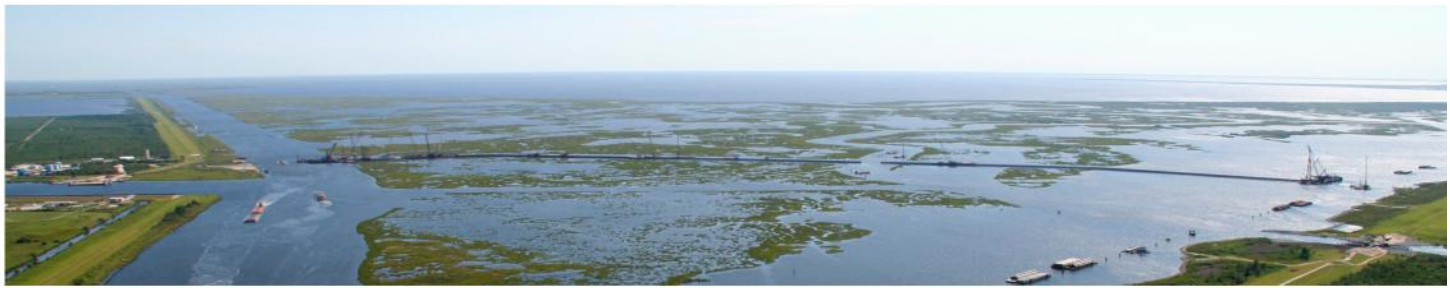


Louisiana Department of Transportation & Development

IDIQ Contracts for Professional Geotechnical Services Statewide

Contract Nos. 4400024650, 4400024651, 4400024652, 4400024653, 4400024654, 4400024655, 4400024656, and 4400024657

June 28, 2022

Submitted by:

Ardaman & Associates, Inc.

BATON ROUGE
316 Highlandia Drive
Baton Rouge, LA 70810
225.752.4790

NEW ORLEANS
101 Teal Street
St. Rose, LA 70087
504.835.2593

SHREVEPORT
7222 Greenwood Road
Shreveport, LA 71119
318.636.3673

DOTD FORM: 24-102

(Revised March 1, 2022)

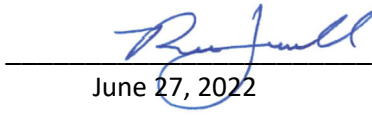
PROPOSAL TO PROVIDE CONSULTANT SERVICES

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 Geotechnical Services Statewide**
2. Contract number(s) as shown in the advertisement	**4400024650, 4400024651, 4400024652, 4400024653, 4400024654, 4400024655, 4400024656, and 4400024657**
3. State Project Number(s), if shown in the advertisement	
4. Prime consultant name (as registered with the Louisiana Secretary of State where such registration is required by law)	Ardaman & Associates, Inc.
5. Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	EF.1680
6. Prime consultant mailing address	P.O. Box 83710 Baton Rouge, LA 70884-3710
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	316 Highlandia Drive, Baton Rouge, Louisiana 70810
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Robert Jewell, PE, Project Engineer / Branch Manager P. (225) 752-4790 | E. rjewell@ardaman.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Robert Jewell, PE, Project Engineer / Branch Manager P. (225) 752-4790 | E. rjewell@ardaman.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 #8):  Date: June 27, 2022
11. If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal and each firm(s)' percentage.	Firm(s): Traffic Control Products of LA, Inc. Firm(s)' %: 2%

12. Past Performance Evaluation Discipline Table:

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

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

Evaluation Disciplines	% of Overall Contract	Prime: Ardaman & Associates, Inc.	Firm B: Traffic Control Products of LA, Inc.	Firm C	Firm D	Firm E	Each Discipline must total to 100%
Geotech	91%	100%	0%				100%
CE&I / OV	5%	100%	0%				100%
Survey	2%	100%	0%				100%
Traffic*	2%	0%	100%				100%
Identify the percentage of work for the **overall contract** to be performed by the prime consultant and each subconsultant.							
Percent of Contract	100%	98%	2%				100%

The only past performance evaluation disciplines to be used are: Road, Bridge, Traffic, CE&I/OV, Geotech, Survey, Environmental, Data Collection, Planning, Right-of-Way, CPM, ITS, Appraiser and Other. The crosswalk from the old categories to the new categories can be found at the link below: http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/CCS/General%20Information/CPPR%20Crosswalk%20to%20New%20Evaluation%20Disciplines.pdf. (same link as in the advertisement)

*This evaluation discipline listed as traffic pertains to traffic safety.

13. Firm Size:

For all firms that are part of this team, indicate the approximate number of personnel to be committed to this contract, by DOTD Job Classification and the total number of personnel within the firm that could provide support, if needed. If a specialized job classification is required and not included on the DOTD job classification list, specify "Other (xxxx)" and include the classification title inside the parentheses. The DOTD Job Classification(s) to be used can be found at the following link:
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/CCS/Job_Qualification/Job%20Classifications%20with%20Descriptions.pdf

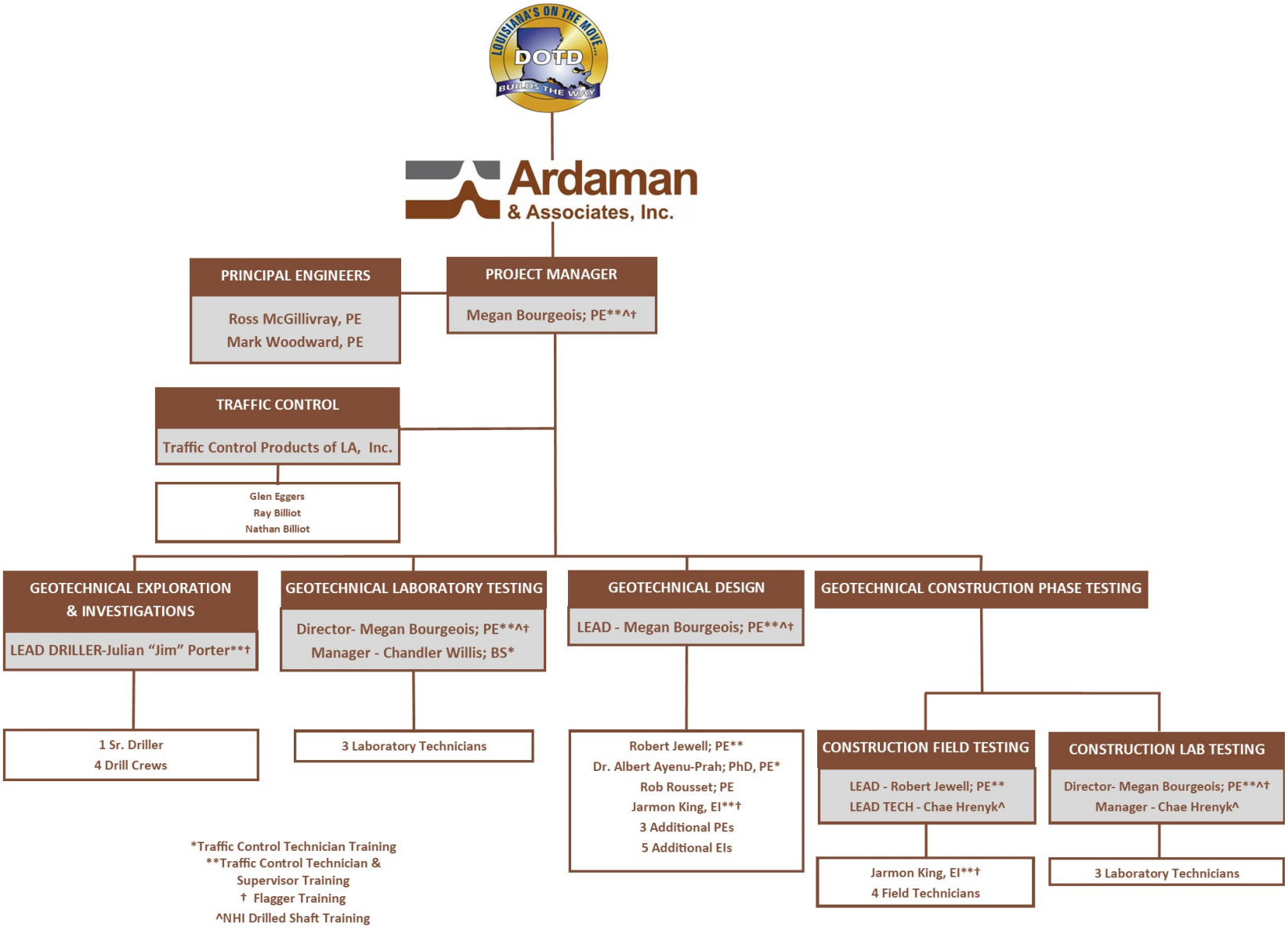
Firm name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
Ardaman & Associates, Inc.	Administrative	1	1
Ardaman & Associates, Inc.	Clerical	1	1
Ardaman & Associates, Inc.	Engineer	2	4
Ardaman & Associates, Inc.	Engineer Intern	3	6
Ardaman & Associates, Inc.	Principal	2	2
Ardaman & Associates, Inc.	Senior Technician	7	9
Ardaman & Associates, Inc.	Supervisor-Engineering	3	3
Ardaman & Associates, Inc.	Supervisor-Other	3	3
Ardaman & Associates, Inc.	Technician	9	13
Traffic Control Products Co. of LA, Inc.	Principal	2	2
Traffic Control Products Co. of LA, Inc.	Supervisor – Other	3	3
Traffic Control Products Co. of LA, Inc.	Supervisor – Eng.	10	20
Traffic Control Products Co. of LA, Inc.	Technician	20	40

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.



15. Minimum Personnel Requirements:

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

MPR No. Do not insert wording from ad	Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license / certification & number	State of license	License / certification expiration date
1	Mark Woodward, PE	Ardaman & Associates, Inc.	Civil Engineer / PE.0024206	LA	PE.0024206 / 09/30/2023
2	Megan Bourgeois, PE	Ardaman & Associates, Inc.	Civil Engineer / PE.0036725	LA	PE.0036725 / 03/31/2024
3	Megan Bourgeois, PE	Ardaman & Associates, Inc.	Civil Engineer / PE.0036725	LA	PE.0036725 / 03/31/2024
4	Megan Bourgeois, PE Chandler Willis, BS	Ardaman & Associates, Inc.	Civil Engineer / PE.0036725 N/A	LA N/A	PE.0036725/ 03/31/2024 N/A
5	Jim Porter	Ardaman & Associates, Inc.	Water Well Driller	LA	Water Well Driller WWC #212

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.

Firm employed by:	Ardaman & Associates, Inc.			
Name	**Albert Ayenu-Prah, Jr., PhD, PE**		Years of relevant experience with this employer	7
Title	PROJECT ENGINEER		Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization		PhD / 2007 / Civil Engineering MS / 2004 / Civil Engineering BS / 2001 / Civil Engineering		
Active registration number / state / expiration date		37402 / LA / 03-31-2023		
Year registered	2012	Discipline	Civil	
Contract role(s) / brief description of responsibilities		**Project Engineer**		

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).
	Dr. Ayenu-Prah *is a Project Engineer with 14 years of experience in pavement and geotechnical engineering. His expertise in rigid and flexible pavement systems includes design methodologies (both empirical and mechanistic-empirical), asphalt and concrete materials, pavement construction, pavement management systems, drainage design, pavement roughness and ride quality, GPR, and FWD. Dr. Ayenu-Prah's project experience in pavement systems encompasses highway pavements, airport pavements, industrial pavements, and heavy-duty pavements. His expertise in geotechnical engineering includes foundations, embankments, stability of slopes, retaining walls, settlement, shoring systems, vibration and ground movement instrumentation, ground improvement, and various aspects of construction. Dr. Ayenu-Prah has served in lead technical roles in various projects pertaining to pavement systems and geotechnical engineering. He has also conducted relevant research, authored several publications, and has been a technical reviewer for several peer-reviewed papers, particularly in pavement engineering. In addition, he is proficient in most geotechnical engineering software including Slope/W, Seep/W, DRIVEN, gINT, AllPile, ShoringSuite, AutoCAD, GRLWEAP, and development of pavement design analysis spreadsheets.*
07/21-Ongoing	**SP No. H.004100.5 / I-10: LA 415 TO ESSEN LANE ON I-10 & I-12 (CMAR) Baton Rouge Parish, LA.** *Project Engineer.* Leads technical reviews pertaining to selection of design reaches, geotechnical design of deep foundations, earth retaining structures, slope stability, soil-structure interaction with existing structures and load testing recommendations. This is a Construction Management at Risk (CMAR) project which includes widening of the east and westbound lanes, elevated structures, interchanges, and ramps along I-10 from LA 415 in West Baton Rouge Parish to Essen Lane on I-10 and I-12 in East Baton Rouge Parish spanning approximately 2.5 miles.
04/21-Ongoing	**SP Nos. 700-29-0112, 700-29-0130, H.012565, H.012891, H.014251, H.014252, H.014253, H.014254, H.014256, H.014257 / RURAL BRIDGE INITIATIVE PHASE II: West Feliciana, East Feliciana, Livingston, St. Bernard Parishes, LA.** *Project Engineer.* Leads technical reviews pertaining to selection of design reaches, geotechnical design of pile foundations, drivability, slope stability, settlement analyses and construction testing program recommendations. This project consists of the replacement of multiple small two-lane bridges throughout rural areas of Southeast Louisiana which generally ranged in length from 100 to 400 feet, mainly over small rivers and creeks.

12/20-Ongoing	**SP No. H.013897 / COLLEGE DRIVE FLYOVER RAMP I-10/I-12 WEST: East Baton Rouge Parish, LA.** *Project Manager.* Leads technical reviews pertaining to Owner Verification (OV) of geotechnical design for various structures, as well as pavement design along the project alignment. This is a Design-Build project which includes modifying the I-10 West/College Drive exit into separate I-12 West and I-10 West exits., and Ardaman's scope consists of OV services.
03/19-07/20	**SP No. H.004100.5-2 / I-10 WIDENING (LA415 TO HOWARD ST): East Baton Rouge Parish, LA.** *Project Engineer.* Evaluated the laboratory test results, including consolidation testing, and produced logs for the widening of the East and Westbound lanes, elevated structures, and construction of interchange and ramps on Westbound lanes along I-10 between LA 415 and Howard Street spanning approximately 1 mile. The geotechnical investigation included 58 deep borings and 11 cone penetrometer (CPT) soundings, associated laboratory testing and the preparation of a geotechnical data report.
06/18-Ongoing	**SP No. H.004791 / LA 23 BELLE CHASSE BRIDGE AND TUNNEL: Plaquemine Parish, LA.** *Project Manager.* Leads geotechnical and pavement engineering design reviews pertaining to Owner Verification (OV) during design and construction phases. This is a P3 Project, consisting of replacing the Belle Chasse bridge and tunnel, and Ardaman's scope consists of OV services.
05/19-Ongoing	**SP No. H.003370 / I-220/I-20 INTERCHANGE IMPROVEMENT AND BARKSDALE ACCESS ROAD: Bossier Parish, LA.** *Project Engineer.* Responsible for pavement design for all roadways. This Design-Build project consists of construction of an interchange and direct access road to I-20 from the Barksdale Air Force Base just outside of Bossier City. Structures include twin overpass bridges and access ramps.
09/17 – 06/18	**RODDY ROAD SAFETY WIDENING: Ascension Parish, LA.** *Project Engineer*. Responsible for pavement and deep foundation design for the safety widening along Roddy Road from LA 935 to LA 621. The project consisted of providing two 12-foot lanes, 4-foot shoulders, and a defined side ditch for roadside drainage, as well as the design of various turn lanes at the intersection locations.
01/15-Ongoing	**PECUE LANE / I-10 INTERCHANGE: East Baton Rouge Parish, LA.** *Project Engineer.* Performed geotechnical engineering analyses, including embankment settlement and slope stability of earth retaining structures, and deep foundations. The project consists of the construction of an interchange with multiple through and turn lanes, entrance and exit ramps in a congested area, replacing two existing overpass bridges, as well as roadway widening and extension. Mr. Ayenu-Prah is currently involved with the construction phase services including review of the pile driving system and high-strain dynamic testing.
07/15-Ongoing	**SP No. H.004273.5** / **I-49 CONNECTOR (LAFAYETTE REGIONAL AIRPORT): Lafayette Parish, LA.** *Project Engineer*. Responsibility includes geotechnical design and technical review for various structures along the project alignment. The project includes frontage roads, and elevated mainline viaduct structure, interchanges with associated ramps, and bridges over a total length of 5 miles. Mr. Ayenu-Prah helped characterize all of the soil borings and CPT soundings into various design reaches using an Ardaman created database across the 5 mile alignment and oversaw the pile foundation design, earth retained structures, slope stability, and embankment settlement. He is also helping to develop the preliminary geotechnical report.
11/15-Ongoing	**SP No. H.011309 / MCARTHUR INTERCHANGE COMPLETION PHASE II, US 90Z: Jefferson Parish, LA.** *Project Engineer.* Responsible for geotechnical analyses and recommendations pertaining to elevated ramps and associated at-grade approaches. Performed design recommendations including deep foundations, pile group analyses, embankment settlement, and pile supported approach slab design for the construction of ramps entering and exiting Westbank Expressway. Project consists of horizontal and vertical design for widening the south frontage road from Peters Road and east bound Harvey Tunnel to Manhattan Boulevard, including four eastbound on and off ramps of the Westbank Expressway.

