources and opportunities; to identify current and future transportation capacity and operational deficiencies; and to identify operational and geometric improvements for the 1-210 Corridor				tify ty and casieu ces ional
11/10–03/14	Stage 0 Feasibility Sta Orleans, LA. Project M Managed all aspects of including new VA and U estimating and stakeho travel lane in each direct	udy and Report, US 61 / To lanager for preparing a Sta the project including devel MC hospitals in the corridc older and public involvement stion with enhanced bike, pe	ulane Avenue Carro ge 0 Feasibility Repo lopment of purpose a or, VISSIM modeling, a it. Alternatives includ edestrian and transit	Iton Avenue to Claiborne Avenue, NORPC, New rt for a 1.7-mile urban section of Tulane Ave in New O nd need, existing conditions analysis, traffic forecas Iternatives development, environmental checklist, c ed complete streets concepts with elimination of on operations.	rleans. ting ost e
09/20–Ongoing	Feasibility Study and Project Director for the Drive and its vicinity be development of numero Streets and green infra 0 Project and Scope an funding for the project I	Report / TEPR, College Dr Design Study, Traffic Study tween Perkins Road and Ba ous concepts to enhance o structure improvements. Pr d Environmental Checklists peyond the allocation of the	rive, City of Baton R , and Preliminary Plan well Street inclusive operational capacity a reliminary alternative s in order to apply for e parish MOVEBR bor	ouge / Parish of East Baton Rouge, Baton Rouge, as for the completion of roadway improvement on Co of the interchange with I-10. The Design Study will in and efficiency along the corridor while including Com s were developed and documented using LADOTD S state and federal funding grant applications to expan and funds. Completed the Stage 0 checklists.	LA. ollege clude plete otage nd

09/15–04/17	Multimodal Transportation and Traffic & Safety Analysis, and Transportation Plan (NODTA), City of New Orleans Department of Public Works, New Orleans, LA. As the Project Director Thomas oversaw this multi-modal transportation analysis and plan for the New Orleans Downtown and historic French Quarter Thom 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.
02/14–11/14	Stage 0 Feasibility Study and Report, Weinberger Road, RPC, St. Bernard Parish, LA. Project Manager responsible for leading the evaluation of alternatives to reroute heavy truck traffic from Aycock Street through the Arabi Historic District associated with Domino's Sugar Refinery onto the Port of St. Bernard primary access road, Weinberger Road. After the existing and forecast traffic analysis was complete alternatives were developed to reroute truck traffic away from Aycock Street onto Weinberger Road and complete street concepts were applied to Aycock Street to reconnect and enhance the Arabi Historic Neighborhood.
10/06–12/07	Stage 0 Feasibility Study and Report, Route LA 97, Jennings, LA, State Project No. 701-65-1183. Sr. Transportation Planner assisted in development and evaluation of alternatives for geometric improvements to widen LA 97 from 2-lanes to 3-lanes within the existing right-of-way. Within a 1-mile segment, intersection upgrades, subsurface drainage improvements, and construction cost estimates were also developed.
03/07–01/08	Stage 0 Feasibility Study and Report and Environmental Assessment. Globalplex Intermodal Terminal Connector Roadway (LA 637) St. John the Baptist Parish, Port of South Louisiana (PSLA). Project Manager responsible for development of a Stage 0 Feasibility Report and preparation of an Environmental Assessment (EA) associated with the 1.5-mile widening of LA 637 (West 10th Street) between US Highway 61 and the PSLA Globalplex Terminal. Responsible for project management and technical oversight of project deliverables, stakeholder coordination and public involvement. A FONSI was issued by FHWA in August 2009.
08/06–06/07	Stage 0 Feasibility Study and Report, I-210 "Buttonhook" Ramp Addition at Admiral King Street, State Project No. 701- 65-0709. Sr. Transportation Planner responsible for assisting in evaluating the feasibility of adding a "buttonhook" type ramp on Interstate 210 westbound from Admiral King Street in Lake Charles. Analysis focused on the limited existing right-of-way and geometric alignment needs for the proposed ramp, as well as its effectiveness on the local transportation network. A point-of- access report was prepared for FHWA, as well.
08/06–02/07	Stage 0 Feasibility Study and Report, East Prien Lake Road Right-Turn Lane, State Project No. 701-65-0713. Senior Transportation Planner responsible for evaluation of the need and effectiveness of the addition of a right-turn lane on east-bound East Prien Lake Road at its junction with LA 14 in Lake Charles. Geometric improvements within the existing ROW and costs were key factors of the evaluation.

F	irm AECOM				
Dere	Derek Chisholm AICP, ENV SP, LEED GA			Years of Relevant Experience with this Employe	r 6
Princip	al Planner			Years of Relevant Experience with Other Employer(,) 23
Degree(s) / Years / Specialization	MPA / 1997 / Public Affairs BS / 1994 / Organizational	s Management		
Active Regis	tration Number / State / Expiration Date	American Institute of Cert Associate; (LEED GA) E Report Parts 1, 2 and 3 (20	ified Planners (Al(nvision Sustainat)21)	CP) Leadership in Energy and Environmental Designation Professional (ENV SP) LADOTD Traffic Process	n, Green and
	Year Registered	n/a	C	Discipline n/a	
Contract Role	e(s) / Brief Description of Responsibilities	Task 2.0 Road Safety As & Pedestrian Alternative & Scoping - Environmen Improvements - Bike & P	sessments (Task es (Task Lead); Ta tal Review; Task edestrian. Will se	c Lead); Task 1.0 Stage 0 Feasibility Studies - Bike ask 1.0 Stage 0 Feasibility Studies - Environment 3.0 Development of Plans for Low-Cost Safety <i>erve as Bike and Pedestrian Lead.</i>	al
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the prop rience dates should cover	osed contract; i.e. the time specified	, "designed drainage", "designed girders", "designed d in the applicable MPR(s).	
09/20-Ongoing	Feasibility Study and CSS Task Lead for the I Road and Bawell Street	Report / TEPR, College D Design Study for the compl inclusive of the interchang	rive, City of Bato etion of roadway e with I–10. Derel	n Rouge / Parish of East Baton Rouge, Baton Rouge improvement on College Drive and its vicinity betweek is assisting with GI, and Complete Streets.	e, LA. n Perkins
09/15-04/17	-04/17 Multimodal Transportation and Traffic & Safety Analysis, and Transportation Plan (NODTA), City of New Orleans Department of Public Works, New Orleans, LA. Lead Planner for 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				
11/17–Ongoing	11/17–Ongoing S.P. No. H.001779.2, Jimmie Davis Bridge Supplemental EA, LADOTD, Bossier and Caddo Parishes, LA. Derek has 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.				
10/16–Ongoing	S.P. No. H.004273.5, I–49 Lafayette Connector Project, LADOTD, Lafayette, LA. Derek serves 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 current CSS and the Section 106 consultations.				
03/06-02/13	Columbia River Cross improvements between Transit system. As the C environmental docume	ing, Portland, OR. This pro Portland Oregon and Van Consultant Environmental T ntation, plan amendments,	oject included a m couver Washingto eam Manager, De and numerous im	ajor bridge over a navigable waterway with multi–mo on, including the extension of the Portland Light Rail erek worked with the design teams and others to prep apact analyses.	are

11/18–04/20	FHWA Synthesis Report on Automated Vehicles and NEPA, Nationwide. Derek is the Project Manager for this national study of the manner in which automated vehicles are being incoorpate in NEPA analysis. The draft report has been submitted to the FHWA Project Manager. It includes over a hundred pages with a literature review covering all relevant legislation and guidance as well as the findings from numerous modeling studies showing the benefits of platooning, connectivity and other advancements on highway system performance. The team interviewed various subject matter experts and DOT leaders who were working on AV deployment projects and NEPA studies, nationwide.
04/19 - Ongoing	FHWA Synthesis Report on Automated Vehicles and NEPA, Nationwide. Derek is the Project Manager for this national study of the manner in which automated vehicles are being incorporated in NEPA analysis. FHWA Synthesis Report, National Baseline for Complete Streets Implementation, Nationwide. Derek is leading a team that is beginning a study of Complete Street Policy implementation at the nation's 52 DOTs. The project will identify key performance indicators; execute a national survey of DOT leadership; identify gaps, notable practices and recommendations.
03/14–09/16	Lakeshore Drive Safety Study and Reconfiguration, New Orleans, LA. The Orleans Levee District was concerned about pedestrian safety along the popular tourist and neighborhood corridor. Derek managed the safety study and developed the roadway reconfiguration concept. The new design reduces the four-lane road to two lanes with center turn pockets. Pedestrian refugees, raised speed-table crossings and RRFBs have been constructed.

F	irm AECOM					
Johr	John Song, PhD, PE, PTOE				rs of Relevant Experience with this Employer	13
Vice Pr	resident			Years of	Relevant Experience with Other Employer(s)	10
Degree(s) / Years / Specialization	PhD / 2003 / Transportatic ME / 1997 / Transportation BS / 1994 / Transportation	on Engineering Engineering Engineering			
Active Regis	tration Number / State / Expiration Date	#97507 / TX / 03/31/2022	PTOE #2798 /	/ 12/31/202	24	
	Year Registered	2006	E	Discipline	Civil	
Contract Role	e(s) / Brief Description of Responsibilities	QA/QC / Technical Advis	or - Traffic. Will	serve as T	raffic Technical Advisor.	
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 the time specified	., "designe d in the ap	ed drainage", "designed girders", "designed plicable MPR(s).	
01/17 - 01/19	Smart Work Zone Pro IDC. John managed this assessment for Smart	j ect, TxDOT, Austin, TX. Pr s project to develop a statev Work Zone for Austin IH 35 I	roject Manager. T wide work zone I7 Mobility Program	This projec FS guidelir 1.	t is the first WA under a statewide Traffic/ITS ne, standard and specifications as well as need	
02/17 - 08/18	Mobility35 GEC, TxDOT, Austin, TX. Traffic/ITS Task Lead. John is overseeing the traffic and ITS related tasks including planning, design, O&M for Mobility35 – a comprehensive program to develop projects to improve mobility and safety for the 79-mile I-35 corridor in Ausitn, Texas. He is responsible for overseeing and reviewing Project Design Consultant's traffic models, IAJR, corridor planning report, ITS planning and design. A highlight is a Travel Information System Dashboard he developed to integrate multiple ITS data sources for informed decision making on lane closure activities.					
10/16 - Ongoing	Florida Turnpike, Connected and Autonomous Vehicle Modeling, FL. Task Lead. Florida Turnpike requested AECOM to develop a travel, and on next line autonomous demand model to evaluate future impacts of toll revenues due to connected and automous vehicles. John serves as Risk Analysis task lead to develop sensitivity testing and risk analysis for various CAV scenarios.					V
10/16 - 08/17	Strip Map and Signage Inventory System WA#1& WA#2, TxDOT, Austin, TX. Project Manager. This is the third WA under a traffic engineering IDC for TxDOT Austin District. John led a team to prepare strip maps and build a signage inventory system for over 1,200 miles roadway in Austin District. Developed an innovative tablet-based app to collect signs and a GIS-based signage inventory system with hot-link photos.					
01/13 - 03/14	Caldwell County Trans data analysis tasks for t travel demand model a	sportation Plan, Capital A his project and prepared th nd forecasting, conduct exi	rea MPO, Austin le first Transporta sting and future o	n, TX. Task ation Plan condition a	Lead. John led the travel demand forecasting for the County. His responsibilities included: pe analysis for bridges, traffic safety and freight.	and rform

10/11 - 06/13	FM 969 Corridor Development Program, City of Austin, Austin, TX. Project Manager. John managed this development program for the 11-mile FM 969 corridor between US 183 and Webberville in Austin including public involvement, traffic analysis and simulation with SYNCHRO and VISSIM, traffic forecast with CAMPO Travel Demand Model, schematics development, and corridor program report. The program evaluated multi-modal LOS including vehicular traffic, transit, bike and pedestrians and recommended improvements for each mode. The final report approved by the City Council.
08/09 - 08/12	Manor Expressway Level 3 Toll and Revenue Study, Central Texas Regional Mobility Authority (CTRMA), Austin, TX. Task Lead. This study includes a comprehensive data collection effort that serves as the calibration set for the proprietary URS toll diversion model used to estimate overall demand in the region and specifically tolled traffic on the facility. As TL, John calibrated the toll diversion model utilizing the most recent trends in toll road usage with respect to transponder penetration, motorists' value of time, development patterns in the region and corridor, and multiple other variables. He used the model to estimate future tolled traffic and toll revenue for a 40-year bonding period. Toll traffic and revenue sensitivity tests and risk analysis were also conducted as part of the study.
11/08 - 08/10	VIA Bus Rapid Transit Preliminary Engineering and Environmental Assessment, VIA Transit, San Antonio, TX. Task Lead. Led the traffic engineering analysis task for the 9-mile bus rapid transit corridor. Conducted peer review of the VISSIM model, performed hot spot traffic analysis with VISSIM / SYNCHRO model and developed mitigation measures and cost estimates to evaluate both auto and bus LOS. Performed traffic forecasting for alternative project configurations using the MPO's Travel Demand Model. Conducted traffic impact analysis (TIA) for two proposed transit centers.
03/09 - 12/10	Transportation Master Plan Update, City of Round Rock, Round Rock, TX. Deputy Project Manager. John oversaw the projects as DPM and led traffic forecasting and transportation plan development tasks. Reviewed socio-economic and network data. Updated, calibrated and validated a local travel demand model. Conducted traffic forecasting and roadway project planning. Evaluated the feasibility of light rail development.

Firm Alliance Transportation Group					
Edw	in (Ed) E. Elam, II	I, AICP, PTP, TSSF	? Rail	Years of Relevant Experience with this Employer	1.5
Region	al Vice President, Gulf C	oast		Years of Relevant Experience with Other Employer(s)	28.5
Degree(s	;) / Years / Specialization	MURP / 1990 / Urban and F BA / 1988 / Political Science	Regional Planning ce/Public Adminis	g stration	
Active Regis	tration Number / State / Expiration Date	American Institute of Cert Safety and Security Progra	fied Planners #1 am-Rail, TSSP-Ra	0672 Professional Transportation Planner #446 Tr ail, 9/23/2021	ansit
	Year Registered	n/a	[Discipline n/a	
Contract Role	e(s) / Brief Description of Responsibilities	Task 1.0 Stage 0 Feasibil Engineering Support.	ilty Studies - Tr	affic Studies - Safety. Will be responsible for providing	Safety
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 the time specifie	., "designed drainage", "designed girders", "designed d in the applicable MPR(s).	
2021 - Ongoing	Safety Management Systems Implementation, Chattanooga Area Regional Transportation Authority (CARTA). Project Planner. Ed is a project planner and deputy project manager, working on a multi-year safety management systems compliance program for CARTA. In his role, Ed completed reviews of individual plans and practices, helps to inform the team and CARTA of safety-related issues of their operational environment for the Lookout Mountain Incline, as well as their fixed-route, care-a-van and parking garage operations. Tasks include assisting with submissions to the TDOT State Safety Oversight and FTA based upon appropriate compliance actions taken by CAPTA on baself of their operations.				
2020 - Ongoing	Technical Assistance for State Safety Oversight (TASSO) On-Call Services, LADOTD, State of Louisiana. Project Planner. Ed is part of the technical staff assisting LADOTD with the FAST Act compliant State Safety Oversight (SSO) Program for the enhanced oversight program to ensure public safety on the New Orleans streetcar system. Tasks include assisting with submissions to FTA and developing/reviewing ongoing compliance actions taken by New Orleans Regional Transit Authority (NORTA) for streetcar operations				
Ongoing	Technical Assistance for State Safety Oversight, ARDOT, State of Arkansas. Project Planner. Ed is part of the technical staff assisting ARDOT with the FAST Act compliant State Safety Oversight (SSO) Program for the enhanced oversight program to ensure public safety on the Little Rock streetcar system. Tasks include assisting with submissions to FTA and developing/ reviewing ongoing compliance actions taken by Rock Region Metro (RRM) for streetcar operations.				
2018-2109	LA 22 Traffic Circulati Manager. Ed provided r study documents. The DOTD District 62 traffic (using DOTD data) to de DOTD District 62 took p overall traffic flow. Proje purpose to provide ong corridor.	on and Corridor Analysis neeting facilitation for all pro planning feasibility study fo study of improvements in t etermine accident causes a place to confirm recommen ect management committee joing input to the study and	(CC Road to Dur bject meetings, p llowed the DOTD he area. Reviews nd concentratior dations would all e included repres evaluate recomr	tch Road), NORPC, St. Tammany Parish, LA. Project Pl project management, and QA/QC review for the initial con Stage 0 process and incorporated data from an existing of the corridor took place to determine accident hot sp ns. Evaluation of improvements identified in the corridor eviate the cause of accidents in the corridor and improv sentatives of DOTD, RPC, and St. Tammany Parish with the nendations for traffic capacity improvements along the	anning rridor g ots by re ne LA 22

2017	Shreveport/Bossier MPO Major Thoroughfare Plan, Northwestern Louisiana Council of Governments, Caddo and Bossier
	Parishes, LA. Project Planner. Project planner who worked collaboratively to develop the major thoroughfare plan, specifically
	elements which defined the existing network and adoption of recommendations. developed a corridor screening process to
	pair complete street improvements on collectors and arterials with parks, schools, and transit routes to establish priorities for
	complete street upgrades in the study area. Provided implementation language based on Louisiana Revised Statutes that allowed
	participating municipalities the ability to adopt recommendations based on the prevailing Major Street Plan provisions within state
	enabling legislation.

Firm Alliance Transportation Group					
Mark Ingram, PE, PTOE			Years of Relevant Experience with this Employer	5	
Vice Pi	resident of Engineering			Years of Relevant Experience with Other Employer(s)	24
Degree(s	;) / Years / Specialization	BS / 1992 / Civil Engineering			
Active Registration Number / State / Expiration Date		PE.0040497 / LA / 09/30/2022 #87754 / TX / 12/31/2022 PTOE #2975 LADOTD Traffic Process and Report Parts 1, 2 and 3 (2019)			
	Year Registered	2016	Discipline Civil Engineer		
Contract Role(s) / Brief Description of Responsibilities		QA/QC / Technical Advisor - Safety/Safety Evaluation. Will serve as Safety/Safety Technical Advisor.			
Experience Dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).				
02/19 - 08/19	19 Lighthouse Road at LA 82 Intersection Analysis, Cheniere Energy, Cameron, LA. Project Manager. Mark served as the project manager and engineer-of-record for the intersection analysis of LA 82 and Lighthouse Road. The primary focus of the study was to review existing and future intersection improvements based on a projected increase in the Cheniere operations at this location. The study focused on intersection to a modern roundabout. The study included an evaluation of existing 24-hour turning movements on a typical weekday, estimation of the queue lengths, and determination if intersection improvements are recommended. An analysis for year 2023 was performed based on volume projections from input on the LNG terminal expansion and general growth in the area. As part of the alternative analysis, the existing and future conditions were evaluated using the Highway Capacity Software for the evaluation of the traditional improvements such as left turn lanes and right turn lanes. Measures of effectiveness included level or service, delay, and queue length. The modern roundabout was evaluated using SIDRA and level of service as a measure of effectiveness. A traffic signal warrant analysis was performed using the warrants outlined in the Manual on Uniform Traffic Control Devices (MUTCD). A safety analysis was performed by evaluating crash rates, and crash types at the existing intersection. The Highway Safety Manual methodology for predicted crash frequency was applied to establish a reduction in crashes for each intersection alternative considered. The analysis resource, and right turn lane along westbound LA 82 and a right turn lane along eastbound LA 82 at Lighthouse Road. A schematic of the proposed improvements was prepared which included storage lengths, an evaluation of intersection sight distance, and right urplate the proposed improvements was prepared which included storage lengths, an evaluation of intersection sight distance, and right urplate and isolate the propertion of and sealed by Wark.				

05/19 - 03/20	Intersection Study (South Rice at Jessamine Street), City of Bellaire, Bellaire, TX. Project Manager. The study evaluated existing and future operations at the intersection of South Rice and Jessamine Street associated with the expansion of on-street parking for the city hall expansion project. Operational periods analyzed included the AM Peak, Mid-Afternoon Peak (due to the proximity of Condit Elementary School), and the PM Peak. Recommendations included adjustments to the lane assignments and intersection signalization. Timing adjustments were recommended and implemented in the field. Measures of effectiveness for this study included Level of Service (LOS), and intersection delay. A safety analysis was performed to determine if there was an existing safety issue to address prior to implementation of any recommended intersection improvements. The safety analysis looked at crash type and location over a three-year period.
10/18 - 10/19	New Orleans Streetcar Safety Evaluation, LADOTD, New Orleans, LA. Traffic Engineering Task Lead. Mark was the lead traffic engineer for the New Orleans Streetcar Safety Evaluation as part of the state safety oversight (SSO) program. Safety evaluations included comprehensive site visits and operational evaluations. A technical report was prepared which outlined safety concerns related to traffic signal operations, signing, pavement marking, and existing interactions with vehicular traffic and pedestrians throughout the RTA streetcar system. Mark provided technical recommendation based on best practices, providing safety countermeasures to both DOTD and to other stakeholders.
05/20 - 08/20	Plank Road/Florida Boulevard BRT Feasibility Assessment, Capital Area Transit System (CATS), Baton Rouge, LA. Project Manager Mark is the project manager for the feasibility assessment of two future BRT lines for the CATS in Baton Rouge. The analysis includes an evaluation of existing roadway conditions, land uses, as well as pedestrian access and circulation for potential Bus Rapid Transit (BRT) stops along Plank Road and Florida Boulevard. Analysis of each location includes the development of an evaluation matrix to assist in the prioritization of potential BRT stops. This analysis includes an evaluation of each location to accommodate future BRT stations and anticipated station amenities such as bus information systems, kiosks, and Wi-Fi. Goals for the project include improving pedestrian and bicycle-oriented transit and improvement in transportation interfaces.
02/16 - 09/16	Safety Analysis, City of Sugar Land, Sugar Land, TX. Traffic Engineering Director. Mark was the traffic engineering director for the evaluation and documentation for the type, location, and severity of vehicular crashes within the City of Sugar Land. The analysis was a period of three years of crash data and the evaluation of date/time, location, type, severity and weather information from the accident database. Crash location data was imported into a GIS database and mapped to provide a graphical representation of crash locations within the city. Mitigation considerations to help reduce crash rates included sight distance evaluations, adjustments to signing and pavement markings, improved lighting, traffic signalization warrants, and access management.
11/18 - 02/20	Transit Shelters and Facilities Design, Capital Area Transit System (CATS), Baton Rouge, LA. Traffic Engineering Task Leader. Mark was the traffic engineering task leader for the evaluation of potential bus rapid transit bus stops. This evaluation included traffic operations and safety along Plank Road and Florida Boulevard in Baton Rouge. Mark evaluated seven bus rapid transit (BRT) stations along Plank Road and eight BRT stations along Florida Boulevard. This included potential and existing "bus cut-outs" for geometric design with respect to right-of way, traffic queues, intersection spacing, driveway spacing, parking, ADA compliance, bike access, and pavement design. Mark also evaluated the implementation of transit signal prioritization and interconnected signalization systems using Intelligent Transportation Systems (ITS). Responsibilities included conducting field observations; developing concepts and providing site analyses; assisting with traffic engineering and roadway geometrics; as well as developing preliminary site designs. Once these tasks were performed, ATG was responsible for preparing permit construction plans and developing cost estimates and construction schedules.

