

STATEMENT OF QUALIFICATIONS

Contract No. 4400035030

IDIQ Contract for Engineering and
Inspection Services of State Regulated Dams

Statewide with Majority of Work in Districts 02, 03, 07, 08, 61 and 62



Submitted To:

Department of Transportation & Development
Consultant Contract Services Administrator
1201 Capitol Access Road, Room 405-E
Baton Rouge, LA 70802

Via email: DOTDConsultantAds80@la.gov

Submitted By:

ECM Consultants, Inc.

8048 One Calais Avenue, Suite F

Baton Rouge, Louisiana 70809

Telephone: 225-615-7885 • Mobile: 504.231.7605 • Fax: 225-615-8548

Ujjal@ecmconsultants.com

In Association with:

Eustis Engineering, L.L.C.

Ardaman & Associates, Inc.

SJB Group, L.L.C.

Chustz Surveying, L.L.C.

Specialty Diving of Louisiana, Inc.

April 28, 2026

ECM Consultants, Inc.

Engineers • Architects • Construction Managers

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Ms. Paulette Territo
Consultant Contract Services Administrator
DOTDConsultantAds80@la.gov
Department of Transportation and Development
1201 Capital Access Road, Room 405-E
Baton Rouge, LA 70802

April 28, 2026

Re: **Contract No. 4400035030**
IDIQ Contract for Engineering and Inspection Services of State Regulated Dams
Statewide with Majority of Work in Districts 02, 03, 07, 08, 61 and 62.

Dear Ms. Territo,

ECM Consultants, Inc., a Louisiana based consulting engineering firm, is pleased to submit an electronic PDF of our Statement of Qualifications in DOTD Form 24-102, dated August 11, 2025, in response to your Request for Qualifications for the above-referenced contract.

ECM has extensive experience in providing dam safety inspection and related engineering services, as well as inspection of levees, roads, bridges, drainage and utility projects. As part of four consecutive DOTD retainer contracts, **for 18 years**, ECM has performed more than **1,958 safety inspections for 550 dams**, throughout the state of Louisiana. ECM has conducted assessments, evaluations, and **engineering** involving hydraulic and hydrologic (H&H) analysis, **1D and 2D dam breach analysis modeling**, and the preparation of Emergency Action Plan (EAP) reports for about 55 Significant and High Hazard state-maintained dams. In addition, ECM also performed H&H analysis, 2D dam breach modeling, and inundation mapping for 48 dams for the State of Kentucky under USDA-NRCS IDIQ contract. Furthermore, ECM has performed Periodic Inspections for over **170 miles of levee systems** for the U.S. Army Corps of Engineers, New Orleans District.

The staff assigned to this contract has the required licenses, certifications, and experience to provide exceptional services to the LADOTD. Our engineers and field technicians are very familiar with Louisiana Dam Safety Rules and Regulations. Our staff of engineers and inspectors are trained, experienced and familiar with the Dam Safety Program and are well-positioned to hit the ground running. They are well-versed in the entire process, including pre-planning, scheduling inspections, notifications, conducting field inspections, preparing inspection reports, following up on required corrective measures, conducting hydraulic and hydrologic analysis, and preparing Emergency Action Plans (EAPs) for dams and levee systems throughout Louisiana.

Our team includes [Eustis Engineering, L.L.C.](#) and [Ardaman & Associates, Inc.](#) for Geotechnical investigations and analysis, [SJB Group, L.L.C.](#) and [Chustz Surveying, L.L.C.](#) for land and hydro survey and [Specialty Diving of Louisiana, Inc.](#) for underwater survey and investigations. ECM staff include H&H, civil, and structural engineers, lead dam inspectors and experienced dam inspectors and all other support personnel and necessary equipment. As our Statement of Qualifications demonstrates, the ECM team substantially exceeds the minimum personnel requirements as stated in the Request for Qualifications.

We appreciate the opportunity to submit our statement of qualifications and thank you for your time in reviewing it. We are committed to continuing to provide exceptional professional services in support of the LADOTD's Dam Safety Program. Should you have any questions or require any additional information, please contact us.

Respectfully submitted,



Ujjal Dasgupta, P.E.
President

DOTD FORM: 24-102

PROPOSAL TO PROVIDE CONSULTANT SERVICES

(Revised August 11, 2025)

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

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

1. Contract Name as shown in the advertisement	IDIQ Contract for Engineering and Inspection Services of State Regulated Dams Statewide with Majority of Work in Districts 02, 03, 07, 08, 61 and 62
2. Contract Number(s) as shown in the advertisement	4400035030
3. State Project Number(s), if shown in the advertisement	NA
4. Prime consultant name (name must match <u>exactly</u> as registered with the Louisiana Secretary of State (SOS) where such registration is required by law; including punctuation; <u>include screenshot from SOS at the end of Section 20</u>)	<i>ECM Consultants, Inc.</i> 
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.0002003 UEI # CKRMJU7MD296, DUNS: 957392723
6. Prime consultant mailing address	1301 Clearview Parkway, Suite 200 Metairie, LA 70001
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	8048 One Calais Avenue, Suite F Baton Rouge, LA 70809
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Ujjal DasGupta, P.E. President O: (504) 885-4080, C: (504) 231-7605 ujjal@ecmconsultants.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Ujjal DasGupta, P.E. President O: (504) 885-4080, C: (504) 231-7605 ujjal@ecmconsultants.com

Prime consultant name: ***ECM Consultants, Inc.***

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.

Pursuant to Act No. 581 of the 2024 Louisiana Legislature Regular Session, proposer further certifies that it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association based solely on the entity's or association's status as a firearm entity or firearm trade association. In addition, proposer certifies it will not discriminate against a firearm entity or firearm trade association during the term of the contract based solely on the entity's or association's status as a firearm entity or firearm trade association.

Signature (shall be the same person as #9):



Date: April 28, 2026

11. If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal and each firm(s)' percentage.

Firm(s):

Firm(s)' %:

NA

Prime consultant name: **ECM Consultants, Inc.**

12. Discipline Table:

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

The **only** disciplines to be used are listed in the drop down in each row (Appraiser, Bridge, CE&I/OV, CPM, Data Collection, Environmental, Geotech, ITS, Other (must specify), Planning, Right-of-Way, Road, Survey, and Traffic). **Remove rows as needed.**

Evaluation Discipline(s)	% of Overall Contract	Prime ECM	Firm B Eustis	Firm C Ardaman	Firm D SJB	Firm E Chustz	Firm F SDI	Each Discipline must total to 100%
Other (Schedule/Notification)	5%	100%						100%
Other (Field Inspections)	30%	100%						100%
Other (Report Insp. Results)	12%	100%						100%
Other (Engineering Services)	20%	100%						100%
Data Collection	5%	100%						100%
Survey	8%				50%	50%		100%
Geotech	8%		50%	50%				100%
Other (Structural Engineering)	8%	100%						100%
Other (Underwater Investigations)	4%						100%	100%
Identify the percentage of work for the overall contract to be performed by the prime consultant and each sub-consultant.								
Percent of Contract	100%	80%	4%	4%	4%	4%	4%	

Prime consultant name: **ECM Consultants, Inc.**

13. Team Size:

For all firms that are part of this team, indicate the approximate number of personnel to be committed to this contract, by DOTD Job Classification and the total number of personnel within the firm that could provide support, if needed. If a specialized job classification is required and not included on the DOTD job classification list, specify “Other (must specify)” and include the classification title inside the parentheses.

The DOTD Job Classification(s) to be used can be found at the following link: <https://bit.ly/DOTDJobClassifications>

Firm name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
ECM Consultants, Inc.	Principal	1	1
ECM Consultants, Inc.	Supervisor Engineer	3	6
ECM Consultants, Inc.	Engineer	6	12
ECM Consultants, Inc.	Engineer Intern	2	5
ECM Consultants, Inc.	Inspector	3	16
Eustis Engineering, LLC.	Supervisor - Eng	2	9
Eustis Engineering, LLC.	Engineer	2	5
Ardaman & Associates, Inc.	Supervisor - Eng	1	3
Ardaman & Associates, Inc.	Engineer	1	6
SJB Group, Inc.	Surveyor	1	5
Chustz Surveying, L.L.C.	Surveyor	1	2
Specialty Diving of Louisiana, Inc..	Inspector	3	6

Prime consultant name: ***ECM Consultants, Inc.***

14. Organizational Chart for: IDIQ Contract Nos. 4400035030, Districts: 02, 03, 07, 08, 61 and 62

Project Team and their Roles:

ECM: Contract Management, Project Management, Dam Safety Inspection, H&H analysis and modeling, EAPs and other dam related services and Structural Engineering.

- **Eustis:** Geotechnical Investigations & analysis
- ◀ **Ardaman:** Geotechnical Investigations & analysis
- ◆ **SJB:** Land and Hydro Survey
- ▲ **Chustz:** Land and Hydro Survey
- ★ **SDI:** Underwater survey/ Investigations



ECM Consultants, Inc. (Prime)

Principal /Point of Contact
1, 2, 3 Ujjal Dasgupta, PE ■

Project Manager
2, 3 Sunina Shrestha, PE, PMP ■

Contract Manager
1 Kazem Alikhani, PE ■

QA/QC Manager
Bradley Sticker, PE

Contract No. 4400035030

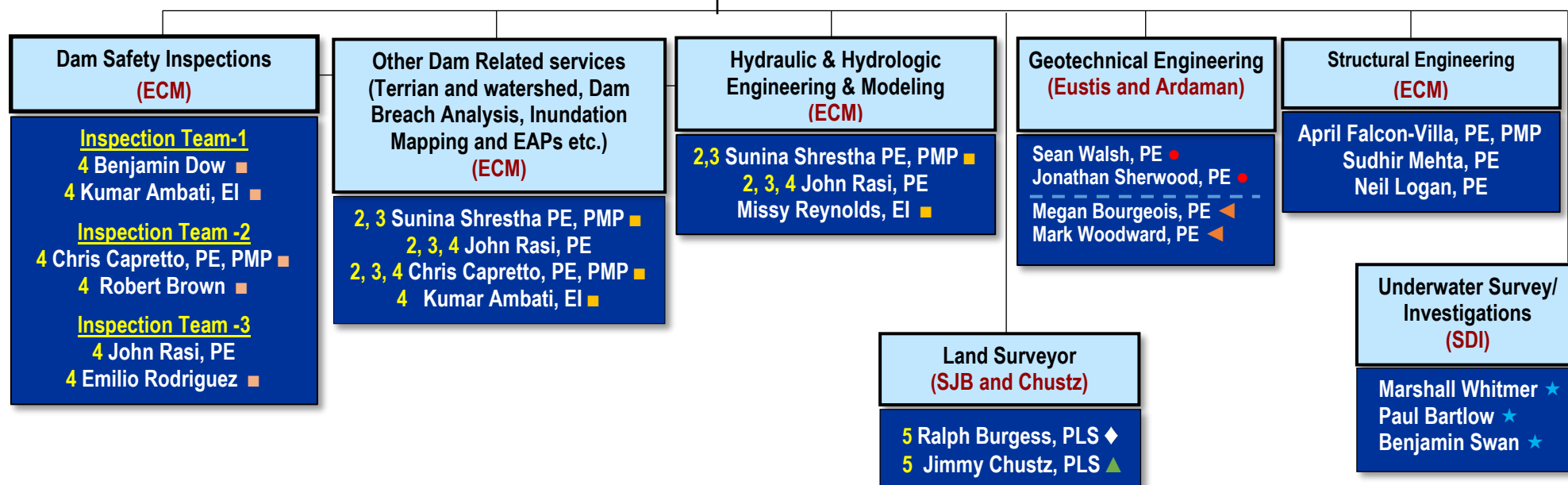
IDIQ Contract for Engineering and inspection Services of State Regulated Dams Statewide with Majority of Work in Districts 02, 03, 07, 08, 61 & 62

