DOTD FORM: 24-102

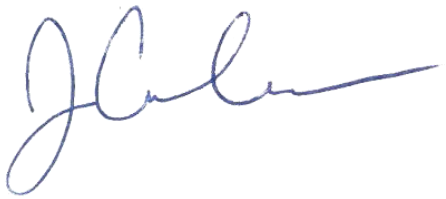
(Revised March 1, 2022)

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.

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)	ECS Southeast, LLP (ECS / ECS SE, LLP)
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.0005838
6. Prime consultant mailing address	11115 Industriplex Boulevard Suite 200 Baton Rouge, LA 70809
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	11115 Industriplex Boulevard Suite 200 Baton Rouge, LA 70809
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Joseph Cobena, PE 225.224.2583 jcobena@ecslimited.com

9. Name, title, phone number, and email address of the official with signing authority for this proposal	Joseph Cobena, PE 225.224.2583 jcobena@ecslimited.com
10. This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.	 Signature (shall be the same person as #9): _____ Date: 6/28/2022
11. If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s)	Firm(s): Adaptive Management and Engineering, LLC Firm(s)'% : 15%

will be used to meet the DBE goal and each firm(s)' percentage.	

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12. Past Performance Evaluation Discipline Table:

Evaluation Discipline(s)	% of Overall Contract	Prime	Firm B	Firm C	Firm D	Firm E	Each Discipline must total to 100%
Geotechnical	**100%**	ECS (prime firm) **85%**	AME (sub-consultant) **15%**				100%
Identify the percentage of work for the **overall contract** to be performed by the prime consultant and each sub-consultant.							

Prime consultant name: **ECS Southeast, LLP**

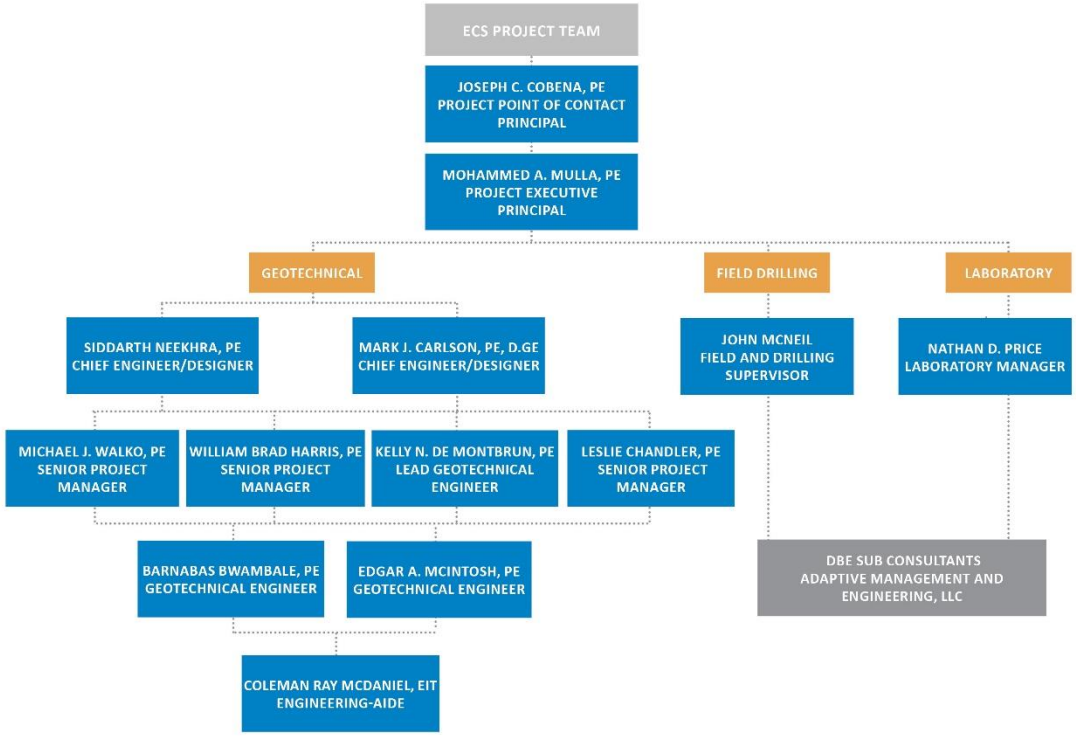
13. Firm Size:

Firm name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
ECS	Principal	2	5
ECS	Designer	2	10
ECS	Supervisor Engineer	3	10
ECS	Engineer	2	25
ECS	Engineering-Aide	1	10
ECS	Other (Field and Drilling Staff)	1	10
ECS	Other (Laboratory Staff)	1	5
Adaptive Management and Engineering, LLC	Principal	1	1
Adaptive Management and Engineering, LLC	Engineer	1	1
Adaptive Management and Engineering, LLC	Engineer Intern	1	1
Adaptive Management and Engineering, LLC	Senior technician	1	1
Adaptive Management and Engineering, LLC	Driller	1	1
Adaptive Management and Engineering, LLC	CADD Drafter	1	1
Adaptive Management and Engineering, LLC	Technician	1	1

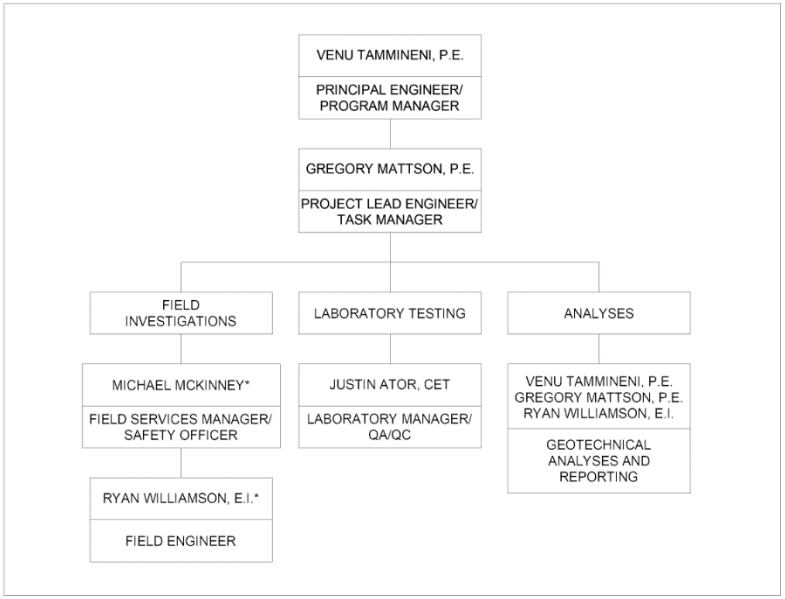
(Add rows as needed)

14. Organizational Chart:

ORGANIZATIONAL CHART



Adaptive Management and Engineering, LLC Project Team



 Prime consultant name: **ECS Southeast, LLP**

15. Minimum Personnel Requirements:

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, 2	Joseph C. Cobena, PE	ECS	PE, 0042069	LA	03/31/2024
3	Mark J. Carlson, PE, D.GE	ECS	PE, 0034459	LA	9/30/2023
3	Leslie Chandler, PE	ECS	PE, 0038292	LA	03/31/2024
4	Nathan Price	ECS			
5	John MacNeil	ECS	Water Well Contractor, 880	LA	6/30/2023
4	Justin Ator, CET	Adaptive Management and Engineering, LLC	CET, 139594	LA	2/1/2024
5	Michael McKinney	Adaptive Management and Engineering, LLC	Water Well Contractor, 867 Traffic Control Supervisor	LA LA	6/30/2022

16. Staff Experience:

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Firm employed by: ECS				
Name	**Joseph Cobena, PE**		Years of relevant experience with this employer	**1**
Title	Principal/Office Manager		Years of relevant experience with other employer(s)	**9**
Degree(s) / Years / Specialization			B.S. – Civil Engineering / 2013	
Active registration number / state / expiration date			PE 0042069 / LA / 03-31-2024	
Year registered	2017	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			**MPR 1 and 2** Point of Contact / Principal Engineer. Mr. Cobena will be the point of contact for the Louisiana Department of Transportation IDIQ Contract.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/2022 – 07/2022	**Atwater – Canadian National Rail Crossing, Baton Rouge, LA:** The project includes the installation of a 42-inch steel water line and a 16-inch steel sewer force main to service the proposed new Atwater development. In addition to our geotechnical study, ECS will also provide supervision and monitoring of the project site in accordance with CNRR guidelines to allow for continued operation of railroad during the construction process. Mr. Cobena served as the Principal Engineer of this project.
02/2022 – 04/2022	**Hwy 929 and Parker Road Widening, Prairieville, LA:** The approximately 1.6-mile-long project consists of widening Parker Road and Hwy 929 in Prairieville, Louisiana. A total of 13 borings were drilled to the depths of approximately 15 feet below existing grades. Laboratory testing consisted of soil classification (index) testing of the soils obtained from the soil and hand auger borings. ECS provided recommendations for pavement design, and regarding site preparation and construction observations and testing. Mr. Cobena served as the Principal Engineer of this project.
02/2022 – Present	**HSIP in Harrison County, MS:** ECS is performing construction materials testing and inspections for Harrison County for a project consisting of a new concrete median estimated at 93 cubic yards. Scope of services includes concrete test cylinders. Mr. Cobena served as the Principal Engineer of this project.
02/2022 – Present	**Overstreet and Associates Asphalt Testing, Biloxi, MS:** ECS is performing construction materials testing and inspection throughout the year for several projects. Testing will include asphalt field and laboratory testing. Mr. Cobena is the Principal Engineer for this project.

01/2022 – Present	**Brookwood Storage – Ames, Marrero, LA:** ECS observed the installation and performed static load testing of the driven ASTM D25 Class B Tapered Timber Pile in accordance with the load test program developed by ECS for the proposed project. ECS observed as Hendricks Construction installed five test piles, labeled TP-1 to TP-5 within the proposed building footprint. TP-3 was selected by the structural engineer of record, Brian Smith, P.E. with BK Smith Engineering and the geotechnical engineer of record, Joe Cobena, P.E. with ECS, based on the lower blow counts relative to the other test piles driven on site.

Firm employed by: ECS					
Name	**Mohammad Mulla, Ph.D, PE, CPM**		Years of relevant experience with this employer	**1**	
Title	VP, Director of Special Projects Group		Years of relevant experience with other employer(s)	**34**	
Degree(s) / Years / Specialization			Ph.D. – Civil Engineering / 2018 M.S. – Civil Engineering / 2011 B.S. – Civil Engineering / 1986		
Active registration number / state / expiration date			PE 018979 / NC / 12-31-2022		
Year registered	Current	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Principal. Mr. Mulla will review all documents and deliverables for this contract and manage the QA/QC elements of the IDIQ.		