F	irm AECOM					
David Wymore, PE				Years	s of Relevant Experience with this Employer	7
Associate Vice President			Y	Years of F	Relevant Experience with Other Employer(s)	12
Degree(s) / Years / Specialization	BS / 2002 / Civil Engineerir	ng			
Active Registration Number / State / Expiration Date		PE.0043157 / LA / 03/31/2023				
	Year Registered	2018 Discipline Civil Engineer				
Contract Role	e(s) / Brief Description of Responsibilities	QA/QC / Technical Advisor - Roadway/Plan Development. Will serve as Roadway/Plan Development Technical Advisor.				
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).					
12/18 – 05/19	S.P. No. H.011670, I-10 to Loyola Dr. Interchange (Design Build), Tender Offer, Boh Bros, LADOTD, Jefferson Parish, LA. Roadway Design Manager for a design build proposal to modify the I-10 interchange at Loyola Drive to provide direct access connector ramps for traffic flowing to and from the new passenger terminal at Louis Armstrong International Airport. Led QC design team in review of proposal plans, proposal narrative, and ATC evaluations. Checked quantity takeoffs for consistency with plan set. Contributed to development of design build teams proposal narrative.					
01/19 – Ongoing	Broadway St. Design-Build for Reconstruction of Main Lanes from Houston St. to IH 35, City of San Antonio, San Antonio, TX. As Design Manager, oversaw the design of 1 miles of city street reconstruction. The reconstruction consisted of a complete replacement of the city street. The project consisted of reconstructing an existing 4-lane City of San Antonio street. The project included a complete street concept, side street parking, multiple utility relocates, ESA I&II, sidewalks traffic signals, and drainage improvements. He also managed 6 subconsultants.					
08/14 – 12/16	IH-10 , PS&E , TxDOT , Sealy , TX. As Project Manager, David oversaw the design of Segment 1 which is 3.0 miles of main lane and frontage road reconstruction. The reconstruction consisted of a complete replacement of main lanes, frontage road, cross streets, and bridges. The project consisted of reconstructing an existing 4-lane main lane concrete pavement divided facility to a proposed 6-lane concrete pavement undivided facility and reconstructing existing frontage roads on either side. David developed the horizontal and vertical alignments for the main lanes, 2 frontage roads, 9 ramps, 2 cross streets and 4 bridges. He designed 11 mechanically stabilized earth (MSE) retaining walls. David designed a traffic control plan which narrowed lanes but maintained the existing number of lanes throughout construction including a reversible HOV lane. The existing ingress and egress points between the main lane and frontage roads were maintained the full 24 months of construction. Oversaw the removal, drainage, signing, pavement markings, CTMS, overhead sign bridges, storm water pollution prevention plans, bridge specifications and cost estimates. He also managed 8 subconsultants.				e ross ty d 35. nes the ge	

12/10 - 04/12	US 79, PS&E for Reconstruction of Two-Lane Roadway to Four-Lane Roadway, TxDOT, Houston, TX. As Project Manager, prepared construction documents for widening an existing 2 lane undivided facility to four lanes with a continuous left turn lane for 1.4 miles and upgrading the existing 2 lane undivided facility to a four-lane divided facility for 2.9 miles. David used Geopak to develop the horizontal and vertical alignments. The project consisted of widening four existing culverts. He also developed a new drainage scheme to accommodate the additional impervious area. The project required the realignment of two County Roads.
08/06 – 06/10	US 290 (Segment 4) PS&E, TxDOT, Houston, TX . As Project Manager, oversaw the design of Segment 4 which is 2.0 miles of main lane and frontage road reconstruction. The reconstruction consisted of a complete replacement of main lanes, frontage road, cross streets, and bridges and reconstructing an existing 8-lane main lane concrete pavement undivided facility to a proposed 10-lane concrete pavement undivided facility and reconstructing existing frontage roads on either side. David developed the horizontal and vertical alignments for the main lanes, 2 frontage roads, 6 ramps, 4 cross streets and 8 bridges. He designed 10 mechanically stabilized earth (MSE) retaining walls, 9 sound walls, and 4 pedestrian block walls. Designed a traffic control plan which narrowed lanes but maintained the existing number of lanes throughout construction including a reversible HOV lane. The existing ingress and egress points between the main lane, frontage road, and HOV were maintained the full 38 months of construction. The project required the design of 3 diamond intersections and 13 high mast lights to be installed. Extensive grading was required for constructing 8 bridge header banks, 5 detention ponds totaling 140 acre-ft of storage and raising the existing frontage road up by 3 feet. Oversaw the quantities to include removal, drainage, signing, pavement markings, CTMS, overhead sign bridges, storm water pollution prevention plans, bridge specifications and cost estimates.
06/11 – 02/12	Gaines Road, Widen Intersection and Signal Improvements, Fort Bend County, Houston, TX. As Project Manager, David prepared construction documents for widening the existing intersection along Gaines Road and installing a signalized intersection. David redesigned the existing open ditch to a closed storm sewer.
02/11 – 06/12	South Mayde Creek, New Construction of Neighborhood Road, TxDOT, Houston, TX. As Project Manager, David performed construction oversight for approximately 9,600 LF of 10-foot wide trail for pedestrian and bicycle use along South Mayde Creek. The trail is located along the north and south banks of the existing Harris County Flood Control District (HCFCD) drainage channel (South Mayde Creek) between Key Hole Lane and Heathergold Drive. A bridge connects the south and north trail segments across South Mayde Creek at Heathergold Drive, and there is one reinforced concrete box crossing and another bridge crossing at two tributary locations.
12/08 – 02/11	PS&E for Widening of Main Lane and Bridges from Four Lanes to Eight Lanes, Sam Houston Tollway, Houston, TX. As Project Engineer, David prepared construction documents for widening an existing 4 lane undivided facility for 2.8 miles. He used Geopak to develop the horizontal and vertical alignments for ramps with toll booths. He designed five mechanically stabilized earth (MSE) retaining walls. The project consisted of widening two existing bridges. One of the bridges was over Union Pacific Railroad which required rail road exhibits and coordination. He developed a new drainage scheme to accommodate the additional impervious area.
08/07 – 09/08	CR 257, Reconstruction of Two-Lane Roadway Destroyed by a Hurricane, Brazoria County, Surf Side, TX. As Project Engineer, David prepared construction documents for spot repairs and full roadway reconstruction from damage received by hurricane lke for 9.7 miles. He used Geopak to develop horizontal and vertical alignments and cross sections.

Firm AECOM					
Bonnie Dial, PE, PTOE			Years of Relevant Experience with this Employer	15	
Traffic Engineer				Years of Relevant Experience with Other Employer(s)	0
Degree(s) / Years / Specialization		BS / 2006 / Civil Engineering			
Active Registration Number / State / Expiration Date		#108550 / TX / 03/31/22 PTOE 3577 / 11/22			
	Year Registered	2011 Discipline Civil			
Contract Role(s) / Brief Description of Responsibilities		Task 1.0 Stage 0 Feasibililty Studies - Traffic Studies - Traffic Engineering. Will be responsible for providing Traffic Engineering Support.			
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properience dates should cover	osed contract; i.e. the time specified	., "designed drainage", "designed girders", "designed d in the applicable MPR(s).	
11/19 – 01/20	Planning Level Traffic Impact Analysis, Confidential Client, Lake Charles, LA. Project Manager. Responsible for the oversight of a planning level traffic impact analysis for traffic during construction of a new industrial facility. Using generalized criteria for similar types of roadways, the existing and expected arterial Level of Service (LOS) was analyzed and possible roadway network improvements were identified to determine the overall viability of the project.				
03/19 – 09/20	Port Arthur Traffic Impact Analysis (TIA), Bechtel, Port Arthur, TX. Project Manager. Responsible for oversight of traffic impact analysis and traffic management plan preparation for a new Liquified Natural Gas (LNG) facility. This work included the results from two adjacent LNG projects under construction at the same time. Coordinated with Texas Department of Transportation (TxDOT) Beaumont District for approval of the TIA. Recommended improvements to SH 87 and SH 82 signing, striping, and existing traffic signal for improved operations.				
01/19 - 03/21	SH 146 at N Alexander Drive Traffic Signal Design, TxDOT (Houston District), Baytown, TX. 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 We County, TX. Project Ma The design included ma relocation to align drive ramps to avoid existing	st and FM 1488 at Sweetg anager. Responsible for the ast arms, pedestrian crossi way with intersection, utility cross drainage diagonal ac	Jum Lane Traffic design two traffic ngs to align with t y relocation to ave cross intersection	Signal Design, TxDOT (Houston District) Montgome c signals along FM 1488 due to the growing drivers in th he planned access management project. Included drive bid mast arm location, designed conduits and pedestria h.	ry e area. eway an
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.				
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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.				
02/18 – 10/18	Industrial Traffic Study, Exxon Mobil GCGV, Gregory, TX. Traffic Engineer. Responsible for analysis of a new large industrial facility required understanding the project needs to develop the study boundary, collecting traffic count data, generating anticipated vehicle trips, distributing trips through study boundary, analyzing intersections in Synchro software, analyzing freeways in Highway Capacity Software, and preparing cost estimates for the recommended and optional improvements. Close coordination was required with client and TxDOT to ensure vehicle trips were able to circulate most efficiently within the freeway and local roadway systems and to ensure the high impact, low cost recommendations met the purpose of the study. Preliminary construction cost estimates were provided to assist prioritizing the improvements.				
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.				
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 4 lane highway to be expanded to 6-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.				
06/16 – 10/16	Traffic Signalization of Hollyhock Road and Greenhouse Road, Harris County, Katy, TX. Technical Lead. Responsible for the design of a new traffic signal, including providing engineering services for signing and striping, pedestrian facilities, and extending turn bays.				

F	irm AECOM				
Ram	Ramya Rayapureddy			Years of Relevant Experience with this Employer	2
Traffic	Engineer			Years of Relevant Experience with Other Employer(s)	0
Degree(s	s) / Years / Specialization	MS / 2020 / Civil Engineeri B.Tech. / 2015 / Civil Engin	ing eering		
Active Regis	stration Number / State / Expiration Date	LADOTD Traffic Process a	and Report Parts ?	1 and 2 (2021)	
	Year Registered	n/a	C	Discipline n/a	
Contract Role	e(s) / Brief Description of Responsibilities	Task 1.0 Stage 0 Feasibil Feasibility Studies - Tra Effectiveness Evaluation Support.	lilty Studies - Tra ffic Studies - Sa n - Engineering S	affic Studies - Traffic Engineering; Task 1.0 Stage 0 fety; Task 2.0 Road Safety Assessments; Task 4.0 S Support. Will be responsible for providing Traffic Engine	a fety ering
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properience dates should cover	osed contract; i.e the time specified	., "designed drainage", "designed girders", "designed d in the applicable MPR(s).	
02/21–Ongoing	City of Baton Rouge-F for collecting traffic cou intersections within the safety.	Parish of East Baton Roug unts, geometric layout meas scope of the study. Coord	e, Jones Creek I surements and pe inated with my tea	Road Extension 1A, Baton Rouge, LA. Responsible eak period observations at signalized and unsignalized am to make sure in getting quality counts while maintair	ling
11/20-Ongoing	City of Austin Crash M impact type.	lapping Project. Responsi	ible for Crash inve	estigation and crash mapping of five intersections based	don
12/20–Ongoing	City of Ketchum Fire Station Traffic Engineering Assistance – Modification 3. Conducted research and extracted detailed information pertaining to the Emergency Vehicle warning systems, installation equipment and activation options. Coordinated with each of the vendors and requested general information of their systems.				
11/20-Ongoing	City of Dallas – McKinney/Cole Avenue – Two–way Conversion. Responsible for review of the traffic impact studies along the corridor and developed traffic volumes from the base conditions. Collected aged data along the corridor and developed growth rates at each individual stations. Coordinated with the team in developing an aggregate growth rate.				
08/18–08/20	ALDOT for Unsignalized Type Configurations on Rural Divided Highways (Thesis). Developed AL specific calibration factor for unsignalized intersections on rural divided highways. Calibrated safety performance functions (SPFs) and predicted crash frequency for recently modified intersections. Selection of appropriate crash modification factors (CMFs) for a specific countermeasure deployed at a treatment location.				
01/19–04/19	Atlanta Highway and Interchanges on I–85 at Exit 4 and Exit 6. Conducted computer simulation of traffic operations using Highway Capacity Software (HCS), CORSIM, VISSIM and Synchro along the arterial to identify and resolve existing problems in traffic flow. Analyzed future conditions for 20 years by assuming traffic volume and built alternatives for future conditions. Developed VISSIM model to analyze existing and future conditions.				

01/18–04/19	Spatial Analysis of Locational Demographics with Intersection Crashes in Alabama, AL. Performed spatial and statistical analysis of over 100,000 intersection related crashes from Alabama using ArcMap10.6 and excel to identify high crash locations and crash severity. Identified locational demographic factors and suggested measures to reduce crash rates based on regional and driver factors.
09/18–11/18	College Street and Thach Avenue Intersection, Auburn, AL. Conducted capacity and level of service (LOS) analysis of a signalized intersection in Auburn during the evening peak period using HCS 7. Suggested improvements in signal phasing which resulted a decrease in an overall delay of 15.5 seconds with a LOS of B for the intersection.
09/18–11/18	Highway 84 E. Corridor Redevelopment Project Dothan, AL. Analyzed Pedestrian and bicycle Level of service (LOS) for the existing conditions of the 4–mile corridor in Dothan. Proposed a transportation plan to improve biking, pedestrian safety, connectivity and suggested complete street transformation for Columbia highway.

F	irm Alliance Transporta	tion Group			
Jaco	ob Sessions, PE		Ye	Years of Relevant Experience with this Employer	
Transp	Transportation Engineer			of Relevant Experience with Other Employer(s)	8
Degree(s) / Years / Specialization	BS / 2010 / Civil Engineerir BS / 2010 / Architecture	ng		
Active Regis	tration Number / State / Expiration Date	#127122 / TX / 03/31/2022	2 LADOTD Traffic Proce	ss and Report Parts 1, 2 and 3 (2019)	
	Year Registered	2017	Discipline	e Civil Engineer	
Contract Role	e(s) / Brief Description of Responsibilities	Task 1.0 Stage 0 Feasibil providing Traffic Engineeri	l ilty Studies - Traffic Stu ng Support.	dies - Traffic Engineering. Will be responsible	e for
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the prope erience dates should cover t	osed contract; i.e., "desigr the time specified in the a	ned drainage", "designed girders", "designed pplicable MPR(s).	
10/20 - 07/21	Traffic Signal Design, TxDOT Houston District, Houston, TX. Project Manager. Jacob was tasked with signal design with PS&E plan sets for several locations throughout the TxDOT Houston District area. Project included new build and full replacement of existing signals. Project included rural four leg intersections and urban box diamond interchanges. Locations included radar, VIVDs, and loop detection. Some locations were designed to local entity standards.				
10/19 - 12/20	Burnet Road PS&E, City of Austin, Austin, TX. Project Manager. ATG was tasked with developing the traffic control plans to support the improvements proposed along the Burnet Road corridor in Austin, TX. The project included drainage improvements, roadway reconstruction, roadway widening, and pedestrian improvements. The traffic control plan was developed to maximize safety and vehicle/pedestrian/bicycle throughput during construction. Project included complex phasing to maintain accessibility due to lack of alternative routing.				
12/17 – 07/20	US377 Safety Improve all existing traffic signal recommended improve included adding sidewa addition of continuous review.	ements, TxDOT Ft Worth I , pedestrian, and illuminatio ements were made to addre alks and ADA compliant ram lighting throughout the corr	District, Fort Worth, TX. on infrastructure from IH 8 oss identified safety conce ops; updating traffic signal ridor. Recommended imp	Project Manager. Jacob was tasked with inven 20 to SH 170 in the Fort Worth area. Once inver erns and missing infrastructure. Recommendat pedestrian equipment and signal heads; and the rovements also included a cost analysis for dis	torying ntoried, ions he trict
03/16 - 01/18	Innovative Intersection selected by TxDOT to p San Antonio area. Spect innovative approaches bottleneck locations bat processing and combin environmental constrait project schedule. The m conceptual solutions to	ons On-Call, TxDOT San A erform this On-Call contract cific services include environ to intersection design and ased on congestion, constra- ning multiple congestion da ints for 100 locations, and ic results of this study provide o address congestion areas	ntonio District, San Anternation of the sector of the sect	onio, TX. Deputy Project Manager. ATG was on analysis and preliminary design services in tic design, and traffic analysis, with an emphasi acob led the effort to develop a prioritized list o ution complexity. This effort led by Jacob inclu IERE), and Google), reviewing CRIS records, ob eptual solutions with cost, ROW needs, and es trict a prioritized list of project locations with y.	the s on of ded taining timated

07/18 - 07/20	ITS Five-Year Master Implementation Plan, TxDOT Austin District, Austin, TX. Deputy Project Manager. ATG was tasked with developing a five-year ITS master implementation plan for the IH-35 corridor in the TxDOT Austin District. Jacob led the effort to develop the master implementation plan utilizing the systems engineering v-diagram approach. This project included inventorying current ITS equipment and utilizing GIS as an inventory tool. Jacob developed a high-level conceptual schematic showing how an active traffic management system could be laid out across the full 80-mile corridor. The ATMS included lane control systems, CCTV, DMS, Radar, GRIPS, HAR, Wifi, actively controlled signals, etc. The master plan project also included discussions regarding the inclusion of CAV technologies and the design of a five-year plan that would allow for easy adaptation as technologies evolve.
02/18 - Ongoing	SH 99 GEC Segments D, E, F, & G, TxDOT, Houston, TX. Project Manager. ATG was tasked by the GEC to perform annual roadway inspections for the existing segments of SH 99 in Houston, TX. Jacob leads the ATG team in performing annual field inspections of the corridor. The field work includes visual inspections of the ITS infrastructure, roadway pavement, drainage (including pump stations), ROW area, bridges, signing, striping, illumination, safety infrastructure and tolling locations.

Firm Alliance Transportation Group						
🛛 🥶 Arth	Arthur "Trey" Gamble, PE, PTOE				rs of Relevant Experience with this Employer	23
Senior	Transportation Engineer			Years of	Relevant Experience with Other Employer(s)	7
Degree(s) / Years / Specialization	MS / 1997 / Civil Engineeri BA/ 1991 / Civil Engineerir	ng ng			
Active Regis	tration Number / State / Expiration Date	PE.0038295 / LA / 03/31/2 Refresher–LA State Speci	2022 PTOE #41 fic (2018) LADO	01 / 07/18 OTD Traffi	8/2022 ATSSA Traffic Control Supervisor ic Process and Report Parts 1, 2 and 3 (2018)	
	Year Registered	2013	D	Discipline	Civil Engineer	
Contract Role	(s) / Brief Description of Responsibilities	Task 1.0 Stage 0 Feasibi Engineering Support.	lilty Studies - Tra	affic Stud	lies - Safety. Will be responsible for providing S	Safety
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properience dates should cover	osed contract; i.e. the time specified	, "designe I in the ap	ed drainage", "designed girders", "designed plicable MPR(s).	
10/11 - 08/12	Vernon Parish Transportation Master Plan (TMP) and Corridor Study for US-171, LADOTD, Vernon Parish, LA. Provided engineering and planning related services for the development of a parish-wide TMP for Vernon Parish and a concurrent Stage-0 Corridor Feasibility, Environmental Constraints, and Alternatives Evaluation Study for five miles of US-171. assembled and analyzed crash data and conducted supplemental field review and evaluation of existing facilities. The results were used to develop a profile of transportation safety, mobility, and capacity needs. The final program of projects for inclusion in the plan was prepared based on a prioritized project list.					
10/13 – 06/18	Traffic Impact Analysis for Intersections, Axiall Corporation, Calcasieu Parish, LA. Project Engineer responsible for analyzing Intersection Traffic Operations, Analyzing and Recommending Traffic Operations Mitigation Improvements, and Designing Seven Traffic Signals. The project was to assist Axiall during the expansion of their chemical facility located in Calcasieu Parish, Louisiana, between the cities of Sulphur and Westlake. Preliminary analysis of these proposed scenarios showed that they would require extensive and unrealistic improvements at the study intersections.					
02/15 - 01/17	Prien Lake Stage 0 Traffic Study, City of Lake Charles, Lake Charles, LA Stage-0 Feasibility Study and Environmental Inventory for Prien Lake Road/Ihles Road in Calcasieu Parish, LA. The corridor study includes an evaluation of existing conditions (2014) as well as future conditions (2034), estimated using the IMCAL Travel Demand Model and encompasses analyses and accompanying design standards and construction costs for improvements spanning the length of the corridor (approximately 1.5 miles), considering the anticipated future traffic growth.					
04/09 - 06/14	LA 28 Widening Enviro Traffic Operations, Ana the Stage 1 Environmen also included signal wa openings and signals; E horizon year analyses.	onmental Assessment (E/ lyzing Corridor Traffic Impro ntal Assessment for LA-28 rrant analysis at 6 intersect Build with multiple roundabo	A), LADOTD, Pine ovement Alternativ East to widen 6.5 ions within the co outs; and Build with	ville, LA. ves. The p miles fror rridor. Fou h one rou	Project Engineer responsible for Analyzing Co project traffic operational analysis in support of m 2 to 4 lanes from LA-3128 to LA-1207. The st ur alternatives (No-Build; Build with partial medi ndabout at LA 1207) were analyzed for the build	rridor udy an d and

02/15 - 06/16	Bastrop County Transportation Master Plan, Bastrop, TX. Engineer of Record. The TMP was a companion plan in support of the City 2016 Comprehensive Plan, which allowed the TMP to incorporate complete streets concepts, consider context sensitive urban design standards, and integrate transportation planning with land use, economic development, and community character elements of the comprehensive plan. The TMP also included the implementation of a dynamic traffic assignment model (DTA) that the City used to evaluate the cumulative impacts of development on the future operation of the City transportation system.
09/09 - 06/11	Citywide Traffic Signal and Mobility Analysis, City of Sulphur, LA. Senior Engineer. ATG evaluated the traffic operations at 36 signalized and un-signalized intersections, along various corridors within the City of Sulphur in Louisiana. The traffic analysis included sight distance analysis, peak period data collection and analysis, travel time and delay, crash analysis using the Highway Safety Manual, Highway Capacity Manual analysis, operational analysis, and warrant analyses. The report included recommendations for system improvements, recommendations for modifications to corridor progression, signal timing, signal interconnects and signal equipment upgrades, CIP ranking, and construction cost estimates for improvements within the City. The project required coordination with the LADOTD as several of the corridors analyzed were under that agency's jurisdiction. Through a series of ongoing work authorizations over the past 5 years, ATG developed signal design plans and signal timing plans to implement all the recommendations from the report.
04/14 - 12/15	HGAC US 59/IH 69 Rider 42 Congestion Mitigation Plan Corridor Study, Houston, TX. Senior Engineer. In this 16-month study, Alliance led a multi-disciplinary team conducting a corridor feasibility study for HGAC, TxDOT, Metro, Harris County, and the City of Houston. The purpose was to develop a Rider 42 Corridor Congestion Mitigation Plan for the US-59/I-69 South Corridor between Beltway 8/Sam Houston Tollway-West and I-45 interchange.

Firm AECOM					
Jeff Sandberg, PE, PTOE, RSP,			Years of Relevant Experience with this Employer	14	
Traffic	Engineer			Years of Relevant Experience with Other Employer(s)	4
Degree(s) / Years / Specialization	BS / 2003 / Civil and Trans	portation Engine	ering	
Active Regis	tration Number / State / Expiration Date	39308 / WI / 7/31/2022	PTOE #2478 / 11/	/24/2023 RSP ₁ #253 / 3/27/2025	
	Year Registered	2007	C	Discipline Civil Engineer	
Contract Role	e(s) / Brief Description of Responsibilities	Task 1.0 Stage 0 Feasibi Evaluation - Engineering	lilty Studies - Tra Support. Will be	affic Studies - Safety; Task 4.0 Safety Effectiveness responsible for providing Safety Engineering Support.	
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properience dates should cover	osed contract; i.e. the time specified	., "designed drainage", "designed girders", "designed d in the applicable MPR(s).	
07/19 – 09/20	Wisconsin Department of Transportation, SE Region Freeway Safety Modeling. Project manager for AECOM's subconsultant role on two safety modeling efforts encompassing all freeways in the WisDOT SE region. Responsibilities include predictive safety analysis and traffic analysis of the existing conditions, nobuild, and multiple improvement alternatives. Predictive safety analysis includes use of the Interactive Highway Safety Design Model (IHSDM), while traffic analysis includes the use of Vissim.				isultant safety ilysis
04/19 – 01/20	Kentucky Transportation Cabinet, KY 841 Interchange Improvement Alternatives Analysis, Louisville, KY. Project safety engineer for a safety analysis of an interchange alternatives study in Louisville. Responsibilities include predictive safety analysis of the existing conditions, no-build, and multiple interchange improvement alternatives. Predictive safety analysis includes use of the Interactive Highway Safety Design Model (IHSDM)				afety alysis use of
01/17 – 07/17	Missouri Department of Transportation, Safety Improvement Design-Build, St. Charles & Franklin Counties, Missouri. Lead engineer for the predictive safety analysis for a safety improvement design-build project. Responsibilities include predictive safety analysis of safety improvements for 27 locations in a two-county area near St. Louis. Predictive safety analysis includes use of HSM spreadsheets and ISATe.				ıri. dictive des
01/17 – 06/20	Various Agencies, Pressafety analysis projects the Interactive Highway project benefit-cost and various Cities and Court	dictive Safety Analysis for a in support of federal fundi Safety Design Model (IHSE alysis. Federal grant applica nties.	or Federal Grant ng grant applicati DM), ISATe, and Hi ation agencies inc	Applications. Project safety engineer for multiple pred ons. Responsibilities include predictive safety analysis u ghway Safety Manual (HSM) spreadsheets in support of clude IDOT, NCDOT, PennDOT, AZDOT, KYTC, SDDOT, an	ictive using nd
01/12 – 09/20	Wisconsin Department for the corridor manage Madison. One traffic-re expanded roadway to s	It of Transportation, IH 39 ement team for the reconst lated task was completing a ix lanes on an interim basis	9/90 Reconstruc ruction of the 45- a safety evaluatio or keeping the fre	tion, Dane & Rock Counties, Wisconsin. Traffic engine mile segment of IH 39/90 between the Illinois state line a n using ISATe to determine the safety impacts of openin eeway a four-lane facility.	er and g the

04/11 – 09/20	City of Stevens Point, Business 51 Corridor Study, Stevens Point, WI. Lead engineer for the operational, safety, and access evaluation of the Business 51 Corridor Study. Responsibilities include crash analysis, operational analysis, multi-modal evaluation, HSM predictive safety evaluation, and intersection control evaluation, including preliminary design of signalized and roundabout intersection alternatives. Study outcomes included recommendations to implement various complete streets principles, such as bicycle facilities, pedestrian facilities, and reduced number of travel lanes.
01/12 – 02/13	Wisconsin Department of Transportation - Northwest Region, STH 65 Highway Safety Manual Analysis, Polk County, WI. Lead engineer and project manager for a Highway Safety Manual analysis of STH 65 in Polk County. Responsibilities include crash analysis, development of predictive crash analysis systems, safety countermeasure evaluation, economic prioritization of countermeasures, and report preparation.
05/10 – 06/15	Wisconsin Department of Transportation - Northwest Region, STH 93 Safety, Operations, and Planning Study, Arcadia, WI. Lead engineer and project manager for a Planning Study and Safety and Operations Study of STH 93 in Arcadia. Responsibilities include crash analysis, HSM predictive safety analysis, operational analysis, intersection control evaluations, including preliminary design of signalized and roundabout intersection alternatives, corridor improvement alternative evaluation, access and future roadway needs evaluation, and report preparation. Study outcomes included recommendations to implement various complete streets principles, such as bicycle facilities, pedestrian facilities, and reduced number of travel lanes. AECOM completed the design of the improvements recommended in this study.
08/12 – 12/12	Wisconsin Department of Transportation - Southwest Region, USH 14 Road Safety Audit, Black Earth, WI. Lead engineer and project manager for a road safety audit of USH 14 near the Wisconsin Heights High School. Responsibilities include crash analysis, HSM predictive safety analysis, field safety review, local official coordination, corridor improvement analysis, and report preparation.