Certifications

- Work Zone Traffic Control Flagger/Tech/Supervisor

Notes:

- A. This Org. Chart is based on using 3 teams, each team comprising of one engineer and one inspector or one lead inspector and one inspector per team to handle 3 TOs concurrently.
- B. 1, 2, 3, 4 etc. denotes MPR Nos.
- C. All personnel listed are ECM employees unless noted otherwise.



15. Minimum Personnel Requirements:

Use the table below to identify both prime consultant and sub-consultant staff designated to work on this contract meeting the Minimum Personnel Requirements (MPRs) specified in the advertisement. Ensure the résumé reflects the required experience stated in the MPR. Make sure the P.E. discipline is also listed (highlighted in table) that is meeting the MPR; e.g. professional civil engineer should show the discipline of the license as civil if meeting that MPR.

MPR No. Do not insert wording from ad	Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license and discipline meeting MPR/ certification & number (Ex: PE # - Civil)	State of license	License / certification expiration date
1	Ujjal DasGupta, P.E. (56 years' experience)	ECM Consultants, Inc. (Prime)	Professional Engineer (P.E.) PE.0019849 - Civil	LA	Exp. 09/30/2027
2	Ujjal DasGupta, P.E. (56 years' experience)	ECM Consultants, Inc. (Prime)	Professional Engineer (P.E.) PE.0019849 - Civil	LA	Exp. 09/30/2027
	Sunina Shrestha (19 years' experience)	ECM Consultants, Inc. (Prime)	Professional Engineer (P.E.) PE.0037901- Civil	LA	Exp. 09/30/2027
3	Sunina Shrestha (19 years' experience)	ECM Consultants, Inc. (Prime)	Professional Engineer (P.E.) PE.0037901- Civil	LA	Exp. 09/30/2027
	Chris Capretto, P.E. (17 years' experience)	ECM Consultants, Inc. (Prime)	Professional Engineer (P.E.) PE. 0038641- Civil	LA	Exp. 09/30/2026
4	Benjamin Dow (24 years' experience)	ECM Consultants, Inc. (Prime)	N/A	N/A	N/A
	Kumar Ambati, EI (8 years' experience)	ECM Consultants, Inc. (Prime)	Engineering Intern (EI) EI 0035287	N/A	Exp. 03/31/2027
	Emilio Rodriguez (33 years' experience)	ECM Consultants, Inc. (Prime)	N/A	N/A	N/A
	Robert Brown (34 years' experience)	ECM Consultants, Inc. (Prime)	N/A	N/A	N/A
5	Ralph Burgess, PLS (26 years' experience)	SJB Group, LLC. (Subconsultant)	Professional Land Surveyor (PLS) PLS. 0005040- Surveyor	LA	Exp. 09/30/2026
	James H. Chustz, Jr. PLS (52 years' experience)	Chustz Surveying (Subconsultant)	Professional Land Surveyor (PLS) PLS. 0004657- Surveyor	LA	Exp. 03/31/2028

Prime consultant name: **ECM Consultants, Inc.**

16. Staff Experience

Firm employed by ECM Consultants, Inc.					
Name	Ujjal DasGupta, P.E.			Years of relevant experience with this employer	31
Title	President			Years of relevant experience with other employer(s)	25
Degree(s) / Years / Specialization				B.S. / 1968 / Civil Engineering;	
Active registration number / state / expiration date				19849 / LA / 9-2027	
Year registered	1982	Discipline		Civil Engineering	
Contract role(s) / brief description of responsibilities			Mr. DasGupta will serve as the Principal for this contract. He meets the minimum requirement for MPR Nos 1, 2 and 3.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
56 years of experience	Mr. DasGupta has over 56 years of experience in project management, civil and structural engineering design, construction management, construction engineering & inspection (CE&I), dam safety inspections and levee inspections. He has been responsible for engineering design and construction management for several billion dollars Flood Risk Reduction projects including earthen levees and various flood control projects for the U.S. Army Corps of Engineers, New Orleans District. He is ATSSA Work Zone Traffic Control Flagger, Technician & Supervisor.				
05/21 – ongoing	S.P. No. 4400020842 Inspection of State-Regulated Dams, LADOTD, Statewide majority in Districts 03, 07, 61 and 62, LA: Mr. Mr. Dasgupta is serving as Principal for this contract. Scope of work includes performing the dam safety inspections, scheduling, notifying the dam owner, other interested parties, and DOTD of impending inspections; reviewing available plans; reviewing previous DOTD Dam Evaluation Reports and documents; performing safety inspections of high hazard, significant hazard, and low hazard category dams; preparing and submitting Dam Evaluation and Assessment Reports to DOTD and follow up actions. He is responsible for overall performance of the contract.				
03/18 - 03/21	S.P. No. 4400011393: Inspection of State-Regulated Dams, LADOTD, Statewide, LA: Mr. Dasgupta served as Principal for this dam safety inspection contract. Scope of this contract included field data collection for publicly and privately owned dams to identify deficiencies, perform analysis for hazard categories, and make recommendations for remediation so that dams and the attendant water control devices function adequately and safely. Rotation frequencies for these inspections are: High Hazard dams annually, Significant Hazard every 3 years, and Low Hazard every 5 years.				
11/13 -01/18	S.P. No. 4400003970 LADOTD Safety Inspections of State Regulated Dams, Statewide, LA: Mr. DasGupta served as Principal for this contract under which ECM performed 525 inspections for 289 publicly and privately owned dams throughout Louisiana over three years under this Retainer Contract. ECM's responsibilities include planning, scheduling inspections with DOTD, notifying dam owner and other interested parties of pending inspections; reviewing available plans and EAPs; previous DOTD Dam Evaluation Reports and documents; performing safety inspections of high, significant, and low hazard category dams, preparing Emergency Action Plans (EAPs), hydraulic modeling, hazard analysis, and preparing and submitting Dam Evaluation Reports to DOTD for review. Mr. DasGupta is responsible for overall performance of this contract				
11/08-10/13	S. P. No. 750-99-0155 LADOTD Safety Inspections of State Regulated Dams, Statewide, LA: Mr. DasGupta served as Principal for this contract under which ECM performed 908 safety inspections for more than 550 publicly and privately owned dams throughout the State of Louisiana for a period of five years to evaluate structures to ascertain public safety is not compromised by the dams, and hazards related to downstream life during a flood event or dam failure. ECM's responsibilities included scheduling inspections with DOTD, notifying the dam owner and other interested parties of pending inspections; reviewing all available plans and EAPs; reviewing previous DOTD Dam Evaluation Reports and documents; prior to performing safety inspections of dams, preparing EAPs, modeling, hazard analysis, and preparing and submitting Dam Evaluation Reports to DOTD for review. Mr. DasGupta oversaw and managed quality control for the engineering and inspection and reviewed reports				

Prime Consultant: **ECM Consultants, Inc.**

08/13-12/16	S.P. No. 4400003534 Retainer Contract for Underwater Bridge Inspection Services, LADOTD; Statewide, LA: Mr. Dasgupta served as Principal for this contract that involved inspection of bridges substructure from water level to superstructures. Inspection of the substructure below water was performed by divers. Inspection included documentation of damaged and deteriorated structural elements of the bridges. A total of 400 bridges were inspected over a period of 3 years. Scope included field inspection and preparation of the final reports to have a national bridge inventory component rating. This involved: Level 1 inspection, which was visual and tactile inspection of all bridges requiring underwater inspection in water above 4 feet; Level 2 inspection, which was detailed and included partial cleaning of all steel elements; and Level 3 inspection which was highly detailed inspection with non-destructive testing or partially destructive testing. Bridges included concrete and steel bridges on timber and concrete pile foundations, and inspections included piles, girders, abutments, deck, and checking for cracking, spalling, exposed rebars, rusting of steel girders, missing hardware, and all other related features. Additionally, the scope of work also included bridge inspection and preparation of detailed inspection reports involving elements and conditions rating and documentation of any significant deviations from as-built conditions for each inspection including recommendations for rehabilitation/repair.
08/10-02/14	USACE IDIQ Contract No. W912P8-07-D- 0031, West Bank Mississippi River Levee, Phase II, Empire to Buras (NOV-16), Plaquemines Parish, LA, USACE-Vicksburg District, Task Order 0043: Mr. DasGupta served as Project Principal for design and final construction plans and specifications for the main line of the West Bank Mississippi River Levee, Empire to Buras reach in Plaquemines Parish for this T.O. #43 under the above \$ 90 Million (fees) IDIQ contract. The project involved the enlargement of approximately 6.7 miles of existing levee as a storm damage risk reduction measure. The design allowed the levee to be built to the authorized grade plus overbuild to compensate for fill shrinkage and foundation settlement. Design features included demolition of existing floodwalls, deep soil mixing, new wave berm armament, and access ramps. This project was designed conforming to HSDRRS guidelines.
05/10 – 03/11	USACE IDIQ Contract No. W912WP8-07-D-0031, Periodic Inspection of Mississippi River East Bank Levee System (Bonnet Carre Spillway to Baton Rouge), USACE, T.O. 47: Mr. DasGupta served as Project Manager and Point of Contact for this USACE Periodic Inspection (PI) project to identify levee deficiencies. The project included 107 miles of levees and floodwall sections, closure structures, culverts and interior drainage. ECM's team provided assessments of the general condition of the levee system, based on visual inspections and hydrologic and geotechnical design, as well as gathering, reviewing and documenting existing information and data. The purpose of ECM's inspections was to evaluate and verify proper operation of the system and determine structural stability and adequacy and make recommendations. The assessments included review of hydraulic data and design criteria to identify any changes in design standards as well as features to monitor over time. Mr. DasGupta provided QA/QC oversight for inspection and engineering staff and was responsible for overall contract performance.
06/11-08/12	USACE IDIQ Contract No. W912WP8-07-D-0031, Periodic Inspection of West of Atchafalaya Floodway Levee System, USACE-New Orleans District, St. Martin Parish to Melville. Mr. Dasgupta served as the Principal for this project which consisted of conducting Periodic Inspections (PI) of the West of Atchafalaya Floodway Levee System (St. Martin Parish to Melville, LA). The work included 63.74 miles of levees and floodwall sections and several closure structures and pumping stations. The purpose of the PI was to verify proper operation and maintenance, evaluate operational adequacy and structural stability, review design criteria to identify changes in current design standards, identify features to monitor over time, and improve the ability to communicate the overall condition
08/11 – 11/14	USACE IDIQ Contract No. W912P8-07-D-0031, Levee Design NOV 6, 7, 8, Plaquemines Parish, LA, USACE New Orleans District, Task Order 0018: Mr. DasGupta served as Principal and Contract Point of Contact for NOV 06, 07, 08 and Project Manager for NOV 8 project, which involved preparation of plans and specifications for design of the New Orleans to Venice (NOV) back levees as part of the Plaquemines Parish Hurricane Protection Projects. The task order included design for restoration of a total 33.68 miles and NOV 8 included designing 8.7 miles of existing levees to authorized grade plus overbuild to compensate for fill shrinkage and foundation settlement.