16. Staff Experience:

Firm employed by:	Ardaman & Associates, Inc.				
Name	**Megan Bourgeois, PE**			Years of relevant experience with this employer	16
Title	PROJECT ENGINEER / ASSISTANT BRANCH MANAGER			Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			BS / 2006 / Civil Engineering		
Active registration number / state / expiration date			36725 / LA / 03-31-2024 Traffic Control Supervisor Refresher / LA / 8-7-2024 DOTD Flagger / LA / 8-8-2024 Certified NHI Drilled Shaft Inspector		
Year registered	2011	Discipline	Civil		
Contract role(s) / brief description of responsibilities			Contract Role: **Project Manager**		

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).
	***Ms. Bourgeois** has more than 14 years of experience with shallow foundation design, embankment settlement analysis, pile and drilled shaft foundation analysis, LRFD design, slope stability (embankment and excavation), pipeline and pump station recommendations, geotechnical instrumentation, installation and monitoring, and construction phase testing and laboratory management. She has managed numerous geotechnical investigations and design evaluations, managed laboratory testing programs, while also serving as Ardaman's program manager for many LADOTD projects for bridges and roadways throughout Louisiana. Ms. Bourgeois also serves as the director of our geotechnical engineering laboratory in Baton Rouge. In this role, she supervises the laboratory manager, oversees testing, provides guidance to laboratory staff, and ensures appropriate protocol is followed and deadlines are met in addition to providing training material and maintaining all laboratory certifications, including AMRL, CCRL, DEQ & USACE.*
10/09 - Ongoing	**SP NO. H.004646.5 / I-20 MISSISSIPPI RIVER BRIDGE REVIEW: Vicksburg, MS.** *Project Manager*. Ms. Bourgeois manages this multi-million-dollar, high risk, high technical needs, high visibility project consisting of investigating the movement of the I-20 Bridge in Vicksburg, Mississippi. She managed a highly technical team including academia, outside experts, including internationally recognized geotechnical engineers, geohydrologists, instrumentation specialists, and 3-D geotechnical modeling experts. She managed and personally oversaw a comprehensive laboratory testing program and was involved in refining the geotechnical site characterization for the bank/bluff where there was evidence of shifting creating movement in the bridge structure. The specialized testing, she personally performed or managed included x-ray diffraction for the determination of mineralogy, x-ray scanning of unextruded samples to identify existing shearing planes, stress-reversal direct shear tests to determine true residual angles of critical strata. She was instrumental in designing the geotechnical instrumentation for this project including vibrating wire piezometers, Casagrande type piezometers, In-place inclinometers, SAA inclinometers, and traditional inclinometers. In addition, Ms. Bourgeois performed seepage and drawdown analyses, slope stability analyses, evaluation of remedial measures, and developed technically feasible solutions. She co-authored the geotechnical analysis and design report. Currently, she is managing a phase of the project that included upgrading the entire instrumentation communication system and will be monitoring this system continuously.

07/21-Ongoing	**SP No. H.004100.5 / I-10: LA 415 TO ESSEN LANE ON I-10 & I-12 (CMAR) Baton Rouge Parish, LA.** *Project Engineer.* Leads technical reviews pertaining to selection of design reaches, geotechnical design of deep foundations, earth retaining structures, slope stability, soil-structure interaction with existing structures and load testing recommendations. This is a Construction Management at Risk (CMAR) project which includes widening of the east and westbound lanes, elevated structures, interchanges, and ramps along I-10 from LA 415 in West Baton Rouge Parish to Essen Lane on I-10 and I-12 in East Baton Rouge Parish spanning approximately 2.5 miles.
04/21-Ongoing	**SP Nos. 700-29-0112, 700-29-0130, H.012565, H.012891, H.014251, H.014252, H.014253, H.014254, H.014256, H.014257 / RURAL BRIDGE INITIATIVE PHASE II: West Feliciana, East Feliciana, Livingston, St. Bernard Parishes, LA.** *Project Engineer.* Leads technical reviews pertaining to selection of design reaches, geotechnical design of pile foundations, drivability, slope stability, settlement analyses and construction testing program recommendations. This project consists of the replacement of multiple small two-lane bridges throughout rural areas of Southeast Louisiana which generally ranged in length from 100 to 400 feet, mainly over small rivers and creeks.
07/21-01/22	**SP No. H.003931 / I-10 CALCASIEU RIVER BRIDGE: Calcasieu Parish, LA.** *Project Manager.* Managed all aspects of this project pertaining to coordination of fieldwork including 37 deep soil borings, 39 ECPTs and 13 electrical resistivity (ER) geophysical survey transects. A majority of the soil borings were completed from a barge, some over a considerable amount of water. Some soil borings were completed from a marsh buggy over shallow water and thick marsh grass. Ms. Bourgeois also managed and oversaw the laboratory testing program, processing and analyzing of the ECPT and ER data. She also assisted with development of a geotechnical database and preparation and submittal of a geotechnical data report. This project consisted of obtaining preliminary geotechnical data under an extremely strict deadline to be used in the design phase of a project that will consist of replacing the existing I-10 Calcasieu River Bridge with a new structure and improvements to I-10 near the I-210 interchange and various other interchanges including entrances, exits and service roads.
10/18- 01/20	**SP NO. H.000263 / CHEF MENTEUR PASS BRIDGE & APPROACH: Orleans Parish, LA.** *Project Manager.* Managed and oversaw all aspects of an extensive field investigation program which included 37 deep soil borings, including borings over 200 feet in over 80 feet deep of high flow water. Ms. Bourgeois also managed laboratory testing program to provide geotechnical characterization data for use in design of deep foundations and embankments, oversaw the field resistivity testing program, and developed the data report.
10/15- Ongoing	**SP NO. H.013579 / PECUE LANE I-10 INTERCHANGE I-10: East Baton Rouge Parish, LA.** *Project Manager*. Managed all aspects of the project that included field investigations, laboratory testing, and engineering design. This interchange consists of twin bridges with MSE wall abutments for both bridges crossing Interstate I-10 and on/off-ramps in south Baton Rouge. Ms. Bourgeois performed analyses including settlement estimates with recommendations for monitoring, driven pile design including down drag considerations, MSE Wall design, slope stability and pavement section recommendations; all completed according to DOTD standards. She is currently assisting with the field construction monitoring.
03/19-07/20	**SP NO. H.004100.5-2 / I-10 WIDENING (LA 415 TO HOWARD ST): East Baton Rouge Parish, LA.** *Project Manager.* Managed all aspects of the geotechnical investigation in support of the widening of the East and Westbound lanes, elevated structures, and construction of interchange and ramps on Westbound lanes along I-10 between LA 415 and Howard Street spanning approximately 1 mile. The geotechnical investigation included 58 deep borings and 11 cone penetrometer (CPT) soundings, electrical resistivity imaging along the entire alignment, laboratory testing and the preparation of a geotechnical data report.
12/12- Ongoing	**SP NO. H.009266 / I-10 Widening LA 73 to LA 30: Ascension Parish, LA.** *Project Manager*. Managing all aspects of the project that include field investigations consisting of 13 deep soil borings and 26 shallow soil borings, laboratory testing, and engineering design in support of the widening of the East and Westbound lanes and elevated structures along I-10 between LA 73 and LA 30 spanning approximately 5 miles. Ms. Bourgeois performed analyses including settlement estimates with recommendations for monitoring, driven pile design including down drag considerations, and pavement section recommendations; all completed according to DOTD standards.

16. Staff Experience:

Firm employed by:	Ardaman & Associates, Inc.		
Name	**Chae Hrenyk**	Years of relevant experience with this employer	15
Title	CONSTRUCTION MATERIALS TESTING MANAGER	Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			
Active registration number / state / expiration date	Certified NHI Drilled Shaft Inspector		
Year registered	Discipline		
Contract role(s) / brief description of responsibilities	Contract Role: **Construction Testing Technician Supervisor**		

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).
	Mr. Hrenyk *serves as the Construction Materials Testing (CMT) Manager in the Baton Rouge office. He is an experienced technician with 15 years of experience in the field and laboratory who has successfully performed construction materials testing and QA inspection for many of our projects. He has experience with all aspects of pile monitoring including pile driving analyzer (PDA), pile logging and vibration monitoring. Mr. Hrenyk has experience with all aspects of drilled shaft construction inspection. He also has extensive geotechnical instrumentation installation and monitoring experience. He is also responsible for training and supervising all field technicians on instrumentation reading and/or monitoring. Mr. Hrenyk also has experience running field resistivity imaging using state of the art equipment that provides 2D and 3D geophysical survey transects. Mr. Hrenyk has served as client coordinator where he communicates field information to the client and/or engineers for evaluation. He is experienced in conducting field testing, reading and verifying large-scale project specification packages, laboratory analyses and inspection of concrete and he has taken the NHI Drilled Shaft Foundation Construction course and is certified in inspection of drilled shaft installation. He also has specific experience providing laboratory testing for LADOTD projects according to required test procedures and submitting data through the required LADOTD Materials Testing online database (LIMS). Mr. Hrenyk is also in responsible charge of all aspects of maintaining the certifications for the CMT Laboratory including a vast scope of test methods under AMRL, CCRL, USACE and LDEQ. His duties in this role include but are not limited to maintaining all equipment maintenance and calibration, supervising and training all technicians on proper test methods, maintaining all documentation and preparing and participating in laboratory inspections by the certifying agencies.*
07/09-08/11	**SP NO. 700-29-0112 / LA-1- PHASE 1: Lafourche Parish, LA:** *Construction Monitoring Inspector.* Served in the field as on-site technician during construction for this project in southeast Louisiana. He assisted the Engineer with PDA testing and pile logging.
07/21-01/22	**SP No. H.003931 / I-10 CALCASIEU RIVER BRIDGE: Calcasieu Parish, LA.** *Senior Field Technician.* Ardaman's scope of work consisted of coordination of fieldwork including 37 deep soil borings, 39 ECPTs and 13 electrical resistivity (ER) geophysical survey transects. A majority of the soil borings were completed from a barge, some over a considerable amount of water. Some soil borings were completed from a marsh buggy over shallow water and thick marsh grass. Mr. Hrenyk assisted in completing the ER surveys. Ardaman's scope of work also consisted of a laboratory testing program, processing and analyzing of the ECPT and ER data, development of a geotechnical database and preparation and submittal of a geotechnical data report. This project consisted of obtaining preliminary geotechnical data under an extremely strict deadline to be used in the design phase of a project that will consist of replacing the existing I-10 Calcasieu River Bridge with a new structure and improvements to I-10 near the I-210 interchange and various other interchanges including entrances, exits and service roads.
01/15-Ongoing	**PECUE LANE / I-10 INTERCHANGE: East Baton Rouge Parish, LA.** *Construction Monitoring Inspector.* Assisted in performing PDA testing and pile logging for the pre-cast pre-stressed concrete (PCC) piles and steel pipe piles driven for the I-10 Interchange bridge.

10/18-Ongoing	**SP NO. H.003370 / I-220 / I-20 INTERCHANGE IMPROVEMENT AND BARKSDALE AIR FORCE BASE ACCESS ROAD: Bossier Parish, LA.** *Construction Monitoring Inspector.* Mr. Hrenyk helped oversee the installation of driven piles drilled shafts and helped perform PDA testing and static load tests.
10/18- 01/20	**SP NO. H.000263 / CHEF MENTEUR PASS BRIDGE & APPROACH: Orleans Parish, LA.** *Senior Field Technician.* Ardaman's scope of work for this project consisted of an extensive field investigation program which included 37 deep soil borings, including borings over 200 feet in over 80 feet deep of high flow water, a laboratory testing program to provide geotechnical characterization data for use in design of deep foundations and embankments, a field resistivity testing program, and a data report. Mr. Hrenyk assisted with completion of the electrical resistivity surveys.
06/18-Ongoing	**SP No. H.004791 / LA 23 BELLE CHASSE BRIDGE AND TUNNEL: Plaquemine Parish, LA.** *CMT Laboratory Manager.* Ardaman's scope for this project consists of geotechnical and pavement engineering design reviews pertaining to Owner Verification (OV) during design and construction phases. This is a P3 Project, consisting of replacing the Belle Chasse bridge and tunnel, and Ardaman's scope consists of OV services. Mr. Hrenyk manages the laboratory testing program portion of this project including internal QC data review and input of the data results into LIMS as required by LADOTD.
10/09 - Ongoing	**SP NO. H.004646.5 / I-20 MISSISSIPPI RIVER BRIDGE REVIEW: Vicksburg, MS.** *Senior Field Technician*. Mr. Hrenyk assisted with many aspects of this multi-million-dollar, high risk, high technical needs, high visibility project consisting of investigating the movement of the I-20 Bridge in Vicksburg, Mississippi. Ardaman managed a highly technical team including academia, outside experts, including internationally recognized geotechnical engineers, geohydrologists, instrumentation specialists, and 3-D geotechnical modeling experts. Ardaman managed a comprehensive laboratory testing program and refined a geotechnical site characterization for the bank/bluff where there was evidence of shifting creating movement in the bridge structure. The specialized testing included x-ray diffraction for the determination of mineralogy, x-ray scanning of unextruded samples to identify existing shearing planes, stress-reversal direct shear tests to determine true residual angles of critical strata. He was instrumental in designing and installing the geotechnical instrumentation for this project including vibrating wire piezometers, Casagrande type piezometers, In-place inclinometers, SAA inclinometers, and traditional inclinometers. In addition, Ardaman performed seepage and drawdown analyses, slope stability analyses, evaluation of remedial measures, and developed technically feasible solutions. A geotechnical analysis and design report was prepared and submitted. Currently, he is assisting with a phase of the project that includes upgrading the entire instrumentation communication system and will be monitoring this system continuously.

16. Staff Experience:

Firm employed by:	Ardaman & Associates, Inc.				
Name	**Robert Jewell, PE**			Years of relevant experience with this employer	15
Title	PROJECT ENGINEER / BRANCH MANAGER			Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			BS / 2009 / Civil Engineering		
Active registration number / state / expiration date			38579 / LA / 09-30-2022 Traffic Control Supervisor / LA / 9-25-2024		
Year registered	2013	Discipline	Civil		
Contract role(s) / brief description of responsibilities			Contract Role: **Project Engineer**		

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).
	Mr. Jewell *serves as the manager of our Baton Rouge office and as project manager for various geotechnical engineering projects which include analyses such as pile and drilled shaft foundations, shallow foundations, static and dynamic pile testing, and slope stability. He has managed and coordinated many geotechnical field investigations, including shallow and deep borings, CPT soundings, and performed analyses and prepares design recommendation reports for LADOTD projects. Mr. Jewell has extensive experience in construction phase testing and oversight including dynamic and static testing, pile integrity testing, cross hole sonic logging, settlement monitoring, and geotechnical instrumentation.*
10/18- 01/20	**SP NO. H.000263.5-1 / CHEF MENTEUR PASS BRIDGE & APPROACH: Orleans Parish, LA.** *Project Engineer*. Helped manage and oversee all aspects of an extensive field investigation program which included 37 deep soil borings, including borings over 200 feet in over 80 feet deep of high flow water. Mr. Jewell also helped develop the soil boring logs and preparation of the data report.
10/18-Ongoing	**SP NO. H.003370 / I-220 / I-20 INTERCHANGE IMPROVEMENT AND BARKSDALE AIR FORCE BASE ACCESS ROAD: Bossier Parish, LA.** *Project Manager.* Prepared the preliminary design and planning report for this Design Build project which provides direct access to Interstate I-20 from the Barksdale Air Force Base (BAFB) and constructing an interchange and access road from Interstate 20 in Bossier City, Louisiana. Mr. Jewell oversaw the field construction services consisting of PDA monitoring, bi-directional load cell load tests, and settlement monitoring.
03/19-07/20	**SP NO. H.004100.5-2 / I-10 WIDENING (LA 415 TO HOWARD ST): East Baton Rouge Parish, LA.** *Project Engineer.* Comanaged all aspects of the geotechnical investigation in support of the widening of the East and Westbound lanes, elevated structures, and construction of interchange and ramps on westbound lanes along I-10 between LA 415 and Howard Street spanning approximately 1 mile. The geotechnical investigation will include 58 deep borings and 11 cone penetrometer (CPT) soundings, field resistivity testing, and associated laboratory testing and the preparation of a geotechnical data report.
07/21-Ongoing	**SP No. H.004100.5 / I-10: LA 415 TO ESSEN LANE ON I-10 & I-12 (CMAR) Baton Rouge Parish, LA.** *Project Manager.* Leads all aspects of engineering analyses pertaining to selection of design reaches, geotechnical design of deep foundations, earth retaining structures, slope stability, soil-structure interaction with existing structures and load testing recommendations. This is a Construction Management at Risk (CMAR) project which includes widening of the east and westbound lanes, elevated structures, interchanges, and ramps along I-10 from LA 415 in West Baton Rouge Parish to Essen Lane on I-10 and I-12 in East Baton Rouge Parish spanning approximately 2.5 miles.