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).
Competed 07/2018	**NCDOT U-2525C, Guilford County, NC:** Built a six-lane freeway from U.S. 29 north of Greensboro to Lawndale Drive in northern Greensboro. Greensboro Eastern Loop from US 29 North of Greensboro to East of SR 2303 (Lawndale Road). The typical roadway projects involve subsurface investigation, laboratory testing, slope stability analysis, and earth work recommendation. Some of the roadway projects include slope reinforcement, waiting period, settlement monitoring, and soil improvement. Dr. Mulla managed, supervised, and approved the final roadway construction recommendation.
Competed 07/2018	**NCDOT B-4962, Orange County, NC:** Replacement of Bridge No. 46 over Eno River on US 70 Bypass. The typical bridge foundation types included Spread Footings, Steel Piles (includes HP and pipe piles with different diameters), concrete piles, and drilled shafts. Estimate of potential scour depth, design scour, critical scour analysis and determination was part of the foundation design of all bridges over stream crossing as mandated by FHWA. Also, some of these bridge sites foundation design includes soil improvement design such as embankment on piles, undercut, embankment surcharge and wick drains, light weight fill and slope reinforcement. Dr. Mulla managed, checked, and approved the final temporary shoring recommendation.
Completed 02/2018	**NCDOT R-2582A, Northampton County, NC:** Retaining wall for dual Bridge on US 158 over CSX A-Line. The typical retaining wall projects involves subsurface investigation and foundation design for the different types of walls such as MSE, tieback walls, fabric walls, steel shoring walls, segmental walls, gravity walls, soil nail walls, solider piles, noise walls, and pile panel walls. Dr. Mulla managed, supervised, and approved the retaining wall post bid plans for recommendation.

Completed 07/2018	**NCDOT U-5711, Randolph County, NC:** Road widening SR 1712 Pine View Street from West of Sylvan Street to US 220 Business. The typical roadway projects involve subsurface investigation, laboratory testing, slope stability analysis, and earth work recommendation. Some of the roadway projects include slope reinforcement, waiting period, settlement monitoring, and soil improvement. Dr. Mulla managed, supervised, and approved the final roadway construction recommendation.
Completed 03/2018	**NCDOT B-4958, Guilford County, NC:** Replacement of Bridge No. 106 on SR 2128 (Bunch Road) over Reedy Fork Creek in Oak Ridge. The typical bridge foundation types included Spread Footings, Steel Piles (includes HP and pipe piles with different diameters), concrete piles, and drilled shafts. Estimate of potential scour depth, design scour, critical scour analysis and determination was part of the foundation design of all bridges over stream crossing as mandated by FHWA. Also, some of these bridge sites foundation design includes soil improvement design such as embankment on piles, undercut, embankment surcharge and wick drains, light weight fill and slope reinforcement.
Completed 05/18	**NCDOT U-5752, Alamance County, NC:** Retaining wall for US 70, Church Street at south Williamson Ave. and Saint Marks Church Road. The typical retaining wall projects involves subsurface investigation and foundation design for the different types of walls such as MSE, tieback walls, fabric walls, steel shoring walls, segmental walls, gravity walls, soil nail walls, solider piles, noise walls, and pile panel walls. Dr. Mulla managed, supervised, and approved the type of wall and the final foundation recommendation.
Completed 2009	**NCDOT B-3189, Haywood County, NC:** Bridge over NS Railroad in Canton, Dr. Mulla was the Geotechnical manager responsible for preparing and signing the post-bid MSE walls plans. He checked and signed the final design of the bridge spread footing which was founded directly on the MSE wall. Dr. Mulla also checked the design of the tieback wall for the new bridge to prevent any vibration damage to the existing historic building

Firm employed by: ECS					
Name	**Mark J. Carlson, PE, D.GE**			Years of relevant experience with this employer	**3.5**
Title	Chief Engineer			Years of relevant experience with other employer(s)	**30**
Degree(s) / Years / Specialization			M.S. – Civil Engineering / 1989 M.S. – Mining Engineering / 1986 B.S. – Mining / Civil Engineering / 1984		
Active registration number / state / expiration date			PE 0034459 / LA / 9-30-2023		
Year registered	2009	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			**MPR 3** Principal Engineer/Designer. Mr. Carlson will serve as a designer in a chief engineer capacity.		

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).
2010 – 2012	**Trapp Canal Project for the USACE, New Orleans, LA:** Geotechnical engineering analysis and design of the Trapp Canal Project for the USACE located in New Orleans, LA. Mr. Carlson's scope included the geotechnical evaluation of bulkhead designs, in addition to thorough slope stability and seepage calculations.
2010 – 2012	**20-mile-long USACE Levee Improvements, Chalamette to Phoenix, LA:** Mr. Carlson acted as Principal Consultant/Chief Engineer for an approximately 20-mile-long USACE levee improvements project extending from Chalmette, LA to Phoenix, LA along and parallel to the east side of the Mississippi River.
2010 – 2012	**Lake Cataouatche Improvements, New Orleans, LA:** Mr. Carlson acted as Chief Geotechnical Engineer for the Lake Cataouatche Improvements Project located near New Orleans, LA. This engineering evaluation included the computer modeling of settlement, seepage, and slope stability such that extensive USACE flood control levees could be constructed.
07/2021 – Present	**I-75 Sharonville, OH:** ECS is currently working on multiple phases for the HAM-75-14.61 (I-75 Sharonville) project. Our services include materials testing and geotechnical engineering. The project involves the construction/ re-construction of highway, embankments, and ramps on I-75 in Sharonville, Hamilton County, Ohio. Our materials testing services include soils, foundations, asphalt and concrete. Laboratory and related services include strength testing, curing, mortar/grout compressive strength and moisture density relationships. Our geotechnical services for this project include the design for the pre-load MSA wall, a bridge erection plan and slope stability evaluation of shoring. Mr. Carlson is serving as the Principal Engineer for these services. ECS developed an OH PE-stamped demolition plan to address the phased removal of the bridge as required by the Ohio Department of Transportation (ODOT). ECS also developed an OH PE-stamped preload design for this

	project. ECS evaluated the global slope stability of the critical cross-sections for both the northbound and the southbound headwall areas for this project.
07/2020 – Present	**SR 129 at IR75, Butler County, OH:** Mr. Carlson is serving as the Principal Engineer for the bridge demolition and erections plans for this project located in Butler County, Ohio according to ODOT requirements. The global slope stability was computer modeled for the maximum four- to five-foot-tall sections of the basket shoring situated adjacent to Cox Road and Ramp J using ROCScience's well-accepted SLIDE computer program. Nearby test borings developed for this project were used to model the in-situ soil conditions. This computer model evaluation has demonstrated that factors-of-safety of greater than 1.5 are mobilized relative to global stability (our calculations are attached to this document). A construction surcharge of 250 psf was also used in the calculations. This factor of safety is adequate for long-term stability of the basket shoring. Erosion control should be designed and incorporated as deemed prudent by the site/ civil engineer to preclude undermining of the shoring by flowing surface waters.
07/2021 – 11/2021	**Signature Flight Support at Burke Lakefront Airport, Cleveland, OH:** The purpose of this study was to provide geotechnical information for the design of repairs to mitigate structure and floor slab settlement of the existing hangar and attached office building for the Signature Flight Support facility located at Cleveland Burke Lakefront Airport. The existing hanger and attached office building are experiencing settlement. The hangar and office building were constructed in about 1983. The airport was constructed in the 1940's over a refuse dump and unconsolidated soil material dredged from the Cuyahoga River. The hangar is approximately 125 by 125 feet with an attached office building (varying in plan width from 20 to 25 feet) along the outside of the north and west walls of the hangar. ECS provided subsurface exploration, laboratory testing and geotechnical engineering analyses for this project. Mr. Carlson served as Chief Engineer for this project.

Firm employed by: ECS					
Name	**Siddharth Neekhra, PE**		Years of relevant experience with this employer	**10**	
Title	Geotechnical Lead/ VP / Principal Engineer		Years of relevant experience with other employer(s)	**10**	
Degree(s) / Years / Specialization			M.S. – Civil Engineering / 2004 B.E. – Civil Engineering / 2001		
Active registration number / state / expiration date			PE 102284 / TX / 09-30-2022		
Year registered	2008	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Principal Engineer/Designer. Mr. Neekhra will serve as a designer in a chief engineer capacity.		

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).
11/2017 – 09/2018	**US 175, Kaufman County, TX:** ECS provided subsurface exploration and geotechnical engineering services for the design and construction TxDOT US 175 widening in Kaufman County, Texas. The project included about 2.7 miles of frontage road, ramps, with new bridge and culvert structures. Drilled shaft foundation design criteria for the proposed bridge structures, retaining wall, slope stability analyses and pavement design values were provided according to TxDOT specifications. Mr. Neekhra served as Principal Engineer for this project.
12/2018 – 07/2019	**FM 455 and IH 35 Improvements, Sanger, TX:** ECS completed a subsurface exploration and geotechnical engineering analysis for the proposed widening of FM 455 (Chapman Rd.) from FM 2450 to Marion Road, east of IH 35 in Sanger, Texas. The approximate length of the FM 455 improvement is about 5.5 miles. A complete reconstruction of IH 35 overpass at FM 455 is also planned that will include lengthening the bridge and reconstruction of embankment and ramps extending north and south along IH 35 for approximately 800 linear feet. ECS' integrated services included drilling of soil borings by drill crews under our direct supervision, laboratory testing of representative soil samples for pertinent engineering properties and preparation of an engineering report. Mr. Neekhra served as Principal Engineer for this project.
10/2014 – 08/2015	**SH 114 Frontage Road Improvements, Irving, TX:** ECS provided subsurface exploration and geotechnical engineering services for the design and construction of approximately 3,500 linear feet of new frontage road and exit ramps for the TxDOT SH 114 from Esters Boulevard to Freeport Parkway. The boring logs were drafted and presented in TxDOT WinCore format. ECS performed analysis to determine depth of coverage based on TxDOT TEX-124-E method to reduce the potential vertical rise (PVR) of subgrade. We calculated the required concrete pavement thickness in accordance with the 1993 AASHTO design method and TxDOT procedures using WinPAS software. Design input included traffic data, TxDOT design parameters for rigid pavement and applicable subgrade design parameters. Soluble sulfate tests were performed on sampled soils to evaluate the potential for heave due to an expansive lime-sulfate reaction. ECS also provided recommendations for pavement

	materials, pavement subgrade preparation and stabilization. Mr. Neekhra served as Principal Engineer for this project.
11/2018 – 11/2019	**LBJ East Design-Build Project – Proposal Study, Dallas County, TX:** As part of Ferrovial-Webber team, ECS Completed preliminary geotechnical exploration and geotechnical engineering for I-635 LBJ (East Section) proposal phase study, which consists of full re-construction and widening of I-635 from US 75 to I-30, including the I-30 Interchange, at a length of approximately 11 miles. The general-purpose lanes will be widened from eight to 10 lanes and the existing tolled managed lanes will be grandfathered and rebuilt, and they will remain as managed lanes. ECS responsibilities for this project included proposal phase geotechnical design of various bridges, retention systems, pavement subgrades, embankments, slopes as well as noise walls for the northern 5.7-mile section. Mr. Neekhra served as Principal Engineer for this project.