16. Staff Experience

Firm employed by		ECM Consultants, Inc.			Years of relevant experience with this employer	17
Name	Sunina Shrestha, P.E., PMP				Years of relevant experience with other employer(s)	2
Title	Assistant VP- Engineering				M.S. /2008 /Civil Engineering, Water Resources and Environmental Engineering;	
Degree(s) / Years / Specialization					37901 / LA / 09/30/2027: LA PMP 4043790	
Active registration number / state / expiration date					Civil engineering and Hydraulic and Hydrologic Engineering	
Year registered	2013	Discipline			Ms. Shrestha will serve as Project Manager for this contract. She meets the requirements of MPR No.2 and 3	
Contract role(s) / brief description of responsibilities						
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).					
19 years of experience	<i>Ms. Shrestha has 19 years of experience in engineering analysis for dams and design and preparation of PS&E for roads, bridges, water, sewerage, and drainage projects. She is highly proficient in design and analysis of civil and H& H engineering projects using HEC-RAS, HEC-HMS, SWAT, GIS, SAP 2000, WINSLAMM, LADOTD Hydraulics programs, and Dam Break Flood Simulation Model (DSS-Wise), ASDSO-Dam Break Flood Simulation ASDSO-Emergency Action Plan Basics; Training Aids for Dam Safety (TADS); USACE Levee Inspection Workshop. Ms. Shrestha is certified ATSSA Supervisor and Flagger.</i>					
05/21 – ongoing	S.P. No. 4400020842 Inspection of State-Regulated Dams, LADOTD, Statewide majority in Districts 03, 07, 61 and 62, LA: Ms. Shrestha is serving as Project Manager for this retainer contract involving inspection and engineering of 325 publicly and privately owned dams to identify deficiencies, and make recommendations for remediation so that dams and the attendant water control devices function adequately and safely. ECM conducted 329 inspections under this contract. The work involves dam safety inspections, reviewing available plans, reviewing previous DOTD Dam Evaluation Reports and documents and preparing reports with recommendations. This contract also includes the preparation of EAPs for 10 dams. Work includes hydrologic and hydraulic modeling of downstream basin using LiDAR survey data and preparation of EAP reports. Ms. Shrestha conducted analyses and creating models and reports, performing dam breach analysis, and preparation of inundation maps for several dams. Ms. Shrestha utilized ArcGIS, HEC-RAS 2D and HEC-HMS computer programs for this project. Work includes hydrologic and hydraulic modeling of downstream basin using LiDAR survey data and preparation of EAP reports for several dams throughout Louisiana. Ms. Shrestha conducted analyses and creating models and reports, performing dam breach analysis, and preparation of inundation maps for several dams. Ms. Shrestha utilized ArcGIS, HEC-RAS 1D/2D, HEC-HMS and HEC-GeoRAS computer programs for this project.					
01/18 – 03/21	S.P. No. 4400011393 Inspection of State-Regulated Dams, LADOTD, Statewide, LA: Ms. Shrestha served as Project Manager for this statewide retainer contract inspection and engineering of 325 publicly and privately owned dams to identify deficiencies, perform analysis for hazard categories, and make recommendations for remediation so that dams and the attendant water control devices function adequately and safely. ECM conducted 196 inspections for publicly and privately owned dams across Louisiana under this State Dam Safety Program. Project scope also included hydraulic modeling for preparation of EAPs to includes dam breach analysis and impact on downstream including inundation maps.					
11/13-10/17	S.P. No. 4400003970 LADOTD Safety Inspections of State Regulated Dams, Statewide, LA: Ms. Shrestha served as Project Manager for this Retainer Contract for which ECM had conducted 525 inspections for 289 publicly and privately owned dams across Louisiana under this State Dam Safety Program. This includes hydrologic and hydraulic modeling of downstream basin using LiDAR survey data and preparation of 22 EAP reports for several dams throughout Louisiana. Ms. Shrestha conducted analyses and creating models and reports, performing dam breach analysis, and preparation of inundation maps for several dams. Ms. Shrestha utilized ArcGIS, HEC-RAS 1D/2D, HEC-HMS and HEC-GeoRAS computer programs for this project as well as DSS-Wise for producing base information quickly.					
11/08-10/13	S.P. No. 750-99-0135: LADOTD Dam Safety Program, Louisiana Statewide: Ms. Shrestha served as Project Engineer for this dam safety inspection and hydrologic and hydraulic engineering services for 570 dams under the State Dam Safety Program. ECM conducted 908 inspections for 570 publicly and privately owned dams across Louisiana under this State Dam Safety Program. This also included hydrologic and hydraulic modeling of watersheds using LiDAR survey data and preparation of EAP reports for 23 dams. Preparation of these reports also involved field reconnaissance, dam breach analysis, and preparation of inundation maps. She has utilized ArcGIS, HEC-RAS and HEC-GeoRAS computer programs for this project. She also prepared dam safety inspections reports for the dams inspected to ensure that the impoundment structures and water control devices function adequately					
05/19-Ongoing	Watershed Plan and Environmental Document for the Town of Oneida Water Supply for USDA NRCS Scott County, Tennessee: Hydrologic & Hydraulic					

Prime Consultant: **ECM Consultants, Inc.**

	Engineer. She provided planning, H&H analysis and modeling services for the complete development of a Watershed Plan – Environmental Document (Plan-ED) for the approximately 9.5 square miles area of Town of Oneida. The purpose of the project is to evaluate the current and future water supply needs for Town of Oneida. The work consists of the performance of all inventories, surveys, preliminary designs and planning necessary to complete an NRCS acceptable combined watershed plan and environmental document, Plan-ED. She developed all the necessary hydrologic and hydraulic characteristics of the two potential location of dams along Cordell Creek. This work included the obtaining data via ArcGIS, development of the Stage – Area curve upstream of the dam and the determination of the drainage area. HEC-HMS software is being used to develop the peak flow discharge values along the discharge stream, Cordell Creek, which was later used in HEC-RAS. She developed a dam breach analysis for both dams that determined which residential and commercial properties will be affected the most a dam breach
04/20- 02/23	Development of a Watershed plan and Environmental document for the state of Arkansas parks and tourism for the Lake Bennett Watershed, Faulkner County, Arkansas for USDA-NRCS: Hydrologic & Hydraulic Engineer. She provided planning, H&H analysis and modeling services for the complete development of a Watershed Plan – Environmental Document (Plan-ED) for the approximately 2,500 Acre area of Lake Bennett Watershed. This watershed is located upstream of Arkansas State Highway 285. ECM Team formulating recommendation with most technically, economically, socially, and environmentally acceptable alternatives with defensible rationale. The project also involves the guiding Natural Resources Conservation Service (NRCS) in determining the appropriate environmental document needed for this federal action – Environmental Assessment or Environmental Impact Statement. She was responsible for all hydraulic and hydrologic analysis of this and developed all the necessary hydrologic and hydraulic characteristics of the Lake Bennett drainage basin necessary for the design of a new dam. This included the obtaining data via ArcGIS, development of the Stage – Area curve upstream of the dam and the determination of the drainage area. This information was used to the size up a new spillway using NRCS's SITES software. She was also involved in developing the flood profile downstream of the dam for storms from 1 year to 500 years. HEC-HMS software is being used to develop the peak flow discharge values along the discharge stream, Black Fork, which was later used in HEC-RAS. The results of the HEC-HMS and HEC-RAS study for storms from 1 year to 500 years will be used by the economist member of the team to develop a benefit cost study. The economic study should provide benefits that exceed the cost of a new dam. She also developed a dam breach analysis for both new and existing dams. A breach footprint was developed from the analysis to determine which residential and commercial properties would be affected the most.
11/08-10/13	Dam Breach Analysis/Report - NRCS Structure Sites – Kentucky for USDA-NRCS: Ms. Shrestha Served as Project Manager and hydraulic engineer for this project. Out of total 80 dams in the contract, ECM performed dam breach analysis for 48 dams and AECOM, ECM's subconsultant performed dam breach analysis 32 dams, both firms performed all hydraulic and hydrologic analysis of this task. ECM developed all the necessary hydrologic and hydraulic characteristics of the 48 dams and prepared the 2D dam breach model, the inundation map and reports and coordinating and managing all 80 Kentucky dams. This work included the obtaining data via ArcGIS, development of the Stage – Area curve upstream of the dam and the determination of the drainage area, determining the land use for the drainage basin, Calculating the CN value for the drainage basin, determining the manning's coefficient for the downstream and upstream area, developing the inflow hydrographs, and determining the upstream and downstream condition
05/10 – 03/11	USACE IDIQ Contract No. W912WP8-07-D-0031, Periodic Inspection of Mississippi River East Bank Levee System (Bonnet Carre Spillway to Baton Rouge), T.O. 47: Ms. Shrestha was involved as one of the team member for inspection and engineering services to identify levee deficiencies for 108 miles of levees and floodwall sections, closure structures, culverts, and drainage. ECM provided assessments of general condition of the levee system, based on visual inspections and hydrologic and geotechnical design; gathered, reviewed, and documented existing information and data. The purpose of ECM's inspections was to evaluate and verify proper operation of the system and determine structural stability and adequacy of the Storm Risk Reduction System and make recommendations for necessary repairs and upgrades. The assessments included review of hydraulic data and design criteria to identify any changes in design standards per current standards.
08/10-02/14	USACE IDIQ Contract No. W912P8-07-D-0031, West Bank Mississippi River Levee, Phase II, Empire to Buras (NOV-16), Plaquemines Parish, LA, USACE Vicksburg District, T.O. 0043: Ms. Shrestha provided civil engineering design of preliminary and final construction plans and specifications for the main line of the West Bank Mississippi River Levee, Empire to Buras reach in Plaquemines Parish, under the above a \$90 million IDIQ contract. The project involved the enlargement of approximately 6.7 miles of existing levee as a storm damage risk reduction measure. The design allowed the levee to be built to the authorized grade plus overbuild to compensate for fill shrinkage and foundation settlement. Design features included demolition of existing floodwalls, deep soil mixing, new wave berm armament, and access ramps.