04/21-Ongoing	**SP Nos. 700-29-0112, 700-29-0130, H.012565, H.012891, H.014251, H.014252, H.014253, H.014254, H.014256, H.014257 / RURAL BRIDGE INITIATIVE PHASE II: West Feliciana, East Feliciana, Livingston, St. Bernard Parishes, LA.** *Project Manager.* Leads all aspects of engineering analyses pertaining to selection of design reaches, geotechnical design of pile foundations, drivability, slope stability, settlement analyses and construction testing program recommendations. This project consists of the replacement of multiple small two-lane bridges throughout rural areas of Southeast Louisiana which generally ranged in length from 100 to 400 feet, mainly over small rivers and creeks.
07/21-01/22	**SP No. H.003931 / I-10 CALCASIEU RIVER BRIDGE: Calcasieu Parish, LA.** *Project Engineer.* Lead technical review of all aspects of this project pertaining to coordination of fieldwork including 37 deep soil borings, 39 ECPTs and 13 electrical resistivity (ER) geophysical survey transects. A majority of the soil borings were completed from a barge, some over a considerable amount of water. Some soil borings were completed from a marsh buggy over shallow water and thick marsh grass. Mr. Jewell also assisted with review of the laboratory testing program, processing and analyzing of the ECPT and ER data. He also assisted with development of a geotechnical database and preparation and submittal of a geotechnical data report. This project consisted of obtaining preliminary geotechnical data under an extremely strict deadline to be used in the design phase of a project that will consist of replacing the existing I-10 Calcasieu River Bridge with a new structure and improvements to I-10 near the I-210 interchange and various other interchanges including entrances, exits and service roads.
07/15-Ongoing	**SP NO. H.004273.5 / I-49 CONNECTOR (LAFAYETTE REGIONAL AIRPORT TO I-10/I-49/US 167 INTERCHANGE): Lafayette Parish, LA.** *Project Manager.* Manages the Phase I geotechnical investigation, which included 116 deep and shallow soil boring, and 15 CPT soundings. The design was for the construction of 5 miles of freeway consisting of a 3.5-mile elevated structure that will include pile supported approach slabs, pile foundations, slope stability, embankment settlement, advanced load test programs, and earth retaining structures. He will be the co-principal for developing the Geotechnical Investigation and Design Report to be developed for this project. In addition, he will also oversee and coordinate the Phase 2 field and laboratory program which will include a total of more than 400 borings including deep borings, shallow borings, and CPT soundings.
10/15-Ongoing	**SP No. H.013579 / PECUE LANE I-10 INTERCHANGE I-10: East Baton Rouge Parish, LA.** *Project Engineer*. This interchange consists of twin bridges with MSE wall abutments for both bridges crossing Interstate I-10, and on/off-ramps in south Baton Rouge. Mr. Jewell helped perform analyses including settlement estimates with recommendations for monitoring, driven pile and drilled shaft design including down drag considerations, MSE Wall design, slope stability and pavement section recommendations; all completed according to DOTD standards. Mr. Jewell is currently overseeing the construction phase which includes dynamic testing and settlement monitoring.
04/14-Ongoing	**SP No. H.004435 / I-12 TO BUSH SEGMENT 2, LA 3241 (LA 36-LA435): St. Tammany Parish, LA.** *Project Manager*. Oversaw and coordinated the geotechnical investigation which included drilling 32 deep soil borings, 10 culvert borings, and 88 shallow roadway borings, sampling, and laboratory testing along the alignment which includes two bridges: LA 435 over Bayou Lacombe Tributary and LA 36 over Bayou Lacombe Tributary 2. Assisted in developing the geotechnical analyses and design recommendation report which included pile foundations for the bridge structures and shallow foundation design for the culverts. Mr. Jewell is currently overseeing the construction phase which includes dynamic testing and settlement monitoring.
10/14-12/16	**SP NO. H.010601.5 / I-10 Widening (E. JET. I-49 TO LA 328): St. Martin Parish, LA.** *Project Engineer*. Oversaw and coordinated the geotechnical investigation which included 44 deep borings and 25 cone penetrometer (CPT) soundings, associated laboratory testing, and preparation of a geotechnical data report for the widening of the nine existing structures along I-10 between I-49 to LA 328 spanning approximately 7 miles.
07/09-08/11	**SP NO. 700-29-0112 / LA-1- PHASE 1: Lafourche Parish, LA:** *Assistant Project Engineer.* Served in the field as on-site geotechnical engineer during construction for this project in southeast Louisiana. He conducted dynamic monitoring using the Pile Driving Analyzer, performed CAPWAP analyses, reviewed drive logs, and supervised field technicians.

16. Staff Experience:

Firm employed by:	Ardaman & Associates, Inc.				
Name	**Jarmon King, E.I.**			Years of relevant experience with this employer	3
Title	ASSISTANT PROJECT ENGINEER			Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization			BS / 2019 / Civil Engineering		
Active registration number / state / expiration date			EI 34348/ LA / 03-31-2024 Traffic Control Supervisor / LA / 9-4-2024 DOTD Flagger / LA / 3-10-2024		
Year registered	2019	Discipline	Civil		
Contract role(s) / brief description of responsibilities			Contract Role: **Assistant Project Engineer**		

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).
	Jarmon King *serves as an Assistant Project Engineer of Ardaman in the Baton Rouge office. Mr. King is involved with overseeing and conducting geotechnical investigations. Mr. King also prepares soil boring logs; analyzes, processes, and plots Cone Penetration Test (CPT) soundings, performs pile and settlement analyses; assists with writing geotechnical reports; and helps coordinate field and laboratory operations. Mr. King also has a great deal of field engineering experience including all aspects of pile driving monitoring, including performing Pile Driving Analyzer (PDA) during construction, performing field resistivity imaging, and completing industrial facility inspections. Mr. King also oversees several long-term geotechnical instrumentation monitoring programs where he assists technicians in gathering and processing various types of instrumentation data. Mr. King also serves as the Office Safety Coordinator and has experience assessing safety of employees on the job site in accordance with OSHA where he was responsible for carrying out company safety standards and making any changes to ensure a safe and productive environment.*
03/19-07/20	**SP No. H.004100.5-2 / I-10 WIDENING (LA415 TO HOWARD ST): East Baton Rouge Parish, LA.** Assistant *Project Engineer.* Mr. King evaluated the laboratory test results and produced logs for the widening of the East and Westbound lanes, elevated structures, and construction of interchange and ramps on Westbound lanes along I-10 between LA 415 and Howard Street spanning approximately 1 mile. The geotechnical investigation included 58 deep borings and 11 cone penetrometer (CPT) soundings, associated laboratory testing and the preparation of a geotechnical data report.
01/15-Ongoing	**PECUE LANE / I-10 INTERCHANGE: East Baton Rouge Parish, LA.** *Assistant Project Engineer.* Performed PDA testing and CAPWAP analyses for the pre-cast pre-stressed concrete (PCC) piles and steel pipe piles driven for the I-10 Interchange bridge.
10/18-01/20	**SP NO. H.000263 / CHEF MENTEUR PASS BRIDGE & APPROACH: Orleans Parish, LA.** *Assistant Project Engineer.* Helped produced soil boring logs and CPT soundings in LADOTD format. Assisted with development of the data report.
10/18-Ongoing	**SP NO. H.003370 / I-220 / I-20 INTERCHANGE IMPROVEMENT AND BARKSDALE AIR FORCE BASE ACCESS ROAD: Bossier Parish, LA.** *Assistant Project Engineer.* Assisted the Project Manager in preparing the preliminary planning report for this Design Build project which provides direct access to Interstate I-20 from the Barksdale Air Force Base (BAFB) and construct an interchange and access road from Interstate 20 in Bossier City, Louisiana. Mr. King performed PDA testing and CAPWAP analyses for the field construction during the test pile program.

07/21-Ongoing	**SP No. H.004100.5 / I-10: LA 415 TO ESSEN LANE ON I-10 & I-12 (CMAR) Baton Rouge Parish, LA.** *Assistant Project Engineer.* Assists in engineering analyses pertaining to selection of design reaches, geotechnical design of deep foundations, earth retaining structures, slope stability, soil-structure interaction with existing structures and load testing recommendations. This is a Construction Management at Risk (CMAR) project which includes widening of the east and westbound lanes, elevated structures, interchanges, and ramps along I-10 from LA 415 in West Baton Rouge Parish to Essen Lane on I-10 and I-12 in East Baton Rouge Parish spanning approximately 2.5 miles.
04/21-Ongoing	**SP Nos. 700-29-0112, 700-29-0130, H.012565, H.012891, H.014251, H.014252, H.014253, H.014254, H.014256, H.014257 / RURAL BRIDGE INITIATIVE PHASE II: West Feliciana, East Feliciana, Livingston, St. Bernard Parishes, LA.** *Assistant Project Engineer.* Assists in engineering design pertaining to selection of design reaches, geotechnical design of pile foundations, drivability, slope stability, settlement analyses and construction testing program recommendations. This project consists of the replacement of multiple small two-lane bridges throughout rural areas of Southeast Louisiana which generally ranged in length from 100 to 400 feet, mainly over small rivers and creeks.
07/21-01/22	**SP No. H.003931 / I-10 CALCASIEU RIVER BRIDGE: Calcasieu Parish, LA.** *Assistant Project Engineer.* Assisted with all aspects of this project pertaining to coordination of fieldwork including 37 deep soil borings, 39 ECPTs and 13 electrical resistivity (ER) geophysical survey transects. A majority of the soil borings were completed from a barge, some over a considerable amount of water. Some soil borings were completed from a marsh buggy over shallow water and thick marsh grass. He also assisted with the laboratory testing program, processing and analyzing of the ECPT and ER data, development of a geotechnical database and preparation and submittal of a geotechnical data report. This project consisted of obtaining preliminary geotechnical data under an extremely strict deadline to be used in the design phase of a project that will consist of replacing the existing I-10 Calcasieu River Bridge with a new structure and improvements to I-10 near the I-210 interchange and various other interchanges including entrances, exits and service roads.

16. Staff Experience:

Firm employed by:	Ardaman & Associates, Inc.				
Name	**Ross McGillivray, PE**			Years of relevant experience with this employer	25
Title	PRINCIPAL ENGINEER			Years of relevant experience with other employer(s)	29
Degree(s) / Years / Specialization			BCE / 1966 / Civil Engineering MS / 1968 / Civil Engineering (Soil Mechanics)		
Active registration number / state / expiration date			17920 / FL / 02-28-2023		
Year registered	1998	Discipline	Civil		
Contract role(s) / brief description of responsibilities			Contract Role: **Principal Engineer**		

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).
	*As a principal engineer working from the Tampa office of Ardaman, **Mr. McGillivray** provides technical review and consultation on projects involving building and bridge foundations, geotechnical and materials engineering for port facilities, pavement systems, earth structures, surface mining, ground water hydrology and sinkhole evaluation and remediation. He has provided engineering review or design on projects with Ardaman offices in Florida as well as for offices in Baton Rouge and New Orleans, Louisiana.* *Mr. McGillivray managed the operations of the soil mechanics laboratory as a Research Engineer at MIT from 1968 to 1970, and conducted research into the behavior of soil and soil-like industrial waste products while at MIT, He worked as a staff engineer on projects in North Carolina, Florida, Alaska and Venezuela for Lambe & Associates, Inc. of Cambridge, Massachusetts, including the evaluation of soil stability and anchor capacity for a large retaining wall for the Parque Central' project in Caracas, Venezuela and the development of a permafrost and soil mechanics laboratory in Anchorage, Alaska. Mr. McGillivray was the branch geotechnical and materials engineer for Pittsburgh Testing Laboratory's Tampa Florida branch office where he supervised the completion of site exploration programs for building foundations and designed earthen dams to contain waste clay tailings from phosphate processing from 1972 to 1974. He founded ARMAC Engineers, Inc. in 1975, working on building foundations, sinkhole evaluation and remediation, mine slope stability and earthen dam projects. He joined Ardaman & Associates, Inc. in 1996 as a Senior Engineer, working on mining, building foundation and bridge foundation projects.*
09/01 – 11/01	**I-10/12 Sound Walls, Wall 6-Design Lateral Load Test on Drilled Shafts / Sound Wall Shaft CLS Evaluation, Baton Rouge, LA.** *Principal Engineer.* Mr. McGillivray performed a re-design for the drilled shafts supporting the I-10/I-12 sound wall system in Baton Rouge, LA, and performed an instrumented lateral load performance on a 48-inch diameter drilled shaft. The results of the load test compared analyses performed with Standard Penetration Test Boring Data to analyses performed with Cone Penetrometer Test (CPT) sounding data. Mr. McGillivray also evaluated the results of Cross-Hole Sonic Log (CSL) tests on installed drilled shafts and developed repair procedures when drilled shafts were shown to have CSL detected flaws. The repair procedures were accepted by LADOTD for the project.
07/18 – Ongoing	**I-220/I-20 Interchange Improvement and Barksdale Air Force Base Access Road, Bossier Parish, LA SP No. H.003370**. *Principal Engineer.* Mr. McGillivray helped review and perform analyses of Drilled Shaft Load Tests and Static Capacity for this Design Build project consisting of direct access to Interstate I-20 from the Barksdale Air Force Base (BAFB) and an interchange and access road from I-20 in Shreveport, Louisiana.

7/15 –Ongoing	**I-49 Connector (Lafayette Regional Airport to I-10/I-49/US 167 Interchange), Lafayette Parish, LA, SP No. H.004273.5.** *Principal Engineer.* Mr. McGillivray helped review all of the geotechnical design including deep foundations, lateral load analyses, earth retaining structures in support of the construction of 5 miles of freeway consisting of a 3.5-mile elevated structure that will include pile supported approach slabs, pile foundations, slope stability, embankment settlement, advanced load test programs, and earth retaining structures. Mr. McGillivray will help with review and preparation of the Phase 1 preliminary Geotechnical Design Report.
11/15 –Ongoing	**MacArthur Interchange Completion Phase II Route US 90-Z Jefferson Parish, SP No. H.011309.** *Principal Engineer.* Mr. McGillivray reviewed and evaluated the capacity of tip-grouted Drilled Shafts utilizing Cone Penetrometer Test (CPT) sounding data for Phase II of the MacArthur Interchange consisting of construction ramps entering and exiting Westbank Expressway.
5/05 – 11/05	**I-10 Bridges over Escambia Bay, Pensacola, FL (AAI 05-40-1149)** *Principal Engineer.* The I-10 bridge over Escambia Bay was damaged by Hurricane Ivan in 2004. The two bridges were three lanes, 2.6 miles long with 103 spans for each bridge. Ross T. McGillivray, PE (FL) worked as the Lead Geotechnical Engineer with Ardaman's Tallahassee, Florida office for the design of foundations for the replacement bridges. The project was the first project since 1972 in Florida to use 36-inch voided Prestressed Concrete Piles. The soil conditions consisted of deep, soft silt and clay sediments over loose sand underlain by medium dense to dense sand. Driving criteria were established for two different pile hammers with maximum driving energy of 150 kip-ft.-lbs. but with ram weights of 30 and 60 kips. Wave Equation Analyses and PDA/CAPWAP showed that the lighter ram hammer was marginal for production piling installation. Both Vertical and Lateral Load tests were performed for the project, with good correlation between the Vertical Load test results and the Static Capacity and PDA/CAPWAP analyses. Lateral load performance analyses showed that the soils strengths projected from Cone Penetrometer Tests were required to model the results of the load test.
6/09-2/10	**SR 686 Overpass Bridge, St. Petersburg, Florida, 2009-10 (AAI 0-55-9627)** *Principal Engineer.* The SR 686 Overpass Bridge is 1,500 feet in length and crosses over a solid waste landfill with a slurry wall confinement and the in-situ clay stratum as a liner system. The initial foundation design by another firm consisted of 24-inch Prestressed Concrete Piles driven inside of 36-inch diameter steel casings, with the piles to be grouted into the casings. Ardaman & Associates, Inc. was asked to evaluate the foundation options and to provide an alternative foundation design for the project. Mr. Ross T. McGillivray, PE was the Lead Geotechnical Engineer for the project. He proposed using non-redundant drilled shafts to reduce the number of penetrations of the underlying clay stratum confining stratum. The additional foundation explorations included rock coring and Pressure Meter Testing in the intermediate geo-material (weathered limestone) underlaying the site. The results of Unconfined Compression Tests and Split Tensile tests on rock cores were analyzed with the results of the Pressure Meter Tests to optimize the design of the drilled shafts. The final design consisted of 36, 48 and 60-inch diameter drilled shafts. Two load tests were specified using the Osterberg Cell (O-Cell), each with a 2-inch Styrofoam toe to allow measurement of the fully mobilized skin friction on the shaft above and below the O-Cell. Ardaman performed pilot borings at each drilled shaft for final design, and inspected the installation of all the drilled shafts for the project.
07/21-Ongoing	**SP No. H.004100.5 / I-10: LA 415 TO ESSEN LANE ON I-10 & I-12 (CMAR) Baton Rouge Parish, LA.** *Project Engineer.* Leads technical reviews of pertaining to selection of design reaches, geotechnical design of deep foundations, earth retaining structures, slope stability, soil-structure interaction with existing structures and load testing recommendations. This is a Construction Management at Risk (CMAR) project which includes widening of the east and westbound lanes, elevated structures, interchanges, and ramps along I-10 from LA 415 in West Baton Rouge Parish to Essen Lane on I-10 and I-12 in East Baton Rouge Parish spanning approximately 2.5 miles.