F	irm AECOM					
Ryar	Ryan Eckenrode, PE, PTOE, RSP ₂₁			Year	rs of Relevant Experience with this Employer	12
Senior	Traffic Safety Engineer	۷.		Years of	Relevant Experience with Other Employer(s)	3
Degree(s) / Years / Specialization	MS / 2006 / Civil Engineeri BS / 2004 / Civil Engineeri	ng ng			
Active Regis	tration Number / State / Expiration Date	PE 35591 / LA / 09/2022	PTOE #2820	RSP ₂₁ #88	3	
	Year Registered	2018	C	Discipline	Civil Engineer	
Contract Role	e(s) / Brief Description of Responsibilities	Task 1.0 Stage 0 Feasibil Engineering Support.	lilty Studies - Tra	affic Studi	ies - Safety. Will be responsible for providing S	Safety
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properience dates should cover	osed contract; i.e. the time specified	., "designe d in the app	d drainage", "designed girders", "designed plicable MPR(s).	
Th/20 - Origoing	S-908 (Gap Creek Road) at Gary Armstrong Road / Hampton Road, South Carolina Department of Transportation (SCDOT), Spartanburg County, SC. Senior Traffic Engineer. Project Manager and performed quality control for the traffic analysis report and performed the roundabout analysis for two (2) alternatives. Alternatives included signalization with various turn lane improvements and a single lane roundabout with and without slip lanes. AECOM used the Highway Safety Software (HS following Highway Safety Manual methodology to determine the expected number of crashes with each alternative and compare operation with regards to level-of-service (LOS), delay and 95th percentile queuing for the Existing 2020, Opening Year 2024 and Design Year 2040 traffic conditions.				us (HSS) (pared and	
11/20 - Ongoing	US 21 (Anderson Road and performed quality intersection has a 70 for median with U-turns, ar included identifying are Operations and predict Design Year 2040 traffi	d) at S-162 (Hall Spencer F control for traffic analysis a pot median where vehicles a n unsignalized reduced com eas for the U-turns, requiring ive crash analysis were cor c conditions.	Road), SCDOT, Yo nd safety report the re expected to st flict intersection (g consultation wit npared for all thre	hat include op in the r RCI) and a h a local fi e alternati	ty, SC. Senior Traffic Engineer. Project Manager ed three (3) alternatives. This existing stop com- middle. Alternatives included installing a raised signalized option. Challenges at this intersection ire station to not negatively impact operations. ives for the Existing 2020, Opening Year 2024 a	r trol on ลnd
11/20 - Ongoing	US 21 (Anderson Road and performed quality intersection has a 70 fc median with U-turns, ar included identifying are Operations and predict Design Year 2040 traffi	d) at S-162 (Hall Spencer F control for traffic analysis a pot median where vehicles a n unsignalized reduced com eas for the U-turns, requiring ive crash analysis were cor c conditions.	Road), SCDOT, Yo nd safety report the re expected to st flict intersection (g consultation wit npared for all thre	brk Count hat include top in the r RCI) and a h a local fi e alternati	ty, SC. Senior Traffic Engineer. Project Manager ed three (3) alternatives. This existing stop com- middle. Alternatives included installing a raised signalized option. Challenges at this intersection re station to not negatively impact operations. ives for the Existing 2020, Opening Year 2024 a	r trol on and

04/16 - 08/20	On-Call Traffic Safety Engineering Services – Road Safety Audits (RSA), SCDOT, Statewide. Senior Traffic Engineer/ Deputy Project Manager. Responsible for conducting road safety audits, develop crash maps with five (5) or six (6) of crash data plotted on an aerial, and organizing a pre-audit meeting which included representatives from SCDOT, local municipalities, county governments, MPOs, FHWA and SC Highway Patrol. The RSA team walked the corridors during the peak periods while reviewing crash data and observing driver behavior, and then documented potential considerations using the FHWA Prompt List. AECOM compiled the formal reports and presented findings to stakeholders.
	SC 146 (Woodruff Road) Road Safety Audit, Greenville County, SC: RSA along 3.1 miles of Woodruff Road between Roper Mountain Road and Bagwell Road in Greenville, SC. It is a 5-lane minor arterial that provides access to many commercial sites and residential developments as well as access to two major interstates (I-85 and I-385).
	US 25 (White Horse Road) Road Safety Audit, Greenville County, SC: RSA along 6.5 miles of White Horse Road between just south of I-85 and Lily Street in Greenville, SC. US 25 is a 7-lane principal arterial providing access to many commercial sites and residential developments. In addition, it is a major truck corridor, connecting I-26 to I-85. The Corridor also provides bus service via Greenlink Transit, Route 6, with multiple stops along the study area.
	US 1 (Two Notch Road) Road Safety Audit, Richland County, SC: RSA along 4.1 miles of Two Notch Road between Trenholm Road Ex / N Grampian Hills Road and Risdon Way / Valhalla Drive in Columbia, SC. It is a 5-lane north / south principal arterial that provides access to many commercial sites, residential developments, and Interstate 77.
	US 17 Business from Conway Street to 29th Avenue Road Safety Audit, North Myrtle Beach, SC: RSA along 2.0 miles of South Kings Hwy between Conway Street and 27th Avenue.
	South Kings Highway from 29th Avenue S to 27th Avenue N Road Safety Audit, Myrtle Beach, SC: RSA along 4.0 miles of South Kings Hwy between 29th Avenue S. and 27th Avenue N.
	Wade Hampton Boulevard from University Circle to Woodfern Circle Road Safety Audit, Greenville County, SC: RSA along 1.3 miles of Wade Hampton Boulevard between University Circle and Woodfern Circle (includes 800 feet of N. Pleasantburg Drive and 800 feet of Pine Knoll Drive).
	Wade Hampton Boulevard from S. Brannon Road to Fleming Drive Road Safety Assessment, Greenville County, SC: RSA along a 1.0 mile of Wade Hampton Blvd between S. Brannon Road and Fleming Drive in Greer, SC.
	Cedar Lane Road from Hawks Landing Subdivision to Smythe Street Road Safety Audit, Greenville County, SC: RSA along a 1.0 mile of Cedar Lane Road just west of Hawks Landing Subdivision to Smythe Street in Greenville, SC.

F	irm AECOM						
Ray	Ray Schneiger, AICP, RSP ₁			Yea	rs of Relevant Experience with this Employer	24	
Senior	Transportation Planner			Years of	Relevant Experience with Other Employer(s)	8	
Degree(s) / Years / Specialization	MS / 1993 / Exercise Scier BA / 1983 / Economics BS / 1980 / Transportation	S / 1993 / Exercise Science \ / 1983 / Economics S / 1980 / Transportation				
Active Regis	tration Number / State / Expiration Date	AICP #017089 / 12/23 F	RSP ₁ #751 / 11/24				
	Year Registered	n/a	D	iscipline	n/a		
Contract Role	e(s) / Brief Description of Responsibilities	Task 1.0 Stage 0 Feasibil Engineering Support.	ilty Studies - Tra	ffic Stud	lies - Safety. Will be responsible for providing S	Safety	
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properion of the properties of	osed contract; i.e., the time specified	"designe in the ap	ed drainage", "designed girders", "designed plicable MPR(s).		
05/13 - 08/13	Spectrum Health Pedestrian Safety Study along Michigan Street, Grand Rapids, Michigan. Project Manager for a pedestrian safety and route study completed for Butterworth Hospital in downtown, Grand Rapids. The study included a pedestrian Origin-Destination study for the campus, particularly along busy Michigan Street and included personal interviews of pedestrians. The pedestrian safety analysis included a review of pedestrian crashes and observations of vehicle-pedestrian conflict points. Pedestrian counts were conducted. Short-term and long-term pedestrian improvement recommendations were presented, including increasing the duration of the pedestrian walk signal time on Michigan Street, improved skywalk guide signs, are saveral recommended mitigation measures were implemented.					vs rian were signs,	
03/21 - 05/21	Grandview Parkway Safety Review, Traverse City, Michigan. Crash Analysis Lead for a traffic safety study along a busy corridor in downtown Traverse City. The study included a review of pedestrian crash patterns and safety at the pedestrian signa at Grandview Parkway and Hall Street. Mitigation measures were recommended to enhance driver awareness for pedestrians and cyclists using the pedestrian signalized crosswalk as well as assessment of providing improved pedestrian crossings at unsignalized intersections.					ignal ns :	
06/11 - 09/11	Bay Road Traffic Operations and Pedestrian Safety Study, Ottawa County, Michigan. Project Manager for a pedestrian and bicycle safety study completed for Macatawa Park Cottagers Association in Park Township, Ottawa County, Michigan. The study included a safety audit checklist along Bay Road, including pedestrian and bicycle facilities. The safety analysis included a review of pedestrian and bicycle crashes and observations of vehicle-pedestrian and vehicle-bicycle conflict points. Safety study conclusions were presented, concluding that Bay Road in the study area lacks sufficient and safe pathways for pedestrians and bicyclists. Vehicle-pedestrian conflicts were observed as common along Bay Road, with many pedestrians walking in the street due to incongruous sidewalks or pathways.						

05/18 - 08/18	Crash Analysis using IHSDM and HSM / KY-52, Madison County, Kentucky. Crash Analysis Lead for a Predictive Safety Analysis for a 2-lane rural highway using IHSDM and HSM tools. The safety study included a comparison of crash frequency, severity, and crash rates for two alternatives (no build and re-alignment). Based on the IHSDM findings, the rea-aligned roadway was projected to result in a 40% reduction in each of non-injury, injury, and fatal crashes.
06/18 - 09/18	Crash Analysis using IHSDM and HSM / US-12 at M-51, Berrien County, Michigan. Crash Analysis Lead for an existing interchange alternatives analysis for crash predictive methods using IHSDM and HSM tools. The safety study included a comparison of crash frequency, severity, and crash rates for four alternatives (no build, tight diamond, at-grad direct lefts, and at-grade indirect lefts. Based on the IHSDM findings, the at-grade indirect left alternative was selected based on safety and cost benefits.
04/17 - 06/17	Crash Analysis using HSM and ISATe / I-75 at Big Beaver Road Interchange, Troy, Michigan. Crash Analysis Lead for an existing cloverleaf interchange with C-D roads using ISATe and HSM predictive tools. The focus of the study was to assess the safety and cost benefits of converting the interchange from a full cloverleaf to a partial cloverleaf. A partial cloverleaf was recommended based on crash reductions related to the elimination of the C-D roads and two loop ramps. Based on the ISATe findings, the partial cloverleaf would reduce crash frequency at the interchange as well as provide substantial cost savings.
07/18 - 09/18	Crash Analysis using HSM / City of Novi Safety Top 15 Intersections Safety Study, Novi, Michigan. Crash Analysis Lead for a safety study of 15 intersections in the City of Novi that had the highest crash rates in the City. AECOM performed an observational before/after study evaluating both the planned and completed improvements in order to determine the expected and actual effect on the safety of the intersection based on the average of three (3) years of crash data before and up to three (3) years of crash data after the improvement using HSM tools. Crash Modification Factors (CMFs) were applied to existing crash history to predict future crashes. Based on the HSM analysis, additional mitigation measures for vehicular and pedestrian safety were recommended at many of the intersections.
01/15 - 03/15	Crash Analysis and Safety Review / I-75 From Ohio State Line To Erie Road, Monroe County, Michigan. Crash Analysis Lead of a 5.1-mile segment of I-75 and all ramps at two related interchanges in Monroe County. The study included assessing crash rates and crash severity. Several crash clusters were identified along northbound I-75 and along southbound I-75 in the study area and mitigation measures were recommended to improve roadway safety.

F	irm AECOM					
Gino DiGiovanni				Years of F	Relevant Experience with this Employer	19
CADD	Designer / GIS			Years of Relev	ant Experience with Other Employer(s)	6
Degree(s) / Years / Specialization	AA / 1995/ Applied Scienc	e			
Active Regis	tration Number / State / Expiration Date	n/a				
	Year Registered	n/a	Di	scipline n/a		
Contract Role	e(s) / Brief Description of Responsibilities	Task 1.0 Stage 0 Feasibil - CADD Design & Suppor Improvements. <i>Will be re</i> .	lilty Studies - Traf rt Services; Task sponsible for provi	fic Studies - (3.0 Developm iding CADD/ G	GIS; Task 1.0 Stage 0 Feasibililty Stud ent of Plans for Low-Cost Safety IS/CADD Development.	ies
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., the time specified	"designed drai in the applicat	inage", "designed girders", "designed ble MPR(s).	
2014 - Ongoing	S.P. No. H.011489.5 Safety Studies Retainer Contract, Low Cost Safety Improvements, LADOTD, Statewide, LA. CADD Designer for the preparation of preparing Safety Improvement Plans (SIP) for 282 systemic curves located throughout the state of Louisiana. The tasks associated with this project include; site visits to the curves, plan preparation of safety countermeasures for each curve, cost estimates for the plan set, and a pre-construction meeting with each DOTD district. Each site visit includes; a ball bank test, photo and an existing conditions documentation of each curve. The plan preparation includes deriving safety countermeasures at each curve location, preparing a letter size plan set of the safety countermeasures, including the Crash Modification Factors (CMFs) within the plan sheet, and preparing cost estimates for the safety countermeasures. After the completion of each letter size plan sets, a meeting will be held with each District to discuss the countermeasures.				DD state sures udes; ety h	
2015 - Ongoing	S.P. No. H.004273.5: DOTD, I-49 Connector Completion of Functional Plan, LADOTD, Lafayette, LA. Gino is serving a s lead CADD technician for this major highway and bridge project. He is utilizing GIS software for developing plans for the historic structures inventory and also is developing bridge plans for the conceptual viaduct structure alternatives.					s toric
2013 - Ongoing	ing S.P. No. 009997.1: DOTD, Safety Retainer Contract US 167 Feasibility Study, LADOTD, Lafayette Parish, LA. Lead CADD Designer/GIS Technician responsible for the development of collision diagrams and an environmental GIS database. The collision diagrams were created by entering data into GIS and plotting the crash locations on aerial photography. The environmental GIS database documented the findings of the environmental inventory on mapping readily available to the public. The study considered a 0.75 mile segment of a heavily travelled, heavily developed narrow fire lane urban roadway with semi continuous billanes with moderate use and a major intersection.				ADD ollision I y ous bike	
2013 - Ongoing	joing S.P. No. H.01779: DOTD, Jimmie Davis Bridge Environmental Assessment and Preliminary Engineering Report. Route LA 511, LADOTD, Caddo & Bossier Parishes, LA. CADD Designer for a NEPA Environmental Assessment to improve the crossing over the Red River and provide operational improvements along LA 511. Provided maps and drawings included in rep documents and required for the Public Meeting and Public Hearing. Major issues on the project include future use of the existi bridge, inclusion of a pedestrian/bicycle shared use path, and access connections to Arthur Ray Teague Parkway from the easi bridge approach. Prepared plans for the engineering report including the bridge plan, bridge elevation, and typical sections.				te report isting east s.	

2010 - 2013	S.P. No. H.005171: DOTD, I-49 South, 23 Stage 0 Interim Improvements for Safety and Efficiency, Raceland to Westbank Expressway, LADOTD, Lafourche, St. Charles, and Jefferson Parishes, LA. CADD Designer/GIS Technician assigned to this project. The goal of the project was to identify improvements in the US 90/I-49 corridor between Raceland and the Westbank Expressway that can be implemented to improve safety and operations pending construction of I-49. These improvements can include partial construction of segments of I-49, rerouting of I-49, and improvements to US 90.
2010 - 2012	S.P. No. H.005171: DOTD, I-49 South, 11 Stage 0 Interim Improvements for Safety and Efficiency, Wax Lake Outlet to Berwick, LADOTD, St. Mary Parish, LA. CADD Designer assigned to this project. The goal of the project was to identify improvements in the US 90/I-49 corridor between Wax Lake and Berwick that can be implemented to improve safety and operations pending construction of I-49. These improvements can include partial construction of segments of I-49, rerouting of I-49, and improvements to US 90. Responsibilities include geometric design (horizontal and vertical) for Line/Grade Conceptual Drawings, analyzing and proposing several alignments.

F	irm AECOM				
Gab	Gabriel Arias, PE			Years of Relevant Experience with this Employer	2
Project	Engineer		Ye	ears of Relevant Experience with Other Employer(s)	3
Degree(s) / Years / Specialization	Bachelors (Civil Engineeri	ng) / 2013 / Transport	ation	
Active Regis	tration Number / State / Expiration Date	PE.0042599 / LA / 09/30/2	2022		
	Year Registered	2018	Disc	ipline Civl Engineer	
Contract Role(s) / Brief Description of Responsibilities		Task 1.0 Stage 0 Feasibi Roadway & Bridge Altern & Pedestrian Alternative for Low-Cost Safety Improv Low-Cost Safety Improv Engineering and Cost Esti	Task 1.0 Stage 0 Feasibililty Studies - Cost Estimating; Task 1.0 Stage 0 Feasibililty Studies - Roadway & Bridge Alternatives - Roadway Design; Task 1.0 Stage 0 Feasibililty Studies - Bike & Pedestrian Alternatives; Task 2.0 Road Safety Assessments; Task 3.0 Development of Plans for Low-Cost Safety Improvements - Engineering Support; Task 3.0 Development of Plans for Low-Cost Safety Improvements - Bike & Pedestrian. Will be responsible for providing Road/Plan Engineering and Cost Estimating Support.		
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the prop erience dates should cover	osed contract; i.e., "de the time specified in t	esigned drainage", "designed girders", "designed the applicable MPR(s).	
09/20–Ongoing	Feasibility Study and Report / TEPR, College Drive, City of Baton Rouge / Parish of East Baton Rouge, Baton Rouge, LA. Drainage Designer for 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 MOV/EBP bond funds.				nt hile ited nt
06/15–09/16	6 S.P. No. H.004932, I–49 South @ LA 318 Interchange, LADOTD, St. Mary Parish, LA. Project created nearly 3 miles of new RC–2 classification frontage roads. Assisted with roadway geometric design including H&V alignment, hydraulic design (including SDP, SD, CDP and open ditches), intersection layout and design, striping/signing, TMP coordination and plan production for the new interchange of I–49 South.				ew luding the
01/19–04/19	S.P. No. H.011670, I–10 to Loyola Dr. Interchange, Tender Offer, LADOTD, Jefferson Parish, LA. Design for adapting the interchange at Loyola Drive to handle traffic flowing to and from the new passenger terminal at Louis Armstrong International Airport. Assisted with roadway geometric design, QC, and Plan production for proposal.				ie ial
04/16–09/16	04/16–09/16 S.P. No. H.004113, LA 3241: LA 435 to LA 40/LA 41, LADOTD, St. Tammany Parish, LA. The project calls for the construction of a new four–lane highway connecting I–12 to Bush, Louisiana, in St. Tammany Parish. The new roadway is approximately 19.8 miles in length and begins at LA 434, north of the existing LA 434 interchange with I–12, and traverses in a northeasterly direction until encountering an abandoned rail corridor. It then follows the rail corridor terminating at the LA 21/LA 41 intersection near Bush, Louisiana. Assisted with roadway geometric design including H&V alignment, hydraulic design for storm drains, CDP's and open ditches, structural design analysis and QC, Traffic management plans and roadway plan production for the new 5.5 mile 4- lane RA–3 roadway from LA 435 to Bush, LA.				ction 9.8 ection ar s and ile 4–

10/16-04/21	S.P. No. H.012752, LA 46 at Weinberger Road Intersection, LADOTD, St. Bernard Parish, LA. The project called for the realignment of Weinberger Road to promote ease of truck movements to the sugar refinery docks and eliminate them from travelling within residential areas nearby. Assisted with roadway geometric design including H&V alignment, hydraulic design for storm drains, CDP's and open ditches, structural design analysis and QC and roadway plan production for the realigned.
08/18-01/19	Coastal Protection and Restoration Authority (CPRA), SPN BA-0153, Mid–Barataria Diversion Design, Plaquemines Parish, LA. Planning, engineering and design services for the creation of the Mid–Barataria sediment diversion basin to strategically reintroduce sediment and freshwater inputs into the Barataria Basin. Assisted with detour roadway alignment creation/selection, TTC planning, and roadway plan preparation.
06/14–09/16	S.P. No. H.010559, Bayou Mercier Road/Berard Canal Bayou, LADOTD, St. Martin Parish, LA. Performed topographic field surveying and assisted with bridge design, hydraulic analysis and roadway design for the replacement of the existing off–system bridge timber structure with a quad–beam concrete structure.
06/14–09/16	S.P. No. H.010598, Derrick Road Bridge, LADOTD, Iberville Parish, LA. Performed topographic field surveying and assisted with bridge design, hydraulic analysis and roadway design for the replacement of the existing off–system bridge timber structure with a slab span, concrete structure.
06/14–09/16	S.P. No. H.010867, Jude & Placide Road Bridges, LADOTD, Vermillion Parish, LA. Performed topographic field surveying and assisted with bridge design, hydraulic analysis and roadway design for the replacement of the existing off–system bridges timber structures with slab span, concrete structures.
06/15–11/16	S.P. No. H.011806, Gracie Lane Bridge, LADOTD, Iberville Parish, LA. Performed topographic field surveying and assisted with bridge design, hydraulic analysis and roadway design for the replacement of the existing off–system bridges timber structures with slab span, concrete structures.
05/18–04/21	City of New Orleans Department of Public Works (DPW), Milan Group A, New Orleans, LA. AECOM is responsible for developing a Plan set for reconstruction/restoration of roadways in the Milan neighborhood, which is bounded by Napoleon Avenue, Claiborne Avenue, Louisiana Avenue and St. Charles Avenue. The project will consist of milling and overlaying with full depth patching of selected streets, incidental patching of other streets, sidewalk repairs, incidental repairs to drainage structures, and the installation of handicap ramps. Gabriel is responsible for field reviews to collect data, design of repairs, tabulation of quantities, development of a cost estimate, and CAD drafting. The project is currently in Preliminary design and will advance through Final Design to include Construction Administration and Resident Inspection.
02/18-04/18	AMTRAK New Orleans (NOL) Maintenance Yard SPCC/SWPPP, Orleans Parish, LA. The project called for revision and improvement of existing SWPPP/SPCC plans for the site. Assisted with site assessment, plan revision and report production.