16. Staff Experience

Firm employed by ECM Consultants, Inc.					
Name	Kazem H. Alikhani, P.E.			Years of relevant experience with this employer	9
Title	Chief Executive Officer			Years of relevant experience with other employer(s)	37
Degree(s) / Years / Specialization		M.S./1984/Engineering Concentration in Civil, Hydraulic & Hydrology B.S./1980/Mechanical Engineering			
Active registration number / state / expiration date		25073/Louisiana/Exp. 03/31/2028			
Year registered	1992	Discipline		Mechanical & Environmental Engineering	
Contract role(s) / brief description of responsibilities		Mr. Alikhani will serve as Contract Manager for this contract. Mr. Alikhani meets the minimum requirement of MPR No.1			
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
46 years of experience	<i>As CEO of ECM, Mr. Alikhani serves as Project Manager for a variety of infrastructure projects, overseeing staff, budgets, timeline and working with clients, consulting firms and subconsultants to ensure timely and accurate project delivery. He spent the majority of his career working with the Jefferson Parish Department of Public Works and retired as the Director of Public Works, responsible for all public works functions. Mr. Alikhani has over 46 years of experience in public works projects including planning, design, and construction management. He is an ATSSA Work Zone Traffic Control Flagger, Technician & Supervisor.</i>				
05/21 – ongoing	S.P. No. 4400020842 Inspection of State-Regulated Dams, LADOTD, Statewide majority in Districts 03, 07, 61 and 62, LA: Mr. Alikhani is serving as Contract Manager and Point of Contact for this retainer contract for inspection and engineering of 300 publicly and privately owned dams in the various DOTD Districts included in the contract. The purpose of this dam safety inspection contract is to identify deficiencies, reviewing available plans; reviewing previous DOTD Dam Evaluation Reports and documents; performing safety inspections of high hazard, significant hazard, and low hazard category dams; preparing and submitting Dam Evaluation and Assessment Reports to DOTD and follow up actions. perform analysis for hazard categories and make recommendations for remediation so that dams and the attendant water control devices function adequately and safely. This also included hydraulic modeling, dam breach analysis, inundation mapping and preparation of EAPS which was performed by ECM's H&H engineers.				
03/18 – 03/21	S.P. No. 4400011393 Inspection of State-Regulated Dams, LADOTD, Statewide, LA: Mr. Alikhani served as Contract Manager and Point of Contact for this statewide retainer contract where ECM performed inspections for over 250 publicly and privately owned dams to identify deficiencies, perform analysis for hazard categories, and make recommendations for remediation so that dams and the attendant water control devices function adequately and safely. Project scopes also include hydraulic modeling for preparation of EAPs to include dam breach analysis and impact on downstream including inundation maps.				
12/19 - ongoing	Watershed Plan and Environmental Document for the Town of Oneida Water Supply, Scott County, TN – USDA-NRCS: Mr. Alikhani is the Project Manager for the IDIQ Contract with NRCS. Oneida Water Supply project is one of the task orders under this contract. Project scope includes evaluation for water supply alternatives and analysis. This involved watershed planning, geotechnical analysis, H&H analysis and modeling, environmental documents, economics, and coordination with NRCS and Subconsultants.				

09/22-12/23	Dam Breach Analysis/Report - NRCS Structure Sites - Kentucky: Mr. Alikhani was the Contract Manager for this IDIQ contract with NRCS. This project involved Dam Breach analysis for 80 dams in the state of Kentucky. The Project involved hydrologic and hydraulic modeling and analysis, inundation maps and reports, and coordination with Client and Subconsultants. ECM performed dam breach analysis for 48 dams.
2010 – 2016	Director of Department of Public Works, Jefferson Parish, LA: As Director of Public Works for Jefferson Parish, Mr. Alikhani oversaw all public works functions including planning, budgeting, engineering, maintenance, construction, administration, financial operations, personnel activities and regulatory compliance for the Public Works Dept. and related Capital Projects.
2004 – 2010	Director of Drainage Department, Jefferson Parish, LA: Prior to becoming Public Works Director, Mr. Alikhani served as Director of the Drainage Department for Jefferson Parish, where he was responsible for operation of 53 drainage pump stations, miles of levees, canals, subsurface drainage, flood control structures and floodwalls. He commissioned hydraulic modeling and studies of a number of areas in the Parish to identify deficiencies in the drainage system and accordingly, he planned and budgeted over \$200 million in drainage improvements throughout Jefferson Parish. • Mr. Alikhani was instrumental in updating the Drainage Model for the entire Jefferson Parish and converting it to SWMM 5. • Mr. Alikhani and his staff worked with FEMA to update the Parish's FEMA flood maps using post-Katrina improved flood protection system, SELA Program and other significant drainage improvement projects to revise 11 flood maps that are due for adoption later this year.
2004 – 2016	Southeast Louisiana Urban Flood Control Project (SELA), Jefferson Parish, LA: As Director of Public Works, Mr. Alikhani oversaw this program working with Jefferson Parish's master drainage plan and SELA's program to improve interior drainage and reduce the risk of damage due to rainfall flooding. In general, the Parish worked with US Army Corp of Engineers to provide flood risk reduction on a level associated with a 10-year rainfall event. Construction was completed in 2017. There were 38 West Bank projects totaling a construction cost of \$320M, and 36 East Bank projects at a total construction cost of \$380M. The majority of projects included drainage channel improvements based on Hydraulic modeling and benefit-cost ratio. Also included in the program were the expansion of 4 existing pump stations, design and construction of 3 new pump stations.
12/19 – 06/22	Louisiana Watershed Initiative: Mr. Alikhani provided watershed management support for ECM Consultants as part of the Louisiana Watershed Initiative (LWI), a statewide program established to address Louisiana's ongoing flood risk and resilience challenges. ECM serves as a subconsultant to AECOM for program management of \$1.2 billion in mitigation funding through the U.S. Department of Housing and Urban Development Community Development Block Grant program. Mr. Alikhani supports program management and technical coordination for these federally funded efforts. His responsibilities include policy and program development, technical evaluation of watershed improvements, and coordination among state, federal, and local agencies.
02/06 – 04/09	Pontiff Playground Detention Area: Mr. Alikhani was the Program Manager for this \$5 million project involving design and construction of a stormwater detention pond and small pump stations. This project involved utilizing the Pontiff playground as a detention pond during a storm event to store rainwater. This project included constructing a ring levee around the playground with a strategically placed small pump stations to pump rainwater from the surrounding neighborhoods into the playground. Benefits of this project were reduced flooding in the area neighborhood and slow release of the water into the downstream drainage system. The project did not impact on the function of the playground in such that the playground was functional within hours after the rain events.

16. Staff Experience

Firm employed by ECM Consultants, Inc. (contract)			
Name	Bradley Sticker, P.E.		Years of relevant experience with this employer
Title	QA/QC Manager		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization	B.S./Agricultural Engineering, Soil and Water, 1984		
Active registration number / state / expiration date	24173/Louisiana/Agricultural Engineering/Exp. 09/30/2027		
Year registered	1991	Discipline	Agricultural Engineering
Contract role(s) / brief description of responsibilities	Mr. Sticker will serve as QA/QC Manager for this contract.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
40 years of experience	<i>He served as the State Representative of Louisiana Dam Safety Official for LADOTD, Water Resources Engineer, LADOT, Assistant State Conservation Engineer and later as State Conservation Engineer for USDA-NRCS, Alexandria, Louisiana. He developed and was responsible for the implementation of Louisiana Revised Statute Title 38; Chapter 1-A. Dams and Related Matters as well as all technical aspects of NRCS programs, policies and procedures relative to the practice of engineering in Louisiana. He was responsible for the formulation of standards, specifications, engineering planning, design and construction throughout Louisiana. In these positions at various times was responsible for design, construction, and/or maintenance of a large number of Coastal Wetland Restoration and Creation Projects. As Water Resources Engineer and State Dam Safety Official for LADOTD, he was responsible for supervision of all present or future dams within the state and the safe operation and maintenance of both federal and nonfederal and operation and maintenance of State-Owned Dams.</i>		
2022	State Dam Safety Official – Louisiana Department of Transportation and Development (DOTD)(Retired) Baton Rouge, Louisiana: Served as the State Representative of Louisiana with the Association of State Dam Safety Officials. This position is the head of the Dam Safety Section of the Office of Public Works within the Louisiana DOTD. The primary responsible is for the implementation of Louisiana Revised Statute Title 38; Chapter 1-A. Dams and Related Matters; Section 21 – Section 28 which includes inspection, regulation, and supervision of all present or future dams within the state and the safe operation and maintenance of both federal and nonfederal and operation and maintenance of State-Owned Dams. This included performing and managing dam safety inspections for all programming dams within the state and assuring Emergency Action Plans are implemented for all high and significant hazard dams, providing technical review of plans and specification for compliance with Louisiana dam safety rules and regulations for new construction and rehabilitation/modifications to existing dams. Performed designs including plans and specifications for rehabilitation, repairs and maintenance of the State-Owned Dams Maintained the state dam inventory and provided data to the National Inventory of Dams (NID).		
2020	Water Resources Engineer – Louisiana Department of Transportation and Development (DOTD) – Alexandria, Louisiana: As Water Resources Engineer, he was responsible for the operation and management of the Water Resources Section in District 08, DOTD. Provided technical assistance to three levee boards (Natchitoches Levee and Drainage District, Nineteenth Louisiana Levee District, and Red River, Atchafalaya, and Bayou Boeuf Levee District). This assistance consisted of design, development of plans and specifications, construction inspection and contract administration assistance for the repairs to flood protection levees and flood control structures. Reviewed all permits for work within the vicinity of levees to assure conformance with DOTD and USACE requirements. Developed drainage studies and hydraulic analysis for design and evaluation of drainage structures and channels within the district. Prepared and/or reviewed Statewide Flood Control Program applications. Served as the District's expert in the following areas of hydrology, hydraulics, dam and levee design, construction and operation and maintenance, water well construction, certification, plugging and abandonment, ports and flood control. Performed hydrology and hydraulic (H&H) analysis as requested for various projects and drainage problems within the District including Roadway Flooding Projects and bridge replacements. Reviewed H&H designs for compliance with DOTD Policy for permit applications.		