16. Staff Experience:

Firm employed by:	Ardaman & Associates, Inc.				
Name	**Julian "Jim" Porter**		Years of relevant experience with this employer	48	
Title	DRILLING SUPERVISOR		Years of relevant experience with other employer(s)	4	
Degree(s) / Years / Specialization		Attended LSU / USL 1969 - 1970			
Active registration number / state / expiration date		Water Well Driller's License No. WWC-212 / LA / 6-30-23 Traffic Control Supervisor Refresher / LA / 9-6-2023 DOTD Flagger / LA / 3-10-2024			
Year registered		Discipline			
Contract role(s) / brief description of responsibilities		Contract Role: **Drilling Supervisor**			

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).
	***Mr. Porter** has more than 45 years of experience in performing soil borings and monitor well installations throughout the Southeastern U.S., primarily in the State of Louisiana. He has overseen thousands of projects pertaining to geotechnical and environmental engineering assessments. These projects have included performing soil borings on land and over water, Cone Penetrometer (CPT) soundings, slope inclinometer installations, settlement plate installations, two-stage field permeability testing, geotechnical instrumentation installation, and utilizing specialized drilling equipment for difficult access sites.* *Mr. Porter has guided as many as 10 drilling rigs with crews on projects ranging from two soil borings to a $600 million-dollar grass roots paper mill. He has been acknowledged by the Water Resources Section of the LADOTD for his contributions to the guidelines adopted in 1985 for Soil Borings and Water Well Installation Procedures. Mr. Porter has assisted both the LADOTD and the LADEQ regarding drilling techniques, soil boring abandonment, and Geoprobe sampling. Mr. Porter was involved with our initial investment in CPT technology. He is still involved with most of the CPT operations. He has personally performed CPT soundings on numerous projects since 1990.* *Mr. Porter has planned many LADOTD bridge investigation projects. He has arranged right of entry, utility locations, site clearing, arranging for police assistance (if needed) for traffic control/crew safety, and coordinating between engineering staff and drill crew.*
07/15-Ongoing	**SP NO. H.004273.5 / I-49 CONNECTOR, GEOTECHNICAL INVESTIGATION: Lafayette Parish, LA.** *Drilling Supervisor*. Supervised the completion of preliminary field investigation consisting of 116 deep and shallow borings and 15 cone penetrometer test (CPT) soundings.
04/14-Ongoing	**SP NO. H.004435 / I-12 TO BUSH SEGMENT 2, LA 3241: St. Tammany Parish, LA.** *Drilling Supervisor.* Oversaw the completion of 32 deep soil borings, 10 culvert borings, and 88 shallow roadway borings and sampling along the alignment which includes two bridges: LA 435 over Bayou Lacombe Tributary and LA 36 over Bayou Lacombe Tributary 2.
08/08-02/12	**SP NO. 700-09-0166 & H.003886.5 / I-49 SEGMENTS E-J: Caddo, LA.** *Drilling Supervisor*. Conducted field reconnaissance, which included rights of entry, utility locations, access and locating all deep and shallow borings. Oversaw completion of numerous deep and shallow borings in accordance with LADOTD standards.
02/12-11/13	**SP NO. H.003495.5 / I-49 SEGENT K (I-220 TO MLK): Caddo Parish, LA.** *Drilling Supervisor*. Conducted field reconnaissance, which included rights of entry, utility locations, access and locating all deep and shallow borings. Oversaw completion of numerous deep and shallow borings in accordance with LADOTD standards.

10/09 - Ongoing	**SP NO. H.004646.5 / I-20 MISSISSIPPI RIVER BRIDGE REVIEW: Vicksburg, MS.** *Drilling Supervisor*. Mr. Porter assisted with many aspects of this multi-million-dollar, high risk, high technical needs, high visibility project consisting of investigating the movement of the I-20 Bridge in Vicksburg, Mississippi. He was instrumental in designing and installing the geotechnical instrumentation for this project including vibrating wire piezometers, Casagrande type piezometers, In-place inclinometers, SAA inclinometers, and traditional inclinometers. Currently, he is assisting with a phase of the project that includes upgrading the entire instrumentation communication system and will be monitoring this system continuously.
04/21-Ongoing	**SP Nos. 700-29-0112, 700-29-0130, H.012565, H.012891, H.014251, H.014252, H.014253, H.014254, H.014256, H.014257 / RURAL BRIDGE INITIATIVE PHASE II: West Feliciana, East Feliciana, Livingston, St. Bernard Parishes, LA.** *Drilling Supervisor.* Assisted with all aspects of this project pertaining to coordination of fieldwork including 31 deep soil borings. Some of these borings were performed through the middle of bridges and at hard access locations. This project consists of the replacement of multiple small two-lane bridges throughout rural areas of Southeast Louisiana which generally ranged in length from 100 to 400 feet, mainly over small rivers and creeks.
07/21-01/22	**SP No. H.003931 / I-10 CALCASIEU RIVER BRIDGE: Calcasieu Parish, LA.** *Drilling Supervisor.* Assisted with all aspects of this project pertaining to coordination of fieldwork including 37 deep soil borings, 39 ECPTs and 13 electrical resistivity (ER) geophysical survey transects. A majority of the soil borings were completed from a barge, some over a considerable amount of water. Some soil borings were completed from a marsh buggy over shallow water and thick marsh grass. This project consisted of obtaining preliminary geotechnical data under an extremely strict deadline to be used in the design phase of a project that will consist of replacing the existing I-10 Calcasieu River Bridge with a new structure and improvements to I-10 near the I-210 interchange and various other interchanges including entrances, exits and service roads.
03/19-07/20	**SP No. H.004100.5-2 / I-10 WIDENING (LA415 TO HOWARD ST): East Baton Rouge Parish, LA.** *Drilling Supervisor.* Helped manage and oversee all aspects of an extensive field investigation program which included 58 deep soil borings and 11 cone penetrometer (CPT) soundings for the widening of the East and Westbound lanes, elevated structures, and construction of interchange and ramps on Westbound lanes along I-10 between LA 415 and Howard Street spanning approximately 1 mile.
10/18- 01/20	**SP NO. H.000263.5-1** / **CHEF MENTEUR PASS BRIDGE & APPROACH: Orleans Parish, LA.** *Drilling Supervisor*. Helped manage and oversee all aspects of an extensive field investigation program which included 37 deep soil borings, including borings over 200 feet in over 80 feet deep of high flow water. Ardaman also developed soil boring logs and prepared a geotechnical data report.

16. Staff Experience:

Firm employed by:	Ardaman & Associates, Inc.				
Name	**Robert Rousset, PE**			Years of relevant experience with this employer	16
Title	PROJECT ENGINEER / NEW ORLEANS BRANCH MANAGER			Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			BS / 2008 / Civil Engineering		
Active registration number / state / expiration date			38637 / LA / 9-30-2022		
Year registered	2014	Discipline	Civil		
Contract role(s) / brief description of responsibilities			Contract Role: **Project Engineer**		

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).
	***Mr. Rousset** serves as the manager of Ardaman's New Orleans office and as project manager for various geotechnical engineering projects as well as contract administrator of several major contracts. He has managed projects that have included pile and drilled shaft foundations, shallow foundations, static and dynamic pile testing, and slope stability. Mr. Rousset also has extensive experience with all aspects of pile driving monitoring, including performing the Pile Driving Analyzer (PDA). Mr. Rousset also achieved Intermediate Level Certification for High Strain Dynamic Testing issued by the Pile Driving Contractors Association for Dynamic Measurement and Analysis Proficiency.*
07/14-05/18	**SP NO. H.004113 / I-12 TO BUSH SEGMENT 3, LA HIGHWAY 3241 (LA 435 TO LA 40/LA 41): St. Tammany Parish, LA.** *Project Manager.* Oversaw and coordinated the geotechnical investigation which included 26 soil borings, sampling, and laboratory testing along the alignment that included one bridge, LA 435 over Talisheek Creek. Oversaw geotechnical analyses and preparation of design recommendation report which included pile supported approach slabs and pile foundations for the bridge structures and shallow foundation design for the culverts.
05/12-03/13	**SP NO. H.002260.5 / GOOSE BAYOU BRIDGE ROUTE LA 45: Lafitte, LA.** *Assistant Project Engineer*. Managed geotechnical investigation for the bridge that included drilling and laboratory testing of 2 deep soil borings and 4 CPT soundings performed with barge-mounted drilling equipment under difficult access conditions. Assisted with providing final soil boring logs and CPT sounding logs in LADOTD format.
07/09-08/11	**SP NO. 700-29-0112 / LA 1 – PHASE 1: Lafourche Parish, LA.** *Assistant Project Engineer*. Served in the field as onsite engineer for Phase 1A of this project in southeast Louisiana. The completed project consisted of 17 miles of elevated roadway with low-level bridges and medium-level bridges, two elevated interchanges, and two fixed high-level bridges over navigable waterways. Conducted dynamic monitoring using PDA, performing CAPWAP analyses, reviewed drive logs, and supervised field technicians.
03/11-02/12	**SP NO. H.003886.5 / I-49 SEGMENT J: Caddo Parish, LA.** *Assistant Project Engineer*. Mr. Rousset planned the geotechnical investigation program, coordinated field activities, assigned lab testing, reviewed laboratory test results, classified soil types based on laboratory tests, and compiled soil boring logs in the LA DOTD format.
08/09-12/09	**CENTRAL THRUWAY: East Baton Rouge Parish, LA.** *Assistant Project Engineer*. Performed PDA testing on pre-stressed, pre-cast concrete piles for various bents.

03/19-07/20	**SP No. H.004100.5-2 / I-10 WIDENING (LA415 TO HOWARD ST): East Baton Rouge Parish, LA.** *Project Engineer.* Ardaman's scope of work for this project consisted of evaluating laboratory test results, including consolidation testing, and producing soil boring logs for the widening of the East and Westbound lanes, elevated structures, and construction of interchange and ramps on Westbound lanes along I-10 between LA 415 and Howard Street spanning approximately 1 mile. The geotechnical investigation included 58 deep borings and 11 cone penetrometer (CPT) soundings, electrical resistivity geophysical surveys, associated laboratory testing and the preparation of a geotechnical data report. Mr. Rousset assisted with the fieldwork portion of this project.
2020 - Ongoing	**RURAL BRIDGES REPLACEMENT INITIATIVE: Avoyelles and Webster Parishes, (Multiple SP No.'s)** Project Engineer. This project consisted of the replacement of multiple small rural bridges throughout Central and North Louisiana. He oversaw the field investigation, lab testing, and engineering analyses for the project. Engineering analyses consisted of axial pile capacities, pile drivability, settlement, and slope stability analyses.

16. Staff Experience:

Firm employed by:	Ardaman & Associates, Inc.		
Name	**Chandler Willis**	Years of relevant experience with this employer	11
Title	LABORATORY MANAGER	Years of relevant experience with other employer(s)	4
Degree(s) / Years / Specialization	BS / 2004 / Marketing		
Active registration number / state / expiration date	NICET / Generalist, Laboratory No. 135280 / Exp. 11-01-2024 Traffic Control Technician / LA / 12-1-2024 Traffic Control Supervisor / LA / 12-3-2024		
Year registered	Discipline		
Contract role(s) / brief description of responsibilities	Contract Role: **Laboratory Manager**		

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).
	Mr. Willis *serves as Laboratory Manager of Ardaman's Baton Rouge laboratory which is under the direction of a Registered Professional Engineer. He supervises and manages operations of our AMRL Certified, and DEQ Accredited USACE-validated laboratory and performs and oversees laboratory testing assignments, organizes and schedules testing, trains and develops technicians, and supervises four full-time NICET certified laboratory technicians. Mr. Willis is experienced in conducting soil mechanics laboratory testing in accordance with appropriate AASHTO and LADOTD testing protocol, which includes Soil Classification, Atterberg Limits, Grain Size, Sieve Testing, Consolidation Testing, Organic Matter tests, Moisture Content, Permeability Testing and Strength testing (Unconfined, Unconsolidated-Undrained Triaxial (UU), Direct Shear (DS), Consolidated Undrained (CU)). In addition, Mr. Willis has experience running field resistivity imaging using state of the art equipment that provides 2D and 3D geophysical survey transects.*
10/18-01/20	**SP NO. H.000263.5-1 / CHEF MENTEUR PASS BRIDGE AND APPROACH: Orleans Parish, LA.** *Laboratory Manager*. Supervised and assisted with completion of a comprehensive laboratory testing program that included Atterberg Limits, Moisture Content and Visual Classification, Fines Content, Sieve Analysis, Triaxial Permeability (constant head), Conventional Incremental Consolidation, Unit Weight, Particle Size Analysis (Hydrometer), and UU Strength Tests. Assisted in performing field resistivity testing along the alignment.
10/15-Ongoing	**SP. NO. H.013579 / PECUE LANE I-10 INTERCHANGE I-10: East Baton Rouge Parish, LA.** *Laboratory Manager*. Supervised and assisted with completion of a comprehensive laboratory testing program that included Atterberg Limits, Moisture Content and Visual Classification, Fines Content, Sieve Analysis, Triaxial Permeability (constant head), Conventional Incremental Consolidation, Particle Size Analysis (Hydrometer), Unit Weight of Undisturbed Samples, Organic Content, and UU Strength Tests.
11/15-Ongoing	**SP NO. H.011309 / MACARTHUR INTERCHANGE COMPLETION PHASE 2, ROUTE US 90-Z: Jefferson Parish, LA.** *Laboratory Manager.* Supervised and assisted with completion of a comprehensive laboratory testing program that included Atterberg Limits, Moisture Content and Visual Classification, Fines Content, Sieve Analysis, Triaxial Permeability (constant head), Conventional Incremental Consolidation, Particle Size Analysis (Hydrometer), Unit Weight of Undisturbed Samples, and UU Strength Tests.
04/14-Ongoing	**SP NO. H.004435 / I-12 TO BUSH SEGMENT 2, LA 3241: St. Tammany Parish, LA.** *Laboratory Manager* Supervised and assisted with completion of a comprehensive laboratory testing program that included Atterberg Limits, Moisture Content and Visual Classification, Fines Content, Sieve Analysis, Triaxial Permeability (constant head), Conventional Incremental Consolidation, Unit Weight, Particle Size Analysis (Hydrometer), and UU Strength Tests.

05/12-03/13	**SP NO. H.002260.5 / GOOSE BAYOU BRIDGE GEOTECHNICAL INVESTIGATION, ROUTE LA 45: St. Tammany Parish, LA.** *Laboratory Manager.* Project subconsultant to T. Baker Smith, the third segment, LA 435 – LA 40/LA 41 included 26 soil borings, sampling, and laboratory testing along with engineering analyses along an alignment that includes one bridge LA 435 over Talisheek Creek.
10/09-Ongoing	**SP NO. H.004646.5 / I-20 MISSISSIPPI RIVER BRIDGE REVIEW: Vicksburg, MS.** *Laboratory Manager.* Supervised and assisted with completion of a comprehensive laboratory testing program that included Atterberg Limits, Moisture Content and Visual Classification, Fines Content, Sieve Analysis, Triaxial Permeability (constant head), Conventional Incremental Consolidation, Unconfined Compressive Test and Unit Weight, Particle Size Analysis (Hydrometer), Unit Weight of Undisturbed Samples, Organic Content, and UU Strength Tests and Consolidated-Drained Direct Shear Tests.
04/21-Ongoing	**SP Nos. 700-29-0112, 700-29-0130, H.012565, H.012891, H.014251, H.014252, H.014253, H.014254, H.014256, H.014257 / RURAL BRIDGE INITIATIVE PHASE II: West Feliciana, East Feliciana, Livingston, St. Bernard Parishes, LA.** *Laboratory Manager.* Ardaman's scope of work for this project consists of geotechnical engineering pertaining to selection of design reaches, geotechnical design of pile foundations, drivability, slope stability, settlement analyses and construction testing program recommendations. This project consists of the replacement of multiple small two-lane bridges throughout rural areas of Southeast Louisiana which generally ranged in length from 100 to 400 feet, mainly over small rivers and creeks. Mr. Willis managed all aspects of the laboratory program for this project.
03/19-07/20	**SP No. H.004100.5-2 / I-10 WIDENING (LA415 TO HOWARD ST): East Baton Rouge Parish, LA.** *Laboratory Manager & Senior Field Technician.* Ardaman's scope of work for this project consisted of evaluating laboratory test results, including consolidation testing, and producing soil boring logs for the widening of the East and Westbound lanes, elevated structures, and construction of interchange and ramps on Westbound lanes along I-10 between LA 415 and Howard Street spanning approximately 1 mile. The geotechnical investigation included 58 deep borings and 11 cone penetrometer (CPT) soundings, electrical resistivity geophysical surveys, associated laboratory testing and the preparation of a geotechnical data report. Mr. Willis assisted with all aspects of the laboratory program for this project as well as completion of the electrical resistivity surveys along the alignment.