F	irm AECOM				
Mark	k Roberts, PE			Years of Relevant Experience with this Employer	3
Project	Engineer			Years of Relevant Experience with Other Employer(s)	24
Degree(s) / Years / Specialization	MS / 2003/ Engineering Ma BS/ 1994 / Civil Engineerin	anagement Ig		
Active Regis	tration Number / State / Expiration Date	PE.0028568 / LA / 09/30/2	2023		
	Year Registered	1999	[Discipline Civil Engineer	
Contract Role	e(s) / Brief Description of Responsibilities	Task 1.0 Stage 0 Feasibil Studies - Roadway & Brid for Low-Cost Safety Imp Estimate Lead.	ilty Studies - Co dge Alternatives provements - Eng	est Estimating (Task Lead); Task 1.0 Stage 0 Feasibili - Roadway Design; Task 3.0 Development of Plans gineering Support. Will be responsible for providing Co	l ty ost
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 the time specified	., "designed drainage", "designed girders", "designed d in the applicable MPR(s).	
08/19 - 03/20	West Bank Road Bond Program, Jefferson Parish, Louisiana. The Road Bond Program – West Bank (RBP-WB) consists of thirty (34) roadway, pedestrian/bike path, and bridge related improvement projects located on the West Bank of Jefferson Parish. The RBP-WB projects are funded by local sales tax, federal matching dollars, and bond issues, with a total program cost in excess of \$133M				
08/19 - 03/20	Fourth Street Extension, City of Gretna, Louisiana. The project provides an access alternative that will reduce commercial and industrial truck traffic on residential streets, enhance safety and general mobility in the area by providing an alternative travel corridor, and address the projected growth in activity in the immediate area as a result of ongoing and planned economic expansion and development. Estimated construction cost: \$8M				
06/15 - 05/19	Flood and Gordon Streets Reconstruction, City of New Orleans Department of Public Works. Construction of new concrete and asphalt pavement with new curbs, base course, hydraulic design and installation/replacement of drain lines, water lines, and sewer lines, construction of new sidewalks, driveways and handicap ramps, including construction management. Final construction cost; \$5.5M.				ncrete ,
03/06 - 08/09	Houma Navigational Canal Lock Complex, Terrebonne Levee and Conservation District/State of Louisiana Coastal Protection and Restoration Authority. Program Manager for the design of an ecosystem restoration, salinity control, and flood control project consisting of an 800' long lock chamber with sector gates that provides 110' of clear width for navigation, a floodgate with integrated sluice gates providing 250' of clear width for navigation, and a floodwall that consists of braced concret and steel flood walls connecting the lock complex to the existing adjacent levees. Estimated construction cost \$300M.				on, a oncrete
08/09 - 05/19	Bayou Chene Flood Control Structure, St. Mary Levee District/State of Louisiana Coastal Protection and Restoration Authority. Program Manager for the design and construction of steel braced floodwalls, 446-foot wide floodgate, and floodgat receiving structure with a clear channel opening of 403 feet, floodgate cutoff wall, riprap scour protection, earthen levee tie-ins and fendering systems. Estimated construction cost \$69M (4 phases).)n Jgate -ins,	

03/20 - Ongoing	Upper Barataria Storm Risk Reduction, Lafourche Basin Levee District. Program Manager for the design and construction of approximately 33 miles of hurricane storm damage risk reduction between Bayou Lafourche and the Davis Pond Diversion and providing risk reduction to a benefit area of over 625 square miles in Ascension, Assumption, Lafourche, St. Charles, St. James and St. John the Baptist Parishes. Estimated construction cost: \$600M.
09/04 - 03/19	Chalmette Loop Levee (Verret – Caernarvon), U.S. Army Corps of Engineers, New Orleans District. Enlargement of the levee to address the height deficiencies to provide a level of protection coincident with the authorized design grade. Final construction cost: \$41.8M.
07/04 - 07/11	St. Charles Parish Hurricane Protection Project, St. Charles Parish, Louisiana. Project Manager and civil engineer to provide hurricane storm damage risk reduction for a 9-mile project, including State of Louisiana and Federal permits, earthen levee design, drainage canal design, pumping station design, tidal exchange structure design, and frontal protection (T-Wall) design at existing drainage pumping stations. Estimated total construction cost of the comprehensive project: \$90M.

F	irm AECOM				
Jona	Jonathan Giardina, El			/ears of Relevant Experience with this Employer	4
Transp	ortation Engineer		Year	s of Relevant Experience with Other Employer(s)	0
Degree(s) / Years / Specialization	BS / 2019 / Civil Engineerir	ng		
Active Regis	tration Number / State / Expiration Date	EI.34290 / LA / 03/31/2022	2		
	Year Registered	2019	Discipl	ne Civil Engineer	
Contract Role(s) / Brief Description of Responsibilities		Task 1.0 Stage 0 Feasibil Roadway & Bridge Altern & Pedestrian Alternative for Low-Cost Safety Imp providing Road/Plan Engin	lilty Studies - Cost Est natives - Roadway Des es; Task 2.0 Road Safe provements - Support neering and Cost Estima	imating; Task 1.0 Stage 0 Feasibililty Studies - ign; Task 1.0 Stage 0 Feasibililty Studies - Bike y Assessments; Task 3.0 Development of Plar Services Quantity Takeoffs. Will be responsible ting Support.) IS for
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the propertience dates should cover	osed contract; i.e., "desi the time specified in the	gned drainage", "designed girders", "designed applicable MPR(s).	
09/20-Ongoing	Feasibility Study and Report / TEPR, College Drive, City of Baton Rouge / Parish of East Baton Rouge, Baton Rouge, LA. Roadway Design / CADD Design. Project aims to provide access management, signalization and capacity improvements along College Dr. RFP includes a flyover exit ramp from I-10 westbound Ramp to College Drive. Assisted with estimating costs of high- level design concepts utilizing the DOTD Bid Tab spreadsheet.				
10/17–12/18	S.P. No. H.011670: I-10 Design Build: Highland to LA 73, LADOTD, East Baton Rouge and Ascension Parishes. Design Build Project including a six mile I-10 widening to 6 lanes, replacement of an existing highland road overpass, reconstruction of I-10 on either side of Highland Road Bridge Widening over Bayou Manchac, improvements to the Highland Rd and LA 73 Interchanges, and rehabilitation of the LA 928 Overpass and two mainline Box Culverts. Assisted with document control and invoice review.				Build 10 on ges, w.
01/21-Ongoing East Baton Rouge Parish, MOVEBR Program, Airline Hwy. / Jones Creek Road TEPR Study, Baton Rouge, LA. Traffic Engineering Process and Report for the proposed Jones Creek Road Extension that will connect Tiger Bend Road and Airline Highway. Assisted with existing intersection analysis, queue and unmet demand traffic counts along the corridor, and traffic st report.				ne Sstudy	
06/18–Ongoing	Coastal Protection an Plaquemines Parish, L Sediment Diversion Ch traffic report, roadway of sections, geometric de	d Restoration Authority (A. Planning, engineering an annel to strategically reintro design calculations, guardra tails, cost estimating, and p	CPRA) of Louisiana, S nd design services (\$1.5 oduce sediment and fre ail design, plan checking Ilan development.	PN BA-0153, Mid-Barataria Sediment Diversion B CMAR Project) for the creation of the Mid-Bara shwater inputs into the Barataria Basin. Assisted g, temporary traffic control planning and design, t	n, taria with ypical

11/19–Ongoing	City of New Orleans Department of Public Works, Broadmoor Neighborhood Reconstruction, New Orleans, LA. Project facilitates a complete reconstruction of 22 neighborhood blocks within the Broadmoor neighborhood in New Orleans. Reconstruction includes the roadway, concrete sidewalks, concrete curbs and/or gutters, driveway aprons, waterlines, and stormwater system and corresponding infrastructure. Assisted in preliminary design, design plan development, and client meetings.
08/17–09/19	Port of New Orleans, Nashville Ave Wharf Improvements, New Orleans, LA. The main improvements include upgrading the wharf deck to accommodate for larger rail-mounted cranes. Work includes designing a new rail and supporting crane beam and pilings, demolition and modification or portions of the existing dock, fender and mooring system improvements, and a new sheet pile toe wall along the face of the wharf. Assisted in waterline design, plan development, site visits, invoicing, and document control.
01/19–Ongoing	City of New Orleans Department of Public Works, Milan Group A, New Orleans, LA. Project consisted of reconstruction/ restoration of roadways in the Milan neighborhood, which is bounded by Napoleon Avenue, Claiborne Avenue, Louisiana Avenue and St. Charles Avenue. The project will consist of milling and overlaying with full depth patching of selected streets, incidental patching of other streets, sidewalk repairs, incidental repairs to drainage structures, and the installation of handicap ramps. Assisted in the tabulation of quantities and development of cost estimates.
09/18-05/19	Jefferson Parish Department of Public Works, Mounes Street Drainage Improvements, Jefferson Parish, LA. The project consists of the design of traffic control plans and technical specifications for drainage improvements along Mounes Street. Assisted in temporary traffic control design and drafting of plans.

Fi	irm AECOM					
Adel	eigh Smith, El			Years of Relevant Experience with this Employer	2	
Transp	ortation Engineer		Ye	ars of Relevant Experience with Other Employer(s)	3	
Degree(s) / Years / Specialization	BS / 2020 / Civil Engineerii	ng			
Active Regis	tration Number / State / Expiration Date	EI 34525 / LA / 09/30/2022	2			
	Year Registered	2020	Disc	pline Civil Engineer		
Contract Role	Contract Role(s) / Brief Description of Responsibilities		Task 1.0 Stage 0 Feasibililty Studies - Cost Estimating; Task 1.0 Stage 0 Feasibililty Studies - Roadway & Bridge Alternatives - Roadway Design; Task 1.0 Stage 0 Feasibililty Studies - Bike & Pedestrian Alternatives; Task 2.0 Road Safety Assessments; Task 3.0 Development of Plans for Low-Cost Safety Improvements - Support Services Quantity Takeoffs. Will be responsible for providing Road/Plan Engineering and Cost Estimating Support.			
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the prope erience dates should cover	osed contract; i.e., "de the time specified in t	esigned drainage", "designed girders", "designed he applicable MPR(s).		
02/21–Ongoing	Feasibility Study and Assisted in visual plann engineering firms also	Report / TEPR, College Dr ing for College Drive improv working on the project.	rive, City of Baton R vements and figuring	ouge / Parish of East Baton Rouge, Baton Rouge, out the best way to convey all improvements to othe	LA. er	
02/20–Ongoing	Jones Creek Road Ex on Airline Highway, whe proficient counts while	tension 1A, City of Baton are Jones Creek will be exte maintaining safety.	Rouge / Parish of Ea Inding to. Coordinatir	st Baton Rouge, Baton Rouge, LA. Taking traffic co g with my team to make sure we are getting the mos	ounts t	
02/20-04/20	S.P. No. H.011670, I–10 Loyola Interchange Tinder-Offer, LADOTD, Kenner, LA. Assisted with marking up signage sheets through MicroStation for diverging diamond interchange to enhance accessibility and direct access. Identified utility conflicts to assist with design.					
03/20-04/20	City of Baton Rouge-F major portion of Baton	Parish of East Baton Roug Rouge's Pecue area. Assist	e, Pecue Signage U ed with design work v	odate, Baton Rouge, LA. Produced a sign summary vithin MicroStation.	for a	
08/20-Ongoing	City of New Orleans, Broadmoor Groups D & E, New Orleans, LA. Designed the joint layout for this Broadmoor group project. Coordinated with team and outside firm to do so.					
08/20-Ongoing	Orleans Levee District, Lakeshore Drive Reconfiguration, New Orleans, LA. Resident inspector for a 120–day contract period making sure the contractor is following the stamped plans and specifications. Updating my team and superiors on the progress every day and writing daily reports. Before construction, assisted with all AutoCAD and design work for the plan set.					
02/21-Ongoing	Baton Rouge Travel Demand Management, Baton Rouge, LA. Wrote the introduction for a proposal about the benefits of remote working. Will be submitted to Baton Rouge Capitol officials to help persuade efforts for cleaner air quality, traffic reductions, and coordination with companies to help reduce overall traffic demands corresponding with work commuting.					
01/20-04/20	City of Lake Charles,	Nelson Road Extension, L	ake Charles, LA. Per	formed project takeoffs and estimating.		

05/19–08/19	City of New Orleans, DPSO1 Drainage Upgrades and Green Infrastructure, New Orleans, LA. Performed project takes offs and estimating.
05/18–08/18	Tangipahoa Parish, Tangipahoa, LA. Assisted in designing signage layouts and pavement markings in accordance with MUTCD to refurbish roads in Tangipahoa Parish.
06/20-Ongoing	CPRA SPN BA-0153, Mid Barataria Sediment Diversion, Barataria, LA. Providing drainage calculations and drainage structure design for the LA 23 connecting road, Using LADOTD HYDR2009. Performed project take offs and cost estimations. Communicating work effectively with weekly meetings and updates. Using MicroStation and Inroads to do all tasks for the Sediment Diversion Project.

F	irm AECOM				
Dani	iel Boyd, PE			Years of Relevant Experience with this Employer	2
Structu	ural Engineer			Years of Relevant Experience with Other Employer(s)	13
Degree(s	s) / Years / Specialization	BS / 2006 / Civil Engineerir	ng		
Active Regis	stration Number / State / Expiration Date	PE.0036728 / LA / 03/31/2	2 PE.133235/	TX / 12/31/22	
	Year Registered	2011	C	Discipline Civil Engineer	
Contract Role	e(s) / Brief Description of Responsibilities	Task 1.0 Stage 0 Feasibil responsible for providing E	l ilty Studies - Ro Bridge Design Su _l	adway & Bridge Alternatives - Bridge Design. Will be oport.	
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 the time specified	., "designed drainage", "designed girders", "designed d in the applicable MPR(s).	
	Feasibility Study and Report / TEPR, College Drive, City of Baton Rouge / Parish of East Baton Rouge, Baton Rouge, L/ Bridge Engineer for the Design Study, Traffic Study, and Preliminary Plans for the completion of roadway improvement on Colle Drive and its vicinity between Perkins Road and Bawell Street inclusive of the interchange with I–10. The Design Study will incl development of numerous concepts to enhance operational capacity and efficiency along the corridor while including Compl Streets and green infrastructure improvements. Preliminary alternatives were developed and documented using LADOTD Sta 0 Project and Scope and Environmental Checklists in order to apply for state and federal funding grant applications to expance funding for the project beyond the allocation of the parish MOVEBR bond funds. Completed the Stage 0 checklists.				Dilege Iclude Iplete Stage Ind
09/19–01/20	S.P. No. H.004273.5, I–49, Connector, Lafayette, LA. Performed a review of I–49 mainline viaduct layouts for the three different structural options being presented to LADOTD for selection. Performing reviews and updating structural quantities and costs to reflect current design layouts and current bid pricing to ensure consistency across the three structural options.				ferent sts to
2006–2011	S.P. No. H.008273, Rec 71. Provided structural a (one each direction) wit aspects and componer performed analysis and and performed peer rev drawings for all steel bri	A River Bridge on US 71, A analysis and design for stee h 300'–400'–300' spans, ar hts of the steel plate girder b l design of prestressed con view on other components of dge girders and componer	lexandria, LA. Si el plate girders. De nd multiple simple pridge units, inclu acrete girders, con of the project. Co nts.	tructural design engineer for new Red River Bridge on US esigned main river spans consisting of two 3–span units e spans greater than 200' crossing river levees. Designe iding diaphragms, bolted splices, bearing, stiffeners, etc ncrete bridge deck, concrete columns, pile bents and pi Ilaboration with the steel fabricator to review approve sh	3 3 d all . Also les, nop
03/21-04/21	TxDOT, Oak Hill Parkway, Austin, TX. Performed Independent D project corridor. IDC included steel truss analysis, analysis of con both cantilever and overhead structures.			sign Check (IDC) for all Overhead Sign Structures along ete truss–support columns, and drilled shaft foundation	the s for
09/19–10/19	CPRA SPN BA-0153, L QC for. LA 23 bridge lay	A 23 Over Mid–Barataria Strouts, plans, and calculation	Sediment Divers	sion, Plaquemines Parish, LA. Performed peer review f	or QA/

04/20-11/20	Port of Gulfport, Port of Gulfport Connector, Gulfport, MS. Preliminary design phase to provide conceptual plans for a new bridge structure on 30th Ave. spanning Hwy. 90 providing direct trucking access into the Port of Gulfport. Performed preliminary structure design for both prestressed concrete girders and steel plate girder superstructures, preliminary substructure design, and geometric design.
01/20–10/20	TxDOT, IH 635 LBJ East Design–Build Project, Dallas, TX. Structural task leader for the design of Overhead Sign Structures along the project corridor. Design includes analysis of steel trusses for both overhead structures and cantilevered overhead structures, design of concrete support columns for truss structures, and foundations for structures. Also completed detailed Independent Design Checks (IDC) for two bridges in the project. IDC analyses were performed for entirety of each bridge structure, from geometry, superstructure design, substructure design, and foundation design.
09/19–10/19	TxDOT, Loop 1604 From SH16 to IF–35, San Antonio, TX. Prepared preliminary bridge layouts for two bridge overpasses and two creek crossings in a dense urban area with limited right of way. Preliminary design using TxDOT concrete girder standards and MicroStation and GEOPAK software. Performed QA/QC review for multiple bridges and crossing to ensure adequate vertical clearance were met.
09/19–10/19	CPRA, LA 23 Over Mid–Barataria Sediment Diversion, Plaquemines Parish, LA. Performed peer review for QA/QC for LA 23 bridge layouts, plans, and calculations.

F	irm AECOM				
Chris	s McKown, PE		Ye	ars of Relevant Experience with this Employer	1
Structu	ural Engineer		Years	of Relevant Experience with Other Employer(s)	7
Degree(s) / Years / Specialization	BS / 2003 / Civil & Transpo	rtation Engineering		
Active Regis	tration Number / State / Expiration Date	PE.0041077/LA/03/13/2	2023 PE.58540 / CO /	10/31/2023	
	Year Registered	2016	Disciplin	e Civil Engineer	
Contract Role	e(s) / Brief Description of Responsibilities	Task 1.0 Stage 0 Feasibil responsible for providing E	l ilty Studies - Roadway Bridge Design Support.	& Bridge Alternatives - Bridge Design. Will be	
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the propertience dates should cover	osed contract; i.e., "design the time specified in the a	ned drainage", "designed girders", "designed pplicable MPR(s).	
09/20–Ongoing	Feasibility Study and Report / TEPR, College Drive, City of Baton Rouge / Parish of East Baton Rouge, Baton Rouge, LA. Bridge Engineer for 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				ridge nd ent een e and d the
2016–2017	S.P. No. H.012422, I–1 and Engineer of Record Rouge. The purpose of the I–10/I–110 merge. R	10 Interchange Modificati I for the superstructure des the project was to provide a esponsibilities included the	on @ Terrace, LADOTD ign of a new off–ramp fro a new exit ramp to improv design of the deck, stee	East Baton Rouge Parish, LA. Design Engined m I–110 South to Terrace Avenue in downtown B e connectivity in the area and reduce congestic girders and bearings for the new structure.	er Baton on at
2017–2020	S.P. No. H.003184, I–10 Record on the project to complete replacement the project. The structu	D TX State Line East of Co o widen approximately 11 m of nine different structures ures will be replaced using p	oone Gully, LADOTD, Ca niles of I–10 from Vinton, I within the project limits. I hased construction.	casieu Parish, LA. Design Engineer and Engine A to the Texas state line. The project called for Engineer of Record for the eight slab span bridg	eer of the es on
2015–2019	S.P. No. H.002446, LA Record and Bridge Des LA. The project called for for the complete design rating of the new struct	40: Tchefuncte River Brid ign Task Lead for the comp or the replacement of the e n of the new 420' long slab s ure was also provided.	ge, LADOTD, St. Tamma lete replacement of the L xisting structurally deficie span structure including a	Any and Tangipahoa Parishes, LA. Engineer of A 40 bridge over the Tchefuncte River near Fols ent bridge utilizing phased construction. Respor Ill substructure components. An "as–designed"	iom, nsible load

2015–2019	S.P. No. H.010009, LA 507 Over I–20 Bridge Rehabilitation, LADOTD, Lincoln Parish, LA. Design Engineer and Engineer of Record for the complete replacement of the bridge superstructure of the LA 507 overpass near Simsboro, LA. The project called for accelerated bridge construction for the replacement of the bridge superstructure and various structural repairs. The bridge was built on site and moved into place over the course or several weekends. Responsibilities include the design of the deck, the steel girders, and the new bearings. Special consideration was given to minimize construction time and any road closures.
02/21–Ongoing	El Paso County, CO, South Academy Widening, El Paso, Colorado, and Dallas, TX. Design Engineer and Engineer of Record for the design of widening and rehabilitation of three separate structures on South Academy Boulevard in Colorado Springs, CO for capacity improvements. The widened superstructures will be a mixture of prestressed girders, prestressed box girders, and steel plate girders. The project also includes plans for scour mitigation and the associated structural repairs at one of the sites.
02/20–03/21	TxDOT I–635 LBJ East. Design Engineer for the Quality Control process on the project. The project's scope is for the construction of an approximately 11.2–mile corridor of Highway I–635 LBJ East from US 75 to IH–30 in Dallas County to improve safety, mobility, and relieve congestion in the region. Provided independent design checks and plan verifications (QC) for one bridge and all the sign structures on the project.

F	irm AECOM				
Jona	athan Martinez			Years of Relevant Experience with this Employer	19
Enviror	nmental Planner		Yea	irs of Relevant Experience with Other Employer(s)	0
Degree(s	;) / Years / Specialization	BS / 2002 / Forestry/Ecos	ystem Management		
Active Regis	tration Number / State / Expiration Date	ACOE Wetland Delineation	n and Management; (F	eg. IV) Training Certified	
	Year Registered	n/a	Disci	oline n/a	
Contract Role	e(s) / Brief Description of Responsibilities	Task 1.0 Stage 0 Feasibil providing Environmental L	lilty Studies - Enviro ead.	mental & Scoping (Task Lead). Will be responsible	e for
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properience dates should cover	osed contract; i.e., "de the time specified in t	signed drainage", "designed girders", "designed ne applicable MPR(s).	
09/20–Ongoing	Feasibility Study and Report / TEPR, College Drive, City of Baton Rouge / Parish of East Baton Rouge, Baton Rouge, LA. Project Planner for 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 an 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 MOV/EBR bond funds. Completed the Stage 0 checklists				oject its of and I the
01/10-05/14	Stage 0 Feasibility Stage 0 Feasibility Stage 0 Feasibility Stage 2 Environmental planner reconstruction of sidev Louisiana. The project v corridor and will support operations. The now co	udy and Report, US 61 / To for project includes improve valks along Tulane from S. C will implement corridor impr rt future transportation den ompleted corridor improven	ulane Avenue Carrol ements such as medi Carrollton Avenue to S rovements that will en nand and adjacent lan nents consist of amer	ton Avenue to Claiborne Avenue, New Orleans, L. an widening, cold mill and overlay with restriping and Claiborne Avenue in Orleans Parish, New Orleans, nance quality of life, livability, and sustainability in the d use including pedestrian, bike, and transit system ities associated with a complete streets concept.	A.
10/06–12/07	I-210 Stage 0 Corridor comprehensive traffic ar operational conditions a of the area. The 12-mile of interchanges. The objec current and future transp 1-210 Corridor.	Study Route I-210, LADO nd transportation study for the nd to define transportation s corridor spans between Inter tive of the study was to ident portation capacity and opera	TD, Lake Charles, LA ne Interstate 210 (1-210 trategies that would co state 10 (1-10) at Exit 3 ify and evaluate existin tional deficiencies; and	(701-65-0710 & 701-65-0899) AECOM conducted) Corridor in Lake Charles to quantify deteriorating traff ntribute to long term mobility and the economic viability 4, to 1-10 west of the Calcasieu River and includes nine g transportation resources and opportunities; to identify to identify operational and geometric improvements for	a ic y y or the

09/15-04/17	Multimodal Transportation and Traffic & Safety Analysis, and Transportation Plan (NODTA), City of New Orleans Department of Public Works, New Orleans, LA. Planner for 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.
07/15–Ongoing	S.P. No. H.004273.5: I–49 Connector Supplemental EIS, LADOTD, Lafayette, LA. Project planner for the SEIS conducted for 5.5–mile segment of I–49 South between I–49/I–10 interchange and the Lafayette Regional Airport through urban Lafayette. The work advances the project beyond the Record of Decision issued by FHWA in January 2003. While the project initially required a Reevaluation of the concept of the 2003 Selected Alternative, the passage of time, changes in the environment and community concerns have resulted in refinements to that concept substantial enough to warrant a Supplemental Environmental Impact Statement (SEIS). Jonathan's role is to write the natural environmental sections of the SEIS and assist with review of Phase I ESA and the Section 106 Consultation process. To date, he has performed the wetland delineation and preparation of the Section 404 permit and worked with other staff in the development of the project.
01/03–04/12	S.P. No. H.006447.2: I–69 SIU, EIS, LADOTD, Claiborne and Webster Parishes, LA, Columbia and Union Counties, AR. Field biologist for the Environmental Impact Statement for the proposed I–69 project. Responsible for fieldwork to determine the presence of threatened and endangered species in the area, as well as wetland delineations and the study of a suitable crossing of the Bayou Dorcheat scenic stream. The Interstate 69 Corridor's section of independent utility number 14 spans between Shreveport, Louisiana and El Dorado, Arkansas through a rural timber and poultry farming area.
09/11-02/12	S.P. No. H.004580.5: Re-evaluation of EA and FONSI US 190 in Mandeville from LA 22 to Lonesome Road, LADOTD, LA. Environmental planner and biologist for the proposed reconstruction of US 190 extending from LA 22 to Lonesome Road, including the construction of two new bridge structures over Bayou Chinchuba. This project re-evaluates the original EA and FONSI completed in 1999 and revised in 2006. Responsible for applying for a new 404 Wetland Permit and Coastal Use Permit and a Threatened and Endangered Species survey and clearance for the project as well as additional field work, surveys, and coordination with state and Federal agencies and submittal of a Wetland Findings Report and T&E Species Survey Concurrence.
11/10–10/13	S.P. No. H.004932: Environmental Assessment, LADOTD, US 90 at LA 318, 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	S.P. No. H.004932: Supplemental Environmental Assessment, LADOTD, US 90 at LA 318, 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.