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2011	State Conservation Engineer – USDA Natural Resources Conservation Service (NRCS) (Retired)– Alexandria, Louisiana: Chief engineer for the State of Louisiana in NRCS. Responsible for, and developed all technical aspects of NRCS programs, policies and procedures relative to the practice of engineering in Louisiana. Responsible for formulation of standards, specifications, engineering planning, design and construction; analyzing engineering work performed by others; and training needs of engineering personnel. Implemented engineering state technical policies and procedures that adapt all phases of structural and mechanical practices for wetland (marsh) restoration and creation, floodwater protection, soil erosion, animal waste control, and ground and surface water conservation. Responsible for complete design, implementation and operation and maintenance of a wide variety of large-scale water resources projects such as wetland restoration and creation projects, flood protection dams, and irrigation water supply projects. This included the preparation of plans and specifications for Federal and Locally Awarded Contracts and overall supervision of construction inspection activities. While in this position the majority of projects were associated with the Coastal Wetlands Planning Protection and Restoration Act (PL-646). These wetland projects included numerous shoreline protection projects utilizing varied and unique materials, marsh creation projects utilizing hydraulically dredged material and wetland hydraulic restoration projects with various water control structures. Responsible for design and construction water resources projects exceeding \$20,000,000 annually. Maintained a close working relationship with engineers and scientists of U.S. Army Corps of Engineers (USACE), the State Dam Safety Official, EPA, the state Department of Environmental Quality, and the State Soil and Water Conservation Commission and state colleges and universities. Worked closely with State Dam Safety Officials in the inspection, operation and maintenance of all NRCS designed dams, including assistance to local sponsors (owners) of these dams in development and implementation of Emergency Action Plans.
2009	Civil Engineer (Assistant State Conservation Engineer) – USDA Natural Resources Conservation Service (NRCS) – Alexandria, Louisiana: As Civil Engineer, he developed technical materials and supplements for engineering handbooks, manuals, guides, job sheets, and policy for NRCS Louisiana. Served as design team leader responsible for providing technical guidance to other design engineers on the staff in all aspects of large-scale natural resource projects such as design of water control structures and conveyance channels, pumping stations, hydraulically dredged marsh creation projects, rock breakwaters and others. Also served as construction team leader responsible for oversight of all NRCS project construction activities statewide. The majority of the design and construction activities while in this position consisted of coastal wetlands restoration and creation projects including numerous shoreline protection projects utilizing varied and unique materials, marsh creation projects utilizing hydraulically dredged material and wetland hydraulic restoration projects various water control structures. Developed technical modifications to construction contracts and provided cost estimates for changes. Trained personnel within the NRCS Louisiana in hydrology and hydraulic designs for various engineering practices, contract administration, construction safety, dam safety inspection and others. Responsible for the inspection and maintenance of Small Watershed Program (PL-566) and Coastal Wetland Planning, Protection and Restoration Act (PL-646) projects with sponsor organizations. Provided guidance in the rehabilitation analysis of inventory dams and the development of Emergency Action Plans for the dams which required hydrologic and hydraulic analysis and assessments of structures.
1993	Area Engineer – USDA Natural Resources Conservation Service (NRCS) – Denham Springs, Louisiana: Served as Area Engineer, providing engineering services for an eight-parish area concerning soil and water conservation practices. Performed planning, design and construction oversight of a wide variety of engineering conservation practices such as small dams, drainage systems, waste management systems, terraces, vegetated waterways, grade control structures, water control structures, irrigation systems, and others. Designs included determination of hydrologic, hydraulic and geotechnical requirements for all practices. Performed planning surveys, design surveys, project design and contract administration of a wide variety of projects through the Small Watershed Program (PL-566). Developed designs, plans, and specifications for construction contracts that included large scale drainage systems, erosion control measures, sediment containment systems, sediment basins, water control structures, and forced drainage systems. Developed the hydrologic requirements for drainage systems, determined runoff and designed necessary conveyance channels. Served as the Government Representative on CLO (Contracting Local Organization) Contracts as well as the Contracting Officer's Technical Representative (COTR) on federal contracts.

16. Staff Experience:

Firm employed by ECM Consultants, Inc.					
Name	Benjamin Dow			Years of relevant experience with this employer	17
Title	Senior Technician			Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization				High School Diploma	
Active registration number / state / expiration date				NA	
Year registered		Discipline		NA	
Contract role(s) / brief description of responsibilities				Mr. Dow will serve as a Senior Technician for Dam Safety Inspections for this contract. He meets MPR No. 4	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
24 years of experience	Mr. Dow has over 24 years of experience in performing inspection for projects such as: roads & bridges, dams, levees, and coastal restoration projects. • Training Aids for Dam Safety (TADS) • ATSSA Certified Flagger, Technician, Supervisor. • NHI Certified-Safety Inspection of In-Service Bridges. • LADOTD Movable Bridge Inspection Workshop. • USACE Levee Inspection Workshop. • LADOTD certified Embankment and Base Course Inspector				
05/21 – ongoing	S.P. No. 4400020842 Inspection of State-Regulated Dams, LADOTD, Statewide majority in Districts 03, 07,61 and 62, LA: Mr. Dow is performing the dam safety inspections for all the dams under this contract. He is responsible for scheduling, notifying the dam owner, other interested parties, and DOTD of impending inspections; reviewing available plans; reviewing previous DOTD Dam Evaluation Reports and documents; performing safety inspections of high hazard, significant hazard, and low hazard category dams; preparing and submitting Dam Evaluation and Assessment Reports to DOTD and follow up actions. He is using ESRI based app, Studio Go App, for inspection and preparation of the reports.				
03/18 – 03/21	S.P. No. 4400011393: Inspection of State-Regulated Dams, LADOTD, Statewide, LA: Mr. Dow provided dam safety inspection services and field data collection under this statewide retainer contract for publicly and privately owned dams to identify deficiencies, perform analysis for hazard categories, and make recommendations for remediation so that dams and the attendant water control devices function adequately and safely. Rotation frequencies for these inspections are: High Hazard dams annually, Significant Hazard every 3 years, and Low Hazard every 5 years.				
11/13-10/17	S.P. No. 4400003970: LADOTD Safety Inspections of State Regulated Dams; Statewide: Mr. Dow performed dam safety inspections and field data collection for privately owned dams throughout the state of Louisiana to the extent deemed necessary to ensure that the impoundment structures and the water-control devices are functioning to design capabilities. Responsibilities included conducting field survey and data collection for hydraulic and hydrologic analyses; notifying the dam owner, other interested parties, and DOTD of impending inspections; reviewing available plans; reviewing previous DOTD Dam Evaluation Reports and documents; performing safety inspections of high hazard, significant hazard, and low hazard category dams; preparing and submitting Dam Evaluation and Assessment Reports to DOTD and follow up actions. ECM performed 525 inspections for 289 publicly and privately owned dams across the state.				
11/08-10/13	S.P. No. 750-99-0155, LADOTD Safety Inspections of State Regulated Dams, Statewide Mr. Dow has performed safety inspections of 200 publicly and privately owned dams throughout the state of LA annually to the extent deemed necessary to ensure that the man-made impoundment structure and the attendant water-control devices are functioning to design capabilities. Responsibilities include notifying the dam owner, other interested parties and DOTD of impending inspections; reviewing available plans; reviewing previous DOTD Dam Evaluation Reports and documents; performing safety				

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	inspections of high hazard, significant hazard, and low hazard category dams, and preparing and submitting Dam Evaluation and Assessment Reports.
11/19 – 08/21	General Engineering IDIQ-2018, Contract No. 4400015378, T.O. 01, Northwest Turtle Bay Marsh Creation (BA-0125), Jefferson Parish, LA: Quality Assurance Representative (QAR). This project involved creation and nourishment of 1093 acres of marsh in the Barataria Basin. Hydraulic dredging from a borrow area located in Turtle Bay just south of the project area and pumped into each marsh creation areas. This involved construction 2,875 LF of Earthen Gap Closures and 20,767 LF and 29,688 LF of Earthen Containment Dikes . Approximately 2,000,000 CY of fill material was pumped utilizing 16" diameter hydraulic dredges , 7,296 SY of Articulated Concrete Mats was installed along 2,623 LF of the Earthen Containment Dikes for erosion protection .
05/10 – 03/11	USACE IDIQ Contract No. W912WP8-07-D-0031, Periodic Inspection of Mississippi River East Bank Levee System (Bonnet Carre Spillway to Baton Rouge), USACE, T.O.0047: Mr. Dow served as Levee Inspector for this project consisting Periodic Inspections (PI) of the Mississippi River East Bank Levee System (Baton Rouge to New Orleans). The work included 108 miles of levees and floodwall sections and several closure structures and pumping stations. The purpose of the PI was to verify proper operation and maintenance, evaluate operational adequacy and structural stability, review design criteria to identify changes in current design standards, identify features to monitor over time, and improve the ability to communicate the overall condition.
06/11-08/12	USACE IDIQ Contract No. W912WP8-07-D-0031, Periodic Inspection of West of Atchafalaya Floodway Levee System, USACE-New Orleans District, St. Martin Parish to Melville Mr. Dow served as Inspector for this project which consisted of conducting Periodic Inspections (PI) of the West of Atchafalaya Floodway Levee System (St. Martin Parish to Melville, LA). The work included 63.74 miles of levees and floodwall sections and several closure structures and pumping stations. The purpose of the PI was to verify proper operation and maintenance, evaluate operational adequacy and structural stability, review design criteria to identify changes in current design standards, identify features to monitor over time, and improve the ability to communicate the overall condition.
08/13-12/16	S.P. No. 4400003534 Retainer Contract for Underwater Bridge Inspection Services, LADOTD; Statewide, LA: Mr. Dow performed inspection of bridges substructure from water level to superstructures. Inspection of the substructure below water was performed by divers. Inspection included documentation of damaged and deteriorated structural elements of the bridges. A total of 400 bridges were inspected over a period of 3 years. Under this contract, he was involved in field inspection and preparation of the final reports to have a national bridge inventory component rating. Scope included: Level 1 inspection, which was visual and tactile inspection of all bridges requiring underwater inspection in water above 4 feet; Level 2 inspection, which was detailed and included partial cleaning of all steel elements; and Level 3 inspection which was highly detailed inspection with non-destructive testing or partially destructive testing. Bridges included concrete and steel bridges on timber and concrete pile foundations, and inspections included piles, girders, abutments, deck, and checking for cracking, spalling, exposed rebars, rusting of steel girders, missing hardware, and all other related features
05/11-08/13	S.P. No. H.003203.6: I-10 Calcasieu River Bridge Repairs, LA DOTD; Calcasieu Parish, LA: Mr. Dow provided construction inspection services for structural steel repairs to the approach trestle bents and stringers, repairs to the connections of the main deck truss & steel cantilever truss members, painting of truss connections, anchor bolt repairs, and associated repairs to the approach roadway pavement expansion joints. He conducted an initial inspection/assessment of the unforeseen conditions during construction and collected information (including field dimensions and photos of what has been encountered) for their review by the project engineer.
11/08-01/09	Interim Inspection of 52 Off-System Bridges, LADOTD and City of New Orleans-DPW; Orleans Parish, LA: Mr. Dow served as Bridge Inspector for interim inspection of 52 Off-System Bridges in Orleans Parish. He was responsible for the following: review of previous inspection reports and construction drawings; interim inspections in accordance with AASHTO "Manual for Condition Evaluation of Bridges"; and documentation of all conditions found in accordance with LA DOTD "Recording and Coding Guide for Structure Inventory and Appraisal of the State's Bridges."
02/13-12/13	JPPW No. 2013-010-RB, Lapalco Blvd. Bridge over Bayou Segnette, Jefferson Parish DPW, Jefferson Parish, LA: Mr. Dow provided NBIS safety inspections of a 3,000' long high-rise bridge in Jefferson Parish. The inspection was performed in accordance with the Federal Highway Administration (FHWA) and LADOTD guidelines.