16. Staff Experience:

Firm employed by:	Ardaman & Associates, Inc.		
Name	**Mark Woodward, PE**	Years of relevant experience with this employer	4
Title	PRINCIPAL ENGINEER	Years of relevant experience with other employer(s)	36
Degree(s) / Years / Specialization	BS / 1982 / Civil Engineering MS / 1986 / Civil Engineering MS / 2019 / Risk Management		
Active registration number / state / expiration date	24206 / LA / 9-30-2023		
Year registered: 1991	Discipline: Civil		
Contract role(s) / brief description of responsibilities	Contract Role: **Principal Engineer**		

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).
	Mr. Woodward is the Principal Engineer of our New Orleans office, overseeing and reviewing work of Professional Engineers and Assistant Project Engineers on geotechnical projects ranging from single family homes to large industrial and government civil projects. The analysis includes but are not limited to slope stability, seepage, settlement, pile capacity, down drag, dewatering, excavations, etc. *Mr. Woodward served a geotechnical engineer and retired as the Deputy Chief of the Geotechnical Branch and Levee Safety Program Manager of the US Army Corps of Engineers New Orleans office and as project manager for numerous geotechnical engineering projects including pile and drilled shaft foundations, shallow foundations, static and dynamic pile testing, ground improvement, deep excavations, relief wells, wick drains, dewatering systems, settlement, seepage and slope stability. He has coordinated many geotechnical field investigations, including shallow and deep borings, CPT soundings geophysical surveys, and performed analyses and prepares design recommendation reports. He served as geotechnical engineer for several pump station projects within the Hurricane and Storm Damage Risk Reduction System and New Orleans to Venice Project.*
07/18-Ongoing	**SP NO H.003370/ I-12/I-20 INTERCHANGE IMPROVEMENT AND BARKSDALE AIRFORCE BASE ACCESS ROAD: Bossier Parish, LA.** *Principal Engineer.* This Design Build project consisted of direct access to Interstate I-20 from the Barksdale Air Force Base (BAFB) and an interchange and access road from Interstate 20 in Shreveport, Louisiana. Mr. Woodward provided quality assurance for this project, reviewing all work product in design and construction phase.
05/18-09/19	**SP NO. H.001344/ US 190: LA 437 TO USE 190 BUS (PH 1): St. Tammany Parish, LA.** *Principal Engineer*. Mr. Woodward provided technical oversight for this project which includes the widening of US 190 to a four-lane boulevard between US 437 and US 190. A new bridge over the Bogue Falaya River will be constructed adjacent to, and east of, the existing bridge. The existing bridge will remain and function as two lanes of southbound traffic. The new bridge will be 54-feet-wide with three 12-foot travel lanes for 2 northbound traffic with an eight-foot shoulder to the inside and a 10-foot shoulder to the outside.
06/16-07/16	**SOUTHEAST LOUISIANA URBAN FLOOD CONTROL, LOUISIANA AVENUE PAVING: Orleans Parish, LA.** *Chief of Structural Design.* Served as decision maker as Chief of Structural Design, USACE New Orleans, for asphalt or concrete paving, looking at factors such as construction cost, durability, maintenance cycles and costs, constructability, construction duration, etc.

05/18-Ongoing	**SP NO. H.008226/ CHENIERE SPILLWAY & BRIDGE REPLACEMENT: Ouachita Parish, LA.** *Senior Geotechnical Engineer.* Mr. Woodward serves as the Principal Geotechnical Engineer for this project which includes the replacement of the current damaged spillway and bridge structure in Ouchita Parish, Louisiana. The scope of the proposed spillway and bridge replacement project involves demolishing the existing spillway and bridge and replacing them with a larger spillway northeast of the existing spillway and replacing the spillway with a drawdown structure. Mr. Woodward oversaw geotechnical design, reviewed contractor submittals and requests for information during ongoing construction.
2020 - Ongoing	**RURAL BRIDGES REPLACEMENT INITIATIVE: Avoyelles and Webster Parishes, (Multiple SP No.'s)** Project Engineer. This project consisted of the replacement of multiple small rural bridges throughout Central and North Louisiana. He provided oversight of the field investigation, lab testing, and engineering analyses for the project. Engineering analyses consisted of axial pile capacities, pile drivability, settlement, and slope stability analyses.
05/18-08/19	**SP NO. H.011152.5/ I-12 WIDENING (US 190 to LA 59): St. Tammany Parish, LA.** *Principal Engineer.* Mr. Woodward provided technical oversight for this project which included the widening of Interstate 12 in St. Tammany Parish. Ardaman conducted a geotechnical investigation which included 23 deep soil borings, sampling, and laboratory testing along the 3-mile alignment between US 190 and LA 59 for lane widening which included four bridges structures. Soil boring logs were created in LADOTD format. Mr. Woodward provided oversight for an effort to perform additional soil borings, lab testing and engineering analyses for a retaining wall for one of the bridge abutments.
05/18-07/18	**IMTT ACCESS ROAD PAVEMENT, AVONDALE: Jefferson Parish, LA**. *Principal Engineer.* Served as senior engineer for 2,200-foot long x 50 - foot wide rigid and flexible roadway design for AASHTO loading per LADOTD guidelines, including subsurface exploration and testing, California Bearing Ratio, subbase material and thickness recommendations, wearing course thicknesses, and construction recommendations.

16. Staff Experience:

Firm employed by:	Traffic Control Products Company of Louisiana, Inc.		
Name	**Glen Eggers**	Years of relevant experience with this employer	.33
Title	ESTIMATOR	Years of relevant experience with other employer(s)	37
Degree(s) / Years / Specialization		BA / 1978 / Business Administration, Louisiana State University	
Active registration number / state / expiration date		N/A	
Year registered	N/A	Discipline	N/A
Contract role(s) / brief description of responsibilities			

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).
	Mr. Eggers brings more than 38 years of experince to the traffice field. He has prepared reliable, detailed, and well-documented cost estimates and bid proposals for various projects. He schedules, coordinates, and supervises the overall delivery and installation traffic control field operations. He also works closely with contracts and state agencies to help resolve field issues and discuss value added engineering. Glen taught Traffic Control Supervisor and Technician Courses for AGC and ATSSA for 13 years. He attends State and Federal Traffic Safety Meetings regularly to assist in shaping Louisiana Traffic Control Specifications.
2022 – Present	Traffic Control Products of Louisiana
2009 – 2022	Traffic Solutions
2008 – 2009	QPL
2007 – 2008	Highway Technologies
2006 – 2007	United Rentals
1886- 2006	Work Zone, LLC
1984 – 1986	Hy-Co Safety Lights

16. Staff Experience:

Firm employed by:	Traffic Control Products Company of Louisiana, Inc.		
Name	**Ray A. Billiot**	Years of relevant experience with this employer	4
Title	PROJECT MANAGER	Years of relevant experience with other employer(s)	33

Degree(s) / Years / Specialization			General Studies / 2004 / Construction Management
Active registration number / state / expiration date			N/A
Year registered	N/A	Discipline	N/A
Contract role(s) / brief description of responsibilities			

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).
07/17 – Current	Project Manager / Estimator, Traffic Control Products Company Of Louisiana
11/16 – 07/17	Project Supervisor / Foreman, Ozark Safety Services – Montgomery, LA
11/14 – 10/16	Manager / Estimator, Work Zone, LLC
4/13 – 11/14	Manager / Estimator, Specialty Demolition – New Orleans, LA
09/09 – 04/13	General Superintendent, Command Construction, LLC – Metairie, LA
09/03 – 06/09	Project Superintendent / Estimator, Construct-Rite Construction, LLC – Holden, LA
01/95 – 08/03	Project Superintendent, United Rentals Highway Technologies – Baton Rouge, LA

16. Staff Experience:

Firm employed by:	Traffic Control Products Company of Louisiana, Inc.		
Name	**Nathan Billiot**	Years of relevant experience with this employer	3
Title	PROJECT MANAGER / ESTIMATOR	Years of relevant experience with other employer(s)	26
Degree(s) / Years / Specialization		N/A	
Active registration number / state / expiration date		N/A	
Year registered	N/A	Discipline	
Contract role(s) / brief description of responsibilities			

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 – Current	Project Manager / Estimator – Traffic Control Products Company of Louisiana
08/09 – 02/19	Project Manager / Senior Estimator, Command Construction Industries, LLC - Metairie, LA – Responsible for day to day operations of scheduling work crews, managing projects ranging from 1 to 5 million dollars installing permanent highway signage and guard rail installations statewide
06/09 – 09/09	Project Manager / Estimator, Precision Construction – Gretna, LA – Estimated and managed commercial building projects COast Guard Station Algiers, LA, Concessions facility in Kenner, LA
05/07 – 06/09	Project Manager / Estimator, Construct-Rite Construction, LLC – Holden, LA- Managed commercial building projects for state and local governments.
09/96 – 05/07	Project Manager / Estimator, United Rentals Highway Technologies – Baton Rouge, LA – Duties consisted of managing day to day operations, managed project on I-110 in Baton Rouge installing 5 million dollars of overhead sign installations, guard rail maintenance projects in six districts statewide, mentor and trainer implementing Rental Man software in several district locations nationwide.
04/86 – 09/96	Commercial Fisherman (Boat Owner/Captain) – two-year appointment to serve on the Gulf of Mexico Fisheries Management Council for the state of Mississippi

17. Firm Experience:

Identify the team's project experience **most relevant** to the scope in the advertisement. **The projects should be limited to a total of 20, with no more than 5 projects being represented by the prime consultant and with no more than 3 projects represented by each sub-consultant on the team. If more than 5 projects are identified for the prime consultant, all projects identified after the first 5 will not be evaluated. If more than 3 projects are identified for a single sub-consultant, all projects identified after the first 3 from that sub-consultant will not be evaluated.** Include no more than one page per project. Projects identified shall only include work performed by firms on the team. The projects identified do not necessarily need to have been DOTD projects.

Firm name	Ardaman & Associates, Inc.			Past Performance Evaluation Discipline(s)*	Geotech
Project name	**Rural Bridge Initiative Phase II** (113-21-80-3711)			Firm responsibility (prime or sub?)	Sub
Project number	SP No. 700-29-0112, 700-29-0130 H.012565, H.012891, H.014251, H.014252, H.014253, H.014254, H.014256, H.014257	Owner's name	LADOTD		
Project location	West Feliciana, East Feliciana, Livingston, St. Bernard Parish, LA		Owner's Project Manager	Amanda Ranck	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA; 225.379.1338; Amanda.Ranck@la.gov				
Services commenced by this firm (mm/yy)	04/21	Total consultant contract cost ($1,000's)			$5,332
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)			$460

PROJECT DESCRIPTION

This project consisted of the replacement of multiple small two-lane bridges throughout rural areas of Southeast Louisiana (Districts 02, 03, 07, 61, and 62) which generally ranged in length from 100 to 400 feet, mainly over small rivers and creeks.

Ardaman was retained by the LADOTD through a Civil Engineering Prime at the beginning of the project in 2020. Our portion of work on the project began in early 2021 and the project is currently ongoing. The scope of services include:

- Geotechnical field exploration (field reconnaissance, utility location, mobilization/demobilization, GPS location/elevation); consisting of 31 borings to about 110 ft. below existing ground surface or pavement surface.
- Geotechnical laboratory testing services;
- Geotechnical design and construction testing program recommendations.

In addition to the vast scope of field investigation that included deep borings and laboratory testing, the scope of services for this project also included pile foundation design, slope stability, drivability, and settlement analyses to be provided in multiple geotechnical design reports.

FIRM MEMBERS

Robert Jewell, Megan Bourgeois, Dr. Albert Ayenu-Prah, Jarmon King, Jim Porter, Chandler Willis

17. Firm Experience:

Firm name	Ardaman & Associates, Inc.			Past Performance Evaluation Discipline(s)*	Geotech
Project name	**I-20 Mississippi River Bridge Review**			Firm responsibility (prime or sub?)	Prime
Project number	SP No. H.004646 09-L1049 H.010603.6 13-3720 H.010612.6 20-3729	Owner's name	LADOTD		
Project location	Madison Parish, LA			Owner's Project Manager	Chris Nickel
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA; 225.379.1100; Chris.Nickel@la.gov				
Services commenced by this firm (mm/yy)	10/09	Total consultant contract cost ($1,000's)			7,326
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)			7,326

PROJECT DESCRIPTION

Ardaman conducted a geotechnical study to develop a list of technically feasible remedial alternatives to decrease the potential for ground movements to occur at the site of the I-20 Bridge. Movement of the east abutment of the bridge was first realized in 2001 during an inspection. Over the years Mississippi DOT has retained several consultants who have studied the problem, but no viable solution was identified.

Ardaman conducted a comprehensive review of past slope stability evaluations and recommendations. This task was followed by developing a refined geotechnical site characterization plan for the bank/bluff area for further analyses. Drilling operations included obtaining extremely sensitive samples containing prehistoric shear planes from the river via barge and on land, all with extremely difficult access conditions. The drilling program also included installation of geotechnical instrumentation such as Shape Accelerator Arrays, inclinometers, and vibrating wire piezometers. Engineering analyses performed included seepage and drawdown analyses and both equilibrium and finite element numerical modeling slope stability analyses.

As part of the project, Ardaman developed a full slope stabilization design and construction remediation strategy and a monitoring program for the bluff instability and ground movements affecting the existing I-20 Mississippi River Bridge.

Ardaman is currently managing a phase of the project which involves upgrading the entire instrumentation communication system. It also includes gathering and continuously monitoring various types of instrumentation data, inspects of the site and monitoring changes in topography by obtaining periodic survey data.

FIRM MEMBERS

Megan Bourgeois, Robert Jewell, Ross McGillivray, Dr. Albert Ayenu-Prah, Robert Rousset, Jim Porter, Chandler Willis, Chae Hrenyk

17. Firm Experience:

Firm name	Ardaman & Associates, Inc.			Past Performance Evaluation Discipline(s)*	Geotech
Project name	**I-10: LA 415 to Essen Lane on I-10 & I-12 (CMAR)**			Firm responsibility (prime or sub?)	Sub
Project number	SP No. H.004100.5	Owner's name	LADOTD		
Project location	East Baton Rouge Parish, LA		Owner's Project Manager	Nicholas Olivier	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA; 225.379.1133; nicholas.olivier@la.gov				
Services commenced by this firm (mm/yy)	07/21	Total consultant contract cost ($1,000's)			$20,800
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)			$692

PROJECT DESCRIPTION

The Construction Management at Risk (CMAR) project scope consists of widening of the east and westbound lanes, elevated structures, interchanges, and ramps along I-10 from LA 415 in West Baton Rouge Parish to Essen Lane on I-10 and I-12 in East Baton Rouge Parish spanning approximately 2.5 mile. Ardaman is the Geotechnical Consultant on the CMAR team and is currently providing geotechnical support for Segment 1 which starts near the I-10 and I-110 split between Napoleon and St Joseph Streets to Acadian Thruway entrance and exit ramps.

Ardaman previously completed 58 soil borings and associated laboratory testing based on LADOTD standards, and 11 electronic cone penetration tests (ECPT) in the preliminary portion of the widening project between Napoleon Street and Louise Street under our current retainer contract in support of the project. In addition, Ardaman performed geophysical surveys along the entire alignment, which allowed for survey of the subsurface conditions between the boring locations. Ardaman is currently performing 37 additional soil borings along the Segment 1 area to supplement existing data along the alignment.

Engineering services include supervision of the field program, development of the laboratory testing program, quality control review, and development of an interactive geotechnical database to compile and analyze all the supplied soil boring data provide by LADOTD and the additional borings that are currently being performed. The engineering analyses consist of detailed selection of design reaches and design soil parameters, slope stability and settlement of earth retained structures, soil-structure interaction with existing structures, deep foundation design, and load testing recommendations. A preliminary geotechnical assessment report was prepared, and a final geotechnical design report will be submitted.

FIRM MEMBERS:

Robert Jewell, Megan Bourgeois, Ross McGillivray, Dr. Albert Ayenu-Prah, Jarmon King, Robert Rousset, Mark Woodward, Jim Porter, Chandler Willis

17. Firm Experience:

Firm name	Ardaman & Associates, Inc.			Past Performance Evaluation Discipline(s)*	Geotech
Project name	**I-10 Calcasieu River Bridge**			Firm responsibility (prime or sub?)	Prime
Project number	SP No. H.003931	Owner's name	LADOTD		
Project location	Calcasieu Parish, LA		Owner's Project Manager	Kristy Smith	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA; 225.379.1387; Kristy.Smith@la.gov				
Services commenced by this firm (mm/yy)	07/21	Total consultant contract cost ($1,000's)			$1,695
Services completed by this firm (mm/yy)	01/22	Cost of consultant services provided by this firm ($1,000's)			$1,695

PROJECT DESCRIPTION

Ardaman conducted a Geotechnical Investigation to provide preliminary field data to be used in the design phase of a project that consists of replacing the existing I-10 Calcasieu River Bridge with a new structure. The proposed alignment of the project is approximately 9 miles in length and includes improvements to I-10 near the I-210 interchange and various other interchanges including entrances, exits and service roads.

Ardaman's scope of work for this phase of the project included drilling and laboratory testing of a total of 37 deep soil borings to depths up to 220 feet below ground surface and 39 ECPTs to depths up to 80 feet below ground surface, most with difficult access. Additionally, 13 electrical resistivity (ER) geophysical survey transects up to 1,100' feet in length were performed along the alignment producing soil profiles with depths up to 219 feet below ground surface.

A total of 23 of these soil borings were performed while the drill rig was mounted on a barge in water depths up to approximately 40 feet. A total of 4 of these soil borings were completed from a drill rig mounted onto a marsh buggy in shallow water depths with thick marsh grass. A detailed safety plan was developed and adhered to throughout drilling operations. Additionally, coordination and permits with the US Coast Guard was completed in order to gain access to some of the soil boring locations while others (along with the ER surveys) located within LADOTD right-of-way near the interstate had to be coordinated with the local LADOTD district office, LA State Troopers and a certified Traffic Control Contractor.

Laboratory testing which was performed based on LADOTD standards included strength, appropriate classification testing and consolidation testing. Engineering services included supervision of the field program, development of the laboratory testing program, quality control review, development of a geotechnical database and preparation and submittal of a geotechnical data report including soil boring logs, ECPT sounding logs in the LADOTD format and soil profiles.