F	irm AECOM				
Loui	Louis Costa			Years of Relevant Experience with this Employer	20
Senior	Planner			Years of Relevant Experience with Other Employer(s)	30
Degree(s) / Years / Specialization	BA / 1964 / Political Science MCP / 1970 / City Planning	ce and History g and Urban Desig	n	
Active Regis	tration Number / State / Expiration Date	n/a			
	Year Registered	n/a	D	iscipline n/a	
Contract Role	(s) / Brief Description of Responsibilities	Task 1.0 Stage 0 Feasibil responsible for providing E	l ity Studies - Env Environmental Sup	ironmental & Scoping - Environmental Review. Will b opport.	ре
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the propertience dates should cover	osed contract; i.e., the time specified	, "designed drainage", "designed girders", "designed in the applicable MPR(s).	
06/13–10/14	Stage 0 Feasibility Study and Report, Williams Boulevard, LADOTD, Jefferson Parish, LA. (H.010570.1) Environmental Inventory Checklist. The LA 49 (Williams Blvd.) Corridor Study is a study to collect and analyze 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 1				ntory Ind Fidor
09/07–07/15	Stage 0 Feasibility Study and Report and EA, LA 511 Red River Bridge at Jimmie Davis Highway, LADOTD, Baton Rouge, LA. (EA: H.001779 & 700-08-0114) Environmental Task Lead for the Stage 0 work and Project Manager for the Environmental Assessment (EA). Currently, the LA 511 crossing of the Red River crossing is a two-lane truss bridge that is eligible for the Nationa Register of Historic Places. The traffic analysis indicates that the project purpose was to increase capacity. Major environmental issues were community concern that the project is long overdue, commercial relocations, impacts to wetlands and Section 4(f) properties, and the inclusion of a shared use trail on the bridge to connect the existing trails on each side of the Red River. A EONSI was issued by EHWA in 2015.				uge, ntal National nental n 4(f) A
07/15 - Ongoing	S.P. No. H.004273.5: I- Parish, LA. Environme includes a Context Sen includes a signature bri implementation strateg with underpasses, and interchange ramps are highway traffic, and env	49 Connector, Lafayette ntal Task Leader for a NEPA sitive Solutions process tha dge and an urban master pl jies, potential railroad alignr possible modifications to a being considered as well. Ir vironmental and public invol	Regional Airport A Supplemental Els at is occurring cor lan for local road a ment modification n Amtrak station p n addition, Louis w lvement tasks.	to I-10/I-49/US 167 Interchange, LADOTD, Lafayett S and Design of a 5 mile urban freeway corridor. The pro- ncurrently with the environmental process. The project and frontage road connections. The project has conside s, potential replacement of up to three at-grade crossir platform. Highway overpass for the mainline viaduct and ill also perform tasks associated with highway geometr	:e oject : ered ngs d the rics,

05/10–02/14	Stage 0 Feasibility Study and Report, I-49 Raceland to the West Bank Expressway (24 Stage 0 Reports), LADOTD, Lafourche, St. Charles, and Jefferson Parishes, LA. (H.005171) Project Manager for this project that included two separate efforts–(1) 24 Stage 0 Feasibility Study Reports for each Interim and Freeway project identified along the US 90 / I–49 South Corridor between Raceland and the Westbank Expressway in Jefferson, Lafourche, and St. Charles Parishes and (2) a study of the proposed interchange area of US 90, I–310 and the Future I–49 South in St. Charles Parish. Among the projects studied Project I–6 Access Management in Paradis was implemented.
05/10-02/14	Stage 0 Feasibility Study for Safety and Efficiency, I-49 Ricohoc to Berwick (16 Stage 0 Reports), LADOTD, St. Mary Parish, LA. (H.005171) Project Manager for this project that provided 16 Stage 0 Feasibility Study Reports for each Interim and Freeway project identified along the US 90 / I–49 South Corridor between Ricohoc and Berwick in St. Mary Parish. Among the projects studied, the proposed Interim improvements to the roadway in Patterson, Bayou Vista and Berwick have been implemented.
08/12–07/14	Stage 0 Feasibility Study and Report, Johnston Street Study (US 167), LADOTD, Lafayette Parish, LA. (H.009998.1) Environmental Inventory Checklist. The US 167 (Johnston Street) Corridor Study is a study to collect and analyze 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.
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.

F	irm AECOM					
Jona	athan Vavasseu	r, PWS		Year	s of Relevant Experience with this Employer	3
Senior	Project Biologist			Years of	Relevant Experience with Other Employer(s)	15
Degree(s) / Years / Specialization	BS / 2002 / Wildlife and Fis	heries Sciences			
Active Regis	tration Number / State / Expiration Date	Certified Professional Wet	land Scientist (PV	WS) No. 30	29 / LA / 12/31/2022	
	Year Registered	2018	C	Discipline	n/a	
Contract Role	e(s) / Brief Description of Responsibilities	Task 1.0 Stage 0 Feasibil responsible for providing E	l ity Studies - Env Environmental/We	vironment etland Sup	t al & Scoping - Environmental Review. Will b port.	e
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the prope erience dates should cover t	osed contract; i.e the time specified	., "designe d in the app	d drainage", "designed girders", "designed plicable MPR(s).	
08/15 - 08/18	LADOTD Environmental Impact Specialist (Biologist) – DCL for FHWA Funded Highway Projects, State of Louisiana. 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 biobway projects.				ead y ng ical	
12/21 - Ongoing	EDR Renewables Nort for coordinating and co solar farm site.	th America, LLC / Crooked onducting all wetland delinea	d Lake Solar Proj ation, T&E field su	ject, Miss urveys, and	issippi County, AR. Lead Field Biologist responsion of raptor nesting surveys for the proposed 2,62	onsible 25-acre
05/21 - Ongoing	Air Products and Che Lead responsible for le and state resource per	micals, LLC / Darrow Blue ading wetland and T&E field mitting efforts	Energy Project, survey efforts as	, Ascensic s well as pe	on Parish, LA. Senior Project Biologist/Permit ermitting lead responsible for coordinating all	ting federal
09/20 - Ongoing	Feasibility Study and 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 404/10 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. Senior project biologist/permitting.				itting.	
02/19 - 08/20	NASJRB New Orleans, LA. Project Manager and Senior project biologist responsible for conducting 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.				bies	
11/18 - 05/19	Pine Gate Renewables Biologist responsible for sites located in MS.	s, LLC / Cane Creek and M or coordinating and conduc	loonshot Solar P ting wetland, T&E	Projects, F , and wildli	Hancock and Clarke Counties, MS. Senior Fi ife habitat field surveys for two proposed sola	əld r farm

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.
07/14 - 07/15	Baton Rouge Metropolitan Airport. Lead field biologist and project coordinator responsible for conducting wetland delineations and technical reporting for an approximate 220-acre tract owned by the Baton Rouge Metropolitan Airport. Work included project coordination and conducting wetland delineations at the request of the New Orleans District, U.S. Army Corps of Engineers.
04/13 - 02/15	Port of Greater Baton Rouge. Lead field biologist and regulatory specialist responsible for conducting wetland delineations, T&E surveys, and regulatory permitting for numerous tracts owned by the Port of Greater Baton Rouge. Work included conducting wetland delineations and regulatory permitting.

F	irm AECOM				
Shelley R. Hartsfield, MA				Years of Relevant Experience with this Employer	17
Princip	al Investigator / Project N	<i>l</i> lanager	Yea	rs of Relevant Experience with Other Employer(s)	0
Degree(s	;) / Years / Specialization	MA / 2012 / Anthropology BS / 2001 / Anthropology			
Active Regis	tration Number / State / Expiration Date	n/a			
	Year Registered	n/a	Discip	line n/a	
Contract Role	e(s) / Brief Description of Responsibilities	Archaeologist. Task 1.0 Review. Will be responsib	Stage 0 Feasibililty S le for providing Cultura	tudies - Environmental & Scoping - Environmen I Resources Support	tal
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properience dates should cover	osed contract; i.e., "de the time specified in tl	igned drainage", "designed girders", "designed e applicable MPR(s).	
2020	College Drive Perkins Ms. Hartsfield conducte archaeological and hist	Road to I-10, City-Parish ed the background study ar oric resources for the unde	Project No. 19-EN-H nd coordination with the ertaking.	C-0033, Baton Rouge, East Baton Rouge Parish , e Louisiana State Historic Preservation Office rega	LA. arding
2020	Phase I Cultural Resou Phase I Cultural Resou Baton Rouge, LA. Ms. I secondary author of the	urces Investigation of the urces Investigation of the Hartsfield served as Princip e Phase I investigation repo	proposed Jones Croposed Jones Croposed Jones Croposed Jones Croposed Jones Croposed Investigator and overt.	ek Road, Jefferson Highway to Airline Highway ek Road, Tiger Bend Road to Jefferson Highwa ersaw the archaeological field efforts and is the	r; and y,
2021	Phase I Cultural Resou Reserve, St. John the efforts and is the secor	urces Survey Report for t Baptist Parish, LA. Ms. Ha adary author of the Phase I	he Port of South Lou artsfield served as Prir investigation report.	siana Globalplex Multi-Modal Connections Proj cipal Investigator and oversaw the archaeological f	j ect, field
2020	Phase I Cultural Resor LA. Principal Investigat author of the Phase I inv conducted the prepara Barksdale Air Force Bas	urces Investigation of the or. Ms. Hartsfield served as vestigation report, aided in tion and submission of all re se.	East Gate Relocation Principal Investigator the contribution for cu ecords produced from	Project, Barksdale Air Force Base, Bossier Par and oversaw the archaeological field effort, was the ltural resources to the Environmental Assessment the investigation, submitted to the curatorial facilit	r ish, e ., and ty at
2020	Dallas to Houston Hig Navarro, Freestone, L Hartsfield has coordina contribution for cultura lead federal agency and Preservation Act (NHPA archaeological reports	h Speed Rail Archaeologi imestone, Leon, Madison ted the archaeological field I resources, produced the F d the Texas Historical Comr A), the Antiquities Code of T produced for this project.	cal Resources Surve , Grimes, Waller, and d effort, aided in the pr Programmatic Agreem mission in support of c exas, and NEPA, as we	y, Federal Railroad Administration, Dallas, Ellis, Harris Counties, TX. Project Archaeologist. Ms. oduction of the Environmental Impact Statement ent for the project, and has coordinated with the ompliance with Section 106 of the National Historic I as lead author and technical reviewer of the	0

F	irm AECOM				
Gary	Gary Hawkins			Years of Relevant Experience with this Employer	12
Archae	eology Technician			Years of Relevant Experience with Other Employer(s)	0
Degree(s) / Years / Specialization	BA/2003/Anthropology			
Active Regis	tration Number / State / Expiration Date	n/a			
	Year Registered	n/a	C	Discipline n/a	
Contract Role	e(s) / Brief Description of Responsibilities	Cultural Resources (Arch - Environmental Review.	haeology). Task Will be responsib	1.0 Stage 0 Feasibililty Studies - Environmental & Sc le for providing Cultural Resources Support	oping
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. the time specified	, "designed drainage", "designed girders", "designed I in the applicable MPR(s).	
05/15 - 05/16	Berwick Interchange I survey of a 112- parcel	Environmental Assessme For the proposed US 90 / LA	ent, LADOTD, St. A 318 at grade inte	Mary Parish, LA. Field Archaeologist. Cultural resource ersection.	es.
01/16 - 03/16	LA 1042 Bridge Expan surrounding HWY LA 10	sion, LADOTD, Helena Pa)42 east of Greensburg, LA	arish, LA. Field Ar 	chaeologist. Phase I cultural resource survey and invent	ory
02/15 - 02/15	LA 3 Turn Lane Consti surrounding HWY LA 3	ruction, LADOTD, Bossier north of Shreveport, LA.	Parish, LA. Field	Archaeologist. Phase I cultural resource survey and inv	entory
10/15 - 01/16	Pigeon Creek Bridge B several test units on a s	Expansion, LADOTD, Hele mall prehistoric site. Repor	ena Parish, LA. Fi t work included p	eld Archaeologist and Technical Reporting. Site include rehistoric ceramic analysis.	d
05/17 - 06/17	Tendal Road Cultural I Survey conducted for t	Resource Survey, LADOTI ne LaDOTD at the 16MA19	D, Madison Paris (Tendal Mound) s	sh, LA. Field Archaeologist, Technical Writing, and Analy ite in Madison Parish, LA west of Tallulah.	sis.
08/17 - 10/17	Coteau Road Phase I C proposed expansion to impacted homes.	Cultural Resource Survey, LA 88 (Coteau Rd.) in Iberia	a Parish, LA. Inclu	Parish, LA. Field Archaeologist. Phase I assessment o ded excavation and architectural assessment of potent	f a ially
08/08 - 01/19	Baton Rouge Loop Tier 1 Environmental Impact Statement, Capital Area Expressway Authority and LADOTD, Ascension, East Baton Rouge, Iberville, Livingston, and West Baton Rouge Parishes LA. Technical Writer. Cultural resources reporting for a Tier 1 EIS for the proposed Baton Rouge Loop toll road project.				
09/13 - 04/14	Perkins Road (LA427) East Baton Rouge Par project.	Segment #1, From Sieger sh, LA. Field Archaeologis	n lane to Highlan it. Phase I cultural	d Road, Stantec Consulting Services, Inc., Baton Ro resources survey of a 3.14-mile long corridor improvem	u ge, ent
08/15 - 09/15	GDOT, Hereford Farm Road near the city of Ev	Road Extension, Colombi ans, GA.	ia County, GA. Fi	eld Archaeologist. Survey of a 6.5-mile section of Heref	ord,

F	irm AECOM										
Tany	va McDougall, M	S		Years of Relevant Experience with this Employer	8						
Cultura	al Resources Lead / Proje	ct Manager		Years of Relevant Experience with Other Employer(s)	9						
Degree(s	;) / Years / Specialization	MS / 2008 / Historic Prese BS / 2004 / History, Histor	ervation ic Preservation								
Active Regis	tration Number / State / Expiration Date	n/a									
	Year Registered	n/a	C	Discipline n/a							
Contract Role	e(s) / Brief Description of Responsibilities	Historian. Task 1.0 Stage Will be responsible for pro	e 0 Feasibililty St widing Cultural Re	tudies - Environmental & Scoping - Environmental Re sources Support	view.						
Experience Dates (mm/yy - mm/yy)	Experience and qualific intersection", etc. Expe	ations relevant to the properience dates should cover	osed contract; i.e. the time specifiec	., "designed drainage", "designed girders", "designed d in the applicable MPR(s).							
	Orange Line Project in documentation efforts with no previous NRHP significance and retain known effects issues w actions.	the City of Austin, Travis conducted along the prope designation. Of the survey sufficient integrity to qualify ith the ongoing project des	S County, TX. Prir psed rail corridor id ed historic resourd y for listing in the l sign, potential con	ncipal Investigator. Tanya led the research, fieldwork, and dentifying 592 sites containing one or more historic resc ces, a total of 49 were found to demonstrate historical NRHP. The information was compiled in a report identifyin flicts, and programmatic methods for meeting compliand	ources ng ce						
2021	Environmental Assessment (EA) for the TEXRail Extension Project, Fort Worth, Tarrant County, TX. Tanya served as the Principal Investigator in assisting the Federal Transit Administration and Trinity Metro meet requirements under Section 106 of the National Historic Preservation Act (NHPA). She led the project team in conducting research and fieldwork, client coordination, agency involvement, public involvement, and documentation efforts.				he of ation,						
2020	Cultural Resources Investigation for the Texas Central Railroad Dallas to Houston High-Speed Rail Project Environmental Impact Statement. Cultural Resources Lead. Tanya served as the Principal Investigator for the historic resources survey conducted, which traversed 240-miles and 10 counties between Dallas and Houston, Texas. She led a team of architectural historians and integrated the Section 106 coordination into the National Environmental Policy Act process, evaluating over 1,100 historic resources for NRHP eligibility. Her responsibilities for implementing the Section 106 coordination between the Federal Railroad Administration and the Texas Historical Commission included public involvement, Section 4(f) Evaluations, and developing and coordinating the Programmatic Agreement.										
2017	Cultural Resources In Reeves, and Ward Cou survey, and monitoring conducted the deed tit	vestigations for the Onco unties, TX. Tanya led a tear efforts conducted for the 9 le research for eight newly-	or Permian Basin m of cultural resou 7-mile Permian Ba recorded historic	- Culberson 138 kV Transmission Line Project, Culber urces professionals and managed the background resear asin - Culberson Transmission Line Project. She also archaeological sites.	irson, rch,						
F	irm AECOM										
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Osc.	ar Avila			Years of Relevant Experience with this Employer	21						
Senior	Transportation Designer	/ CAD Manager		Years of Relevant Experience with Other Employer(s)	12						
Degree(s	;) / Years / Specialization	n/a									
Active Regis	tration Number / State / Expiration Date	n/a	/а								
	Year Registered	n/a	[Discipline n/a							
Contract Role	Contract Role(s) / Brief Description of Responsibilities Task 1.0 Stage 0 Feasibility Studies - CADD Design & Support Services; Task 3.0 Develor of Plans for Low-Cost Safety Improvements - CADD. Will be responsible for providing CAL Development.										
Experience Dates Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed (mm/yy - mm/yy) intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).											
05/13-07/15 S.P. No. H.001779.5: Red River Bridge at Jimmie Davis Highway (LA 511) EA, LADOTD, Bossier and Caddo Paris LA. The project consists of providing all necessary engineering and related services required to prepare a Suppleme Environmental Assessment (SEA) in accordance with the National Environmental Policy Act (NEPA), as amended, and Highway Administration's regulations and guidelines. Responsible for geometric design (horizontal and vertical) of at- elevated structures, as well as organizing, preparing and producing deliverable sets of plans and exhibits for the repo- public meetings											
10/00-10/05	S.P. No. H.004273.5, I- Parishes, LA. Respons creating project corrido	49 South Lafayette Regio bible for creating 3D models or rolls.	onal Airport to L s of several bridge	A 88 EIS, LADOTD, Iberia, Lafayette, and St. Martin e alternatives, assisting on bridge quantity calculations,	and						
09/17-10/18	St. Bernard Port & Ter roadway and will also p	minal Intersection Impro repare Cross Section, Plan	vement, Chalme and Profile, Detou	tte, LA. Responsible for developing 3D model of the pro ur Plans and Typical Sections.	oposed						
12/15-08/16 Mississippi Department of Transportation (MDOT), SR 172 at Little Yellow Creek and Ellington Branch (Bridge Nos. 0 Tishomingo County, MS. AECOM will prepare Phase A roadway plans for the bridge replacement at Little Yellow Creek (Brid No. 0.9) and Ellington Branch (Bridge No. 2.3) on SR 172. The Phase A Roadway plans shall be developed based upon replacin bridges via road closures. Roadway plans shall conform to Roadway Design Division's CADD specifications as described in Roadway Design Division's CADD USER'S MANUAL. Oscar is responsible for developing a 3D model from DTM of the propos roadway and bridges, and will also prepare cross section, plan and profile, detour plans, and typical sections.											
12/15-08/16 MDOT SR 182 Over Vernon Branch (Bridge No. 178.6), Lowndes County, MS. AECOM prepared Phase A roadway plans for the bridge replacement at Vernon Branch (Bridge No. 178.6) on SR 182. The Phase A roadway plans were developed based used in replacing bridges via road closures. Oscar is responsible for developing a 3D model of the proposed roadway and bridge from DTM, and will also prepare cross section, plan and profile, detour plans, and typical sections.											

12/13-06/15	S.P. No. H.004367.5, Earhart Expressway Extension to US 61, Route 3139, LADOTD, Jefferson Parish, LA. Design of an elevated connection of Earhart Expressway to Airline Drive (US 61) in the vicinity of Lester Avenue, including relocation of the four existing lanes of Airline Drive, construction of additional lanes of Airline Drive, and partial enclosure of Canal No. 6. Oscar's responsibilities included ensuring use of LADOTD CAD standards, policies, procedures, and guidelines by implementing the LADOTD's required certification softwares such as CadConform ; to maintain and update CAD detail libraries for several disciplines.
09/02-12/08	S.P. No. H.005171.1, I-49 South, 26 Stage 0 Interim Improvements for Safety and Efficiency, Raceland to Westbank Expressway, LADOTD, Lafourche, St. Charles, and Jefferson Parishes, LA. CADD senior designer for this project to identify improvements in the US 90 / I-49 corridor between Raceland and the Westbank Expressway that can be implemented to improve safety and operations pending construction of I-49. These improvements can include partial construction of segments of I-49, rerouting of I-49, and improvements to US 90. Responsibilities included designing and preparing plans showing several horizontal and vertical geometry alternatives.
05/10-07/15	S.P. No. H.005171.1, I-49 Study to Identify Interim Improvements for Safety & Efficiency, LADOTD, St. Mary Parish, LA. The goal of the project is to identify improvements in the US 90 / I-49 corridor in St. Mary Parish, between Ricohoc and Berwick. Those improvements may be implemented to improve safety and operations pending construction of I-49. Responsibilities included geometric design (horizontal and vertical) for Line/Grade Conceptual Drawings, analyzing and proposing several alignments, including the design of interchanges system alternatives.
11/08-04/16	I-595 Corridor Improvements, Broward County, FL. This design-build project includes 56 bridges, from which a group of 5 bridges were assigned to the New Orleans office. Besides coordinating the CADD production, Oscar's responsibilities included setting geometrics and producing layout, plan/elevation, sections and detailing drawings of foundation, substructure and superstructure. This work was produced under a very strict schedule.

F	irm AECOM								
Core	ey Serignea		Ye	ars of Relevant Experience with this Employer	27				
CADD	Designer		Years	f Relevant Experience with Other Employer(s)	11				
Degree(s) / Years / Specialization	Vocational Technical Certi	ficates in Various Graphic	s/Drafting and Design Applications					
Active Regis	tration Number / State / Expiration Date	n/a							
	Year Registered	n/a	Discipline	n/a					
Contract Role	e(s) / Brief Description of Responsibilities	Brief Description of Responsibilities Task 1.0 Stage 0 Feasibility Studies - CADD Design & Support Services; Task 3.0 Devel of Plans for Low-Cost Safety Improvements - CADD. Will be responsible for providing CA Development.							
Experience Dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).								
2014 - 2017	designer for the prepar of Louisiana. The tasks for each curve, cost est a ball bank test, photo a countermeasures at ea Modification Factors (C completion of each lett	P. No. H.011489.5: Safety Studies Retainer Contract, Low Cost Safety Improvements, LADOTD, Statewide, LA. CADD signer for the preparation of preparing Safety Improvement Plans (SIP) for 282 systemic curves located throughout the state Louisiana. The tasks associated with this project include; site visits to the curves, plan preparation of safety countermeasure r each curve, cost estimates for the plan set, and a pre-construction meeting with each DOTD district. Each site visit includes coall bank test, photo and an existing conditions documentation of each curve. The plan preparation includes deriving safety countermeasures at each curve location, preparing a letter size plan set of the safety countermeasures, including the Crash odification Factors (CMFs) within the plan sheet, and preparing cost estimates for the safety countermeasures. After the completion of each letter size plan sets, a meeting will be held with each District to discuss the countermeasures.							
2012	S.P. No. H.009998.1: S Stage 0 feasibility study a 4 mile segment of LA considered for a Stage	afety Retainer Contract L y in accordance with the res 935 from LA 431 to LA 22 in 0.	A 935 Feasibility Study, sults of the Roadway Safe n Ascension Parish. From	LADOTD, Ascension Parish, LA. CADD desig by Assessment (RSA). The study area is approx the RSA three proposed alternatives were to b	ner for imately e				
2016 - 2017	LADOTD Safety Studies Retainer Contract, US 190 Barrier Feasibility Study, St. Tammany Parish, LA. CADD designer for the study of a median barrier within the limits of an existing structure on LA 22. Tasks within this study include existing data collection, geometric layout analysis, safety analysis, field review, bridge rating and structural analysis. A comprehensive report detailing findings of existing conditions, preliminary plans of a preferred alternative for a barrier system on an existing structure, and a safety analysis of the barrier system.								
2010 - 2012	 S.P. No. 700-92-0024: I-49 South, 11 Stage 0 Interim Improvements for Safety and Efficiency, Wax Lake Outlet to Berwick, LADOTD, St. Mary Parish, LA. Lead CADD designer assigned to this project. The goal of the project was to identify improvements in the US 90 / I-49 corridor between Wax Lake and Berwick that can be implemented to improve safety and operations pending construction of I-49. These improvements can include partial construction of segments of I-49, rerouting of I-49, and improvements to US 90. Responsibilities include geometric design (horizontal and vertical) for Line/Grade Conceptua Drawings, analyzing and proposing several alignments. 								