16. Staff Experience:

Firm employed by ECM Consultants, Inc.					
Name	Kumar Ambati, EI			Years of relevant experience with this employer	6
Title	Engineering Intern			Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization		B.S./2015/Civil Engineering, M.S./2018/Civil Engineering			
Active registration number / state / expiration date		35287/LA/03.31.27 64508/TX/10.4.2026			
Year registered	2018	Discipline		Engineering Intern	
Contract role(s) / brief description of responsibilities			Mr. Ambati will perform dam inspection, levee inspection, prepare GIS Maps, and data collection for H&H analysis. He meets MPR No. 4		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
8 years of experience	<i>Mr. Ambati has 8 years' experience in civil engineering including dam safety inspection, levee and floodwalls design, assist in watershed analysis, dam breach analysis, GIS using ArcGIS and preparation of construction drawings using CAD. This includes preparation of plans & profiles, typical sections, cross sections, various details for roadway, drainage, and utilities projects.</i>				
2021-Ongoing	LADOTD Safety Inspections of State Regulated Dams, Statewide, LA. Civil Engineer-EI. Mr. Ambati is providing Dam inspection and Surface drainage analysis services for this project. The work includes on-site inspection of earthen dams and associated structures like concrete Wiers, spillways and outlet work etc. The inspection aims to analyze structural integrity and identifying the deficiencies such as erosion, encroachment, slope stability, and seepage in and around the dam to ensure a thorough assessment. The work also includes providing best practice recommendations and remedies for the deficiencies observed. The job includes preparation of a detailed inspection report for every dam and drainage analysis using ArcGIS as and when required.				
09/20-Ongoing	Lake Bennett Watershed in Arkansas for state of Arkansas Parks and Tourism Department for Development of a Watershed plan and environmental document for Lake Bennett Watershed, Faulkner County, AR for USDA-NRCS: GIS Analyst. This project involves preparation of watershed plan for Lake Bennett watershed in Arkansas. The project involved hydraulic and hydrologic analysis for both existing and new dam condition. ARCGIS, HEC-HMS and HEC-RAS software were utilized for modeling to determine the water surface elevation of the area for 1, 2, 5, 10-, 50-, 100- and 500-years storm events. Lidar data was utilized to get topographic elevation. Mr. Ambani was responsible for getting all the required information for hydraulic modelling from ARCGIS software and preparing the inundation MAP after the completion of the Model.				
12/19-Ongoing	Watershed Plan and Environmental Document - Town of Oneida Water Supply, Scott County, Tennessee for USDA-NRCS: GIS Analyst. This project involves preparation of a watershed plan for the Town of Oneida in Scott County, Tennessee. The project involved hydraulic and hydrologic analysis for both existing and new dam condition. ARCGIS, HEC-HMS and HEC-RAS software were utilized for modeling to determine the water surface elevation of the area for 1, 2, 5, 10-, 50-, 100- and 500-years storm events. Lidar data was utilized to get topographic elevation. Mr. Ambani was responsible for getting all the required information for hydraulic modelling from ARCGIS software and preparing the inundation MAP after the completion of the Model.				

Prime consultant name: **ECM Consultants, Inc.**

09/22-12/23	Dam Breach Analysis/Report - NRCS Structure Sites – Kentucky for USDA-NRCS: Civil Engineer EI. Mr. Ambati obtained all the data required for the modeling and prepared all maps required for the reports. This work included obtaining data via ArcGIS, the determination of the drainage area, determining the land use for the drainage basin, Calculating the CN value for the drainage basin, determining the manning's coefficient for the downstream and upstream area. Mr. Ambati also performed the initial set up for each dam breach model and assisted with the complete 2D Breach Analysis. ECM was responsible for 48 dams and ECM's subconsultant AECOM was responsible for 32 dams performing all hydraulic and hydrologic analysis of this task. ECM developed all the necessary hydrologic and hydraulic characteristics of the 48 dams and prepared the 2D dam breach model, the inundation map and reports and coordinating and managing all 80 Kentucky dams.
2020-Ongoing	USACE Contract No. W912P8-16-D-0005, Task Order W912P820F0177, West Shore Lake Ponchartrain Flood Risk Reduction Project, Segments WSLP 102 and 106, St. Charles Parish, LA. Civil Engineer - EI: Mr. Kumar provides civil engineering design for levees and drainage canal, access road and bridge and support for structural design. He created 3-D models for T-walls and drainage structure and assisted structural lead in performing analysis. The WSLP 102 and WSLP 106 of approximately 2 miles, is a part of 18.5 miles long West Shore Lake Pontchartrain project at its east approach. The salient features of this contract are earthen Levees, T-walls, and a Drainage Structure in the Montz canal with four (4) stainless steel sluice gates. The flood mitigation configuration is such that a portion of T-wall construction in this reach crosses the

Prime consultant name: ***ECM Consultants, Inc.***

16. Staff Experience

Firm employed by ECM Consultants, Inc.				
Name	Chris Capretto, P.E., PMP			
Title	Project Engineer			
Degree(s) / Years / Specialization		B.S./2009/Civil Engineering		
Active registration number / state / expiration date		38641/ LA / 9-2026; PMP 3840827		
Year registered	2014	Discipline		Civil Engineering
Contract role(s) / brief description of responsibilities		Mr. Capretto will serve as an engineer for Dam Safety Inspection for this contract. Mr. Capretto meets the <u>MPR 2, 3 and 4</u>		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
17 years of experience	Mr. Capretto has 17 years of experience in construction inspection, dam inspection, underwater bridge inspection, bridge inspection and bridge rating, bridge design, pavement design, and stormwater drainage design. He is certified in FHWA-NHI-130091 Underwater Bridge Inspection; LPA Core Training Module; ATSSA Work Zone Traffic Control Flagger, Technician & Supervisor.			
05/21 – ongoing	S.P. No. 4400020842 Inspection of State-Regulated Dams, LADOTD, Statewide majority in Districts 03, 07, 61 and 62, LA: Mr. Capretto is serving as project engineer for this statewide retainer contract inspection project. Mr. Capretto is performing inspection for all high and significant hazard Dams and assisting in preparation of report and recommendations. His duties included inspecting both upstream and downstream sides of the earthen and concrete dam structures including spillways, bell-mouth spillways, weirs (ogee and sharp-crested), galleries, embankments, drawdown structures, stilling basins, chute blocks and baffle blocks etc. He checked dams for condition of the structural elements such as evidence of erosion, settlement, depression, leakage, seepage, cracking, etc., as well as tree and plant growth on or within ten feet of the embankments, presence of animal burrows, soil slips or other signs of potential failure, maintenance status of the dams, and checking downstream conditions for scour and channel slope erosion. He prepares the report with findings and recommendations.			
11/13-10/17	S.P. No. 4400003970 LADOTD Safety Inspections of State Regulated Dams, Statewide, LA: Mr. Capretto performed inspections of several dams under this Retainer Contract for detecting and documenting evidence of deficiencies of dams and attendant water control devices. His duties included inspecting both upstream and downstream sides of the earthen and concrete dam structures including spillways, bell-mouth spillways, weirs (ogee and sharp-crested), galleries, embankments, drawdown structures, stilling basins, chute blocks and baffle blocks etc. He checked dams for condition of the structural elements such as evidence of erosion, settlement, depression, leakage, seepage, cracking, etc., as well as tree and plant growth on or within ten feet of the embankments, presence of animal burrows, soil slips or other signs of potential failure, maintenance status of the dams, and checking downstream conditions for scour and channel slope erosion.			