FIRM MEMBERS

Robert Jewell, Megan Bourgeois, Dr. Albert Ayenu-Prah, Robert Rousset, Jarmon King, Chandler Willis, Chae Hrenyk, Jim Porter,

17. Firm Experience:

Firm name	Ardaman & Associates, Inc.			Past Performance Evaluation Discipline(s)*	Geotech
Project name	**LA-1 Phases 1 and 2**			Firm responsibility (prime or sub?)	Prime
Project number	SP No. 700-29-0112, 700-29-0130	Owner's name	LADOTD		
Project location	Port Fourchon to Leeville; and Leeville to Golden Meadow, LA		Owner's Project Manager	Ching Tsai (Phase I) Timothy Nickel (Phase 2)	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA; 225.379.1100; Timothy.Nickel@la.gov				
Services commenced by this firm (mm/yy)	01/03	Total consultant contract cost ($1,000's)			$3,400
Services completed by this firm (mm/yy)	12/11	Cost of consultant services provided by this firm ($1,000's)			$3,400

PROJECT DESCRIPTION

The project consisted of the construction of a replacement highway between Port Fourchon and Golden Meadow, Louisiana consisting of 17 miles of elevated roadway with pile supported approaches, low-level bridges and medium-level bridges, two elevated interchanges, and two fixed high-level bridges over navigable waterways. Once completed, the new highway will be almost as long as the Pontchartrain Bridge near New Orleans, generally regarded as the world's longest bridge. Ardaman faced an additional challenge of drilling in the sensitive marsh environment under jurisdiction of LA's Dept. of Natural Resources. This concern was addressed by developing an environmentally sensitive drilling program that included custom designing airboats mounted with drilling equipment.

Ardaman was retained by the LADOTD at the beginning of the project in 2003 and was involved through the end of 2011. The scope of services included:

- Geotechnical field exploration (field reconnaissance, rights of entry, utility location, marsh access, mobilization/demobilization, GPS location/elevation) for Phases 1 and 2; consisting of over 100 borings and CPT soundings
- Geotechnical laboratory testing services for Phases 1 and 2;
- Geotechnical design of Phase 1; and
- Pile quality assurance testing and resistance verification services during construction of Phase 1, consisting of over 400 piles.

In addition to the vast scope of field investigation that included deep borings, shallow borings and ECPT soundings and laboratory testing, the scope of services for this project also included pile foundation design, testing, and inspection services.

FIRM MEMBERS:

Robert Jewell, Megan Bourgeois, Robert Rousset, Jim Porter

17. Firm Experience:

Firm name	Traffic Control Products Co of LA, Inc.		Past Performance Evaluation Discipline(s)*		Traffic
Project name	**LA 1 – LA 413 & 415**		Firm responsibility (prime or sub?)		Sub
Project number	713-01-00100 – Temporary signs and Barricades for Project H.013747	Owner's name	LADOTD		
Project location	Pointe Coupee, LA		Owner's Project Manager	Ray Billiot	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA; 225.379.1100; Ray.Billiot@la.gov				
Services commenced by this firm (mm/yy)	04/21	Total consultant contract cost ($1,000's)			$71
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)			

PROJECT DESCRIPTION

This project consisted of lane closures and flagging operations according to Louisiana Department of Transportation & Developments Guidelines.

17. Firm Experience:

Firm name	Traffic Control Products Co of LA, Inc.		Past Performance Evaluation Discipline(s)*		Traffic
Project name	**LA 23 Tunnel Job**		Firm responsibility (prime or sub?)		Sub
Project number	713-01-00100 – Temporary signs and Barricades for Project H.012560	Owner's name	LADOTD		
Project location	Plaquemines Parish, LA		Owner's Project Manager	Corbet Hollier	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA; 225.379.1100; Corbett.hollier@la.gov				
Services commenced by this firm (mm/yy)	04/21	Total consultant contract cost ($1,000's)			$322
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)			$322

PROJECT DESCRIPTION

This project consisted of lane closures and flagging operations according to Louisiana Department of Transportation & Developments Guidelines.

17. Firm Experience:

Firm name	Traffic Control Products Co of LA, Inc.		Past Performance Evaluation Discipline(s)*		Traffic
Project name	**US 90 @ LA 3046**		Firm responsibility (prime or sub?)		Sub
Project number	713-01-00100 – Temporary signs and Barricades for Project H.013757	Owner's name	LADOTD		
Project location	Jefferson Parish, LA		Owner's Project Manager	Kevin Rizzo	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA; 225.379.1100; kevin.rizzo@la.gov				
Services commenced by this firm (mm/yy)	02/21	Total consultant contract cost ($1,000's)			$190
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)			$190

PROJECT DESCRIPTION

This project consisted of lane closures and flagging operations according to Louisiana Department of Transportation & Developments Guidelines.

18. Approach and Methodology:

Provide a description of how the work will be performed and provide the proposed project schedule. Include any additional information or description of unique resources that are planned to be used to produce the deliverables. Include any proprietary technologies, methods or approaches that will be used on this project to improve quality or efficiency. If the proposal is for an IDIQ contract, the consultant should review the scope of services in Attachment A to the advertisement to obtain a general understanding of what a typical task order would entail. Based upon that understanding, the consultant should provide a sample schedule that identifies the major milestones, deliverables, tasks, etc., to demonstrate sufficient understanding of a typical task order. The duration of the task order is not required. This section shall be limited to four pages. If more than four pages are included, all pages after the fourth page will not be evaluated.

Ardaman & Associates, Inc. (Ardaman) specializes in geotechnical engineering consulting including field investigations and laboratory testing, foundation evaluation and development of design criteria, geotechnical performance monitoring, and construction quality assurance inspection and testing. Ardaman brings a wealth of experience in the transportation and infrastructure arena with our long-standing relationship with the Louisiana Department of Transportation & Development (LADOTD). Ardaman maintains offices in Baton Rouge, New Orleans, and Shreveport, Louisiana.

Ardaman has conducted geotechnical exploration and investigations for roadway and bridge foundations for many decades. From public service projects, to private, commercial, and industrial structures, we are proud of our work and the development of transportation infrastructure throughout the State.

Our Louisiana operations include a staff of 68 professionals and support personnel that perform a wide variety of geotechnical investigations each year throughout the State. Virtually all these investigations include soil borings or some other type of field exploration method, field tests, laboratory tests, geotechnical engineering analyses, report preparation, and construction phase testing and/or instrumentation installation and monitoring.

Our field and laboratory staff, working under the direction of experienced professional engineers, are adept in sampling and testing the soft soils unique to much of Louisiana and are knowledgeable of LADOTD standards for geotechnical field exploration and laboratory testing standards and protocols.

Our geotechnical testing laboratories are operated under a certified quality assurance system implemented and maintained by engineers serving as on-site QA officers. All laboratory data is subject to quality control checks and is then processed electronically to generate soil boring logs and gINT database files in standard LADOTD format.

Each laboratory location is individually validated and/or certified by various accrediting bodies. Our Ardaman Baton Rouge laboratory is accredited by the American Association of State Highway and Transportation Officials (AASHTO) for methods under both AASHTO Materials Reference Laboratory (AMRL) and Cement and Concrete Reference Laboratory (CCRL), validated by the United States Army Corps of Engineers (USACE), and accredited by the Louisiana Environmental Laboratory Accreditation Program (LELAP) through the Louisiana Department of Environment Quality (LDEQ). All certificates pertaining to these accreditations including the appropriate scope of work under each accrediting body is included in Section 20 of this Form 24-102.

As part of maintenance of these laboratory accreditations, Ardaman's Baton Rouge laboratory staff currently includes four National Institute for Certification in Engineering Technologies (NICET) certified technicians and two American Concrete Institute (ACI) certified technicians.

Our company (and its predecessors) has been in Louisiana since 1964, and our staff has a cumulative total of more than 100 years of geotechnical investigation and design experience.

Some of our notable LADOTD project experience includes:

- I-10 Calcasieu River Bridge
- Rural Bridge Replacement Initiative Phase II
- I-10 Widening (LA 415 to Howard Street)
- I-10 CMAR: LA-415 to Essen Lane on I-10 and I-12
- I-20 Mississippi River Bridge
- LA 1 Improvements: Phases 1A, 1B, 1C, and 2 (Lafourche Parish, LA)
- I-49 Connector (Lafayette Parish, LA)
- MacArthur Interchange Completion II Route US 90Z

Ardaman has eight Louisiana Professional Engineers with specialized training and experience in geotechnical engineering. Seven of our Louisiana-based engineers hold Master of Science degrees in Civil Engineering (MSCE or equivalent) with two holding Doctor of Engineering degrees.

We are committed to providing the LADOTD with the quality of professional and technical services with constant commitment to the health and safety of the design team, contractors, owners, and the public. We have considerable experience managing and working on contracts of this nature.

Our Louisiana personnel and equipment are available to perform the work associated with this contract in a timely and competent fashion. Company-wide staff resources include a pool of more than 400 professionals, field and support staff who fully support our efforts and are available to assist should the need arise.

We have been recognized by both government agencies and private industry as a qualified, competent firm to perform geotechnical exploration, testing, and engineering services. Our staff has performed numerous projects for LADOTD under retainer contracts, direct project contracts, and as a subconsultant. We always maintained an excellent professional relationship with the Department. We have completed numerous projects involving exploration, laboratory testing, engineering work and construction phase testing and/or monitoring for LADOTD within budget and time constraints. We have maintained effective communication with

Department personnel so that we can adapt to any changes in site conditions, procedures, or scope of work.

We are in a position to service this contract's needs responsively. There are no significant project assignments that we anticipate conflicting with Ardaman performing the requirements of this retainer contract. We will meet any reasonable project demands and will meet or exceed LADOTD's quality requirements. Our current LADOTD workload is more than 68% complete to date.

For this contract, project management, field services, laboratory testing, and engineering will we managed by our Baton Rouge office, supported as necessary by our New Orleans and Shreveport offices. Additional resources, if needed, can be brought in from Ardaman's Florida offices who have extensive experience with FDOT transportation projects.

Geotechnical Exploration and Investigations

Ardaman has more than 40 years of experience working for LADOTD conducting geotechnical investigations. Together, we have performed numerous subsurface investigations for new and/or existing transportation structures, many of which include field reconnaissance (rights of entry, utility locations, access, GPS location, elevation determination, mobilization/ demobilization), water table elevations, deep soil borings, shallow roadway borings, cone penetrometer test (CPT) soundings, field resistivity imaging, geotechnical laboratory testing, development of field and laboratory results database, geotechnical analysis and design (slope stability, embankment settlement, pile foundations, drilled shaft foundations, pile-supported approach slab design, bridge foundation static and dynamic load test programs, earth retaining structures and culvert design), construction monitoring and geotechnical instrumentation installation and monitoring including developing programs detailing duration of reading, and installing and monitoring piezometers, inclinometers, electronic displacement monitoring instrumentation, settlement monitoring devices and other geotechnical instrumentation in all types of surface and subsurface conditions. Constructability of any proposed solution will always be considered when completing engineering design analyses. Also, our engineers have experience with evaluating and recommending innovative remedial measures such as ground improvement, load transfer platforms, lightweight fill, surcharge and/or wick drains if necessary to meet required design goals for a project.

Ardaman is also experienced with all of the conventional boring and sampling techniques, including: locating borings via GPS Latitude and Longitude, auger borings, sampling test pits, and testing and sampling utilizing the Standard Penetration Tests and Split Barrel Sampling of soils with equipment compliant with Standard Test Method for Energy Measurement for Dynamic Penetrometers. We conduct sampling using thin-walled 3-inch and 5-inch diameter (or larger) tubes and a variety of other undisturbed samplers. We also have the capability to perform *in-situ* field testing through the use of vane shear and CPT soundings. Ardaman is a licensed water well contractor in the State of Louisiana (WWC-212) and seals boreholes in accordance with LADOTD and LADEQ regulations (see Section 20 of Jim Porter's resume).

Our field services personnel consist of experienced and licensed soil boring and water well drillers. All boring spacing is conducted in accordance with the LRFD Bridge Design manual unless otherwise directed by LADOTD's Project Manager. Ardaman routinely completes projects ranging in scope from one to two borings to over 300 borings at a site. We maintain a fleet of hollow-stem and rotary drilling rigs (truck and ATV mounts) in Louisiana that possess a wide range of capabilities.

Equipment

- **ARDCO K-1000** – (2 rigs) Rigs set on all-terrain vehicles. These rigs can drill to over 200 feet in depth.
- **CME 75** – (2 rigs) These powerful hollow-stem auger rigs also have wash-boring capabilities. They are truck-mounted and can drill to over 200 feet in depth.
- **CME 550** - Buggy
- **Hydropunch Unit** (Geoprobe) - This small, "push-technology" rig can obtain discrete soil or groundwater samples to depths of up to 50 feet.
- **GEOTECH Electronic Cone Penetrometer** – Our Baton Rouge office has a custom-built truck-mounted ECPT unit.
- **Airboat** – 14'x20'dual engine with top drive drill rig
- **Airboat** – single engine personnel carrier

In addition to the above, Ardaman's Florida offices possess a fleet of more than 20 truck- and ATV-mounted drilling rigs, a barge-mounted drill rig, and ground penetrating radar. *Ardaman also maintains a 20-ton ECPT rig in Orlando.*

Because of the nature of Louisiana, many projects consist of performing soil borings over water or within difficult access areas. We have extensive experience accessing soil boring locations through the use of other types of equipment such as barges or swamp buggies in these types of conditions. Additionally, our ATV-mounted drilling equipment is ideally suited for sites with difficult access and can potentially negate or minimize the need for clearing.

Drilling and Sampling

We understand the importance of retrieving high quality undisturbed soil samples. Our field and laboratory personnel are routinely trained in techniques meant to minimize sample disturbance. These techniques are described in ASTM D-1587 as well as in various manuals. Our drilling equipment can be easily modified to handle undisturbed samples of all sizes and lengths. Many projects require non-standard samplers requiring the extrusion equipment to be modified as well. We have successfully adapted our equipment to complete such projects when needed.

Our field personnel are experienced in performing deep soil borings according to accepted LADOTD drilling methods and sampling frequencies for cohesive and cohesionless soils.

Shallow soil borings for subgrade soil surveys will be made utilizing continuous-flight augers and samples will be either extruded in the field or extruded and tested in the laboratory depending on the soil conditions and according to LADOTD requirements.

At the completion of each soil boring, the borehole will be sealed in accordance with applicable state or local requirements. Typically, shallow borings (less than 25 feet) are backfilled using cuttings from the boreholes. For deeper borings, a bentonite or cement-bentonite slurry is typically used for borehole abandonment. Proper borehole backfilling and abandonment is a regular task for our drill crews. The top of borehole will also be surveyed to gather Latitude, Longitude, and elevation to a vertical and horizontal accuracy of 6 inches or less. This information will be reported on the soil boring logs.

We are also experienced with projects requiring transport of undisturbed Shelby tube samples from the field to the lab as described in ASTM D 4220 for materials fitting the description for Group C. Sample tubes will be transported vertically in the same orientation as they were sampled, with care taken to avoid excessive temperature variation, vibration, or any other sample disturbance. Our laboratory facilities are equipped with hydraulic piston sample extruders. This method is the *only* method that we allow for extrusion – samples are never extruded by pressurized water. Samples will be extruded directly onto a sample trough and will not be caught with the hands.

Ardaman has a custom truck mounted CPT rig built such that can provide 20 tons of reaction. The senior technicians responsible for obtaining CPT data have experience taking pore pressure measurements using U2 location. Calibrations on all CPT probes and equipment are kept up to date. The CPT data is submitted in the required input format of LTRC's CPT-Pile software as well as in current LADOTD format on full-size sheets and an electronic version.

Ardaman maintains state of the art electrical field resistivity (ER) equipment and has several field engineers and technicians trained to perform the testing and evaluate and process the data so that it can be used to supplement typical geotechnical investigation data. ER survey imaging provides a continuous, undisturbed, *in-situ* cross section of the soil stratigraphy. ER surveys allow for an efficient way of surveying subsurface conditions between boring locations and below boring depths, which can be very useful during design. We successfully implemented this technology on many LADOTD and DNR projects in the past. Our equipment consists of 56 electrodes that can provide soil electrical resistances well over 150 feet deep in favorable conditions. Automatic inversion software provides the electrical resistance profiles which are used to develop correlations to soil conditions.

Ardaman and its subcontractor, Traffic Control Products (TCP) have obtained the Work Zone Training for personnel as requested by LADOTD. We understand the importance of safety while performing our field investigations and will comply with all applicable LADOTD and OSHA safety protocol.

TCP will follow the Louisiana Department of Transportation & Developments "Temporary Traffic Control" drawings. TTC-3 and TTC-4 will be used for flagging operations. TTC-6, TTC-9, and TTC-1 0 will be used for Lane Closures. TTC-2 will be used for Shoulder Closures. TCP will always have at least one certified "Traffic Control Supervisor" on site, who will have been trained by the American Traffic Safety Services Association / Louisiana Department of Transportation. TCP will provide traffic safety control during our geotechnical exploration program. No traffic engineering services are included in this scope of this contract; therefore the Traffic Engineering Process and Report Training is not required.

It is understood that each task order can have a unique traffic control need. TCP will collaborate with LA DOTD and the General Contractor to make sure that the safety of all (Motoring Public, General Contractor, Inspectors, work Control Products personnel, etc.) parties.