Firm employed by: ECS					
Name	**Michael Joseph Walko, PE**		Years of relevant experience with this employer	**7.5**	
Title	Senior Project Manager		Years of relevant experience with other employer(s)	**22**	
Degree(s) / Years / Specialization			B.S. – Civil Engineering/1992		
Active registration number / state / expiration date			PE 026917 / NC / 12-31-2022		
Year registered	Current	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Senior Project Manager. Mr. Walko will perform high-level engineering analyses and support the team in a supervisory role for performance on the IDIQ tasks.		

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).
04/2021 – Ongoing	**Subsurface Exploration and Foundation Design Recommendations, Alleghany and Wilkes Counties, NC:** Mr. Walko is the Principal Engineer for a project that involves two bridge replacements in Alleghany County and one bridge replaced in Wilkes County. The bridge replacements will be one to three-span structures with overall lengths ranging from 70 to 150 feet. ECS will plot our boring locations on a plan view, provide final NCDOT bore logs, soil test results, and prepare foundation design recommendations for the proposed structures based on the current AASHTO and NCDOT LRFD methodologies and policies. The recommendations will also address the stability at the end bents based on assumed soil parameters from the boring information. A separate report will be prepared for each structure.
10/2021 – 06/2022	**NC 24/27 Roadway Widening Project (TIP R-2527), Troy, NC:** Principal in charge for the approximately 9-mile roadway widening project located in Troy, North Carolina. Approximately half of this project is located on US Forest Service property. NCDOT has been facilitating coordination between USFS and ECS throughout the design phase of this project.
02/2019 – 04/2019	**Bridge 729 over Future I-74 (TIP U-2579AA), Winston-Salem, NC:** Authored the Structure Subsurface Inventory Report for the design of a new six-span, 1,055-foot-long bridge as part of the Winston-Salem Northern Beltway project. Driven steel H-piles as well as micropyles were considered for foundation support. Mr. Walko served as the Principal Engineer for this project.
06/2019 – 10/2019	**Replace Bridge 70 on US 52 over Rocky River (TIP B-4407), Anson County, NC**: Principal Engineer for the Structure Subsurface Inventory Report for the design of a new five-span, 525-foot-long bridge replacement on US 52 over the Rocky River. Drilling was performed on land as well as in the river using a barge.
11/2018 – 04/2019	**NC 540 Triangle Expressway Southeast Extension, Raleigh, NC:** Served as Geotechnical Engineer of Record for the proposed roadway project. This project consisted of approximately 9.2 miles of a new six-lane divided

	facility as well as approximately 6 miles of improvements to the various minor roadways within the project corridor.

Firm employed by: ECS					
Name	**William Brad Harris, PE**			Years of relevant experience with this employer	**.25**
Title	Senior Project Manager			Years of relevant experience with other employer(s)	**18**
Degree(s) / Years / Specialization			B.S. – Civil Engineering / 2003		
Active registration number / state / expiration date			PE 31956 / AL / 12-31-2023		
Year registered	2011	Discipline	Geotechnical		
Contract role(s) / brief description of responsibilities			Senior Project Manager. Mr. Harris will perform high-level engineering analyses and support the team in a supervisory role for performance on the IDIQ tasks.		

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).
05/22 – Ongoing	**USACE Mobile, Mobile, AL:** ECS is currently performing geotechnical engineering evaluations services for the USACE Mobile District Headquarters in Mobile, Alabama. Construction is to consist of a six-story structure with associated five-level parking garage. Our scope of work includes drilling 20 SPT/CPT soil test borings, laboratory testing services and providing an engineering report. Mr. Harris is serving as Principal Engineer of this project.
2019 – 2022	**Borstar Bay3 Project, Bayport, TX:** The project consists of survey, soil and concrete sampling, laboratory testing, cone penetrometer tests (CPTs), pile monitoring, stockpile sampling and analysis, soil bearing pressure analysis, and plate bearing tests. Mr. Harris served as the Project and Contract Manager. His duties also included oversight of the safety, quality, and technical assurance plans and management of numerous technical process documentation requirements required by the Owner and EPC.
2017 – 2019	**Cameron LNG Liquefaction Project, Hackberry, LA:** The project consisted of engineering, testing, and construction services to accomplish the construction of two 250,000-gallon capacity Impoundment Basins. As the Design-Build Project Manager, Mr. Harris co-located to the project site to enable more efficient communication between the Owner, EPC and design-build team helping to reduce inefficiencies in the design process.Furthering his onsite responsibilities, Mr. Harris served as the onsite Construction Manager for the project throughout the 20 month construction duration ensuring continuity between the design and construction phases. His duties also included oversight of the safety, quality and technical assurance plans and management of the numerous technical process documentation requirements required by the Owner and EPC.
2007 – 2014	**Confidential Client, Southeast Refinery:** As a Project Manager, Mr. Harris successfully managed over 100 projects inside the Refinery. Responsibilities included multiple roles to ensure successful project completion. These projects extended throughout the refinery and included Major and Small Capital Projects (land and marine

	facilities), and accumulated approximately $15-million dollars in project fees. As an engineer, duties included lead and support engineering for shallow and deep foundation design, flexible and rigid pavement design, ground-penetrating radar (GPR), design/build construction, and review/ approval of construction drawings. Experience included construction management as the general contractor.
2005	**US Army Corps of Engineering, Hurricane Katrina Relief Efforts, State of Mississippi:** Mr. Harris served as Project Manager for over 250 Inspectors responding to the Hurricane Katrina Disaster, for the duration of three months.
2004	**US Army Corps of Engineering, Hurricane Relief Efforts, State of Florida:** Responsibilities of Mr. Harris included quality assurance, inspection, and project management for 20 employees in accordance with the US Army Corp of Engineers Blue Roof Program, for a duration of 72 days.

Firm employed by: ECS					
Name	**Kelly Nicole de Montbrun, PE**		Years of relevant experience with this employer	**4**	
Title	Lead Geotechnical Engineer		Years of relevant experience with other employer(s)	**8**	
Degree(s) / Years / Specialization			B.S. – Civil & Environmental Engineering/2012		
Active registration number / state / expiration date			PE 045541/ NC / 12-31-2022		
Year registered	Current	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Lead Geotechnical Engineer. As Lead Geotechnical Engineer, Ms. De Montbrun will oversee the documents and deliverables prepared for this contract.		

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).
10/2021 – 05/2022	**NC 24/27 Roadway Widening Project (TIP R-2527) Troy, Montgomery County, NC:** Working directly for the NCDOT, this project includes a roadway subsurface inventory and recommendations for the approximately nine-mile widening project located in Troy, North Carolina. In addition to the road widening, a new train trestle bridge replacement was included in the investigation. Ms. de Montbrun acted as Project Manager for the project. She prepared NCDOT Sub-surface Roadway and Structure Inventory Report using MicroStation. She also performed settlement and slope stability analyses for new roadway embankments.
11/2021 – 03/2022	**Winston-Salem Beltway, Bridges 730, 729, 727, 725 Winston-Salem, NC:** The project included the subsurface investigation for four bridges and three associated retaining walls along future alignments of the proposed Winston-Salem Beltway project. Prepared NCDOT Subsurface Investigation Inventory reports for each structure using MicroStation. Ms. de Montbrun acted as project manager for this project.
02/2020 – 04/2020	**SCDOT Emergency Bridge Package 2020-1 York and Anderson Counties, SC:** The project consisted of the emergency replacement of a bridge on Smithford Road over Mud Creek in York County, South Carolina, and the bridge on Timms Mill Road over Six and Twenty Creek in Anderson County, South Carolina. ECS served as the subsurface exploration firm and a subsurface data report in accordance with SCDOT guidelines for each bridge replacement locations. Ms. de Montbrun served as Geotechnical Project Engineer for this project.
05/2019 – 07/2020	**Bridge Replacement on US1 over Shaws Creek, Aiken County, SC:** The project included subsurface exploration and prepared foundation recommendations for bridge replacement and roadway realignment. Ms. de Montbrun acted as Project Manager for the project and prepared geotechnical analysis including driven pile analysis, slope stability analysis, settlement analysis, and pavement recommendations.
04/2019 – 06/2019	**I-26 & US 21 Interchange Improvement Lexington and Calhoun Counties, SC:** Project includes interchange improvements consisting widening of the existing interstate, overpass bridge replacement,

	realignment of existing interstate ramps, new roadway alignments, and new earth retaining structures. Ms. de Montbrun served as the Senior Project Engineer of this project. She prepared geotechnical analysis consisting of driven pile analysis, drilled shaft analysis, ERS external stability analysis, new pavement recommendations, pavement overlay recommendations, slope stability and settlement analyses of new roadway embankments and widened embankments.
05/2017 – 05/2019	**Mills Gap Road (SR 3116) Widening Asheville, Buncombe County, NC:** The project consisted of the subsurface investigation and recommendations for the widening of approximately two miles Mills Gap Road in Asheville, North Carolina. The project also included investigation and recommendations for a total of six retaining walls along the widened alignment. Ms. de Montbrun served as Geotechnical Project Engineer for this project.

Firm employed by: ECS					
Name	**Leslie Chandler, PE**		Years of relevant experience with this employer	**.25**	
Title	Senior Project Manager		Years of relevant experience with other employer(s)	**16.5**	
Degree(s) / Years / Specialization			B.E. in Civil Engineering / 2001		
Active registration number / state / expiration date			PE 0038292 / AL / 03-31-2024		
Year registered	2013	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			**MPR 3** Ms. Chandler will perform high-level engineering analyses and support the team in a supervisory role for performance on the IDIQ tasks. She will be responsible for managing geotechnical engineering projects.		