2010 - 2012	S.P. No. 700-92-0024: I-49 South, 23 Stage 0 Interim Improvements for Safety and Efficiency, Raceland to Westbank Expressway, LADOTD, Lafourche, St. Charles, and Jefferson Parishes, LA. Lead CADD designer assigned to this project. The goal of the project was to identify improvements in the US 90 / I-49 corridor between Raceland and the Westbank Expressway that can be implemented to improve safety and operations pending construction of I-49. These improvements can include partial construction of segments of I-49, rerouting of I-49, and improvements to US 90. Responsibilities include geometric design (horizontal and vertical) for Line/Grade Conceptual Drawings, analyzing and proposing several alignments.
2007 - 2009	S.P. No. 817-40-0008: Siegen Lane Improvements (Highland Rd. to 650' south of Perkins Rd.), LADOTD and the City of Baton Rouge Dept. of Public Works, Baton Rouge, LA. CADD designer responsible for the development of design drawings for the construction of a four-lane divided roadway to replace the existing two-lane road. Responsibilities include design horizontal and vertical geometry of the new roadway.

F	irm AECOM									
Thou	mas Hall, PhD, E	I		Year	rs of Relevant Experience with this Employer	2				
Transp	ortation Engineer		Y	′ears of	Relevant Experience with Other Employer(s)	0				
Degree(s) / Years / Specialization	PhD/ 2017 / Civil Engineeri MSCE / 2014 / Civil Engine BCE / 2012 / Civil Engineer	ing eering ring							
Active Regis	tration Number / State / Expiration Date	ET31300510 / IN / 12/31/2	.T31300510 / IN / 12/31/2112							
	Year Registered	2013	Dis	cipline	Civil Engineering					
Contract Role	e(s) / Brief Description of Responsibilities	Task 4.0 Safety Effective Safety Engineering Suppo	eness Evaluation - ort.	valuation - Engineering Support. Will be responsible for prov						
Experience Dates (mm/yy - mm/yy)	s 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).									
2020 - Origoing	Road to Zero Safety Performance - TxDOT . This project focuses on the development of a convenient Tableau-based dashboard for identifying crash hotspots and evaluating and monitoring the safety performance of TxDOT projects, particula those implemented through the Road to Zero (RTZ) campaign. Emphasis is given to reducing the number of fatal and serious injury crashes. Thomas has provided guidance on the calculation and presentation of crash rates at varying aggregation level (segment, county, district, etc.). Moreover, he has provided technical expertise in the development and implementation of the before/after analyses for safety improvements. The outcome is expected to enhance the evaluation and monitoring of safety previous implemented by TxDOT at the acunty, district, etc.).									
2021 - Ongoing	I-69 Section 6.5 Proje Authority. As an engine as CCTV, dynamic mes has also assisted in imp design alternatives for cost ratio and assess th	ts implemented by IXDOT at the county, district, and statewide levels. ection 6.5 Project, ITS Design and IHSDM Analysis - Indiana Department of Transportation (INDOT), Indiana Fina rity. As an engineer on this project, Thomas has contributed to various tasks, including the design of ITS infrastructure s TV, dynamic message signs, and travel time signs along the proposed I-69 and updated I-465 corridors in Indianapolis. so assisted in implementing IHSDM predictive analyses, evaluating the predicted crashes from multiple horizontal curve n alternatives for a Design Exception Request. Finally, a cost-effective analysis was conducted to determine the benefit- atio and assoss the according predictive associated with upgrading a road design to most state state stated and associated with upgrading a road design to most state state stated and associated with upgrading a road design to most state state state stated as a sociated with upgrading a road design to most state state state stated and associated with upgrading a road design to most state								
2017 -2019	Speed Management in University and INDOT economic benefits of s gathered and prepared of this project included and geometrical). Furth economic benefits, use spreadsheet tool.	n Small Cities and Towns - Thomas served as a core is peed reduction on arterials large volumes of roadway, la identifying a variety of prori- ermore, the study developed of ul for justifying the speed of the second second sec	Guidelines for Ind researcher on this p passing through sn land use, environme nising, lower-cost m ed a streamlined fou reduction measures	liana - Coroject, N nall India ental, an neasure ur-step a s. The m	Joint Transportation Research Program, Pu which included evaluating the potential safety ana communities. As a part of the effort, Thom ad crash data from multiple sources. The outco es for reducing speed (signage, pavement mar approach for calculating the crash reduction a method was implemented via a convenient Exc	irdue and nas omes kings, and el				

2018 - 2019	A Practical and Sound Approach to Safety Problem Identification and Mitigation on County Roads - Purdue University and Indiana Local Technical Assistance Program (LTAP). In this project, Thomas assisted in developing a safety management framework compatible with county roads and focusing on systemic application of low-cost improvements aimed at mitigating safety issues. The framework was implemented to evaluate the road features (traffic, geometry, and roadside) affecting safety in rural areas. Outcomes of the study included county road safety management guidelines, development of inexpensive resources for collecting/processing county road data, and development of a set of safety performance functions and crash modification factors for countermeasures applicable to county road segments and intersections.
2015 -02017	Updating the Crash Modification Factors and Calibrating the IHSDM for Indiana - Joint Transportation Research Program, Purdue University and INDOT. Thomas served as a core researcher on this project aimed at reducing traffic injuries and fatalities by enhancing the basis for safety consideration in Indiana. The breadth of safety knowledge was greatly enhanced, with 82 improvements and 431 crash modification factors (CMFs) identified for segments and intersections. The other part of this project focused on implementing the safety knowledge through calibrating the Interactive Highway Safety Design Model (IHSDM) for Indiana conditions. INDOT-approved CMFs and IHSDM calibration files were made available on their website at the project's conclusion. The team prepared a technical report and held regular meetings with INDOT staff to ensure timely delivery of project results.
2013 - 2015	Evaluation of Alternative Intersections and Interchanges - Joint Transportation Research Program, Purdue University and INDOT. Thomas assisted with this project, which examined various safety-critical rollover scenarios for heavy trucks traversing roundabouts on high-speed state roads. Vehicle trajectories at study roundabouts were collected through over one hundred hours of video data. Using a generalized rollover model applicable to heavy vehicles, no excessive rollover risk was detected at these roundabouts, thus supporting plans for further implementation of roundabouts on state roads.

Section 17

Systemic Curve Analysis

AECOM has previous experience in implementing systemic treatments.



17. Firm Experience:												
Firm Name	AECOM						Past Performance EvaluationPlaDiscipline(s)*Co				oad, Traffic, Data	
Project Name	Low Cost Syst	emic Ro	adway In	nprove	ments			Firm Respo	ub?)	Prime		
Project Number	H.011489.5	(Owner's	s Name		Louisiana Department of Transportation and Development (LAD						
Project Location	Statewide, Loui	isiana				Owner	vner's Project Manager Adriane McRae, PE					
Owner's Address, Ph	one, Email	1201 C	apital Acc	ess Ro	ad, Batc	on Roug	e, LA 708	302; 225.379	.1950; Adriane.McRa	ae@la.gov		
Services Commenced by This Firm (mm/yy) 10/14 Total Co							nt Contra	\$430	\$430			
Services Completed by This Firm (mm/yy) 08/17 Cost of Consultant Services Provided by This Firm (\$1,000's)								ed by This Firm	\$430			

AECOM was provided a list of 282 curves on rural two-lane roads throughout the State of Louisiana. AECOM developed a toolbox of countermeasures to reduce roadway departure crashes and selected appropriate countermeasures based on site specific conditions at each roadway curve. Following a site review and curve speed study, a site plan was developed for each curve. One countermeasure that was chosen for implementation was the systemic deployment of high friction surface treatment within and in advance of curves. Curves were grouped into seven LADOTD district construction packages that were let within one year of project completion.

Firm Members Involved: Jonathan McDowell, Gregory Trahan, Gino DiGiovanni, Oscar Avila, Corey Serignea



- ✓ Traffic Studies Traffic Engineering
- ✓ Traffic Studies Safety
- ✓ Road Safety Assessment
- ✓ Development of Plans for Low-Cost Safety Improvements - Engineering Support
- ✓ Development of Plans for Low-Cost Safety Improvements - CADD
- ✓ Development of Plans for Low-Cost Safety Improvements - Support Services Quantity Takeoffs

Firm Name	AECOM							Past Performance Evaluation Discipline(s)*				
Project Name	Road Safety A	ent Faci	ilitation				Firm Responsibility (Prime or Sub?)				Prime	
Project Number	H.011935.5 Owner's Name						Louisiana Department of Transportation and Dev			Develop	oment (LADOTD)	
Project Location	Statewide, Loui	siana				Owner's	Owner's Project Manager Adriane McRae, PE			_		
Owner's Address, Ph	one, Email	1201 Ca	apital Ac	ccess Road, Baton Rouge			e, LA 708	802; 225.379.2	1950; Adriane.McRa	e@la	.gov	
Services Commenced by This Firm (mm/yy) 07/15					Total Consultant Contract Cost (\$1,000's)				\$160			
Services Completed by This Firm (mm/yy) 08/17				Cost of Consultant Services Provided by This Firm (\$1,000's) \$160								

AECOM facilitated Road Safety Assessments (RSA) on pavement preservation projects when required by LaDOTD. The RSAs comprised of a desktop review of existing road conditions and the proposed plans, analysis of existing crash data, and composing a document that identified project location, crash trends, and GIS map of the crashes.

The RSA meetings were conducted as a multi-disciplined team to review existing crash data along the corridor to be improved. The team included LaDOTD personnel, local elected officials, local and state law enforcement, and AECOM. During these meetings, law enforcement officers would share experiences and ideas of reasons for crashes in the corridor. Local LaDOTD personnel commented on the proposed plans and the need for safety resources to help fund the project. After the completion of the review of the crash data, proposed plan improvements and general direction of the project, the team would visit the site to discuss potential problems. Upon completion of the field visit, the team would return to discuss a list of low-cost safety improvements that could be developed for possible implementation into the current project and other countermeasures that can be implemented in future projects.

Firm Members Involved: Jonathan McDowell, Gregory Trahan, Oscar Avila, Corey Serignea, Gino DiGiovanni



RELEVANCY TO THE IDIQ FOR SAFETY STUDIES:

- ✓ Traffic Studies Safety
- ✓ Traffic Studies GIS
- ✓ Road Safety Assessment

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Firm Name	AECOM				Past Performance Evaluation Discipline(s)*					Traffic, Data Collection			
Project Name	TxDOT Road to	o Zero P	roject S	heet			Firm Responsibility (Prime o			or Suk	o?)	Prime	
Project Number	50-9IDP5001, WA#2 Owner's Name						Texas Department of Transportation (TxDOT)						
Project Location	Statewide, Texas						er's Project Manager George Villarreal						
Owner's Address, Ph	one, Email	118 Eas	st Rivers	ide Drive	e, Austin,	Austin, TX 78704; (512) 416-3135; George.Villarreal@txdot.gov							
Services Commenced by This Firm (mm/yy) 12/19					Total Consultant Contract Cost (\$1,000's)				\$941				
Services Completed by This Firm (mm/yy) 01/24					Cost of	Consult	ant Serv	vices Provic	led by Tl	nis Firm (\$1,000's)		\$941	

AECOM conducted a statewide crash analysis and developed a Road to Zero performance dashboard that supported Texas' Road to Zero initiative. This work identified statewide crash needs and trends, linking them to safety projects/funding and tracking safety project performance for roadways maintained by TxDOT. A list of major tasks with brief descriptions:

RELEVANCY TO THE IDIQ FOR SAFETY STUDIES:

- ✓ Traffic Studies Safety
- ✓ Safety Effectiveness Evaluation
- A Dashboard was developed to display crash data, project data, project information, and analytics. The Dashboard provides detailed insights into crash rates and safety projects while provided detailed analysis base on crash severity, crash types, project types, project funding,

and project/crash locations to produce heatmaps. Additionally, the dashboards provide metrics and analytics for the Before/After Crash Analysis and Safety Statistical Analysis. These Dashboards are used to answer questions and present information at TxDOT Commission meetings.

- A Before/After Crash Analysis for Safety Projects/Measures using an enhanced Naïve with traffic volume correction method. The analysis provided insight into crashes and implemented safety measures for Statewide Systemic Widening, Highway Safety Improvement Program (HSIP), and Road to Zero projects. The metrics included: Before/After crash rates and crash counts for K, A, and B. A Project Performance Ratio was developed that used the predicted crash modification factors (CMFs) and compared it to predicted vs. actual while accounting for vehicle miles traveled. The methodology and results were then incorporated into the Performance Dashboard.
- A Safety Statistical Analysis for Safety Projects and Countermeasures is under development utilizing and expanding on the Before/After crash analysis within the Dashboard. The Safety Statistical Analysis allows for the analysis of crash trends to determine the performance of Programs, Project types, CMFs, Districts, and Counties. This analysis will give insight into the effect of implemented Safety Measures.

Firm Members Involved: Thomas Hall, Daniel Helms, John Song

Firm Name	AECOM						Past Per Disciplin	formance E e(s)*	Evaluation	Traffic, Road, Data Collection		
Project Name	LA 935 Stage (0 Study					Firm Responsibility (Prime or Sub?			Sub?)	Sub	
Project Number	H.009997.1 Owner's Name						Louisia	lopment (LADOTD)				
Project Location	Ascension Parish, Louisiana O						r's Project Manager Adriane McRae, PE					
Owner's Address, Ph	one, Email	1201 Ca	Capital Access Road, Baton Ro				uge, LA 70802; 225.379.1950; Adriane.McRae					
Services Commenced by This Firm (mm/yy)			11,	/11	Total Consultant Contract Cost (\$1,00			000's)	\$36			
Services Completed by This Firm (mm/yy) 01/13 Cost of (\$1,000'					⁼ Consulta)'s)	ant Serv	ices Provid	ed by This Firm	\$36			

AECOM, as a subconsultant, performed a Stage 0 Feasibility Study in accordance with the results of the Road 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. The alternatives included the realignment of LA 935 within the portion paralleling Black Bayou, the removal of LA 935 (Stringer Bridge) bridge at Black Bayou, and the addition of a bulkhead along Black Bayou adjacent to LA 935 to provide a recovery area. AECOM was tasked to develop a conceptual alternative for the realignment of LA 935, including the typical section, design criteria, plan, and cost estimate. The road paralleling Black Bayou was realigned approximately 20' off the original alignment. This realignment will allow for the road to be widening to 12' lanes and add shoulders to provide a recovery area for drivers. AECOM also performed a cost analysis to ensure the feasibility of a build/no-build condition, minimize required Right-of-Way and/or acquisition of properties.

Firm Members Involved: Jonathan McDowell, Gregory Trahan, Corey Serignea



RELEVANCY TO THE IDIQ FOR SAFETY STUDIES:

- ✓ Traffic Studies Safety
- ✓ Roadway and Bridge Alternatives
- ✓ CADD Design and Support Services
- ✓ Cost Estimating
- ✓ Safety Effectiveness Evaluation

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Firm Name	AECOM						Past Pe	rformar	ice Evalu	ation Discipline(s)*	Traffic,	Traffic, Road	
Project Name	On Call Traffic Safety Engineering Services								Firm Responsibility (Prime or Sub?) Prime			Prime	
Project Number	S-195-17 Task Order #2 Owner's Name							South	Carolina	Department of Tran	sportat	tion (S	CDOT)
Project Location	Statewide, Sou		Owner	Owner's Project Manager Shawn Salley									
Owner's Address, Ph	one, Email	955 Par	ark Street, Columbia, SC 2920				1; (803) 737-1949; salleyse@scdot.org						
Services Commence	nm/yy)	10/	/18	Total Consultant Contract Cost (\$1,000's)			\$	1,123					
Services Completed by This Firm (mm/yy)				/22	Cost of	Consul	tant Serv	vices Pr	ovided b	y This Firm (\$1,000's	s) \$	1,043	

AECOM was tasked with developing construction plans for three corridors that were identified as part of the RSA process. Tasks include surveys and

field reviews, traffic analysis, signal design, conceptual designs, public involvement, right-of-way plans, final plans, hydraulic design, utility coordination and construction services.

SC 146 (Woodruff Road), Greenville County, SC AECOM developed design plans for a 3.1 mile stretch of Woodruff Road from Roper Mountain Road to Bagwell Farm Road. These improvements were identified as part of the Road Safety Audit completed by AECOM for SCDOT in 2017. Improvements at various locations include the addition of raised medians, R-Cuts, addition of dual right turn lanes, removal of yield right turn movements, ADA ramps and crosswalks, countdown pedestrian signals, access control medians, overhead lane use signs, signing, object markers and signal analysis.

US 25 (White Horse Road), Greenville County, SC AECOM developed design plans for a 6 mile stretch of US 25 (White Horse Road) in Greenville, SC. The project extends from the intersection of I-85 east to Lily Street. Improvements at various locations include raised medians, ADA ramps and crosswalks, countdown pedestrian signals, signal heads with backplates, new and reconstructed traffic signals, access control medians, overhead lane use signs, signing, object markers, stripping and signal analysis.

US 1 (Two Notch Road), Richland County, SC AECOM developed design plans for a 4.2 mile stretch of US 1 (Two Notch Road) in Richland County, SC. The project extends from the intersection

RELEVANCY TO THE IDIQ FOR SAFETY STUDIES:

- ✓ Traffic Studies Traffic Engineering
- ✓ Traffic Studies Safety
- ✓ Road Safety Assessments
- ✓ Development of Plans for Low Cost Safety Improvements - Engineering Support
- ✓ Development of Plans for Low Cost Safety Improvements - CADD
- Development of Plans for Low Cost Safety Improvements - Support Services Quantity Takeoffs
- ✓ Development of Plans for Low Cost Safety Improvements - Bike and Pedestrian

Trenholm Road to Risdon Way. Improvements at various locations include raised medians, ADA ramps and crosswalks, countdown pedestrian signals, signal heads with backplates, access control medians, overhead lane use signs, signing, object markers, stripping, acceleration and deceleration lanes and signal analysis. Additionally, AECOM conducted a traffic analysis along US 1 (Two Notch Road) that focused on three signalized intersections: US 1 at S-63 (Alpine Road); US 1 at S-424 (Rabon Road); and US 1 and Spring Valley Road. AECOM evaluated traffic data and analyzed the level of service and delay condition for the existing and future traffic condition of the intersections using Synchro/SimTraffic.

Firm Members Involved: Ryan Eckenrode

Firm Name	AECOM					P	Past Performance Evaluation Discipline(s)* Data Collection, Traffic						ion, Traffic
Project Name	Multimodal Tra Transportation	Aultimodal Transportation and Traffic & Safety Analysis, and Firm Responsibility (Prime or Sub Fransportation Plan (NODTA))?)	Prime
Project Number	n/a	Dwner'	s Name			City of	ity of New Orleans Department of Public Works				3		
Project Location	New Orleans, L	A			С	Owner's	r's Project Manager Louis Haywood						
Owner's Address, Ph	one, Email	10 Vete	erans Blvd.	., New	Orleans, L	A 70124	1; 504.6	58.805	6; LRHay	wood@nola.gov			
Services Commenced by This Firm (mm/yy) 09/15 Total Cons						nsultant	Contra	act Cost	(\$1,000	'S)		\$680	
Services Completed by This Firm (mm/yy) 04/17 Cost of Cor						Consulta	sultant Services Provided by This Firm (\$1,000's) \$440						

AECOM was hired to lead a team of consultants to identify existing transportation conditions, inventory certain aspects of the transportation

infrastructure, determine future transportation needs, and develop recommendations for downtown New Orleans Multi-Modal Transportation Network including curb use, bike, pedestrian, transit, and vehicular.

The initial phase of the project included robust data collection and management. Crash data and specifically pedestrian crash data was collected and studied. Field teams took sub-meter GPS location data for various categories of infrastructure as well as sidewalk and crosswalk conditions.

AECOM also 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. The software Map.social was used to allow stakeholders to make location-specific comments online in an interactive geo-spatial public comment portal.

Safety improvements were developed for over two dozen corridors. Signal timing and intersection operations was a major focus. The project team was charged with looking for low-cost multi-modal improvements, especially those that could be executed with only a signal and striping plan.

Improvement recommendations were developed in many categories including: Greatly improved pedestrian environments, with corridor and spot improvements identified for sidewalks; Bike lanes, protected bike lanes, and cycle tracks; Testing of bike and pedestrian proposed improvements using custom approach to bike LOS and Ped LOS. Augmented transit stop access,



RELEVANCY TO THE IDIQ FOR SAFETY STUDIES:

- ✓ Traffic Studies Traffic Engineering
- ✓ Traffic Studies Safety
- ✓ Bike and Pedestrian Alternatives
- ✓ Road Safety Assessments

stop design, transit lane usage and signal pre-emption; Green infrastructure used to mitigate flooding and control illegal stopping. Creative designs featuring back-in angle parking and other innovations.

Firm Members Involved: Tom Hunter, Derek Chisholm, Jonathan McDowell

Firm Name	AECOM						Pas Dis	st Perfo scipline	ormance Eval e(s)*	uation	Data Collec Traffic	tion, Planning,
Project Name	Johnston Stre Safety Analysi	et Stag s	e 0 Stuc	ly Wi	lliams B	lvd Sta	ge C	0	Firm Respor	nsibility (Prime or Sul	b?)	Prime
Project Number	H.009998.1 H	1.009998.1 H.010570.1 Owner's Nam						Louisia (LADO ⁻	ina Departme TD)	ent of Transportation	and Develo	oment
Project Location	Lafayette Parisł Louisiana	afayette Parish and Jefferson Parish, ouisiana						roject N	Vanager	Adriane McRae, PE		
Owner's Address, Ph	one, Email 1201 Capital Access Road, Baton						ie, LA	A 7080	2; 225.379.19	50; Adriane.McRae	@la.gov	
Services Commence	d by This Firm (mm/yy) 08/12 06/13 Total C					onsulta	nt C	ontrac	t Cost (\$1,000	D's)	\$64	\$108
Services Completed	by This Firm (mm	n/yy)	07/14	10/14	Cost of	Consu	ltant	t Servia	ces Provided	by This Firm (\$1,000	's) \$64	\$108

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.