Laboratory Testing Services

Our laboratory technicians work under the direction of an experienced registered professional engineer. Our NICET certified technicians are supervised by a laboratory manager, who is also NICET certified. Daily, these technicians perform testing following appropriate AASHTO and/or ASTM standards.

Ardaman's geotechnical testing laboratories are operated under a certified quality assurance system implemented and maintained by engineers serving as on-site QA officers. All laboratory data is subject to quality control checks and is then processed electronically to generate soil boring logs and gINT database files in standard LADOTD format.

Our laboratories have the capability to perform all laboratory tests anticipated for a typical task order for this contract. Anticipated tests include:

- pH and Resistivity (ASTM D4972 & AASHTO T 288)
- Classification
    - Standard Test Methods for Atterberg Limits (Liquid Limit, Plastic Limit, and Plasticity Index of Soils) (ASTM D4318)
    - Moisture content (ASTM D2216), specific gravity of soils (ASTM D854), unit weight, grain size analyses (D1140 & D6913, etc.).
    - Classification of soils are conducted according to appropriate ASTM Methods: deep borings (ASTM D 2487 – USCS method) and shallow borings (AASHTO M 145).
- Strength tests (Unconsolidated-Undrained (ASTM D2850)
- Consolidation tests with rebound (ASTM D2435)
- Organic content tests (ASTM D2974)

Our laboratory also has the capability to run many other specialized tests that could greatly increase effectiveness of our engineering analyses for certain soil conditions and/or planned construction. These tests include but are not limited to:

- Strength tests (Direct Shear, Direct Simple Shear, Consolidated-Undrained Triaxial, Unconfined Compression)
- Permeability tests (constant and falling head)
- Various construction materials tests on soil, aggregate and concrete

Our Baton Rouge laboratory has the capability to perform multiple, concurrent consolidation tests with automated data acquisition. Our laboratory also maintains triaxial testing equipment capable of performing anisotropic testing including

compression and extension tests with drained or undrained conditions. We are intimately familiar with LADOTD specific laboratory testing procedures, such as dry preparation of subgrade samples for pavement soil borings and testing of 75% of all cohesive samples for strength and classification for foundation design soil borings.

Much of our laboratory data is processed electronically. Therefore, the data obtained from the laboratory testing program can be transmitted to the client in many formats. We have the ability to, and routinely do, provide full size drawings, and soil boring information (logs, profiles, etc.) using gINT or other programs (CADD) that are fully compatible with LADOTD software. We also have the capability to draft and provide boring and subgrade soil survey logs in current LADOTD format on full-size sheets as well as an electronic version of the logs. In addition, we can submit the gINT database file which contains all field and laboratory data electronically in the LADOTD template.

Database

Assessing the soil condition variability and determining proper soil parameters are key to any subsequent geotechnical engineering analyses. Ardaman has developed (assisted by suggestions from LADOTD) a state-of-the-art geotechnical data explorer for this specific purpose. This unique data explorer has provided Ardaman significant advantages over conventional means because it offers an automatic workflow for compiling, visualizing and statistically analyzing data obtained in the field and associated laboratory test results. With the help of the automatic workflow in the data explorer, what could take weeks to be done conventionally now can be done within a day or so. This state-of-the-art data explorer will give Ardaman and LADOTD significant technical and efficiency advantages while also minimizing the potential for error due to multiple instances of data entry.

Construction Monitoring

Ardaman has successfully provided construction monitoring of multiple transportation projects since 2006. Six of our Louisiana engineering staff has been trained to use the Pile Driving Analyzer (PDA). Our staff is well versed and trained in pile foundation monitoring including Wave Equation Analyses, dynamic monitoring with the PDA, analysis of PDA data utilizing CAPWAP, oversight and interpretation of static load tests, development of pile driving criteria and inspector's chart based on the test or monitor piles, and selecting final pile tip elevations based on results of load tests and/or dynamic monitoring results. Ardaman has all of the necessary PDA and static load test monitoring/instrumentation equipment. Our staff is also trained in drilled shaft foundation inspection including review of Contractor's Installation Plan, and oversight of excavation and completion of required LADOTD forms. Megan Bourgeois, P.E., and Chae Hrenyk both completed the National Highway Institute's (NHI) Drilled Shaft Inspector's training course and are certified in the full scope of inspection of the construction of drilled shafts.

Geotechnical Instrumentation

Ardaman has successfully installed, monitored, and analyzed the data for various types of instrumentation at many sites and for multiple LADOTD projects. Our field crews have experience with installing slope inclinometers, both standard and vibrating wire piezometers, electronic displacement monitoring instrumentation , groundwater monitoring wells and settlement monitoring devices for various projects. Our field technicians are also trained and have extensive experience in gathering data from all types of geotechnical instrumentation using both standard/manual equipment as well as automated and wireless technology. Our staff has experience designing, installing, and maintaining fully automated instrumentation recording and communication systems at various types of sites for various project purposes which incorporate a variety of instrumentation devices into one user-friendly web-based system. Our engineering staff and clients are then able to access this data in real-time or from past time periods for use in monitoring sites and updating design for a more accurate model of actual site conditions.

In addition, our staff has designed programs involving instrumented individual piles for compression and lateral load tests. Our Engineers have experience interpreting this data and comparing the actual soil behavior to that predicted by design.

CONCLUSION

On the preceding pages of this submittal, we have outlined firm and personnel qualifications and our experience on roadway and bridge projects. Ardaman understands the LADOTD's expectations and has a proven history of meeting the Department's needs.

Our staff is committed to providing quality, personalized professional and technical services with a constant concern for the health and safety of LADOTD and our employees, and the traveling public. We are excited to be a member of this team and are looking forward to once again being of service to LADOTD and the State of Louisiana.

19. Workload:

For all contracts where a firm on the team is a prime consultant or sub-consultant and where a) the consultant selection was made by DOTD, and b) a contract was executed by the consultant and the contracting entity by the date the advertisement for this proposal was posted, list all work meeting the following criteria:

1) one of the team's firms is responsible for the performance of the work;
2) authorization to perform the work has been provided, as provided in the contract between the consultant and the contracting entity;
3) the work has not yet been performed and invoiced; and
4) the work is not currently suspended for an indefinite period of time.

For indefinite delivery/indefinite quantity (IDIQ) contracts, list open Task Orders individually.
List only the portion of the fees attributable to firms on the team.

Firm	Past Performance Evaluation Disciplines(s) *	State project number	Project name and location	Remaining unpaid balance**
Ardaman & Associates, Inc.	Geotech	H.009266	I-10 (LA 73 to LA 30) Route I-10 Ascension Parish	$151,633
Ardaman & Associates, Inc.	Geotech	H.011309.5	MacArthur Interchange Completion Phase II Route US 90-Z Jefferson Parish	$73,327
Ardaman & Associates, Inc.	Geotech	H.012565, H.012891, H.014251, 252, 253, 254, 256, 257	Rural Bridge Replacement – Phase II, Districts 02, 03, 07, 61, 62	$44,050
Ardaman & Associates, Inc.	Geotech	H.003370	I-220/I-20 Interchange Improvement and Barksdale Air Force Access Rd	$4,179
Ardaman & Associates, Inc.	Geotech	H.004273	I-49 Connector, Lafayette	$586,600
Ardaman & Associates, Inc.	Geotech	H.010603.6	Mississippi River Bridge at Vicksburg, MS	$65,633
Ardaman & Associates, Inc.	Geotech	H.004791	LA 23: Belle Chasse Bridge and Tunnel (HBI)	$264,820
Ardaman & Associates, Inc.	Geotech	H.013897	I-10 / I-12 College Drive Flyover	$337,099
Ardaman & Associates, Inc	Geotech	H.004113	I-12 to Bush LA 3241 (LA 435 – LA40/LA41) Construction Phase	$114,635

Ardaman & Associates, Inc	Geotech	H014217, 218, 225, 228, 233, 236	Rural Bridges Replacement Phase II – Districts 04 & 05	$141,199
Ardaman & Associates, Inc.	Geotech	H.04435.5	I-12 to Bush LA 3241 (LA 36-LA 435) Construction Phase	$172,073
Ardaman & Associates, Inc.	Geotech	H.004100.5-2	I-10: LA 415 to Essen Lane on I-10 & I-12	$155,179
Ardaman & Associates, Inc.	Geotech	H.002244.5	Boudreaux Canal Bridge (LA 56)	$167,793
Ardaman & Associates, Inc.	Geotech	H.004100	I-10: CMAR 30% Segment 1 Design	$239,059
Ardaman & Associates, Inc.	Geotech	H.014554.6	Boeuf River Bridge (PDA)	$5,699
Ardaman & Associates, Inc.	Geotech	H00.1166.6	Caddo Lake Bridge (PDA)	$41,096
Ardaman & Associates, Inc.	Geotech	H.012030	KCS Railroad Overpass HBI (US 371)	$32,774
Traffic Control Products	Traffic	H.011670	Loyola Dr/I-10 Job New Orleans	$55,033
Traffic Control Products	Traffic	H.000428.6	LA 12 Bridges Calcasieu Parish	$107,270.78
Traffic Control Products	Traffic	H.012990	LA 182 - St Mary Parish	$94,723
Traffic Control Products	Traffic	H.014672.6	I-12 LA 1032 Overpass	$35,270
Traffic Control Products	Traffic	H.012560	LA 23 - Tunnel - Plaquemines Parish	$280,880
Traffic Control Products	Traffic	H.013738	LA 441 - Livingston Parish	$4,000
Traffic Control Products	Traffic	H.014501	LA 441 US 190 LA 442 - Livingston Parish	$138,144
Traffic Control Products	Traffic	H.013757	US 90 @ LA 3046 Jefferson Parish	$6,370
Traffic Control Products	Traffic	H.013191	LA 1: LA 75 Bayou Plaquemine Bridge	$146,096.55
Traffic Control Products	Traffic	H.01473.6	LA 22 7th St - Dunson Rd Tangi Parish	$73,916

Traffic Control Products	Traffic	H.012073	LA 20 @ LA 3127 - St James Parish	$742
Traffic Control Products	Traffic	H.014104	LA 1: LA3089 Iberville Parish	$94,570
Traffic Control Products	Traffic	H.013001.6	LA 308: LA 70 Ascension Parish	$78,580
Traffic Control Products	Traffic	H.014474	US 61 Turn Lane Improvement - Ascension Parish	$1,300

* 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.

20. Certifications/Licenses:

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

Certifications & Licenses

PROFESSIONAL LICENSE & CERTIFICATIONS

ALBERT AYENU-PRAH, PHD, PE
PROJECT ENGINEER

LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Albert Y. Ayenu-Prah Jr.

License/Certificate Type - Number	Expiration Date
PE.0037402	03/31/2023

Status: Active

PROFESSIONAL LICENSE & CERTIFICATIONS

MEGAN BOURGEOIS, PE
ASSISTANT BRANCH MANAGER/LABORATORY DIRECTOR

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Ms. Megan G. Bourgeois

License/Certificate Type - Number	Expiration Date
PE.0036725	03/31/2024

Status: Active

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Megan Bourgeois
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

8/7/2020 to 8/7/2020
Date

Vice President of Education and Technical Services

Baton Rouge, LA
Location

President, CEO

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

ATSSA American Traffic Safety Services Association ATSSA.com

Certificate of Training

this certifies that

Megan Bourgeois

has successfully completed the training program requirements for

ATSSA Online Flagger Certification Training

Awarded on this **8th** *day of* **August 2020**

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

NHI NATIONAL HIGHWAY INSTITUTE

Certificate of Training

MEGAN BOURGEOIS

has participated in

FHWA-NHI-132070 Drilled Shaft Foundation Inspection

hosted by

LA DOTD/LTRC

Date: *March 13-15, 2019* *Hours of Instruction:* 15
Location: *Baton Rouge, LA*

Instructor

Instructor

Local Coordinator

Michael Davis, Director
National Highway Institute

PROFESSIONAL LICENSE & CERTIFICATIONS

CHAE HRENYK
CONSTRUCTION MATERIALS TESTING MANAGER

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

NHI
NATIONAL HIGHWAY INSTITUTE

Certificate of Training

CHAE HRENYK

has participated in

FHWA-NHI-132070 Drilled Shaft Foundation Inspection

hosted by

LA DOTD/LTRC

Date: *March 13-15, 2019* *Hours of Instruction:* 15

Location: *Baton Rouge, LA*

Instructor

Instructor

Local Coordinator

Michael Davies, Director
National Highway Institute

PROFESSIONAL LICENSE & CERTIFICATIONS

ROBERT JEWELL, P.E.
BATON ROUGE BRANCH MANAGER/PROJECT ENGINEER

LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Robert Edwin Jewell

License/Certificate Type - Number	Expiration Date
PE.0038579	09/30/2022

Status: Active

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Robert Jewell
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

9/25/2020 to 9/25/2020
Date

Baton Rouge, LA
Location

Vice President of Member Services

President, CEO

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

ATSSA American Traffic Safety Services Association ATSSA.com

PROFESSIONAL LICENSE & CERTIFICATIONS

Jarmon King, EI
ASSISTANT PROJECT ENGINEER

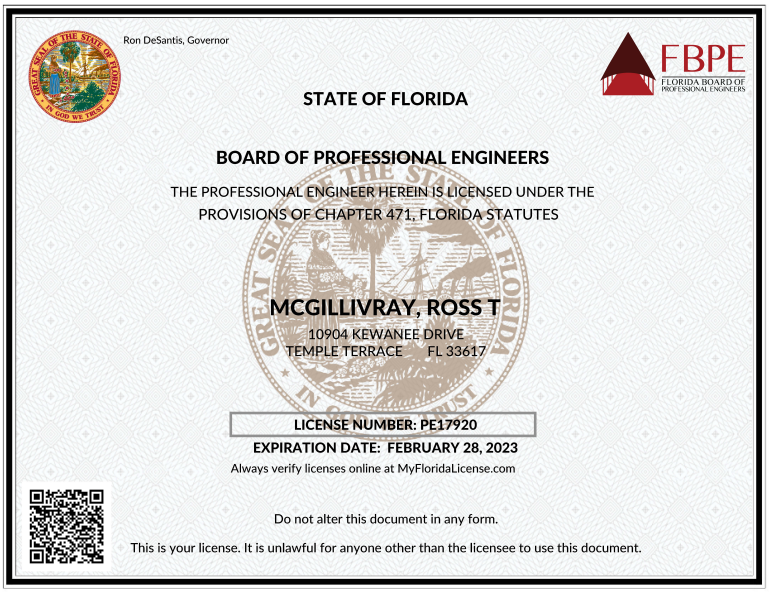
LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Jarmon Everett King II

License/Certificate Type - Number	Expiration Date
EI.0034348	03/31/2024

Status: Active

PROFESSIONAL LICENSE & CERTIFICATIONS



Ron DeSantis, Governor

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

STATE OF FLORIDA

BOARD OF PROFESSIONAL ENGINEERS

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

MCGILLIVRAY, ROSS T

10904 KEWANEE DRIVE
TEMPLE TERRACE FL 33617

LICENSE NUMBER: PE17920

EXPIRATION DATE: FEBRUARY 28, 2023

Always verify licenses online at MyFloridaLicense.com

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Ross T. McGillivray, PE

PRINCIPAL ENGINEER

PROFESSIONAL LICENSE & CERTIFICATIONS

JULIAN "JIM" PORTER
DRILLING SERVICES SUPERVISOR/SENIOR DRILLER

Office of Conservation | Department of Natural Resources
STATE OF LOUISIANA

WATER WELL CONTRACTOR'S LICENSE

The Office of Conservation
for the Department of Natural Resource
State of Louisiana

hereby acknowledges that

ARDAMAN & ASSOCIATES, INC.

JIM PORTER

has been licensed to drill monitoring wells under the provisions of R.S. 38:3098 and is entitled to practice in the state of Louisiana as a Water Well Contractor.

This License is non-transferable and expires ***June 30, 2023*** unless renewed, revoked or suspended by the licensing authority as prescribed by statue.

Signed and sealed this *21st* day of *June*, *2022*

RICHARD P. IEYOUB
COMMISSIONER OF CONSERVATION
Office of Conservation
Louisiana Department of Natural Resources

License No. WWC- *# 212*

OnlineFlagger.com

CERTIFICATE IS AWARDED TO

JULIAN PORTER

Has successfully completed a flagger training course meeting the requirements of the

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

on the following date

MARCH 10, 2020

Valid for 4 years from completion date.
This temporary/backup certificate is valid with a government-issued photo ID.

Use the code below to validate this certificate's authenticity, or get copies.

State of Mississippi
Department of Environmental Quality
Office of Land and Water Resources

Certificate of Licensure
Whereas

Julian J Porter
having complied with the Laws of the State of Mississippi and the rules and regulations promulgated in accordance therewith, is therefore issued this License as a

Water Well Contractor

Assigned No. UNR-00000511 for identification
This License is non-transferable and expires June 30th, 2023, unless sooner revoked or suspended by the licensing authority as prescribed by statute.