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).
2016 – 2017	**Hammond Northshore Regional Airport Runway Rehabilitation, Hammond, LA:** Served as Materials Project Engineer and Project Manager for the Quality Assurance portion of the project during the Construction phase. She worked alongside Michael Baker International to assure that all quality assurance testing was performed in accordance with project plans and specifications.
2014 – 2015	**Edenborne Parkway Extension, Gonzales, LA:** Served as the project engineer for the roadway extension project. Soil borings were performed at 8 locations along the 1-mile roadway extension. A geotechnical engineering report was provided including soil boring logs, pavement recommendations and embankment settlement.
2009	**Highway 278 Bridge Replacement, Three, 4-lane Bridge Replacements, Piedmont, AL:** She was the field supervisor for the project, which consisted of drilling/coring six borings to a depth ranging from 120 feet to 210 feet in the proposed bridge abutment areas. Rock cores were performed and analyzed. Laboratory testing included undrained triaxial shear tests, one-dimensional consolidation tests, specific gravity, organic content, and various index tests. Worked closely with Alabama Department of Transportation and Alabama Environmental Management on the project to protect the encroached waterway.
2014	**Crescent Crown Facility, Baton Rouge, LA:** Provided geotechnical engineering services for these bridge projects. She was the project engineer for the new industrial building, maintenance facility and parking area. The report included soil boring logs, foundation recommendations and pavement sections. She also performed inspections during construction and made recommendations accordingly.
2016	**Brock Services, Gonzales, LA:** Provided geotechnical engineering services for this project. She was the project engineer for the new industrial building, parking area and laydown yard. The report included soil boring logs, foundation recommendations and pavement sections.

2016	**At Home, Lafayette, LA:** As Materials Project Engineer for the QA during construction, Leslie performed site visits and field inspections and was the project manager for all testing services performed during construction. Leslie also provided mitigation recommendations during construction.
2010	**Jacksonville State University Dormitory and Stadium Expansion, Jacksonville, AL:** Leslie served as Project Manager for the geotechnical engineering and Quality Assurance during construction. She was responsible for drilling services and recommendations included in the Geotechnical Engineering Report and was on site during foundation construction including over 300 drilled shafts and during the site work phase. Leslie worked alongside JSU personnel and Volkert Inc. to perform quality assurance activities.

Firm employed by: ECS					
Name	**Edgar Agnus McIntosh, PE**		Years of relevant experience with this employer	**12**	
Title	Geotechnical Engineer		Years of relevant experience with other employer(s)	**0**	
Degree(s) / Years / Specialization			M.S. – Civil Engineering / 2014 B.S. – Civil Engineering / 2013		
Active registration number / state / expiration date			PE 35161 / SC / 6-30-2022		
Year registered	2018	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Geotechnical Engineer. As Geotechnical Engineer, Mr. McIntosh will oversee the documents and deliverables prepared for this contract.		

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).
05/2015 – 12/2015	**Anderson Mill Road Realignment, Spartanburg, SC:** ECS served as the Geotechnical Engineer of Record and provided the Roadway Geotechnical Engineering Report (RGER) for a new 3,389-foot alignment of Anderson Mill Road in Spartanburg County. The new road will have two 12-foot-wide travel lanes with a 15-foot wide median.
08/2014 – 09/2014	**O'Reilly Auto Parts, Woodruff, SC:** Mr. McIntosh served as the Project Manager and helped to identify and document the poor condition of an existing undocumented adjacent retaining wall (not owned by our client) during an initial site visit and helped to develop a foundation system that would remove any further distress upon the retaining wall.
02/2014 – 03/2014	**BMW Refraction Survey, Spartanburg, SC:** Mr. McIntosh served as Staff Project Manager and assisted in identifying elevations of subsurface rock prior to mass grading in an effort to save the client time and money for a project after blasting 10 feet of rock to install an unmovable detention point.
06/2016 – 07/2016	**West Wade Hampton Blvd, Greer, SC:** Mr. McIntosh was a project engineer for a proposed retail center which included a 9,500 square foot building with three separate retail spaces. Parking areas and drives are planned north, south, and west of the proposed building. ECS' recommendations included site and subgrade preparation, foundation design, and drainage and construction considerations.
09/2016 – 10/2016	**I-85/I-385 Interchange Improvements Design Build, Greenville, SC:** Mr. McIntosh served as Staff Project Manager for the I-85/I-385 interchange improvements Design-Build project in Greenville, South Carolina. The project is the second largest contract undertaken by SCDOT in history; 13 bridges and 30+ lane miles of roadway are involved. MSE walls in excess of 60 feet are being planned to support the many ramps and bridge approaches planned to increase traffic capacity.

Firm employed by: ECS				
Name	**Barnabas Bwambale, PhD, PE**		Years of relevant experience with this employer	**4**
Title	Geotechnical Engineer		Years of relevant experience with other employer(s)	**6**
Degree(s) / Years / Specialization			Ph.D. – Civil/Geotechnical Engineering / 2018 M.S. – Civil/Transportation Engineering / 2012	
Active registration number / state / expiration date			PE 048088 / NC / 12-31-2022	
Year registered	Current	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			Geotechnical Engineer. As Geotechnical Engineer, Mr. Bwambale will oversee the documents and deliverables prepared for this contract.	

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).
08/2019 – 10/2019	**Seven Lakes West FDR Project, West End, NC:** The project involved obtaining in-situ samples of the existing pavements and underlying subgrade soils, laboratory testing, and performing a mix design for cement-treated full depth reclamation of two streets in West End, North Carolina. Mr. Bwambale acted as Project Manager for this project.
07/2019 – 08/2019	**NC 59 Metal Poles, Hope Mills, NC:** This project involved conducting a subsurface exploration and providing geotechnical information to facilitate the design of the deep foundation systems for traffic signal poles at four intersections along North Carolina Highway 59. Mr. Bwambale acted as Project Manager for this project.
05/2019 – 07/2019	**Middleton Place Private Streets, Southern Pines, NC:** This project involved performing a pavement condition survey to determine the Pavement Condition Index (PCI) values, conducting a subsurface exploration to characterize existing pavement section thicknesses and the subgrade soils, and providing pavement section design recommendations for possible pavement repair/resurfacing. Mr. Bwambale acted as Project Manager for this project.

Firm employed by: ECS					
Name	**Coleman Ray McDaniel, E.I.T.**		Years of relevant experience with this employer	**5.5**	
Title	Engineering Aide		Years of relevant experience with other employer(s)	**0**	
Degree(s) / Years / Specialization			B.S. – Civil Engineering / 2016		
Active registration number / state / expiration date			EIT 20752		
Year registered	2018	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Engineering Aide. Mr. Coleman will serve as the field engineer and provide laboratory analysis support for geotechnical engineering services.		

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).
10/2016 – 05/2018	**I-26 Widening MM 85-101, Richland, Lexington, and Newberry Counties, SC:** SCDOT proposed improvements to an approximately 16-mile-long section of the I-26 corridor designed to increase capacity and upgrade interchanges and overpass bridges to meet state and federal design requirements. ECS' scope included 313 soil test borings and rock coring along the identified route and interchanges, laboratory testing, MASW surveys, and preparation of a Geotechnical Baseline Report. Mr. McDaniel was the Geotechnical Field Professional for the subsurface exploration.
12/2018 – 02/2019	**S-1335 Bridge Replacement over Cedar Creek, Richland County, SC:** The S-1335 (Pine Grove Road) bridge over Cedar creek was an in-service two-lane bridge in Richland County, South Carolina. ECS' scope included two soil test borings and rock coring at the identified bridge, laboratory testing, and preparation of a GSDR for SCDOT. Mr. McDaniel was the geotechnical Field Professional for the subsurface exploration as well as Junior Geotechnical Professional for preparation of the GSDR.
01/2019 – 04/2019	**S-140 Bridge Replacement over Sleep Creek, Edgefield County, SC:** The S-140 (Faulkner Mountain Road) bridge over Sleepy creek was an in-service two-lane bridge in Edgefield County, South Carolina. ECS' scope included two soil test borings and rock coring at the identified bridge, laboratory testing, and preparation of a GSDR for SCDOT. Mr. McDaniel was the Geotechnical Field Professional for the subsurface exploration as well as Junior Geotechnical Professional for preparation of the GSDR.
05/2019 – 07/2019	**US Route 521 Bridge Removal over Abandoned Railroad, Kershaw County, SC**: The US 521 (Kershaw Highway) bridge over Abandoned Railroad was a two-lane bridge in-service in Kershaw County, South Carolina. ECS' scope included six CPT soundings and three hand auger borings with associated DCP testing at the identified bridge, laboratory testing, and preparation of a GSDR for SCDOT. Mr. McDaniel was the geotechnical Field Professional for the subsurface exploration as well as a Junior Geotechnical Professional for the preparation of the GSDR.

Firm employed by: ECS					
Name	**Nathan Price, CQA**		Years of relevant experience with this employer	**3**	
Title	Laboratory/ Quality Assurance Manager		Years of relevant experience with other employer(s)	**19**	
Degree(s) / Years / Specialization			B.A. – Business Administration / 2005		
Active registration number / state / expiration date			N/A		
Year registered	N/A	Discipline	N/A		
Contract role(s) / brief description of responsibilities			**MPR 4** As Laboratory/ Quality Assurance Manager Mr. Price will be responsible for laboratory testing as required by the specifications.		

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).
2019 – Present	Mr. Price oversees projects throughout ECS' Southeast offices. He has been involved with projects ranging from small to large magnitudes for various sectors. He has performed testing for multiple statewide transportation clients and projects. Mr. Price is the acting Lab Manager.

Firm employed by: ECS					
Name	**John McNeil**			Years of relevant experience with this employer	**.5**
Title	Field and Drilling Supervisor			Years of relevant experience with other employer(s)	**16**
Degree(s) / Years / Specialization			N/A		
Active registration number / state / expiration date			N/A		
Year registered	N/A	Discipline	N/A		
Contract role(s) / brief description of responsibilities			**MPR 5** Mr. McNeil will supervise field and drilling activities.		