	Some of the dams that he inspected include: 5L Ranch Pond (700 ft), Beauregard No. 1 (1,625 ft), Beauregard No. 2 (930 ft), Valentine Lake (770 ft), Dr. Charles Ashwell Lake (1,410 ft), Miller Lake Dam (5,640 ft), Goodyears Pond (1,720 ft), Money Hill Pond No. 1 (4,595 ft), and Money Hill Pond No. 2 (550 ft.).
08/14-12/16	S.P. No. 4400003534 Retainer Contract for Underwater Bridge Inspection Services, LADOTD; Statewide, LA: Mr. Capretto performed inspection of bridges substructure from water level to superstructures. Inspection of the substructure above water. Below water was performed by divers. Inspection included documentation of damaged and deteriorated structural elements of the bridges. He was involved in inspection of over 200 of total of 400 bridges under this contract. he was responsible for field inspection and preparation of the final reports to have a national bridge inventory component rating. Scope included: Level 1 inspection, which was visual and tactile inspection of all bridges requiring underwater inspection in water above 4 feet; Level 2 inspection, which was detailed and included partial cleaning of all steel elements; and Level 3 inspection which was highly detailed inspection with non-destructive testing or partially destructive testing. Bridges included concrete and steel bridges on timber and concrete pile foundations, and inspections included piles, girders, abutments, deck, and checking for cracking, spalling, exposed rebars, rusting of steel girders, missing hardware, and all other related features.
0914 –11/17	JPPW Project No. 2012-034-DR, Veterans Blvd. Drainage Pump Stations, Jefferson Parish-DPW, Jefferson Parish, LA (2014-Present): Mr. Capretto provided project coordination and civil engineering design services for design of two new drainage pump stations that discharge into the 17th Street Canal. Projects include one 60 cfs pump station and one 80 cfs drainage pumping station with axial flow pumps, concrete wet well and 32" and 38" discharge piping systems.
08/16-05/18	S.P. No. H. 0106059: Rafe Meyer Bridges in Baker, LA for LADOTD (2016-Present): Mr. Capretto provided construction engineering support and contract administration for this project involving demolition and construction of two off-system bridges for LADOTD in East Baton Rouge Parish. This project includes precast concrete pile driving, cast-in-place concrete bents, decks, approach slabs and asphaltic concrete roadway transition. He was assisting the project manager in submittal management, coordination and communication with inspectors, resolution of field issues and site visits as directed by the project manager.
06/08-06/09	P.O. #5052600 Inspection and Structural Evaluations, Tammany Trace Bridges; St. Tammany Parish, LA (2008-2009): Mr. Capretto performed inspection of 28 timber, steel, and concrete bridges on a railroad system converted to a pedestrian and bicycle trail. He inspected damage and documented structural condition and necessary repairs. He prepared reports for each bridge, including description and photos of existing conditions, list of suggested improvements and repairs, and prepared detailed CAD drawings.
04/16-09/18	DPW No. 2000-1301, Gravier Street Improvements (S. Galvez to S. Broad), City of New Orleans-DPW; New Orleans, LA: Mr. Capretto provided construction engineering and construction contract administration services for this \$5.8 million PCC roadway construction project including major drainage, water, and sewer mains replacement project. As Assistant Project Engineer, his responsibilities included attending weekly progress meetings, preparing, and distributing minutes of meetings, coordination with various agencies, review and response to all RFIs in consultation with Design Engineer, submittal reviews and management, prepare plan changes, maintaining all documents and assist Project Engineer in resolution of field issues.

16. Staff Experience:

Firm employed by ECM Consultants, Inc.				
Name	Robert Brown			
Title	Certified Lead Inspector			
Degree(s) / Years / Specialization		Years of relevant experience with this employer		13
Active registration number / state / expiration date		Years of relevant experience with other employer(s)		21
Year registered	N/A	Discipline		High School Diploma
Contract role(s) / brief description of responsibilities		N/A		
Experience dates (mm/yy–mm/yy)		Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
34 years of experience	<i>Mr. Brown has over 34 years of experience in construction inspection of roads and bridges, overpasses, utilities relocations, levees and floodwall. He has the following certifications:</i> • LADOTD PCC Paving Inspector • LADOTD Structural Concrete Inspector • LADOTD Embankment and Base Course Inspector • LADOTD Authorized Concrete Field Tester. • ATSSA Work Zone Traffic Control Flagger, Technician & Supervisor • Confined Space entry, OSHA-10.			
10/10- 08/12	USACE- New Orleans District: Construction of Levees, LPV 20.2, Reaches 3 and 4 extended levee berm foreshores. along Lake Pontchartrain, Metairie, LA: Mr. Brown served as Quality Assurance Inspector for this project. Work included over 14,000 feet of shoreline extension with about 150 feet wide levee. Work include placement of geotextile separator fabric underwater for stability, a R2200 graded stone berm was constructed, and the area between the berm and existing shoreline was filled in with sand and earthen fill material. The quantity of the R2200 graded stone was over 317,000 tons. Mr. Brown was responsible for evaluating contractor quality control system; observing all construction phases to ensure compliance; reviewing shop drawings and submittals; checking quantities; reviewing requests for change orders; observing and reviewing three phase inspection (preparatory, initial, follow-up) for all features of work; and ensuring that tested and approved materials are before installation.			
10/09-11/10	USACE- New Orleans District: Construction of Levees, LPV 19.2, reach 4 Earthen Levee berm enlargement, Metairie ,LA: As QAR III, Mr. Brown provided quality assurance services for this project. The project was over 7200 feet of levee along Lake Pontchartrain in Metairie. Work included grading, repair, and rebuilt of this section including enlarging the reach for improved stability and integrity.			
02/08- 08/09	USACE- New Orleans District: Construction of Harvey Canal Floodwall, Harvey, LA: Mr. Brown served as Survey Party Chief for construction layout and as-builts of the Harvey Canal floodwall. The project involved construction of a concrete T-wall with sheet piles, multiple rows of battered and vertical H-piles, and consisted of drainage monoliths, gate monoliths, and a pedestrian gate. Mr. Brown coordinated with area superintendents and multiple field superintendents			

Prime consultant name: **ECM Consultants, Inc.**

01/19-10/20	S.P. No. 009250, I-10: Highland to LA 73 Design-Build Project, LADOTD, East Baton Rouge/Ascension Parish, LA: Mr. Brown has served as a Construction Inspector for this \$77 million design-build project to widen I-10 from four to six lanes in both east and westbound directions, add deceleration and acceleration lanes at the Highland Road and LA 73 interchanges, roadway lighting replacement, and bridge modifications including replacing I-10 bridge over Highland Road , widening and rehabilitating I-10 bridge over Bayou Manchac, increasing the vertical clearance and rehabilitating LA 928 over I-10, and replacing I-10 over LA 73. On this project, Mr. Brown has attained his LADOTD certification in PCC Paving and has almost completed the certification for Embankment and Base Course.
01/19-03/19	S.P. No. H.010661.6-2 (CE&I), N. Flannery/Firewood/Cloverland Bridges, East Baton Rouge Parish, LA: Mr. Brown has provided Inspection services as one of the inspectors for the replacement of three bridges in East Baton Rouge Parish. He was responsible for inspecting construction work for compliance with plans and specifications, prepare daily reports, keeping track of quantiles of pay items, personnel and equipment used by the contractor etc.
10/08 – 09/10	Perkins Road Improvements (Essen Lane to Siegen Lane), East Baton Rouge, LA: Mr. Brown served as Survey Party Chief for construction layout for the Perkins Road Improvement Project from Essen-Siegen Lane. The project involved rehabilitation of a two-lane roadway with open ditches to a five-lane roadway with underground drainage, mechanical and electrical components, and sanitary sewer and water lines
04/21-06/23	S.P. No. H.004791, Belle Chasse Bridge and Tunnel Replacement, P3, Design-Build Project, Plaquemines Parish, LA. Mr. Brown served as one of the certified inspector as a representative of ECM as the Construction Quality Control Firm (CQCF) for this \$183 million , P3 design-build project to construct a new mid-level fixed span bridge that will span the Intracoastal Waterway on Louisiana Highway 23. The project includes the demolition of the existing Perez movable Bridge and Tunnel and construction of a new mid-level concrete fixed bridge conforming to the current clearance standards for marine vessels as required by the US Coast Guard. This work includes pile load testing, pile driving, installing prestressed concrete girders, steel girders, concrete deck, on grade roadway including earthwork, subbase and base, drainage, utilities relocation, PCC pavement, Asphaltic Concrete pavement, concrete barrier railing, roadway lighting, MSE Wall construction and striping. ECM's Quality Control team of engineers and LADOTD certified inspectors are responsible for sampling and testing to ensure compliance with the project's plans and specifications
01/07-02/08	Essen Lane to Siegen Roadway Improvement, Baton Rouge, LA: Mr. Brown served as Survey Party Chief for construction layout for the Perkins Road Improvement Project from Essen-Siegen Lane. The project involved rehabilitation of a two-lane roadway with open ditches to a five-lane roadway with underground drainage, mechanical and electrical components, and sanitary sewer and water lines.
11/94-10/06	Survey Technician, Baton Rouge, LA: Mr. Brown served as Surveying Technician for 12 years. He planned field work schedules based on job specific data needed (subdivision maps, flood maps, area elevation benchmarks, chain of title, legal property description) and performed specific tasks including boundary surveys, elevation studies, determinations of structure placement, and determination of minimum elevation of structures. He also prepared field notes for drafting including boundary survey drawings, slab survey drawing, as-built survey drawings, subdivision drawings, ALTA survey drawings, and reviewed and edited drawings using AutoCAD.