Signed and Sealed April 28, 2022

Kay Whittington, Director
Office of Land and Water Resources

MDEQ

AI No. 40114

The American Traffic Safety Services Association

Hereby recognizes that

Julian J Porter
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

9/6/2019 to 9/6/2019
Date

Baton Rouge, LA
Location

ATSSA
SAFER ROADS SAVE LIVES

Training & Products Dept. Director

President, CEO

PROFESSIONAL LICENSE & CERTIFICATIONS

ROBERT ROUSSET, P.E.
NEW ORLEANS BRANCH MANAGER/PROJECT ENGINEER

LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Robert Egli Rousset

License/Certificate Type - Number	Expiration Date
PE.0038637	09/30/2022

Status: Active

PROFESSIONAL LICENSE & CERTIFICATIONS

CHANDLER WILLIS, BS
LABORATORY MANAGER

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Chandler Willis
has attended
Traffic Control Supervisor-LA State Specific
Training Course

12/2/2020 to 12/3/2020
Date

Vice President of Education and Technical Services

Baton Rouge, LA
Location

President, CEO

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

ATSSA American Traffic Safety Services Association ATSSA.com

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Chandler Willis
has attended
Traffic Control Technician-LA State Specific
Training Course

12/1/2020 to 12/1/2020
Date

Vice President of Education and Technical Services

Baton Rouge, LA
Location

President, CEO

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

ATSSA American Traffic Safety Services Association ATSSA.com

NICET®

NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES®

Providing Certification Programs Since 1961

BE IT KNOWN THAT

Chandler M Willis Jr.
IS HEREBY AWARDED CERTIFICATION AT

Level I

IN GEOTECHNICAL - LABORATORY

BASED UPON SUCCESSFUL DEMONSTRATION OF REQUISITE KNOWLEDGE, EXPERIENCE AND WORK PERFORMANCE AS SET FORTH BY THIS INSTITUTE.

Certification Valid Through 11/01/2024

CERTIFICATION NUMBER 135280

CHAIRMAN OF THE NICET BOARD OF GOVERNORS

A DIVISION OF THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

PROFESSIONAL LICENSE & CERTIFICATIONS

MARK WOODWARD, P.E.
PRINCIPAL ENGINEER

LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Mark Lee Woodward

License/Certificate Type - Number	Expiration Date
PE.0024206	09/30/2023

Status: Active

Louisiana SECRETARY OF STATE

(https://www.sos.la.gov/Pages/default.aspx)

Search for Louisiana Business Filings

Buy Certificates and Certified Copies | Subscribe to Electronic Notification | Print Detailed Record

Name	Type	City	Status
ARDAMAN & ASSOCIATES, INC.	Business Corporation (Non-Louisiana)	ORLANDO	Active

GET HELP

Previous Names

Business: ARDAMAN & ASSOCIATES, INC.
Charter Number: 34396031F
Registration Date: 12/13/1991

Domicile Address

8008 SOUTH ORANGE AVENUE
ORLANDO, FL 32809

Mailing Address

3475 E. FOOTHILL BLVD.
PASADENA, CA 91107

Principal Business Office

8008 SOUTH ORANGE AVENUE
ORLANDO, FL 32809

Registered Office in Louisiana

3867 PLAZA TOWER DR.
BATON ROUGE, LA 70816

Principal Business Establishment in Louisiana

316 HIGHLANDIA DR.
BATON ROUGE, LA 70810

Status

Status: **Active**
Annual Report Status: **In Good Standing**
Qualified: 12/13/1991
Last Report Filed: 11/18/2021
Type: Business Corporation (Non-Louisiana)

Registered Agent(s)

Agent:	C T CORPORATION SYSTEM
Address 1:	3867 PLAZA TOWER DR.
City, State, Zip:	BATON ROUGE, LA 70816
Appointment Date:	12/13/1991

Officer(s)

Additional Officers: No

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

Name:	Public Address:
Ardaman & Associates, Incorporated	8008 South Orange Avenue Orlando, Florida 328593003

License/Certificate Information w/ Supervision

License	Status	First Issuance Date	Expiration Date	Supervisor(s)
EF.0001680	Active	01/14/1992	03/31/2024	Mr. Robert Edwin Jewell # PE.0038579 - Active ; Mr. Robert Egli Rousset # PE.0038637 - Active ; Mr. Rodrigo Home # PE.0040518 - Active

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ARDAMAN & ASSOCIATES, INC.

This entity record is only available FOR OFFICIAL USE ONLY.

Unique Entity ID
QL4JXK7UV9K1

Registration Status: Active Registration
Expiration Date: Mar 28, 2023

CAGE/NCAGE
559D4

Purpose of Registration
All Awards

Physical Address
316 Highlandia DR
Baton Rouge, Louisiana
70810-5904, United States

Mailing Address
316 Highlandia DR
Baton Rouge, Louisiana
70810-5904, United States

Version: Current Record

AASHTO ACCREDITED

CERTIFICATE OF ACCREDITATION

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AASHTO

Ardaman & Associates, Inc.

in

Baton Rouge, Louisiana, USA

has demonstrated proficiency for the testing of construction materials and has conformed to the requirements established in AASHTO R 18 and the AASHTO Accreditation policies established by the AASHTO Committee on Materials and Pavements.

The scope of accreditation can be viewed on the Directory of AASHTO Accredited Laboratories (aashtoresource.org).

Jim Tymon,
AASHTO Executive Director

Moe Jamshidi,
AASHTO COMP Chair

This certificate was generated on 05/03/2022 at 2:07 PM Eastern Time. Please confirm the current accreditation status of this laboratory at aashtoresource.org/aap/accreditation-directory

Scope of AASHTO Accreditation for:

Ardaman & Associates, Inc.

in Baton Rouge, Louisiana, USA

Quality Management System

Standard:		Accredited Since:
R18	Establishing and Implementing a Quality System for Construction Materials Testing Laboratories	11/09/2009
C1077 (Aggregate)	Laboratories Testing Concrete and Concrete Aggregates	09/17/2021
C1077 (Concrete)	Laboratories Testing Concrete and Concrete Aggregates	09/17/2021
D3740 (Soil)	Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction	12/26/2013

Scope of AASHTO Accreditation for:

Ardaman & Associates, Inc.

in Baton Rouge, Louisiana, USA

Soil

Standard:	Accredited Since:
T288 Minimum Soil Resistivity	01/31/2019
D421 Dry Preparation of Disturbed Soil and Soil Aggregate Samples for Test	11/09/2009
D422 Particle Size Analysis of Soils by Hydrometer	11/09/2009
D698 The Moisture-Density Relations of Soils Using a 5.5 lb [2.5 kg] Rammer and a 12 in. [305 mm] Drop	06/16/2016
D854 Specific Gravity of Soils	02/14/2012
D1140 Amount of Material in Soils Finer than the No. 200 (75-µm) Sieve	02/14/2012
D1557 Moisture-Density Relations of Soils Using a 10 lb [4.54 kg] Rammer and an 18 in. [457 mm] Drop	06/16/2016
D2166 Unconfined Compressive Strength of Cohesive Soil	06/16/2016
D2216 Laboratory Determination of Moisture Content of Soils	11/09/2009
D2434 Permeability of Granular Soils (Constant Head)	04/27/2022
D2435 One-Dimensional Consolidation Properties of Soils Using Incremental Loading	02/14/2012
D2487 Classification of Soils for Engineering Purposes (Unified Soil Classification System)	12/26/2013
D2488 Description and Identification of Soils (Visual-Manual Procedure)	12/26/2013
D2850 Unconsolidated, Undrained Compressive Strength of Cohesive Soils in Triaxial Compression	02/14/2012
D2937 Density of Soil in Place by the Drive-Cylinder Method	01/31/2019
D2974 Determination of Organic Content in Soils by Loss on Ignition	02/14/2012
D4318 Determining the Liquid Limit of Soils (Atterberg Limits)	11/09/2009
D4318 Plastic Limit of Soils (Atterberg Limits)	11/09/2009
D4643 Determination of Water (Moisture) Content of Soil by Microwave Oven Heating	01/31/2019
D4972 pH Testing of Soils	12/26/2013
D5084 Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter	12/26/2013
D6913 Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis	04/27/2022
D6938 In-Place Density and Moisture Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)	01/31/2019

Scope of AASHTO Accreditation for:

Ardaman & Associates, Inc.

in Baton Rouge, Louisiana, USA

Aggregate

Standard:	Accredited Since:
C117 Materials Finer Than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing	01/31/2019
C127 Specific Gravity and Absorption of Coarse Aggregate	09/17/2021
C128 Specific Gravity (Relative Density) and Absorption of Fine Aggregate	09/17/2021
C136 Sieve Analysis of Fine and Coarse Aggregates	01/31/2019
C566 Total Moisture Content of Aggregate by Drying	01/31/2019
C702 Reducing Samples of Aggregate to Testing Size	01/31/2019
D75 Sampling Aggregate	01/31/2019

Scope of AASHTO Accreditation for:

Ardaman & Associates, Inc.

in Baton Rouge, Louisiana, USA

Concrete

Standard:		Accredited Since:
C31 (Cylinders)	Making and Curing Concrete Test Specimens in the Field	09/17/2021
C39	Compressive Strength of Cylindrical Concrete Specimens	09/17/2021
C138	Density (Unit Weight), Yield, and Air Content of Concrete	09/17/2021
C143	Slump of Hydraulic Cement Concrete	09/17/2021
C172	Sampling Freshly Mixed Concrete	09/17/2021
C231	Air Content of Freshly Mixed Concrete by the Pressure Method	09/17/2021
C511	Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the testing of Hydraulic Cements and Concretes	01/12/2022
C1064	Temperature of Freshly Mixed Portland Cement Concrete	09/17/2021
C1231 (6000 psi and below)	Use of Unbonded Caps in Determination of Compressive Strength of Hardened Concrete Cylinders	09/17/2021

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Is hereby granting a Louisiana Environmental Laboratory Accreditation to

Ardaman & Associates Inc
316 Highlandia Dr
Baton Rouge, Louisiana 70810-5904

Agency Interest No. 30726
Activity No. ACC20210001

According to the Louisiana Administrative Code, Title 33, Part I, Subpart 3, LABORATORY ACCREDITATION, the State of Louisiana formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed in the attachment.

The laboratory agrees to perform all analyses listed on this scope of accreditation according to the Part I, Subpart 3 requirements and acknowledges that continued accreditation is dependent on successful ongoing compliance with the applicable requirements of Part I. Please contact the Department of Environmental Quality, Louisiana Environmental Laboratory Accreditation Program (LELAP) to verify the laboratory's scope of accreditation and accreditation status.

Accreditation by the State of Louisiana is not an endorsement or a guarantee of validity of the data generated by the laboratory. Accreditation of the environmental laboratory does not imply that a product, process, system, or person is approved by LELAP. To be accredited initially and maintain accreditation, the laboratory agrees to participate in two single-blind, single-concentration PT studies, where available, per year for each field of testing for which it seeks accreditation or maintains accreditation as required in LAC 33:I.4711.

Cheryl Sonnier Nolan
Administrator
Public Participation and Permit Support Services Division

Issued Date: 07 May 2021

Effective Date: July 1, 2021
Expiration Date: June 30, 2022
Certificate Number: 02052

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Effective Date: July 1, 2021

Ardaman & Associates Inc
AI Number: 30726
Activity No. ACC20210001
Expiration Date: June 30, 2022

316 Highlandia Dr, Baton Rouge, Louisiana 70810-5904

Certificate Number: 02052

Air Emissions

Analyte	Method Name	Method Code	Type	AB
NONE	NONE	NONE	NONE	NONE

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
NONE	NONE	NONE	NONE	NONE

Solid Chemical Materials

Analyte	Method Name	Method Code	Type	AB
100031 - Amount Of Soil Finer Than The No. 200 Sieve	ASTM D1140	1370	AASHTO	LA
100032 - Laboratory Compaction Of Soils (Proctor Density)	ASTM D1557	1377	AASHTO	LA
100034 - Classification Of Soils For Engineering Purposes (Unified Soil Classification System	ASTM D2487	1390	AASHTO	LA
100035 - Soil Classification Visual - Manual (Field)	ASTM D2488	1391	AASHTO	LA
100039 - Atterberg Limits of Soils	ASTM D4318	1410	AASHTO	LA
100040 - Liquid Limit	ASTM D4318	1410	AASHTO	LA
100041 - Plastic Limit	ASTM D4318	1410	AASHTO	LA
100042 - Plasticity Index	ASTM D4318	1410	AASHTO	LA
1900 - pH	ASTM D4972	1427	AASHTO	LA
100044 - Hydraulic Conductivity (Flexible Wall Permeameter)	ASTM D5084	1428	AASHTO	LA
100032 - Laboratory Compaction Of Soils (Proctor Density)	ASTM D698	1439	AASHTO	LA
100043 - Specific Gravity Of Soils	ASTM D854	1441	AASHTO	LA
3850 - Moisture content	ASTM D2216-10	30025106	AASHTO	LA
7987 - Organic Content Of Soil By Ignition	ASTM D2974-07A, Rev.2007	30026450	AASHTO	LA
100038 - Particle Size Analysis Of Soils	ASTM D422 63 (7)	30030854	AASHTO	LA

Biological Tissue

Analyte	Method Name	Method Code	Type	AB
NONE	NONE	NONE	NONE	NONE

Clients and Customers are urged to verify the laboratory's current certification status with the Louisiana Environmental Laboratory Accreditation Program.

MTC
MATERIALS TESTING CENTER

USACE CERTIFICATE OF LABORATORY VALIDATION

ERDC
ENGINEER RESEARCH & DEVELOPMENT CENTER

Ardaman & Associates, Inc.

316 Highlandia Drive
Baton Rouge, LA, United States
Megan Bourgeois
(225) 752-4790

has demonstrated, by abbreviated audit of its AASHTO accreditation, or by inspection of required records, equipment, procedures, facilities, and/or final reports, its proficiency to perform testing of construction materials, as established by the quality standards of AASHTO R 18 guidance and the requirements of the applicable ASTM standards.

THIS USACE CERTIFICATE OF LABORATORY VALIDATION IS ACCURATE AS OF ITS DATE AND TIME OF GENERATION:

03 MAY 2022 AT 13:10 HOURS

ALL METHODS LISTED ON THIS CERTIFICATE OF VALIDATION WILL EXPIRE ON 07/27/2023

PLEASE CONFIRM THE CURRENT VALIDATION STATUS OF THIS LABORATORY USING THE SEARCH FEATURE ON OUR PUBLIC WEBSITE: https://mtc.erdc.dren.mil

Chad A. Gartrell, PE, Director
USACE Materials Testing Center
Vicksburg, Mississippi, USA

AGGREGATE

Aggregate - D 75 - Opt - Sampling
Aggregate - C 117 - Req - Material Finer than 75 µm (No. 200) Sieve
Aggregate - C 136 - Req - Sieve Analysis of Aggregates
Aggregate - C 566 - Opt - Total Moisture Content
Aggregate - C 702 - Opt - Reducing Samples to Testing Size

SOILS

Soils - D 421 - Req - Dry Preparation for Particle Size Distribution & Soil Constants
Soils - D 422 - Req - Particle Size Analysis
Soils - D 698 - Req - Compaction Characteristics by Standard Effort
Soils - D 854 - Req - Specific Gravity of Soils
Soils - D 1140 - Req - Material Finer than 75 m (No. 200) Sieve
Soils - D 1557 - Req - Compaction Characteristics by Modified Effort
Soils - D 2166 - Req - Unconfined Compressive Strength
Soils - D 2216 - Req - Water Content
Soils - D 2435 - Req - One-Dimensional Consolidation Properties
Soils - D 2487 - Req - Classification of Soils
Soils - D 2488 - Req - Description & Identification of Soils (Visual-Manual Procedure)
Soils - D 2850 - Req - Unconsolidated, Undrained Strength in Triaxial Compression
Soils - D 2937 - Req - Density by Drive Cylinder Method
Soils - D 2974 - Req - Moisture, Ash, & Organic Matter of Peat & Other Organic Soils
Soils - D 3740 - Opt - Soil and Rock Testing Standards (Quality Standard)
Soils - D 4318 - Req - Liquid & Plastic Limits & Plasticity Index
Soils - D 4643 - Req - Determination of Water Content of Soil by Microwave Oven
Soils - D 4972 - Opt - pH of Soils
Soils - D 5084 - Req - Hydraulic Conductivity using a Flexible Wall Permeameter
Soils - D 6938 - Req - Density and Water Content by Shallow Depth Nuclear Method

Certifications & Licenses

LOUISIANA UNIFIED CERTIFICATION PROGRAM

Disadvantaged Business Enterprise Program (DBE)

Small Business Element (SBE)

This is to certify that under Title 49, Part 26 of the Code of Federal Regulations & under the State of Louisiana United Certification Program (LAUCP)

Traffic Control Products Co. of LA, Inc.

Is a Certified Disadvantaged Business Enterprise (DBE) & Small Business Element (SBE) in the following specialties:

NC237310, NC238110, NC238990

NOTE: There may be other approved NAICS Codes. The online DBE Directory includes a complete list of approved codes.

Certificate Eligibility: February 2022 to February 2023

This certificate is valid through the above date provided. This firm meets the on-going programmatic standard and fulfills the annual update requirement to remain in good standing as a DBE. This certification is subject to annual verification and suspension or revocation based upon reasonable cause to believe that the firm is ineligible.

Rhonda Wallace

Rhonda Wallace, DBE/SBE Programs Manager

Louisiana Department of Transportation & Development

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.

N/A

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**
Traffic Control Products Co. of LA, Inc.	2230 Tower Street Denham Springs, LA 70726	Suzanne Albin suzanne@tcpofla.com	225-665-7950

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.

N/A