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).
01/2022 – 03/2022	**Panera, Pensacola, FL:** ECS provided subsurface exploration and geotechnical engineering evaluation for a proposed Panera Bread development located southeast of the West Nine Mile Road and Surrey Drive intersection in Pensacola, FL. Our scope of work included drilling six SPT borings with three borings within the building footprint and three within the parking lot and drive aisles. ECS provided recommendations for site preparation, construction of compacted fills, foundation type, groundwater control, design, and construction of drainage structures. Mr. McNeil provided field and drilling services for this project.
12/2021 – 02/2022	**Brookwood Storage - Schillinger Rd, Mobile, AL:** ECS provided geotechnical engineering services for the proposed construction of a three-story storage facility located east of Schillinger Road North and Schillinger Park West in Mobile, Alabama. Our scope of work included drilling three SPT borings within the building footprint and four SPT borings within the parking and drive aisle areas to depths ranging from 10.5 to 40 feet below ground surface. ECS provided recommendations for site preparation, construction of compacted fills, groundwater control, design and construction of drainage structures and stormwater management facilities. Mr. McNeil provided field and drilling services for this project.
11/2021 – 01/2022	**Brookwood Life Storage Facility – Knollwood Dr, Mobile, AL:** ECS provided geotechnical engineering services for the proposed construction of a three-story storage facility located southeast of the intersection of Knollwood Drive and Grelot Road in Mobile, Alabama. Our scope of work included drilling three SPT borings within the building footprint and four SPT borings within the parking and drive aisle areas to depths ranging from 10.5 to 40 feet below ground surface. ECS provided recommendations for site preparation, construction of compacted fills, groundwater control, design and construction of drainage structures and stormwater management facilities. Mr. McNeil provided field and drilling services for this project.
10/2021 – 12/2021	**Alabama Port Highway 188, Alabama Port, AL:** ECS provided geotechnical engineering services for the up to six proposed single-story, pre-engineered metal buildings. Our scope of work included drilling seven SPT borings to an approximate depth of 20 feet below ground surface. ECS provided recommendations for site

	preparation, construction of compacted fills, and groundwater control. Mr. McNeil provided field and drilling services for this project.

Firm employed by: Adaptive Management and Engineering, LLC					
Name	**Venu Tammineni, PE**			Years of relevant experience with this employer	3
Title	Principal/President			Years of relevant experience with other employer(s)	15
Degree(s) / Years / Specialization			M.S. – Civil Engineering / 2005		
Active registration number / state / expiration date			PE 36864 / LA / 9-30-2022		
Year registered	2012	Discipline	Civil Engineering/Geotechnical		
Contract role(s) / brief description of responsibilities			**MPR 3** Principal / Mr. Tammineni will direct and provide technical guidance to geotechnical investigation, laboratory work, and geotechnical engineering design.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/2020 – 12/2021	**City of East Baton Rouge and Parish of East Baton Rouge, City-Parish Project NO. 20-CP-HC-0004; Baton Rouge, LA:** Mr. Tammineni provided pavement design recommendations for the proposed pavement expansion for the Highland Road at Siegen Lane/Burbank Drive intersection. As a consultant to Fourrier & de Abreu Engineers, LLC (FDAE), Mr. Tammineni coordinated all aspects of the project including, but not limited preparation of the proposal for the project, discussion with the design team, obtaining DOTD permit, executing field exploration program, assigning laboratory tests, performing pavement analyses, and preparing the geotechnical report that has been reviewed and accepted by the design team.
03/2022 – 04/2022	**City of Patterson, Patterson 2022 Street Improvements; St. Mary Parish, LA:** Mr. Tammineni provided pavement design recommendations for the proposed pavement improvements for various streets throughout the City of Patterson. Mr. Tammineni coordinated all aspects of the project including, but not limited preparation of the proposal for the project, discussion with the design team, assigning laboratory tests, laboratory testing QA/QC, performing pavement analyses, and preparing the geotechnical report.
01/2018 – 02/2018	**City of Youngsville, Chemin Metairie Parkway and Détente Road Roundabout; Youngsville, LA:** The City of Youngsville planned to construct a roundabout at the existing intersection of Chemin-Metairie Parkway and Détente Road. The roundabout will have a larger footprint than the intersection and will require installation of additional fill to match grades. Planned and executed field exploration and provided recommendations for rigid and flexible pavements for the project. (Experience with previous employer)
06/2016 – 09/2016	**Causeway Boulevard - Earhart Expressway Interchange; New Orleans, LA:** Coordinated the drilling activities for limited soil borings for the project. Three-inch diameter soil samples were obtained using a thin-

	walled tube and piston sampler. Soil stratigraphy was highly variable and layered and required close monitoring of the drilling crews to obtain quality soil samples. (Experience with previous employer)
11/2014 – 02/2015	**St. Landry Parish Smooth Ride Home – Phases II-A and II-B; St. Landry Parish, LA:** Project included improving the condition of several roadways throughout the parish. Coordinated the field investigation and provided recommendations for the roadway improvements including soil-lime and soil-cement stabilization. (Experience with previous employer)
04/2011 – 06/2011	**Phase II Apron Pavement Improvements, Lafayette Regional Airport, Lafayette, LA:** Project involved replacing the existing asphalt pavement apron with a new asphalt or concrete pavement apron to accommodate airplanes. Recommendations for CBR and modulus of subgrade reaction for design were provided. (Experience with previous employer)

Firm employed by: Adaptive Management and Engineering, LLC					
Name	**Gregory Mattson, II, P.E.**			Years of relevant experience with this employer	**1.5**
Title	Project Lead Engineer			Years of relevant experience with other employer(s)	**8**
Degree(s) / Years / Specialization			M.S. Civil and Environmental Engineering / 2014		
Active registration number / state / expiration date			PE 42387 /LA / 9-30-2022 Traffic Control Technicien / LA / 11-14-2023		
Year registered	2018	Discipline	Civil Engineering / Geotechnical		
Contract role(s) / brief description of responsibilities			Project Engineer / Mr. Mattson will provide field assistance as needed, provide laboratory data QA/QC, and conduct the engineering analyses and reporting.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/2022 – 04/2022	**City of Patterson, Patterson 2022 Street Improvements; St. Mary Parish, LA:** Mr. Mattson assisted with pavement design recommendations for and provided laboratory testing QA/QC. Additionally, he provided technical review for the geotechnical report.
01/2022 – 03/2022	**1,4Group, Inc Proposed Warehouse and Plant Facility; Ascension Parish, LA:** This project involved supporting pavement infrastructure for heavily loaded vehicles to access a proposed warehouse facility. Mr. Mattson was the on-site field engineer for the boring conducted as part of the field exploration. Additionally, provided QA/QC for laboratory testing and boring logs, generated project figures, assisted with rigid and flexible pavement analyses, and drafted the geotechnical report.
01/2020 – 02/2020	**McKim and Creed, PWS Trinity Derby Brine Pipeline; Frio County, TX:** McKim and Creed is moving forward designing a brine transportation pipeline that includes trenchless crossings of roads, rivers, and railroad tracks. This phase of the project includes two HDD crossings, one at the Frio River and the other at Interstate 35 and a railroad. The field exploration program included the geotechnical drilling and sampling of two 50-foot soil borings. Mr. Mattson coordinated with the client's project manager and developed the proposal; provided laboratory data QA/QC; assisted with HDD recommendations; and assembled the GDR. (Experience with previous employer)
04/2019 – 06/2019	**Jack and Bore for Dredge Material Pipeline; Cameron Parish, LA:** The project involved a proposed Jack and Bore location for a dredge material pipeline road crossing in Cameron, LA. Mr. Mattson provided laboratory QA/QC, conducted geotechnical analyses, and drafted the report. (Experience with previous employer)

Firm employed by: Adaptive Management and Engineering, LLC					
Name	**Michael McKinney**			Years of relevant experience with this employer	**2**
Title	Operations Manager/Driller			Years of relevant experience with other employer(s)	**21**
Degree(s) / Years / Specialization			N/A		
Active registration number / state / expiration date			Water Well Contractor / LA / 6-30-2022 Traffic Control Supervisor / LA		
Year registered	2012	Discipline	Geotechnical Field Services		
Contract role(s) / brief description of responsibilities			**MPR 5** Field Services Manager/Mr. McKinney is a Water Well Contractor who will drill, and/or coordinate all field exploration. He also serves as a safety manager and Traffic Control 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).
03/2022 – 04/2022	**City of Patterson, Patterson 2022 Street Improvements; St. Mary Parish, LA:** Mr. McKinney coordinated drilling and all field exploration services for the project. He oversaw the completion of 8 roadway soil borings and assisted with lab testing for the project.
01/2020 – 12/2021	**City of East Baton Rouge and Parish of East Baton Rouge, City-Parish Project NO. 20-CP-HC-0004; Baton Rouge, LA:** Mr. McKinney coordinated and oversaw the field exploration for the project. Temporary lane closures had to be made for the completion of soil borings in the roadway. All field exploration was completed per MoveBR standards.
06/2016 – 09/2016	**Lake Charles, LA Pavement Improvement; Calcasieu Parish, LA:** Served as the senior driller for multiple parish highways and roads. He coordinated drill rig and other equipment mobilization, drilled, and sampled various highways and pavement types throughout Calcasieu Parish. Mr. McKinney oversaw the coring and measurement of asphalt, concrete, and base material. After knowing the pavement and base course dimensions, he completed drilling and soil sampling those locations, patching the road back after completion as per LADOTD requirements. All field explorations were completed in accordance with LA DOTD standards. (Experience with previous employer)
11/2016 – 12/2016	**I-49 future Corridor Overpass Expansion Project DOTD; New Iberia Parish, LA:** Worked as senior driller for the geotechnical investigation for the I-49 expansion and overpass. Mr. McKinney completed geotechnical

	sampling for deep foundations and overpass construction. All field explorations were completed in accordance with LA DOTD standards. (Experience with previous employer)
04/2014 – 05/2014	**HWY 10 Bridge for DOTD, St. Francisville, LA:** Senior Driller for a Bridge replacement site. Mr. McKinney assisted with the mobilization, drilling, and soil sampling for four 100' soil borings. He oversaw the coring and measurement of asphalt, concrete, and base material. After pavement and base course dimensions were selected, he completed drilling and soil sampling those locations, patching the road back after completion as per LADOTD requirements. All field explorations were completed in accordance with LA DOTD standards. (Experience with previous employer)
08/2012 – 11/2012	**Gonzales, LA Pavement Improvement DOTD, Ascension Parish, LA:** Senior Driller for multiple parish highways and roads. Mr. McKinney assisted with the mobilization, drilling, and soil sampling for various highways and pavement types throughout Ascension Parish. He oversaw the coring and measurement of asphalt, concrete, and base material. After the pavement and base course dimensions were selected, he completed drilling and soil sampling those locations, patching the road back after completion as per LADOTD requirements. All field explorations were completed in accordance with LA DOTD standards. (Experience with previous employer)
08/2012 – 04/2011	**I-12 Bridge Expansion Project DOTD, Denham Springs, LA:** Served as a senior driller for the geotechnical investigation for the I-12 expansion and lane widening for the portion that crosses the Amite River. Mr. McKinney assisted with multiple mobilizations, drilling, and soil sampling for project field investigations, including CPT soundings and drilling for the end bents and for a group of deep foundation locations. All field explorations were completed in accordance with LA DOTD standards. (Experience with previous employer)