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, Gregory Trahan, Gino DiGiovanni

RELEVANCY TO THE IDIQ FOR SAFETY STUDIES:

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



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Firm Name	AECOM						Past Per	forman	ice Evalu	ation Discipline(s)*	Traffic	, Data	Collection
Project Name	Jones Creek F	Road Ext	ension	Traffic \$	Study				Firm Re	esponsibility (Prime o	or Sub?	')	Sub
Project Number	19-CS-HC-003	9-CS-HC-0036 Owner's Nam						City-Pa	arish of E	East Baton Rouge			
Project Location	East Baton Rou		Owner's	s Project	Manag	ger	Cyndi Pennington						
Owner's Address, Ph	one, Email	329 Ch	ippewa S	Street, S	Suite A, B	Baton Roi	uge, LA 7	70802; ((225) 389	9-3246; cpenningtor	n@brla	.gov	
Services Commenced by This Firm (mm/yy) 12/20 Total						onsultan	nt Contra	ct Cost	: (\$1,000	'S)	\$	6434	
Services Completed	by This Firm (mn	n/yy)	Ong	oing	Cost of	Consult	ant Serv	vices Pr	ovided b	y This Firm (\$1,000's	s) \$	61,252	

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 CATS can 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, Jonathan Giardina, Daniel Helms, Ramya Rayapureddy, Adeleigh Smith, Greg Trahan, Gino DiGiovanni, Corey Serignea

- ✓ Traffic Studies Traffic Engineering
- ✓ Traffic Studies Safety

Firm Name	AECOM						Past Per	forman	ice Evalu	ation Discipline(s)*	Planr Colle	ning, Tra ection	affic, Data
Project Name	High Risk Rura	I Roads							Firm Re	sponsibility (Prime	or Sub)?)	Prime
Project Number	60627364	0627364 Owner's Name						Wisco	nsin Dep	artment of Transpo	ration	(WisDC)T)
Project Location	Statewide, Wise	Statewide, Wisconsin						Manag	ger	Michael Finkenbin	der		
Owner's Address, Ph	one, Email	4822 N	ladison \	Yards W	'ay, 6th Flo	oor Sol	ith; 608.2	66.162	0; micha	el.finkenbinder@do [.]	t.wi.go	V	
Services Commence	nenced by This Firm (mm/yy) 02/13 Total Co					nsulta	nt Contra	ct Cost	(\$1,000	ŚS)		\$700	
Services Completed	by This Firm (mn	n/yy)	07/	21	Cost of (Consul	tant Serv	rices Pr	ovided b	y This Firm (\$1,000'	S)	\$700	

WisDOT has created the High-Risk Rural Roads program to identify and improve low-volume rural roads with elevated crash risk. WisDOT retained AECOM to complete Corridor Safety Evaluations of these corridors. The Scope: Windshield surveys of each corridor are completed to identify fixed objects in the clear zone, non-compliant signs, pavement condition, appropriate curve advisory speeds (via ball bank analysis), side slopes, and obsolete guard rail end treatments. Corridor Safety Evaluations were prepared that include recommendations for fixed object removals, signing/marking upgrades and additions, curve advisory speed signs, chevrons and night arrows, edgeline rumble strips, centerline rumble strips, guard rail, guard rail end treatments, and high friction surface treatments. Mobile computer technologies, GPS applications, and ArcGIS were utilized to identify deficiencies in the field and accurately map them. Conceptual layouts of safety countermeasures were prepared in online GIS and paper-based maps.

The Results: The High-Risk Rural Roads program was started in early 2013 with a pilot corridor review. AECOM's work on this project demonstrates experience with WisDOT's policies, standards, and guidelines, familiarity with economic and statistical methods used in traffic safety analysis, familiarity with the department's strategic performance measures, and experience in project management.

Firm Members Involved: Jeff Sandberg

- ✓ Traffic Studies Safety
- ✓ Traffic Studies GIS
- ✓ CADD Design and Support Services



Firm Name	AECOM						Past Pe	rforman	ice Evalu	ation Discipline(s)*	Traffic, Collec Enviro	, Road tion, F nmen	Data Ilanning, tal
Project Name	College Drive	ollege Drive Enhancement Project							Firm Re	esponsibility (Prime o	or Sub?))	Prime
Project Number	19-EN-HC-0033 Owner's Name							City-Pa	arish of E	East Baton Rouge			
Project Location	Baton Rouge, L	ouisiana				Owner	's Projec	t Manag	jer	Scott Hoffeld			
Owner's Address, Ph	one, Email	1200 B	rickyard	Lane, S	uite 400,	Baton	Rouge, L	A 70802	2; (225) 5	72-7111; scott.hoffe	ld@sta	ntec.c	om
Services Commence	d by This Firm (mm/yy) 09/20 Total Co						nt Contra	ict Cost	(\$1,000	'S)	\$	1,740	
Services Completed	by This Firm (mn	n/yy)	Ong	oing	Cost of	Consu	Itant Serv	/ices Pr	ovided b	y This Firm (\$1,000's	s) \$	1,024	

AECOM is providing a Design Study, Traffic Study, Environmental Inventory, and Preliminary Engineering for enhancements to the College Drive corridor from Perkins Road to Bawell Street, including potential improvements to the I-10 interchange ramp termini. This project is one of the largest and most visible corridors in the MOVEBR program.

The Design Study will produce preliminary concepts that are improvements to corridor connectivity, access management, pedestrian and bicycle safety, capacity improvements that will be evaluated using mesoscopic modeling. The concepts will be assembled into corridor alternatives that will be analyzed using VISSIM. Environmental impacts, ROW impacts and acquisitions, utility relocations, implementation of green infrastructure elements, project construction costs,



traffic operations and safety improvements will be factors in the evaluation. The project also includes public involvement, stakeholder engagement, and railroad coordination for modifications to the railroad crossing. The alternatives and the project areas environmental inventory will be documented using the Stage 0 Scope and Budget and Environmental Checklists. Once an alternative is selected, two sets of preliminary and final plans will be completed. One set will be for identified interim improvements. Final plans will be developed for the complete plan as documented in the selected alternative.

AECOM is coordinating and collaborating with LADOTD and the City-Parish of East Baton Rouge in the development of the operational and safety analyses. This includes the assessment of past traffic studies to compare that data with the current traffic volumes to determine the COVID-19 impact to traffic along this vital corridor.

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

Firm Members Involved: Jonathan McDowell, Louis Costa, Greg Trahan, Jonathan Vavasseur, Daniel Helms, Derek Chisholm, Daniel Boyd, Chris McKown, Adeleigh Smith, Jonathan Giardina

- ✓ Traffic Studies Traffic Engineering
- ✓ Traffic Studies Safety
- ✓ Roadway and Bridge Alternatives
- ✓ Bike and Pedestrian Alternatives
- ✓ Environmental and Scoping Services

Firm Name	Alliance Transp	ortation	Group				Past Per	rforman	ice Evalu	ation Discipline(s)*	Data	Collect	ion, Traffic
Project Name	IH-410SW Sch	ematic 8	& Envirc	onmenta	al				Firm Re	sponsibility (Prime o	or Sub	o?)	Sub
Project Number	n/a	n/a Owner's Nar						Texas I	Departm	ent of Transportatic	on (Txl	DOT)	
Project Location	San Antonio, Texas					Owner	's Project	t Manag	jer	Clayton Ripps, PE			
Owner's Address, Ph	one, Email	4615 N	W Loop	410, Sar	n Antonio	o, TX; 21	0.615.58	310; clay	ton.ripps	s@txdot.gov			
Services Commenced by This Firm (mm/yy) 03/16 Tota					Total Co	onsulta	nt Contra	act Cost	(\$1,000	S)		\$2,000	
Services Completed	by This Firm (mm	n/yy)	03/	20	Cost of	Consul	ltant Serv	vices Pr	ovided b	y This Firm (\$1,000's	s)	\$404	

The IH-410 Schematic and Environmental project consisted of mainlane improvements along 17 miles of IH-410 from Ingram Road to SH 16/Palo Alto

Road in San Antonio, Texas. ATG performed the safety analysis to support the IH-410 SW Corridor Interstate Access Justification Report (IAJR) (SH 16 to US 90), IAJR Addendum (IH-410 - Culebra Road to Valley Hi Drive), and design schematics. To understand existing conditions and diagnose safety issues, ATG performed several field visits to observe driving behaviors, traffic operations and geometric design deficiencies, including congestion hot-spots, multimodal interaction, vehicle queues, speeds, horizontal and vertical alignment, sight distance, driveway interaction, shoulder width and sun glare. In addition, TxDOT Crash Records Information System (CRIS) crash data (previous 5 years – type , severity, location), TxDOT AADT (historical and turning movement counts), vehicle classification, peak periods, bike/ped/transit demand, back of queues, and corridor stakeholder/public input were also gathered. Our team evaluated existing conditions by using heat maps and tables summarizing data by severity, type, functional classification, lighting conditions, mode type. These were then compared to statewide crash averages.

The proposed conditions were evaluated by starting with a high-level assessment comparing existing to proposed geometry. This high-level assessment quickly determined early indicators of expected safety outcomes, potential design exceptions, identified conflict point reduction, and areas not compliant to TxDOT and FHWA current standards. Next, our team determined crash modification factors (CMFs) based on improvements including auxiliary lanes, cross-ramp reversals, and guardrail installation. Finally, our team performed predictive safety analysis using Enhanced Interchange Safety Analysis Tool (ISATe) and Interactive Highway Safety Design Model (IHSDM) to compare Existing, No-Build, and Build conditions. IHSDM was used for the IH-410 SW Corridor and ISATe for the design exceptions from IH-410 Culebra to Valley Hi. The ISATe tool was used to evaluate small freeway segments to obtain reliable estimates of the expected average crash frequency (total, by type or severity) by combining the predictive model with crash data. The IHSDM software was used for the freeway and non-freeway networks to implement HSM Part C predictive methods

Throughout the life of the project, our team provided constant feedback to the schematic lead for incorporation into the schematic during the project life (preliminary and final alternatives).

Firm Members Involved: Mark Ingram



Figure 1. Crash Prediction Summary (Section 1)

RELEVANCY TO THE IDIQ FOR SAFETY STUDIES:

- Traffic Studies Safety
- ✓ Road Safety Assessment

Prime consultant firm name: **AECOM**

Firm Name	Alliance Transp	ortation	Group				Past Per	forma	nce Evalu	ation Discipline(s)*	Traft	fic, Planr	ning
Project Name	TSMO Implem	entatior	n Project						Firm Re	esponsibility (Prime	or Sul	b?)	Sub
Project Number	n/a	'a Owner's Name						Texas	Departm	ent of Transportatio	on (Tx	DOT)	
Project Location	Statewide, Texas					Owner's	s Project	Mana	ger	Barbara Russell, Pl	E		
Owner's Address, Ph	one, Email	125 E 1	1th St, Au	ustin, T>	K 78701, 5	512.463	.8588; b	arbara	.russell@	txdot.gov			
Services Commence	Commenced by This Firm (mm/yy) 04/19 Tota					nsultan	it Contra	ct Cos	t (\$1,000	'S)		\$1,000	
Services Completed	by This Firm (mn	n/yy)	Prese	ent	Cost of C	Consult	ant Serv	vices P	rovided b	y This Firm (\$1,000'	s)	\$300	

ATG is part of the team, which includes AECOM Technical Services, Inc. (AECOM), that is providing traffic engineering services to support the

TxDOT Traffic Safety Division (TRF) with tasks related to Transportation Systems Management and Operations (TSMO) analysis. These services include developing a Statewide TSMO Strategic Plan with safety and Intelligent Transportation Systems (ITS) strategies aimed at integrating TSMO into core organizational units in the state.

Specifically, ATG is providing TSMO Technical and Program Support and developing a TSMO Stakeholder Engagement Plan to be used statewide. ATG is developing an inter-agency Standard Operating Procedure (SOP) checklist to evaluate the existing regional TSMO strategies (with safety and ITS strategies identified) that each district may or may not have for active traffic management, integrated corridor management, as well as incident, special event, emergency, and equipment failure management. Specific safety strategies include utilizing ITS to improve monitoring and removal times of traffic incidents, providing warning of queues or slow traffic ahead associated with construction or crashes, providing alerts at freeway ramps to identify wrong

way drivers, applying lane control in association with active traffic management to normalize speed differentials, and providing information on weather that can impact safety and mobility such as floods, fog, and ice. These strategies, as an element to TSMO are being considered in a systemic way to identify the locations for best use throughout the state, leveraging the benefit associated with the project cost.

For the El Paso District, ATG performed a district-wide gap analysis where we reviewed and documented safety hotspot locations based on 5 years of crash data. Additionally, the location of current ITS and roadway construction projects planned within El Paso for the next 10 years were identified. Using this gathered data, ATG identified and evaluated the prioritization of implementing TSMO strategies aimed at improving safety and decreasing congestion. TSMO strategies, including wrong way driver detection, emergency response, incident response, active work zone management and connected truck platooning were recommended. Preliminary ITS recommendations that meet the State's safety and ITS needs and requirements for the next 10 years were developed to address locations with high crashes and congestion . To create an Implementation Plan, recommendations included both short term and long term TSMO strategies and funding. The final deliverable included matrices of ITS network needs, requirements and priorities and a Prioritization matrix of each safety and ITS project over a 10-year period.

Firm Members Involved: Mark Ingram, Arthur "Trey" Gamble, Jacob Sessions



RELEVANCY TO THE IDIQ FOR SAFETY STUDIES:

✓ Traffic Studies - Safety

Firm Name	Alliance Transp	ortation	Group				Past Per	forman	ice Evalu	ation Discipline(s)*	Data Roa	a Collect d	ion, Traffic,
Project Name	Houston Distr	ict Curv	e Update	e					Firm Re	sponsibility (Prime	or Sul	b?)	Prime
Project Number	n/a	n/a Owner's Name						Texas [Departm	ent of Transportatio	on (Tx	DOT)	
Project Location	Houston, Texas	(Owner	's Project	Manag	jer	Michael Olivo, PE						
Owner's Address, Ph	one, Email	7600 W	/ashingtc	on Ave.,	Houston,	TX 77	007, 713.8	302.588	33; micha	ael.olivo@txdot.gov	/		
Services Commence	Commenced by This Firm (mm/yy) 07/18 Total Co					nsulta	nt Contra	ct Cost	(\$1,000	'S)		\$3,000	
Services Completed	by This Firm (mn	n/yy)	Pres	ent	Cost of C	Consu	tant Serv	ices Pr	ovided b	y This Firm (\$1,000'	S)	\$3,000	

The first phase of the project consisted of identifying curves to be studied. The TxDOT methods for setting curve advisory speeds were recently updated to address more specific highway types (two lane, multi-lane, and freeway). As a result of these updates, all rural highways maintained by the TxDOT Houston District needed to be evaluated and signing and pavement marking updated to current design standards outlined in the Texas Manual on Uniform Traffic Control Devices (TMUTCD). ATG preformed the site inspections for over 245 curves. Per TxDOT's Procedures for Establishing Speed Zones Manual, the GPS method was used to determine the advisory speed along the curves by using the Texas Roadway Analysis and Measurement Software (TRAMS) program. This program monitored the GPS receiver and the electronic ball-bank indicator while the test vehicle was driven along the curve. After the curve was traversed, TRAMS calculated the curve radius and superelevation rate from the data streams. Proposed advisory speeds, signing and pavement marking updates were determined using the radius and superelevation rate estimates with the Texas Curve Advisory Speed (TCAS) spreadsheet and the site inspection data. Crash data from the TxDOT Crash Record Information System (CRIS) was gathered for each location for a three year period to determine if there were crashes occurring in the area of the curve. Mitigation strategies



associated with the curve crashes included signing and pavement marking, as well as consideration for high surface friction treatment (HFST) in curves.

During the second phase of the project, the layouts and PS&E Package for the proposed signs were prepared, in accordance with the State's Standard Details, District Standard Details, the TMUTCD and the State's PS&E Preparation Manual. Strip maps along the Farm to Market roadways were updated to include: highway name and number, cross streets, limits of the speed zone, city limits, unincorporated town limits, schools and school crossings, buffer zones for schools (when applicable), traffic signals, TRAMS output data, railroad crossings, bridges and crashes from TxDOT CRIS. The updated signing and striping is aimed at increasing safety by informing the drivers to slow approaching curves.

Firm Members Involved: Mark Ingram

RELEVANCY TO THE IDIQ FOR SAFETY STUDIES:

- ✓ Traffic Studies Traffic Engineering
- ✓ Road Safety Assessment
- ✓ Development of Plans

Prime consultant firm name: **AECOM**

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Firm Name	Alliance Transp	ortation	Group				Past Pe	rforman	ice Evalu	ation Discipline(s)*	Data	a Collect	ion, Traffic
Project Name	US 377 Safety	Improve	ements						Firm Re	esponsibility (Prime o	or Sul	b?)	Prime
Project Number	n/a	n/a Owner's Nam						Texas l	Departm	ent of Transportatio	on (Tx	DOT)	
Project Location	Fort Worth, Texas					Owner	's Projec ⁻	t Manag	ger	Theresa Poer, PE			
Owner's Address, Ph	one, Email	2501 SV	N Loop	820; For	rt Worth,	TX 761	33; 817.3	70.6640); theres	a.poer@txdot.gov			
Services Commenced by This Firm (mm/yy) 07/16 Total (Total Co	onsulta	nt Contra	ict Cost	: (\$1,000	'S)		\$109	
Services Completed	by This Firm (mn	n/yy)	03/	/18	Cost of	Consul	tant Serv	/ices Pr	ovided b	y This Firm (\$1,000's	s)	\$109	

ATG performed a traffic and safety analysis required for developing access management concepts along Denton Highway (US 377) from Alliance

Gateway Freeway (SH 170) in Westlake to Jim Wright Freeway (IH 820) in Haltom City, approximately 10.3 miles. Our team performed a field evaluation and inventoried existing traffic signal, pedestrian, and illumination infrastructure. ATG utilized GIS field data to present inventory information which also included pictures from the field inventory. The condition of the pavement, signing, pavement marking, signalization, and sidewalks were evaluated to establish the need for replacement or refurbishment.

The safety analysis was performed by gathering crash data from the TxDOT Crash Record Information System (CRIS) for the last five years to determine crash hot spots along the corridor. Crashes were identified by type, location, time of day, and weather. The data was reviewed to remove crashes caused by driver behavior (i.e., distracted driving or alcohol related) so the project team could focus on mitigation of crashes that were preventable using engineering design principles. Mitigation strategies included implementing a raised median to reduce conflict points as well as consolidating driveways along the corridor. Additional traffic operation and safety recommendations included illumination, signal timing, signing, and pavement marking. Each mitigation strategy was



Figure 3 - US 377 Illumination Inventory - Existing

evaluated by applying the Highway Safety Manual predictive crash methodology or through the application of crash modification factors (CMFs) to establish a benefit in relation to the cost per strategy.

A final report was developed which provided the results of the field inventory, level of conditions, as well as short term (existing year) and long term (5 years) access management and traffic mobility solutions recommendations.

Firm Members Involved: Mark Ingram

RELEVANCY TO THE IDIQ FOR SAFETY STUDIES:

- ✓ Traffic Studies Traffic Engineering
- ✓ Traffic Studies Safety
- ✓ Traffic Studies GIS
- ✓ Road Safety Assessments

Prime consultant firm name: **AECOM**

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Firm Name	Alliance Transp	ortation	Group				Past Pe Disciplir	rformance Ev ne(s)*	aluation	Data	Collect	ion, Traffic
Project Name	Plank Road Re	location	Traffic	Study				Firm Respor	sibility (Prime or Sub	o?)		Prime
Project Number	n/a	/a Owner's Name					Louisia	ana Departme	nt of Transportation	and [Develop	ment (LADOTD)
Project Location	Baton Rouge, L	Baton Rouge, Louisiana O'						t Manager	Ryan Hoyt, PE			
Owner's Address, Ph	one, Email	1201 Ca	apitol Ac	cess Ro	d, Baton I	Rouge, L	A 70802	2; 225-379-12	32; ryan.hoyt@la.go	V		
Services Commenced by This Firm (mm/yy) 04/20 Total Cons					onsultan	t Contra	act Cost (\$1,00	00's)		\$69		
Services Completed	by This Firm (mn	n/yy)	07/	21	Cost of	Consult	ant Serv	vices Provideo	d by This Firm (\$1,00	0's)	\$69	

ATG perfomed the traffic study of the Plank Road relocation in support of the Baton Rouge Metropolitan Airport expansion, in accordance with the

LADOTD Traffic Engineering Process and Report (TEPR) guidelines. The project extended along LA 408 from Merle Gustafson Drive to Mickens Road and included performing data collection to understand existing conditions, preliminary analysis to evaluate possible alternatives, and final analysis to select the preferred alternative for the intersections of LA 408 at Plank Road and LA 408 at New Plank Road

ATG provided cost savings to LADOTD by utilizing and validating collected data from a previous Plank Road Relocation Study. Existing and forecasted volumes were used to perform the preliminary analysis using CAP-X to identify different alternatives for Plank Road (existing) and the relocated Plank Road. Once all alternatives were evaluated, ATG recommended five alterantives to the schematic team. ATG was a part of ongoing discussions with the schematic engineers to provide input as part of the iterative design process. Driveways along the corridor as well as operating speeds and potential weaving maneuvers were evaluated for impacts to safety and mobility. The preferred alternatives with the existing geometry to identify a reduction in conflict points as part of the safety analysis. Existing crash data was obtained and analyzed to determine if the proposed realignment would further exacerbate crash frequencies. A conflict point analysis was performed to account for an increase or



decrease in conflict points which will have a direct impact on the crash rate at the intersection of Plank Road. The conclusion was that the geometric improvements would reduce the number of conflict points thus providing an added safety element to the corridor. Highway Capacity Software was used to evaluate the ramps, basic segments, merge and diverge areas, and weave locations for the proposed alternatives.

Firm Members Involved: Mark Ingram, JD Allen

- ✓ Traffic Studies Traffic Engineering
- ✓ Traffic Studies Safety

Firm Name	Alliance Transp	ortation	Group				Past Per	formar	nce Evalu	ation Discipline(s)*	Plar	nning, Tra	affic
Project Name	2045 Metropo	litan Tra	insporta	ation Pla	an				Firm Re	sponsibility (Prime o	or Su	ıb?)	Prime
Project Number	n/a Owner's Nam							North	vest Lou	isiana Council of Go	verni	ments	
Project Location	Shreveport, Louisiana					Owner	's Project	Mana	ger	Kent Rogers			
Owner's Address, Ph	one, Email	625 Te>	kas Stree	et, Suite	200, Shr	revepor	t, LA 7110	01 318	8.841.595	0 kent.rogers@nlc	og.oi	rg	
Services Commence	ervices Commenced by This Firm (mm/yy) 03/20 Total					onsulta	nt Contra	ct Cos	t (\$1,000	's)		\$800	
Services Completed	by This Firm (mn	n/yy)	09/	/21	Cost of	Consu	Itant Serv	vices Pr	ovided b	y This Firm (\$1,000's	s)	\$800	

ATG prepared a revision to the 2045 Metropolitan Transportation Plan (MTP) for the Shreveport-Bossier City Metropolitan Area including Caddo, Bossier, DeSoto, and Webster Parishes.

Safety elements of this plan included road safety audits of the regional transportation system. This included an evaluation of safety data, and information from stakeholders in conjunction with field visits to identify regional safety risks. The identified risks were then prioritized, and systemic mitigation strategies outlined taking into consideration both low cost and high cost improvements. This included the identification of locations that had a high potential for safety improvement based on regional screening. The project included extensive stakeholder involvement to outline needs for both safety and regional mobility improvements. The public and stakeholder involvement included documentation of existing conditions, identification of future community vision, an update to the travel demand model, the development of alternative solutions including systemic safety improvements, the evaluation of alternatives, and completion of the update to the long range transportation plan.



The plan established performance measures and project prioritization to not only comply with FAST Act requirements, but to provide a framework for performance-based decision making and scenario review.

The ATG team continued working closely with the NLCOG Public Information Officer to develop robust virtual adaptations to public involvement and engagement in response to conditions due to COVID-19 and developed an interactive online GIS based visioning tool to gather input from stakeholders and the public on visioning as well as location specific concerns.

The plan also addresses Transportation System Management and Operation (TSMO) strategies, multi-modal system deficiencies, safety concerns, and project travel demand for the horizon-year 2045.

Firm Members Involved: JD Allen, Ed Elam, Arthur "Trey" Gamble

- ✓ Traffic Studies Safety
- ✓ Traffic Studies GIS
- ✓ Road Safety Assessments

Firm Name	Alliance Transp	ortation	Group			Past Per	rforman	nce Evalu	ation Discipline(s)*	Data Colle	ction, Traffic
Project Name	City of Pearlar	nd (Traff	ic Engir	neering	On-Call)			Firm Re	esponsibility (Prime o	or Sub?)	Prime
Project Number	n/a Owner's Nar						City of	Pearland	d		
Project Location	pation Pearland, Texas					/ner's Projec ⁻	t Manag	ger	Ryan McKinnis, PE		
Owner's Address, Ph	one, Email	3519 Li	berty Dr	ive, Pea	rland, TX 77	581; (281) 65	2-1686;	rmckinn	is@pearlandtx.gov		
Services Commenced by This Firm (mm/yy) 10/17 Tot					Total Consi	ultant Contra	act Cost	: (\$1,000	'S)	\$100	
Services Completed	by This Firm (mn	n/yy)	10/	20	Cost of Cor	nsultant Serv	vices Pr	ovided b	y This Firm (\$1,000's	s) \$100	

ATG served as the City of Pearland Traffic Engineer. The work performed has primarily focused on intersection safety, speed evaluations, all-way stop

warrants, intersection sight distance evaluations, and placement of pedestrian safety measures such as curb ramps and crosswalks. The traffic engineering review of intersection safety and operational concerns resulted in recommendations for improvements such as left turn lanes, right turn lanes, signing and striping, illumination, flashing signal beacons, and traffic signal control based on the warrants defined in the Texas Manual on Uniform Traffic Control Devices (TMUTCD). Each study included detailed information such as 12-hour turning movement counts, crash data, 85th percentile speed determination, stopping sight distance, intersection sight triangle calculations and projected volumes for future operational conditions based on historical growth rates as well as anticipated short-term changes in land use such as schools and residential developments.