Firm employed by: Adaptive Management and Engineering, LLC					
Name	**Justin Ator, CET**			Years of relevant experience with this employer	**1**
Title	Laboratory Manager/Senior Technician			Years of relevant experience with other employer(s)	**13**
Degree(s) / Years / Specialization			N/A		
Active registration number / state / expiration date			CET 139594 / LA / 2-1-2024		
Year registered	2012	Discipline	Geotechnical Laboratory Testing		
Contract role(s) / brief description of responsibilities			**MPR 4** Laboratory Manager/Mr. Ator will oversee all laboratory testing and will perform specialized laboratory testing. He will provide data entry for lab testing, produce boring logs, and will QA/QC all test results.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/2022 – 04/2022	**City of Patterson, Patterson 2022 Street Improvements; St. Mary Parish, LA:** Mr. Ator provided geotechnical laboratory testing and oversight for the project. He generated boring logs and performed QA/QC on all testing performed.
01/2022 – 03/2022	**1,4Group, Inc Proposed Warehouse and Plant Facility; Ascension Parish, LA:** Mr. Ator performed geotechnical laboratory testing and QA/QC for eight soil borings and 15 CPTs. The project involved rigid and flexible pavement design for a proposed warehouse facility.
8/2020 – 10/2020	**Flat Lake Sedimentation Study, St. Mary Parish, LA:** Mr. Ator performed moisture content, density, Atterberg limits, fines content, hydrometer analysis, organics, column-settling and low-stress consolidation test.
08/2019	**Premier Geotech and Testing, LLC., Arbor Walk Subdivision; Walker, LA:** Mr. Ator managed subconsultant laboratory testing of 72 soil samples for USCS classification, moisture content, density, Atterberg limits, and unconfined compressive strength.
05/2019 – 06/2019	**Weeks Marine, Inc., Jack and Bore for Dredge Pipeline and Booster Pump Stations; Cameron Parish, LA:** Mr. Ator managed and performed laboratory testing for undisturbed samples including USCS classification, moisture content, density, Atterberg limits, fines content, hydrometer analysis, and unconsolidated-undrained triaxial shear strength.
6/2018 – 8/2018	**Bayou Long Pump Station, Atchafalaya Basin, LA:** Mr. Ator performed field investigation, transported soil samples to the laboratory, completed extrusions and performed moisture content, density, Atterberg limits, fines content, hydrometer analysis, and unconsolidated-undrained triaxial shear strength on samples assigned by the project engineer.

Firm employed by: Adaptive Management and Engineering, LLC					
Name	**Ryan Williamson, EI**			Years of relevant experience with this employer	**1.5**
Title	Engineer Intern/Field Engineer			Years of relevant experience with other employer(s)	**3**
Degree(s) / Years / Specialization			B.S. - Civil Engineering / 2017		
Active registration number / state / expiration date			EI 33623 / LA / 9-30-2022 Traffic Control Supervisor / LA / 11-14-2023		
Year registered	2018	Discipline	Civil Engineering / Geotechnical		
Contract role(s) / brief description of responsibilities			Engineer Intern / Mr. Williamson will coordinate, oversee, and log soil samples during field explorations. He will assist with boring logs, CPT logs, laboratory data QA/QC, drafting figures, analyses, and reporting.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/2022 – 04/2022	**City of Patterson, Patterson 2022 Street Improvements; St. Mary Parish, LA:** Mr. Williamson assisted with pavement design recommendations for the proposed pavement improvements for various streets throughout the City of Patterson. Mr. Williamson acted as the field engineer for the project, collecting and logging high quality soil samples while overseeing field exploration. He provided laboratory testing QA/QC, generated boring logs, report figures, ran pavement analyses, and prepared the geotechnical report.
01/2022 – 03/2022	**1,4Group, Inc Proposed Warehouse and Plant Facility; Ascension Parish, LA:** This project involved supporting pavement infrastructure for heavily loaded vehicles to access a proposed warehouse facility. Mr. Williamson assisted with the CPT portion of the field exploration, provided QA/QC for laboratory testing and boring logs, generated project figures, assisted with rigid and flexible pavement analyses, and drafted the geotechnical report.
04/2019 – 06/2019	**Jack and Bore for Dredge Material Pipeline; Cameron Parish, LA:** The project involved a proposed Jack and Bore location for a dredge material pipeline road crossing in Cameron, LA. Mr. Williamson assisted with laboratory testing and boring log QA/QC, geotechnical analyses, and report text and figures. (Experience with previous employer)
01/2018 – 02/2018	**City of Youngsville, Chemin Metairie Parkway and Détente Road Roundabout; Youngsville, LA:** The City of Youngsville planned to construct a roundabout at the existing intersection of Chemin-Metairie Parkway and Détente Road. The roundabout will have a larger footprint than the intersection and will require installation of additional fill to match grades. Mr. Williamson collected and logged soil samples while overseeing drilling. He assisted with analyses to provide recommendations for rigid and flexible pavements for the project. (Experience with previous employer)

17. Firm Experience:

Firm name	ECS Southeast, LLP			Past Performance Evaluation Discipline(s)*	Geotechnical
Project name	**I-85/I-385 Intersection**			Firm responsibility (prime or sub?)	Prime
Project number	12222	Owner's name	Meredith Piling & Shoring, Inc.		
Project location	Greenville, SC		Owner's Project Manager	Tom Admay	
Owner's address, phone, email	4700 Kerley Road, Durham, NC 27705 (919) 730-3827 tomadmay@gmail.com				
Services commenced by this firm (mm/yy)	05/17	Total consultant contract cost ($1,000's)		N/A	
Services completed by this firm (mm/yy)	04/19	Cost of consultant services provided by this firm ($1,000's)		$8,222.50	

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.)

The project entails the complete reconstruction of the interchange for the intersection of I-85 and I-385 east of Greenville, SC. The project required 13 bridges of simple single span to 13 spans with curved alignments ranging in length from 140 ft to 1,830 ft. Twenty-six lane miles of roadway were involved in the two mainlines and the 10 ramps. Bridge approach and ramp embankments ranged up to 50 ft in height. AASHTO LRFD Design was in accordance with the SCDOT Geotechnical Design Manual on all foundations. These foundations included drilled shafts and steel H piles. Reinforced earth slopes and retaining walls were required and analyzed with full geotechnical recommendations for design and construction of ground improvement in the foundation zones of some embankments to improve stability and settlement performance. The existing Woodruff Road overpass was a five-span bridge conveying five lanes of traffic over I-385. In order to accommodate new traffic patterns and increased volume, Collector-Distributor (CD) lanes were required between the end bent and first interior bent on either side of the bridge. This removal of the end slopes to accommodate the CD lanes required the installation of new retaining walls. The existing bridge was supported on driven piles that did not extend below the new road surface. ECS designed the bridge underpinning and retaining wall system to allow construction of the new CD lanes without disrupting the Woodruff Road traffic. ECS received a South Carolina American Council of Engineering Companies (ACEC) Engineering Excellence Award for our design of the Woodruff Road underpinning and earth retention system.

Firm name	ECS Southeast, LLP		Past Performance Evaluation Discipline(s)*	Geotechnical	
Project name	**South Capitol Street Bridge Corridor – Phase 1**		Firm responsibility (prime or sub?)	Prime	
Project number	26975	Owner's name	AECOM		
Project location	Washington D.C.		Owner's Project Manager	Kenneth Butler, PE	
Owner's address, phone, email	4840 Cox Rd, Glen Allen, VA 23060 (804) 290-2460 kbutler@aecom.com				
Services commenced by this firm (mm/yy)	10/17	Total consultant contract cost ($1,000's)		N/A	
Services completed by this firm (mm/yy)	09/20	Cost of consultant services provided by this firm ($1,000's)		$1,720,983	

ECS provided geotechnical subsurface exploration and engineering design to the project design team, AECOM. The project was the largest Design-Build project undertaken by the District of Columbia. The project consisted of constructing a new six-lane Frederick Douglass Memorial Bridge, creating a new traffic oval west of the river that connects South Capitol Street, Potomac Avenue and Q Street SE, reconstructing South Capitol Street as a six-lane boulevard with an improved streetscape from the traffic oval to Independence Avenue SE/SW and an at-grade intersection at M Street, SE, creating a new at-grade traffic circle east of the river that connects South Capitol Street, Suitland Parkway and Howard Road SE, reconstructing the Suitland Parkway/Interstate 295 interchange, constructing a new Martin Luther King Jr., Avenue and Suitland Parkway interchange Road SE, increasing bicycle and pedestrian facilities and Improving drainage and stormwater management throughout the corridor. ECS provided and oversaw a comprehensive field exploration program including environmental sampling and testing for both the preliminary engineering subsurface exploration and the subsequent Design-Build stages. ECS coordinated with DDOT subcontractors for permitting, traffic control, and drilling and oversaw three drilling firms and various field and laboratory staff. For final design development, ECS served as the project geotechnical engineer of record, managing geotechnical deliverables, coordinating with design team members, discussing design options and constructability with the lead contractors and interfacing with DDOT and third-party stakeholders (i.e., DC Water, Washington Gas, NuStar Gas, etc.) to present proposed project elements. During the design phase, ECS was responsible for the analysis and/or review of design elements such as deep foundations, retaining walls, ground improvements, embankment slopes, stormwater management systems, temporary and permanent traffic and detector poles and other various project elements. During the construction phase of the project, ECS responded to RFI requests from the contractor, reviewing, providing analysis, and assisting in the implementation of Notice of Design Changes (NDCs) and Field Design Changes (FDCs). Other project elements included incorporation and analysis of lightweight fill materials at various locations across the project extents to reduce settlement and loading concerns for sensitive utilities and providing recommendations for infrastructure protection.

Firm name	ECS Southeast, LLP		Past Performance Evaluation Discipline(s)*	Geotechnical	
Project name	**Triangle Expressway (Complete 540)**		Firm responsibility (prime or sub?)	Prime	
Project number	12489, 12490	Owner's name	NCDOT		
Project location	Apex, NC		Owner's Project Manager	Mike Whalen	
Owner's address, phone, email	1570 Mail Service Center, Raleigh, NC 27699 (919) 707-6875 mwhalen@ncdot.gov				
Services commenced by this firm (mm/yy)	10/17	Total consultant contract cost ($1,000's)	$35,973		
Services completed by this firm (mm/yy)	12/17	Cost of consultant services provided by this firm ($1,000's)	$33,773		

Services Performed: Subsurface Exploration, Roadway Inventory Report, Roadway Recommendations Report, Structure Inventory Reports

The project corridor begins at the existing interchange of NC-540 and US 1 in Apex, Wake County, North Carolina and ends just east of US 401 in Raleigh, North Carolina for an approximate length of 9.2 miles. Proposed construction consisted of a new six-lane interstate toll road with several interchanges and associated ramps and loops. Noise walls, retaining walls and numerous bridge and culvert structures will be constructed throughout the project corridor. A geotechnical field investigation was performed by ECS between June 13 and September 15, 2017. During this time period, a total of 598 standard penetration test (SPT) borings as well as 19 rock soundings were drilled to depths ranging from approximately five to 130 feet below existing grades.

Firm name	ECS Southeast, LLP		Past Performance Evaluation Discipline(s)*	Geotechnical	
Project name	**NC 24 / 27 Widening from NC 73 to the Troy Bypass**		Firm responsibility (prime or sub?)	Prime	
Project number	12983	Owner's name	NCDOT		
Project location	Mt Gilead, NC		Owner's Project Manager	Christina Bruinsma, PG	
Owner's address, phone, email	PO Box 25201, Raleigh, NC 27611 (919) 707-6878 cmbruinsma@ncdot.gov				
Services commenced by this firm (mm/yy)	08/18	Total consultant contract cost ($1,000's)		$173,218	
Services completed by this firm (mm/yy)	11/18	Cost of consultant services provided by this firm ($1,000's)		$236,983	

Services Performed: Subsurface Exploration, Roadway Inventory Report, Roadway Recommendations Report

This project begins east of NC 73, just inside the Montgomery County line, and ends at the Troy Bypass, just east of the NC 109 intersection in Troy, North Carolina. The project is approximately 8.15 miles in length. Proposed construction consisted of widening NC 24/27 to a new 4-lane divided highway with paved shoulders. Additionally, eight culver, as well as a new railroad bridge, were part of the project. Preliminary grading plans indicate cut and fill depths up to 35 feet and 58 feet, respectively, are proposed along the project corridor. A geotechnical field investigation was performed by ECS between June 2018 and August 2019. During this time period, a total of 318 standard penetration test (SPT) roadway/structure borings and 190 rock sounding borings were performed, Additionally, 47 roadway Hand Auger (HA) borings were completed in addition to the SPT borings.

Firm name	ECS Southeast, LLP			Past Performance Evaluation Discipline(s)*	Geotechnical
Project name	**I-26 Widening MM85 to 101 – Design Build Preparation**			Firm responsibility (prime or sub?)	Prime
Project number	11888	Owner's name	Civil Engineering Consulting Services, Inc/SCDOT		
Project location	Irmo, SC		Owner's Project Manager	Brian Nickerson	
Owner's address, phone, email	2000 Park Street, Suite 201, Columbia, SC 29201 (803) 779-0311 nickersonbg@cecsinc.com				
Services commenced by this firm (mm/yy)	10/16	Total consultant contract cost ($1,000's)		$244,386	
Services completed by this firm (mm/yy)	05/18	Cost of consultant services provided by this firm ($1,000's)		$680,519	

Services performed: Subsurface Exploration and Geotechnical Engineering

ECS' services supported SCDOT's improvements to an approximately 16-mile-long section of the I-26 corridor designed to increase capacity and upgrade interchanges and overpass bridges to meet state and federal design requirements. Improvements were planned from 1.6 miles west of the SC202 (Exit 85) interchange to the US 176 (Exit 101) interchange. ECS completed the subsurface exploration for the project and submitted the Geotechnical Baseline Report. The subsurface exploration, including over 4,000 linear feet of drilling and 307 borings, was primarily completed with nighttime lane closers in accordance with SCDOT requirements. ECS Submitted the Geotechnical Baseline Report in accordance with the SCDOT GDM in December of 2017. ECS provided on-going geotechnical consulting services for this project as the Geotechnical Engineering Peer Reviewer for the project.

Firm name	Adaptive Management and Engineering, LLC			Past Performance Evaluation Discipline(s)*	Geotechnical
Project name	**Proposed Pavement Expansion for the Highland Road at Siegen Lane/Burbank Drive Intersection**			Firm responsibility (prime or sub?)	Sub
Project number	20-CP-HC-0004	Owner's name	City of Baton Rouge and Parish of East Baton Rouge		
Project location	Baton Rouge, LA			Owner's Project Manager	Seneca Toussant, P.E.
Owner's address, phone, email	343 Third Street, Suite 511B, 225-960-1160; stoussant@laterre-eng.com (Design Team Contact)				
Services commenced by this firm (mm/yy)	01/20	Total consultant contract cost ($1,000's)			
Services completed by this firm (mm/yy)	03/22	Cost of consultant services provided by this firm ($1,000's)			$25

The project consists of several options to increase turn lanes, increase storage lengths, and provide additional capacity through the Highland Road and Siegen Lane/Burbank Drive intersection. Mr. McKinney coordinated and oversaw the field exploration for the project, which included 8 soil borings and a hand auger. Field exploration was completed on the existing pavement by Mr. McKinney, which required traffic control. Mr. Tammineni provided pavement design recommendations for the proposed pavement expansions. Mr. Tammineni coordinated all aspects of the project including, but not limited to preparation of the proposal for the project, discussion/coordination with the design team, obtaining DOTD permit, executing field exploration program, assigning laboratory tests, performing pavement analyses, and preparing the geotechnical report that has been reviewed and accepted by the design team.

Firm name	Adaptive Management and Engineering, LLC			Past Performance Evaluation Discipline(s)*	Geotechnical
Project name	**Patterson 2022 Street Improvements**			Firm responsibility (prime or sub?)	Sub
Project number	N/A	Owner's name	City of Patterson		
Project location	St. Mary Parish, LA			Owner's Project Manager	Melanie Caillouet, PE
Owner's address, phone, email	1297 St. Charles Street, Suite H, Houma, Louisiana 70360, 985-876-6380, MelanieCaillouet@ProvidenceEng.com				
Services commenced by this firm (mm/yy)	03/22	Total consultant contract cost ($1,000's)			
Services completed by this firm (mm/yy)	04/22	Cost of consultant services provided by this firm ($1,000's)			$8

The City of Patterson is conducting roadway improvements for selected roads throughout the city. The roadway surfaces are currently asphalt or crushed limestone wearing surface, with an aggregate and sand base layer present in some locations. The asphalt surface layer has degraded in multiple locations, exposing the crushed limestone base. AME performed eight soil borings on the existing roadways in support of a new pavement design. The field explorations were coordinated and overseen by Mr. McKinney. A full suite of laboratory testing was performed on the thin-walled tube samples. Mr. Ator oversaw and performed QA/QC on all laboratory testing, and generated soil boring logs for the project. Engineering design and reporting was overseen by Mr. Tammineni.

Firm name	Adaptive Management and Engineering, LLC			Past Performance Evaluation Discipline(s)*	Geotechnical
Project name	**1,4 Group, Inc Proposed Warehouse Facility**			Firm responsibility (prime or sub?)	sub
Project number	N/A	Owner's name	1.4Group,Inc.		
Project location	Ascension Parish, LA			Owner's Project Manager	Gary Leonards, PE,
Owner's address, phone, email	1297 St. Charles Street, Suite H, Houma, Louisiana 70360, 225-766-7400, GaryLeonards@ProvidenceEng.com				
Services commenced by this firm (mm/yy)		01/22	Total consultant contract cost ($1,000's)		
Services completed by this firm (mm/yy)		03/22	Cost of consultant services provided by this firm ($1,000's)		$27

The proposed warehouse project parcel is an approximately nine-acre, previously forested lot in Geismar, Louisiana. The warehouse facility will include various structures including a chiller and boiler, main plant, laboratory, warehouse, office building, a parking lot, and roadways. The pavement design for the project includes both rigid and flexible pavements to be accessed by heavily loaded vehicles. Mr. McKinney coordinated the field exploration activities, which included five soil borings and 15 CPTs completed to a depth of up to 60 feet below ground surface. Mr. Ator oversaw laboratory testing for the project, performed QA/QC, and generated boring and CPT logs. Technical guidance for engineering analyses and reporting was provided by Mr. Tammineni.

18. Approach and Methodology:

ECS understands that the Louisiana Department of Transportation and Development (DOTD) is requesting on-call geotechnical services to include, but not limited to:

- Subsurface investigation for bridge, highway, and other transportation construction,
- Laboratory testing of soil, rock, and geosynthetic materials,
- Analysis and reporting of geotechnical data for structure foundation design, pavement design, slope stability, settlement, and other typical geotechnical engineering problems, including seismic analysis,
- Sampling and testing of various other materials associated with highway and bridge construction.

ECS will perform Geotechnical Services and will prepare recommendations and reports that will conform to the guidelines provided in the DOTD GDM and associated literature. Each project will initiate when the DOTD Contract Manager contacts the ECS Point of-Contact (POC), Mr. Joseph Cobena, P.E., with a potential geotechnical project. The ECS POC will engage a Lead Geotechnical Engineer based on the individual technical demand and project location.

The Lead Geotechnical Engineer and ECS POC will review existing site conditions available subsurface information including ECS' extensive internal database, available bridge and roadway plans, geologic maps, etc, in order to develop an appropriate subsurface exploration to meet the intent of the GDM and to collect appropriate subsurface information for the required geotechnical analysis associated with the project. In some instances, ECS will make site visits during the scoping phase of the project to evaluate needs for clearing, traffic control or other safety and accessibility issues. DOTD will be apprised of all site visits prior to any ECS personnel's arrival on site.

ECS has assembled a team of professionals who are highly experienced in the field of geotechnical engineering on both small- and large-scale transportation projects from Texas to Maryland and throughout the southeast United States. The key personnel included in this submittal have completed hundreds of DOT projects across the country.