Safety assessments included crash data for the last five years to help establish cause. Mitigation strategies such as improved signing, pavement marking, illumination, traffic signalization, left turn lanes, and right turn lanes were evaluated using the AASHTO Highway Safety Manual (HSM) predictive method and crash modification factors (CMFs) to establish cost effective solutions to address the safety concerns.

Work performed includes collaborations with the Pearland Police Department, Pearland Fire Department, Public Works Departments, Engineering, TxDOT, Brazoria County, Fort Bend County, and Harris County. This collaboration resulted in identifying best practices and proved safety measures as it relates to roadway and intersection design.

Firm Members Involved: Mark Ingram

- ✓ Traffic Studies Traffic Engineering
- ✓ Traffic Studies Safety
- ✓ Bike and Pedestrian Alternatives
- ✓ Road Safety Assessment

Firm Name	Alliance Transp	ortation	Group			1	Past Per	forman	ice Evalu	ation Discipline(s)*	Traffic		
Project Name	Interstate 45 (North H	ouston	Highwa	y Improv	ement	Project)		Firm Re	esponsibility (Prime d	or Sub?)		Sub
Project Number	n/a	l/a Owner's Name Texas							Departm	ent of Transportatio	n (TxDC	DT)	
Project Location	Houston, Texas Owner's Project Manage						ger	Amanda Austin, PE					
Owner's Address, Ph	one, Email	7600 W	/ashingt	on Aven	ue, Houst	ton, TX 7	77007; (713) 802	2-5270; a	amanda.austin@txd	ot.gov		
Services Commenced by This Firm (mm/yy) 07/17 Tot					Total Co	nsultan	t Contra	ct Cost	: (\$1,000	'S)	\$	1,200	
Services Completed	by This Firm (mn	n/yy)	01/	/21	Cost of (Consult	ant Serv	vices Pr	ovided b	y This Firm (\$1,000's	s) \$*	10,00	0

ATG prepared the FHWA Interstate Access Justification Report (IAJR) for the IH 45 North Houston Highway Improvement Project in Houston, Texas. The

analysis performed included impacts associated with roadway improvements to add four managed express (MaX) lanes to IH 45, the realignment of portions of IH 10 and US 59/IH 69, the realignment of IH 45, and the transition of the proposed roadway improvements to the US 59/IH 69 and Spur 527 in Houston, Texas. The traffic analysis included a calibrated existing condition Vissim model which was subsequently used to analyze the No-Build alternative. The preferred alternative was analyzed using Vissim and the established volume forecasts. The IAJR performed by ATG included peak period analysis to capture morning and afternoon three-hour periods of typical downtown Houston traffic.

The safety analysis was also performed to establish how the improved geometrics in the downtown Houston area will improve general mobility and safety. Crash data for the last 5 years was obtained and analyzed to confirm proposed improvements to IH 45 would address the current crash issues along IH 45. The predictive method was applied for the proposed condition as part of our corridor wide safety analysis. The safety evaluation was performed using the Interactive Highway Safety Design Model (IHSDM).

Stakeholder involvement through this preparation of the environmental document and the IAJR included city of Houston, Harris County, the Houston Galveston Area Council, and local elected officials.

Firm Members Involved: Mark Ingram

- ✓ Traffic Studies Traffic Engineering
- ✓ Traffic Studies Safety



Firm Name	Alliance Transportation Group					Past Performance Evaluation Discipline(s)* Da			Data	ata Collection, Traffic		
Project Name	San Antonio District Bottleneck Study						Firm Re	Firm Responsibility (Prime or Sub?) Prime			Prime	
Project Number	n/a Oʻ			Owner'	Owner's Name			Texas l	Department of Transportation (TxDOT)			
Project Location	Houston, Texas					Owner's Project Manager Clayton Ripps, PE						
Owner's Address, Phone, Email 4615 NW L				√ Loop 410, San Antonio, TX 78229; (210) 615-5810; clayton.ripps@txdot.gov								
Services Commenced by This Firm (mm/yy)			07/	/17	Total Consultant Contract Cost (\$1,000's)					\$1,200		
Services Completed by This Firm (mm/yy)			01/	/21	Cost of Consultant Services Provided by This Firm (\$1,000's)			s)	\$1,200			

ATG recently completed a regional evaluation of operational bottlenecks throughout Bexar County for the TxDOT San Antonio District. The purpose of

Texas

Department

of Transportation

the study was to investigate and analyze available data, identify the cause of operational inefficiencies, identify the cause of locations with a high crash rate, and the development a mitigation plan that rectifies the operational and safety concerns.

The mitigation plan included a priority of improvements based on several factors including congestion rank, congestion duration, traffic volume, crash frequency, environmental considerations, right of way requirements, probable cost of construction, and estimated construction schedule. To arrive at a priority list for improvements when evaluating such a large study area, ATG followed a methodology which began with project purpose and need, identification of problem areas, stakeholder input, classification of problem areas, environmental evaluation of potential impacts, diagrammatic of mitigation measures, which concluded with project prioritization which were identified in a summary report to TxDOT.

Before developing a list of mitigation measures for existing bottlenecks in the region, ATG identified funded TxDOT projects which included capacity expansion, operational improvements, and projects in the schematic

phase of development. This allowed for a better understanding of what was programmed for improvement and what mitigation measures were still in need of funding and implementation. The crash evaluation focused on the fatalities in the study area between 2013 and 2015. Locations with high crash frequency resulting in fatalities were noted and prioritized. Conceptual solutions were identified to outline potential mitigation measures and to confirm constructability of improvements using AASHTO and TxDOT design standards. Diagrammatic layouts were also used to establish a planning level probable cost of construction. The project was successfully completed in early 2017 and TxDOT is now in the process of moving forward with development of detailed schematics and PS&E for the solutions identified and prioritized in our Bottleneck Evaluation Report

Firm Members Involved: Mark Ingram

- ✓ Traffic Studies Traffic Engineering
- ✓ Traffic Studies Safety
- ✓ Cost Estimating

Section 18

Innovative Low Cost Safety Countermeasures - Flashing Chevron

AECOM has a wealth of experience of quickly implementing low cost safety improvements throughout the southern region.



The AECOM Team

AECOM has assembled a diverse team of professionals with expertise in road safety, traffic operations, road design, and environmental studies to serve the Louisiana Department of Transportation and Development (LADOTD) in response to of your Safety Studies Request for Proposals. AECOM is partnering with Alliance Transportation Group (ATG) to bring additional safety and traffic resource depth that will not only compliment our team, but also enhance our ability to execute multiple task orders, quickly taking a project from concept to construction. AECOM has worked with ATG on previous projects and knows this team can efficiently and effectively work as an extension of the LADOTD staff to address the recent increase in fatal and serious injury crashes across all modes on the transportation network - vehicles, pedestrians, and bicyclists. This group has not only been practicing in Louisiana, supporting LADOTD, but have provided these services to regional and state agencies across the country.

Our experience on previous Safety IDIQ has given us the opportunity to not only understand the expectations of but to foster relationships with LADOTD Highway Safety Section personnel. AECOM has successfully completed multiple task orders as both a Prime and a Sub for Safety IDIQ contracts.

AECOM is providing **Gregory Trahan**, **PE**, as the Project Manager (PM) for this contract. He has been with AECOM for over 16 years and based out of our Baton Rouge office. He worked directly with Adriane McRae and Jim Chapman, as the Deputy Project Manager on our previous Safety Studies IDIQ Contract, to deliver construction plans for a systemic curves safety improvement project and led Roadside Safety Assessments (RSA) throughout the State. During his time at AECOM, he has worked on numerous projects with LADOTD. These projects include traffic studies, safety studies and design, road design, drainage analysis and design, Stage 0 and Stage 1 studies, and program management.

Gregory will be closely supported by **Daniel Helms, PE, PTOE, RSP**₂₁ as a Deputy Project Manager (DPM). **Daniel spent over 10 years as the Traffic Safety Engineering Manager with the Mississippi Department of Transportation (MDOT)** and provided services that are closely aligned with the scope of work

that are closely aligned with the scope of work for this IDIQ contract. From 2007 to 2017, Mr. Helms developed over \$200M in Highway Safety Improvement Program (HSIP) funded construction projects, many of which went from concept to construction letting in less than a year, and which, in part, resulted in a 22.5% reduction in roadway fatalities in Mississippi. He is passionate about providing a safe and efficient transportation network for all road users. The inclusion of a team member and Deputy Project Manager well-versed in the work discussed in the IDIQ's scope for over 10 years, will provide LADOTD with a greater depth of knowledge and experience that will be provided as an extension of their own team.

The PM, DPM and Task Leads are all based in Baton Rouge. As such, AECOM will be available to meet in person with LADOTD with little advance notice.



Project Scoping and Management

Upon the Notice of Award by LADOTD Consultant Contract Services, the Project Manager would reach out to the LADOTD Highway Safety Section Project Manager to set up a meeting to review any recent changes in policy or processes, as relevant to the Safety Studies Indefinite Delivery, Indefinite Quantity (IDIQ) contract. This would also provide an opportunity to discuss LADOTD's expectations. This meeting will inform AECOM to help develop project scopes, aligning with policy, and addressing all relevant issues and concerns to streamline Task Order review and authorization.

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AECOM will also take this initial meeting as an opportunity to set up recurring meetings with LADOTD Highway Safety Section Staff, typically every 4 to 6 weeks, following the IDIQ Notice to Proceed (NTP). These meetings will allow for review of current and upcoming Task Orders, emergent safety issues, forthcoming needs, etc. Frequent communication is key to the success of this IDIQ.

Our capability to meet schedules and deadlines, and our proven history of avoiding cost overruns and escalations is documented throughout our business relationship with the State of Louisiana and LADOTD. We make a concerted effort on every project to reduce client costs, and our rigorous project management and quality control procedures reduce the probability of project issues. These efficiencies allowed AECOM to provide 5 additional Road Safety Assessments (RSAs) on our previous Safety IDIQ, under an existing Task Order for no additional fee.

AECOM will reach out to LADOTD's Project Manager to develop task order scopes of work considering LADOTD's safety issues / challenges, goals and objectives, available data outcomes and deliverables for the subject task. AECOM will take the information from LADOTD and perform a desktop review of the area, using our skilled traffic and safety professionals, to develop a high-level assessment of the location(s) and develop a list of key insights and investigative questions. Following this due diligence and internal team coordination, AECOM will develop and submit a comprehensive scope for review. The scope will address the needs of each task order issued, including identifying opportunities to provide efficiencies and accelerated schedules to provide documents and plans to get projects quickly from concept to construction.

Project Kick-Off and Progress Meetings

Once a Task Order NTP is received, AECOM will request a kickoff meeting with a proposed agenda and list of stakeholders that should be involved in the discussion. This meeting will be conducted to inform all stakeholders of the project history, purpose, scope requirements, communication protocols, schedule, and data needs.

As projects under task orders progress, AECOM will utilize its regularly scheduled progress meetings to discuss deliverables, critical project items, remaining schedule, and any correspondence required to complete tasks.

Stage 0 Feasibility Studies

Tasks involving Stage 0 Feasibility Studies will be conducted using the process outlined in the LADOTD's Project Delivery Manual and Stage 0: Manual of Standard Practices, specifically Chapter 4 (Highway Safety). AECOM will provide a write up detailing the purpose and need of the project and complete the Environmental and Preliminary Scope and Budget Checklists.

Traffic and Safety Studies

The AECOM Team has been through the Traffic Engineering Process and Report (TEPR) training courses, and the PM, DPM, and Task Leads are certified. Knowledge and experience of this process is critical to quickly advance projects from concept to construction. This includes the collection of volume and crash data, the development of the Existing Safety Analysis, and the alternative analysis process. Though the Team is well-suited in its understanding of and ability to apply the TEPR policy, it is not anticipated that an exhaustive, detailed application of the policy will be necessary for the Task Orders under this IDIQ.

Existing traffic data, including crash data, will be compiled or collected for each Task Order. Crash data to be reviewed will typically cover the last 3 to 5 years of approved data. If required, crash data will be QA/QC to be analyzed using the latest edition of CATScan, with an agreed upon Quality Assurance Index. All erroneous crash reports will be documented and submitted to the Highway Safety Section for correction within their system.

The AECOM Team is very experienced with the AASHTO Highway Safety Manual and its methods for providing quantitative comparisons for safety of alternatives. Utilizing LADOTD's Safety Toolbox and the Crash Modification Factor (CMF) Clearinghouse, benefit to cost ratios, using the Louisiana-specific unit cost for crashes, will be developed for each alternative.

Our Team is also well-versed in the diagnosis of issues related to active transportation and addressing them through the development of ped-bike safety improvements. Members of the Team have experience with ped-bike issues in both of Louisiana's Ped-Bike Safety Focus Cities: New Orleans and Baton Rouge, through developing East Baton Rouge Parish's Ped-Bike Master Plans, safety assessment of ped and bike travel modes in the New Orleans CBD, and are working on projects to implement bike lanes through retrofitting existing infrastructure, leading pedestrian intervals, etc.

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Alternate Design

AECOM will provide design alternatives that address existing safety issues within the corridor or intersection. Our Team has been formed with expertise to develop alternatives across all modes of transportation – vehicles, pedestrians, and bicycling. These alternatives will incorporate Right-of-Way and utility impacts, maintenance requirements, and environmental impacts. Preliminary project cost will be developed for the alternatives that will include cost associated with engineering, environmental impacts, construction cost, right-of-way acquisition, utility relocations, and contingencies.

Existing highway plans, traffic data, utility maps, and aerial photography will be utilized in developing proposed safety alternatives for the project. Coordination between LADOTD and utility companies will be required to expedite the retrieval of these documents. Prior experience with the Stage 0 work, the time required to gather certain resources has been an issue. To expedite this work, AECOM has experience in using big data applications, which can provide traffic volumes, origin-destination (O-D) information, travel times, etc., if it is determined the collection of data is too cumbersome or time consuming to quickly get projects from concept to construction. AECOM also has a national aerial photography library that can be used, if necessary, to expedite projects.

Environmental Checklist

The AECOM Team will also complete the Stage 0 Environmental Checklist as a part of a Task Order and undertake required desktop and field investigations, as necessary. Based on prior experience, in some cases, limited or no field work may be required. For projects where field investigations are necessary, field investigations may include wetland delineations, Phase 1 Environmental Site Assessments, and cultural resource investigations. For Programmatic Categorial Exclusion (PCE) actions completing the environmental checklist and including the Solicitation of Views (SOV) responses with minimal documentation may be all that is required.

Potential Impacts to traffic associated with lane closures and median opening closures during construction may also need to be evaluated. Once the evaluations are complete and impacts assessed,

AECOM will develop a concise draft PCE or Categorial Exclusion (CE) document consistent with previous PCE or CE documents approved by LADOTD and FHWA. AECOM would then address any comments LADOTD may have and produce the Final PCE or CE for approval.

Road Safety Assessment

The AECOM Team will work with the Highway Safety Section to prepare Road Safety Assessments (RSA). The assessment will include an Initial Findings Report that will provide a purpose and need, history, roadway characteristics (functional classification, AADT, etc.), crash locations map, and crash summary statistics for the Project Area.

AECOM, in cooperation with LADOTD, will reach out to local stakeholders, regional safety



coalitions, local/parish/state law enforcement professionals, etc., to comprise a team for the RSAs. A multi-disciplinary team, with differing viewpoints, backgrounds, and expertise, will provide the most robust evaluation of the location or corridor. AECOM will present all data to potential stakeholders at the RSA meeting, with field inspection of the project area to follow. The goal of the field review is to identify potential safety hazards and any underlying issues that may not be obvious from a desktop review. At the conclusion of the RSA meeting, AECOM will document all discussions and safety related issues in an RSA Report, following the guidance provided in the LADOTD Road Safety Assessment (RSA) Official Procedure. The RSA Report will be provided to LADOTD Staff, including the District Administrator, for review and approval.



Development of Plans for Low Cost Safety Improvements

AECOM's experience under a previous Safety Studies IDIQ contract included the development of plans and construction documents for systemic safety projects, including the signing of curves on routes throughout Louisiana.

AECOM composed letter size construction plans to implement various safety countermeasures for each curve. Countermeasures included roadway surface treatment, enhanced pavement markings, increase signage, and additional chevron signage. Plans were packaged by Districts to bid and construct.

In addition to letter size plans, AECOM also expects that there may be projects that will require construction plans consistent with LADOTD's Project Delivery Process. Our Team's work experience with plan development and specifications will help to complete plans as required to satisfy scope, schedule, and budget. Our Team will be able to coordinate with other sections of LADOTD to ensure all policies have been considered.

Safety Effectiveness Evaluation

Evaluation is sometimes referred to as the 5th "E" of Traffic Safety. Evaluation is a required component of the use of HSIP funds and yearly reporting. AECOM has the staff to use innovative techniques to evaluate the effectiveness of a countermeasure, a project, or a program, using naïve before-after analysis, cross-sectional studies, and even the use of Empirical Bayes. Empirical Bayes would be the preferential evaluation technique, as it addresses regression to the mean bias, but this process may be too involved, requiring significant data.

AECOM would schedule a meeting with the LADOTD PM upon notification of an evaluation Task Order. The AECOM PM would provide an agenda, covering the topics that would be covered, including the scope of the evaluation – countermeasure, project, or program, and the evaluation technique to be employed. Once concurrence on LADOTD's needs is reached, AECOM will develop a scope to LADOTD for review, comment, and/or approval.

AECOM will begin the collection of data once the Task Order NTP has been issued. The plan will be to look at a no less than three (3) years of crash data, prior to countermeasure, project, or program implementation, and then no less than three (3) years of post-implementation data. For specific countermeasure or project evaluation, the implementation date will be approximately one (1) month following the completion of the installation of the countermeasure or construction of the project, to allow time for traffic to acclimate to the new condition, though this acclimatation time will be approved by LADOTD, during the Task Order scoping process.

For naïve before-after analysis, a review of the pre- and post-implementation crash data will be sufficient to see the impact of the element installed or the program. Further data review may be necessary to understand if the countermeasure or project underperformed – either in comparison to a CMF in the CMF Clearinghouse or there was an increase in crashes, post-implementation.

For cross-sectional studies or using the Empirical Bayes techniques, control data will be required to perform the analysis. AECOM will coordinate with LADOTD to identify homogenous (similar roadway characteristics, AADT, etc.) intersections or sections where a safety intervention has not been made to compare against the location being evaluated.

Following the evaluation process, AECOM will produce documentation of their findings and request a meeting with LADOTD to discuss the results.

Benefits of the AECOM Team to LADOTD:

- ✓ AECOM's PM Gregory Trahan has worked directly with LADOTD Safety staff on previous Safety Contracts
- AECOM's DPM Daniel Helms has 10 years of direct experience with Safety Studies and implementing Safety Countermeasures as the head of the Safety Section at MDOT.
- AECOM's team provides LADOTD with leaders in complete streets implementation.
- AECOM's team has both local expertise with established trust and partnerships with key agency stakeholders, as well as national experts with proven best practices.

Section 19

Roadside Safety Assessment

35

AECOM has conducted several Roadside Safety Assessments that involve representatives from different agencies that work together to mitigate existing safety issues.



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			
	Road, Bridge, Environmental	H.001779.2	Red River Bridge SEA	19,173			
	CE&I/OV	H.003570	I-220 Barksdale Quality Manager (Sub)	271,373			
	H.004273.5		I-49 Connector (Sub)				
	Planning		Tasks 1, 5, 6, 12	691,035			
	Traffic		Task 2	34,207			
	Road		Task 4	14,923			
	Bridge		Task 8	477,027			
	Environmental		Task 10	938,123			
Firm(s)	Past Performance Evaluation Discipline(s) *	State Project Number	Project Name	Remaining Unpaid Balance**			
Alliance Transportation Group	Planning	LA-2019-017-01; 2000603721	LADOTD TASSO 2021-2022	192,293			
	Planning	LA-18-X032, LA-2017- 013-02, LA-80-0024, LA-2017-017	STAT2019	73,210			
	Traffic	Ц 012007.6	LADOTD OVS College Drive Flyover Ramp I-10	83,416			
	Planning	ח.013897.0	LADOTD I-10 Calcasieu Bridge	50,000			
	Traffic	H.972422.1	NORPC TDM On-Call	30,000			

(Add rows as needed)

DO NOT SUM

* The 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.

Sections 20-23

Table 2-1 RURAL LANE DEPARTURE SAFETY STRATGIES LIST For strategies with no CMF noted, the CMF is unknown. Refer to HSM Paragraph 13.A12.

Safety Strategy	Description	Example			
Enhanced Pavement Markings CMFs vary based on treatment (CMF = Varies)	Increases vibility of pavement markings during wet and rainy conditions Possible Strategies include: 6° Edge Line Marking (097) Grooved Wet Reflective Epoxy (CMF = N/A) Contrast Pavement Markings-black pavement marking boarder around yellow or white delineation (CMF = N/A) Double-drop beads (CMF = N/A) Install RPMs (Ref Table 13-40)	B a b c B a b c C a b			
Chevrons (CMF = 0.96) Enhanced Signage	 Increases driver awareness of a change in roadway alignment Assists drivers in navigating a curve, especially at night or inclement weather 				
Enhanced Delineation for Curves (CMF = Varies)	 Increases visibility and awareness of sign delineation Possible strategies include: Larger/enhanced retroreflectivity signs (CMF = N/A) Dual indicated advance warning signs with constant flashing beacons (CMF = N/A) Dual indicated advance warning signs (CMF = N/A) Dustal indicated advance warning signs (CMF = 0.47) Install combination horizontal alignment/advisory speed signs (CMF = 0.87 Injury; CMF = 0.71 Non- Injury) 				
Pavement Friction (CMF = 0.50)	 High Friction Surface Course (CMF = 0.50) 				
Shoulder Rumble Stripes (CMF = 0.79)	 Grooves in pavement that alert drivers through noise and vibration when they leave the traveled way 	BUUL			
Edgeline/Centerline Rumble Stripes (CMF = 0.86)	 Rumble Stripes are rumble strips painted with retroreflective coating to increase visibility Centerline rumble stripes Reduce head-on and opposite-direction sideswipes. 				
Shoulder Restoration/Widening (CMF = 0.95)	Paved shoulders/Widened Shoulders Larger/Higher Retroreflectivity signs Brushing/Caring the clear zone Shoulder Reconstruction				

Example of a Rural Lane Departure Safety Strategies List

As part of the Low Cost Systemic Roadway Improvements Project AECOM created a table of countermeasures that was used to identify safety measures that could be implemented on rural roads.

20. Certifications/Licenses:

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

Gregory Trahan, PE







Daniel Helms, PE, PTOE, RSP₂₁





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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, Louisiana		Professional Development Hours (PDHs) Awarded: 3			
	B \$9]	New HA	DB			
	Authorized Instructor	Authorized Instructor	Authorized instructor			
		LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT				

Prime consultant firm name: **AECOM**

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Arthur "Trey" Gamble, PE, PTOE

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Authorized Instructor Authorized Instructor	Date: July 30, 2018 Location: Baton Rouge, Lo	puisiana	Professional Development Hours (PDHs) Awarded: 2
Certificate of Completion presented to <i>Arthur Gamble</i> to completing the Data Context State Context State Context State Output Autorization	Joly J Colore Autiliorized Instructor	Authorized Instructor	Authorized instructor
Certificate of Completion presented to Arthur Gamble for completing the Traffic Engineering Analysis Process & Report Module 3 Pate: October 18, 2018 Cocation: Baton Rouge, Louisiana Professional Development Hours (PDJHs) Awardid: Multiprized Instructor Authorized (Instructor			
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Date: October 18, 2018 Professional Development Location: Baton Rouge, Louisiana Hours (PDHs) Awarded: Authorized Instructor Authorized (Instructor Authorized instructor	Certifica J	ate of Compresented to Ithur Gamble for completing the	pletion
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	Certifica f. f. Traffic Enginee Date: October 18, 2018 Location: Baton Rouge, Lo	ate of Compresented to Arthur Gamble for completing the ring Analysis Pro Module 3	ppletion 2 Decess & Report Professional Development Hours (PDDHs) Awarded: 3



Jacob Sessions, PE







Prime consultant firm name: **AECOM**

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Mark Ingram, PE, PTOE





Certificate of Completion



Prime consultant firm name: **AECOM**

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.

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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
Alliance Transportation Group, Inc.	One Galleria Blvd, Suite 1900 Metairie, LA 70001	Ed Elam, AICP, PTP, TSSP-Rail eelam@emailatg.com	504.217.5836

23. Location:

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

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