ECS opened our doors in Louisiana in July of 2019. While this is our first pursuit of the Geotechnical IDIQ in Louisiana, ECS as a company has over 34 years of experience pursuing and executing complicated geotechnical transportation and design projects throughout the country. We have local expertise and experience with Joseph Cobena, PE, and Mark Carlson, PE. However, we have also partnered with a local DBE firm, AME, in order to support local disadvantaged businesses, but also to supplement ECS's service with excellent local geotechnical, laboratory, and field services in performance of the IDIQ. We believe that between ECS' local expertise, our

engineering strength company-wide, and our engineering partners at AME, we have established an extremely strong geotechnical team that can respond to the demands of the Geotechnical IDIQ with efficiency and responsiveness.

ECS is thoroughly versed in executing large and small projects on short notice, under budget and on schedule. ECS has the ability to mobilize to multiple large projects. As an example, ECS completed 598 borings and 18,800 linear feet of drilling in Raleigh, North Carolina as part of our NCDOT Geotechnical On-Call contract. This work was completed simultaneously as the subsurface exploration for the I-26 Widening project which included 307 borings and 4,000 linear feet of drilling. The subsurface exploration phase for each project lasted less than 6 months. Our ability to successfully execute two extensive DOT related projects on time and under budget demonstrates our ability to meet any of DOTD's subsurface exploration needs. In addition, ECS recently completed the subsurface exploration for the Emergency Bridge Replacement 2020-1 project. This work was completed in less than four weeks (from authorization to report), with a report completion ahead of schedule and under budget. ECS has drill rigs available to service LA DOTD projects and our capabilities include CPT and PDA services.

ECS' extensive software resources include GRLWEAP, SLIDE, GSTABL, gINT, PLAXIS, LPILE, GROUP, APILE, MSEW, CAPWAP, DARWin, AASTHOWare Pavement ME Design, ROCKPACK, CRSP, Dips, RocPlane, SWedge, RocTopple, RocFall, DRIVEN, RSS, Shoring Suite, MathCAD, Settle3D, SeisOPT, WinPas, Pit-W, SHAFT, TomoSonic, Anchor Wall 4, AutoCAD, MicroSta¬tion, and several others. Supporting Team members H&B, PMI, and AMT are fully capable with GPS and GIS surveying and mapping methods. ECS has developed a large group of in-house spreadsheets for engineering analyses. Representative examples include pressuremeter, pavement design for multiple states, elastic, and consolidation settlement, seismic evaluation, and LRFD-compliant sheets for shallow and deep foundations, drilled shafts, sound walls and retaining walls. Pavement designs are conducted using AASHTO 93 Design, if specified, but in most cases, we utilize AASTHOWare Pavement ME Design.

ECS has the equipment and personnel expertise necessary along with the software programs to support LA DOTD's geotechnical evaluations. ECS uses the following geophysical applications and applications for roadway and bridge projects such as 2-D Electrical Resistivity Profiling; 2-D Refraction Microtremor S-Wave Profiling; Ground Penetrating Radar; 2-D Seismic Refraction; P-Wave Profiling; Down-Hole and Cross-Hole Seismic; Magnetics; and Vibration and Noise Instrumentation and Monitoring. Each of our geo¬physical programs have dedicated software for data collection, interpretation, and presentation.

With the strength of over 2,200 employees and more than 60 accredited laboratories throughout the country, ECS has the resources to dedicate to a given project or group of project assignments to meet project schedule requirements. Additionally, we have the ability to

utilize our accredited and certified DBE partners, AME, for both laboratory and drilling support to successfully collect and process data to meet project deadlines. ECS is currently undergoing review to attain AASHTO certification, and we expect to be certified by the end of 2022. Until we receive our certification, we plan on using AME for lab testing.

AME is a DBE and a Hudson Initiative firm located in Baton Rouge, Louisiana. Our firm license number is EF.0006701. AME provides geotechnical, instrumentation, and construction monitoring services to various public and private sector clients. Our personnel have considerable experience working in the soft fine-grained soils of southern Louisiana, including coastal, alluvial, and Pleistocene soils. AME's fleet of field exploration equipment includes an ATV-mounted drill rig, a hand auger, and a miniature vibratory coring sampler. We have a full-service AASHTO accredited and USACE Validated geotechnical laboratory in Baton Rouge, offering soil extruding, classification testing, strength testing, and specialized testing (consolidation, permeability, miniature vane, and other tests).

AME's team has the required experience to provide geotechnical and construction services for roadway projects. We are dedicated to improving transportation infrastructure around our hometown by providing efficient, reliable, and innovative services including, but not limited to:

- Obtaining DOTD permits;
- Geotechnical desktop studies and research for transportation projects. This includes reviewing existing geological, survey, and other available data for the project;
- Accessing any data gaps and providing recommendations to the design team for further action;
- Performing site exploration (soil borings, CPT, hand auger, DCP, etc.) of soils on land and open water sites;
- Obtaining, packaging, and transporting high-quality soil samples;
- Completing traditional and specialized geotechnical laboratory testing;
- Conducting stability analyses (slope stability, settlement, and bearing capacity);
- Evaluating ground improvements and estimating strength gain in soils;
- Providing flexible and rigid pavement designs per the LSSRB 2016;
- Providing instrumentation and remote construction monitoring;
- During and post-construction analyses of projects based on instrumentation and monitoring data ;
- Performing analyses for deep and shallow and deep foundations, slope stability, seepage, sheet pile wall, roadway design and other geotechnical designs;
- Preparing geotechnical and monitoring reports as required by the agencies/owners;

- Performing geotechnical and construction monitoring/testing services including:
  - Staff augmentation, embedment and/or full oversight;
  - Static pile load tests
  - Pile installation monitoring (Auger Cast-in-Place Piles, driven piles, drilled shafts, micro piles and sheet piles)
  - State of the Art instrumentation services to remotely monitor the pile performance; and
  - Onsite/remote monitoring

AME will work with ECS in planning and executing the project and will complete the tasks provided to AME to meet or exceed the industry standards. AME understands the importance of safety in executing a task while meeting the quality required for providing the necessary data to the engineers to complete a geotechnical design. Sample quality during exploration, transportation and testing is paramount to provide testing results that form the backbone to producing quality reports. The impacts on disturbance on soil samples during transportation is real (especially for very soft soil) and often can be seen in the testing results. It is paramount to evaluate the testing results closely to understand the stress-strain curves and the soil disturbance based on the stress-strain curves and field procedures.

AME staff has completed numerous projects that involve soft soil engineering and have provided courses to public and private entities on the importance of quality geotechnical data. Our field services manager (Mr. Michael McKinney) and laboratory manager (Mr. Justin Ator) have extensive experience in working with soft soil conditions and have trained specifically to handle soft soil.

Our engineers have the capability and experience to logically evaluate laboratory data, considering field methods used to obtain the data and use good engineering judgement in preparing design profiles that can be used in various geotechnical analyses. Developing appropriate design profiles is one of the most important steps in performing an analysis, as incorrect data provides incorrect results. AME engineers are well versed in performing hand calculations for various components associated with roadway infrastructure and are also experienced in verifying the results using various geotechnical programs including but not limited to Slope/W, Slide, Settle, LPILE, APILE, SHAFT, StreetPave and other programs.

Given the importance of infrastructure projects and their direct impact on the safety to the public on a daily basis, AME is very cautious and rigorous in checking results to provide the quality data that represents the site conditions.

19. Workload:

Firm(s)	Past Performance Evaluation Discipline(s) *	State project number	Project name	Remaining Unpaid Balance**
ECS	N/A	N/A	Not applicable: ECS holds no contracts with the State of Louisiana DOTD	$0.00
AME	Geotechnical	N/A	N/A	$0.00

DO NOT SUM

20. Certifications/Licenses:

AASHTO ACCREDITED

CERTIFICATE OF ACCREDITATION

American Association of State Highway and Transportation Officials AASHTO

Adaptive Management and Engineering, LLC

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 06/15/2022 at 1:30 PM Eastern Time. Please confirm the current accreditation status of this laboratory at aashtoresource.org/aap/accreditation-directory

RTA

DOTD Louisiana Department of Transportation & Development

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)

Adaptive Management and Engineering, LLC

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

NC541330 NC541380

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

With more than **60 accredited labs** located throughout the country, ECS has the capabilities and knowledge to perform and review the testing requested under this contract.

Our locations in Louisiana include Baton Rouge and West Monroe. These two locations allow ECS to service LA DOTD projects throughout Louisiana with ease. The West Monroe location is a full-service office with a fully accredited laboratory.

At the time of this submission, ECS' Baton Rouge office is in the process of obtaining AASHTO Accreditation. As we have obtained this accreditation for more than 60 labs across the country, we are familiar with the process and requirements. We expect to receive AASHTO Certification by the end of 2022.

We will utilize AME for lab testing until we obtain certification.

ECS has planned to enroll selected staff to the Traffic Control Supervisor Training.

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

ECS LIMITED

John R. McNeil Jr.

and is entitled to practice in the state of Lousiana 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- *# 880*

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

ADAPTIVE MANAGEMENT ENGINEERING

Michael McKinney

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

This License is non-transferable and expires *June 30, 2022* unless renewed, revoked or suspended by the licensing authority as prescribed by statue.

Signed and sealed this *9th* day of *August* , *2021*

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

License No. WWC- *# 867*

The American Traffic Safety Services Association

Hereby recognizes that

Ryan Williamson

has attended

Traffic Control Supervisor-LA State Specific

Training Course

11/13/2019 to 11/14/2019
Date

Baton Rouge, LA
Location

ATSSA
SAFER ROADS SAVE LIVES

Training & Products Dept. Director

President, CEO

The American Traffic Safety Services Association

Hereby recognizes that

Michael McKinney

has attended

Traffic Control Supervisor-LA State Specific

Training Course

11/13/2019 to 11/14/2019
Date

Baton Rouge, LA
Location

ATSSA
SAFER ROADS SAVE LIVES

Training & Products Dept. Director

President, CEO

 Prime consultant name: **ECS Southeast, LLP**

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

[redacted]

22. Sub-consultant information:

Firm Name (as registered with Louisiana's Secretary of State)	**Address**	**Point of Contact and email address**	**Phone Number**
Adaptive Management and Engineering, LLC	11429 Pennywood Avenue, Baton Rouge, LA 70809	Venu Tammineni, PE Venu@amesouth.com	225.424.7869

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.