Prime consultant name: **ECM Consultants, Inc.**

16. Staff Experience:

Firm employed by: ECM Consultants, Inc.				
Name	John A. Rasi, P.E.			
Title	Senior Hydraulic Engineer			
Degree(s) / Years / Specialization		Years of relevant experience with this employer		14
Active registration number / state / expiration date		Years of relevant experience with other employer(s)		29
Year registered	1983 (LA), 2006(TX)	Discipline		B.S. / 1978 / Civil Engineering; B.S. / 1975 / Construction
Contract role(s) / brief description of responsibilities		Civil & Environmental Engineering		
Experience dates (mm/yy–mm/yy)		Mr. Rasi will serve as H&H Engineer and Hydraulic Modeler for this contract. He meets MPR No. 2, 3 and 4		
Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
43 years of experience	Mr. Rasi has over 43 years of hydraulic and hydrologic experience that includes a 25-year career with LADOTD and a 4-year career with Louisiana Department of Natural Resources (Coastal Restoration Division). He is highly experienced in the use of HEC-RAS, HEC-HMS, SWMM, DAMBREAK, FLOODWAVE, and LADOTD Hydraulics software.			
09/22-12/23	Dam Breach Analysis/Report - NRCS Structure Sites – Kentucky for USDA - NRCS: Mr. Rasi served as a Sr. hydraulic modeler for this project. A sunny breach analysis was performed for all NRCS Kentucky Dams. Out of total 80 dams included in the Task order ECM performed breach analysis for 48 dams and ECM's subconsultant, AECOM performed dam breach analysis for the for 32 dams including all hydraulic and hydrologic analysis of this task. Mr. Rasi had created all the breach hydrographs for the NRCS dams assigned to ECM for the breach analysis. He also reviewed the results of dam breach reports executed in HEC-RAS using unsteady flow.			
04/20 –ongoing	Development of a Watershed plan and Environmental document for the state of Arkansas parks and tourism for Lake Bennett Watershed, Faulkner County, Arkansas for USDA-NRCS: Mr. Rasi performed an unsteady dam breach for all scenarios required by NRCS for this dam using the US Corps of Engineers' HEC-RAS hydraulic computer model. An HEC-HMS hydrologic model downstream of the dam was developed. About twelve sub-catches were created. These sub-catchments were connected to the common discharge channel and routed downstream for storms periods from one year to one hundred years. The results of the HEC-HMS were used in a HEC-RAS model to provide water surface profiles to be used for an economic study which was done by others. Mr. Rasi also helped create the sub-catchment used in the dam design itself. The SCS unit hydrograph method was used. The NRCS SITES software was used to design this dam.. Mr. Rasi reviewed the dam design.			
03/18 – 03/21	S.P. No. 4400011393 Inspection of State-Regulated Dams, LADOTD, Statewide, LA: Mr. Rasi served as Project Engineer for this statewide retainer contract inspection and engineering of publicly and privately owned dams to identify deficiencies, perform analysis for hazard categories, and make recommendations for remediation so that dams and the attendant water control devices function adequately and safely. Project scopes also included hydraulic modeling for preparation of EAPs and included dam breach analysis and study of the impact on downstream.			
10/19 - 08/ 21	Sims Creek and Haven Subdivision, Tangipahoa Parish Government, Tangipahoa Parish, Louisiana: H & H Engineer. Mr. Rasi provided H&H engineering design to resolve flooding in this Louisiana subdivision. A HEC-RAS analysis was performed on Sims Creek which is adjacent to the subdivision. It was determined that improvements to Sims Creek would be too expensive. A forced drainage system with a levee to seal the subdivision from Sims Creek was designed using EPA's SWMM. All channels and subsurface pipes within the subdivision were analyzed. A pump station was sized and located. A complete study was provided. All necessary improvements to ditches, subsurface pipes, and a new pump station size were provided.			
2017	Longville Lake Dam in Beauregard Parish, LA, LADOTD Dam Safety Program: H & H Engineer. Mr. Rasi provided H&H engineering services for this dam, which is 2,300 feet long, 10 feet in height with a 100-foot-wide ungated saddle spillway. It is a high hazard dam. He performed analysis for			

Prime consultant firm Name: **ECM Consultants, Inc.**

	dam breach, prepared inundation map and reviewed Emergency Action Plan. The dam breach analysis was performed using an abridged engineering analysis method and utilized 5-meter digital elevation model (DEM) and the US geological Survey (USGS) topographic maps. U.S. Army Corps of Engineer's HEC-RAS and ARC GIS software were used for modeling . For this model, an overtopping scenario was selected as allowed by the Louisiana Dam Safety Rules and Regulations.
11/13-10/17	S.P. No. 4400003970 LADOTD Safety Inspections of State Regulated Dams, Statewide, LA: Mr. Rasi served as Senior Hydraulic Engineer for this Retainer Contract, for which ECM has provided 525 inspections for 289 publicly and privately owned dams across Louisiana under the State Dam Safety Program. This included hydrologic and hydraulic modeling of watersheds using LiDAR survey data and preparation of EAP reports for several dams throughout Louisiana. Mr. Rasi prepared the models and reports involving field reconnaissance, dam breach analysis, and preparation of inundation maps. Mr. Rasi utilizes ArcGIS, HEC-RAS and HEC-GeoRAS computer programs for this project. Mr. Rasi reviewed EAPs for dams, some of which include: Smithport Lake Dam, Chicot Lake Dam, Turkey Creek Dam, Betty Taylor Dam, Bayou D'Arbonne Dam Reservoir, TL James No. 2 Dam, Caney Creek Dam, Lake Bistineau, Grand Bayou Reservoir, Kepler Creek Dam, and Ivan Creek Dam, among others. Additionally, he served as engineer for the inspection team where he observed and documented deficiencies of all features of the dams, including spillway, weir, buoys, embankment and grass, retaining and wing walls, baffle blocks, stilling basin, discharge channel, and other structural features. Mr. Rasi reviewed data, performed analysis, and prepared reports for the dams. A few of which include: • Pleasant Valley No. 1 Dam, Washington Parish: a 22-foot-high structure which consists of an earthen embankment, 1,108 feet long and an adjoining 130-foot auxiliary spillway. • Bayou Cocodrie Dam, Rapides & Evangeline Parishes: a 28-foot high, 1,700-foot-long earthen embankment with primary spillway ogee weir and earthen broad-crested weir auxiliary spillway. • Lower Anacoco Dam, Vernon Parish: 37 feet high, 5,170-foot-long earthen embankment with 500-foot-wide concrete bi-level ogee weir. • Saline Lake Dam, Natchitoches Parish: a 23-foot-high dam with 850-foot-long earthen embankment on the south side of the spillway and 400-foot-wide concrete spillway with about 15,050 feet of earthen embankment on the north and west sides.
10/23 – 02/24	LADOTD Safety - Breach Analysis of Braxton Moody Dam No. 1 , West Feliciana Parish, LA: Mr. Rasi performed an unsteady two-dimensional breach analysis using HEC-RAS 6.4.1 for the Braxton Moody Dam No. 1. Immediately downstream of this dam is Lake Rosemound Dam with a very large impoundment of water. It was feared that the failure of Braxton Moody Dam No. 1 would induce the Lake Rosemound Dam to fail as well. A report was issued to LADOTD for their consideration.
04/18 – 10/22	Port Hudson - Pride Road Bridge over Copper Mill Bayou, City/Parish Project No. 14-BR-US-0020 (Baton Rouge, East Baton Rouge Parish) Mr. Rasi performed the H&H analysis for the new bridge using HEC-RAS 5.0.6 . The existing bridge was over 48 years old; further repairs of the existing bridge were not possible. A formal report was issued to the City of Baton Rouge with all necessary requirements of the contract satisfied.
03/23– 04/26	Port Hudson - Pride Road (LA 964 to LA 19) Design Study for the City of Baton Rouge, East Baton Rouge Parish, Louisiana (DPW Project No. 22-CO-HC-0023): Mr. Rasi performed the H&H analysis of the new bridge using HEC-RAS 6.3.1 over White Bayou. The entire project consisted of the enlargement of the road between LA 964 to LA 19 as well as the replacement of the bridge over White Bayou. The existing bridge needs to be replaced because it no longer satisfies current design requirements. A design study report was issued to the City of Baton Rouge with all necessary requirements of contract satisfied including the bridge replacement.

16. Staff Experience:

Firm employed by ECM Consultants, Inc.				
Name	Emilio Rodriguez		Years of relevant experience with this employer	15
Title	Senior Technician		Years of relevant experience with other employer(s)	18
Degree(s) / Years / Specialization			Technical Architecture (Construction) / 1989	
Active registration number / state / expiration date			N/A	
Year registered	N/A		Discipline	N/A
Contract role(s) / brief description of responsibilities			Mr. Rodriguez will serve as a Senior Technician for Dam Safety Inspections. He meets MPR No. 4	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
33 years of experience	<i>Mr. Rodriguez has over 33 years of experience as an inspector. He has provided inspections for dam safety, underwater bridge inspection, periodic inspection levees, earthen and rock dikes construction, erosion protection and in - service bridge inspection and coastal restoration projects. He has the following certifications:</i> • NACE certified Coating Inspector Level 2 #40575 • ATSSA Work Zone Traffic Control Flagger, Supervisor. • NHI Bridge Inspection. • Movable Bridge Inspection. • DOT/FAA Drone Remote Pilot • Aerial Boom Lifts • Scissor Lifts • OSHA-10			
02/11-08/13	LADOTD Safety Inspections of State Regulated Dams, Statewide: Mr. Rodriguez performed annual safety inspections for a number of publicly and privately owned dams throughout Louisiana under this Retainer Contract to detect, identify and document evidence of deficiencies of dams and the water-control devices. His responsibilities included performing safety inspections of high hazard, significant hazard, and low hazard category dams involving various features such as spillways, galleries, embankments, inlet, and outlet structures; documenting evidence of leakage, seepage, erosion, cracking, settlement, soil slips, depression, burrows of other signs of potential failure, etc.; and assisting engineer in preparation of Dam Evaluation and Assessment Reports for DOTD. Some of Mr. Rodriguez’s representative dam inspections included: Country Club Lake, Lejeune Pond, Brushy Lake, Billy Dark Dam, Murphy’s Lake West End, Holland Lake, Haynes Lake, Richland Lake, Jessie Welch Dam, Gary Barth Dam, Albert Waites Dam, TL James Pond No. 2, Wilkes Pond, Lemon Lake, Spike James Dam, and Lake Choctaw Dam.			
06/11-08/12	USACE IDIQ Contract No. W912WP8-07-D-0031, Periodic Inspection of West of Atchafalaya Floodway Levee System, St. Martin Parish to Melville. Mr. Rodriguez served as Inspector for this project which consisted of conducting Periodic Inspections (PI) of the West of Atchafalaya Floodway Levee System (St. Martin Parish to Melville, LA). The work included 63.74 miles of levees and floodwall sections and several closure structures and pumping stations. The purpose of the PI was to verify proper operation and maintenance, evaluate operational adequacy and structural stability, review design criteria to identify changes in current design standards, identify features to monitor over time, and improve the ability to communicate the overall condition			

Prime consultant firm Name: **ECM Consultants, Inc.**

08/14 – 12/16	Retainer Contract for Underwater Bridge Inspection Services, LADOTD; Statewide, LA: Mr. Rodriguez performed inspection of bridges substructure from water level to superstructures. Inspection of the substructure below water was performed by divers. Inspection included documentation of damaged and deteriorated structural elements of the bridges. A total of 400 bridges were inspected over a period of 3 years. Under this contract, he was responsible for field inspection and preparation of the final reports to have a national bridge inventory component rating. Scope included: Level 1 inspection, which was visual and tactile inspection of all bridges requiring underwater inspection in water above 4 feet; Level 2 inspection, which was detailed and included partial cleaning of all steel elements; and Level 3 inspection which was highly detailed inspection with non-destructive testing or partially destructive testing. Bridges included concrete and steel bridges on timber and concrete pile foundations, and inspections included piles, girders, abutments, deck, and checking for cracking, spalling, exposed rebars, rusting of steel girders, missing hardware, and all other related features
05/16 – 11/17	BA-27c Barataria Basin Land Bridge CU 7 & 8, USDA-NRCS Contract AG-7217-C-12-0006, Task Order 1, Jefferson Parish, LA: Lead QA inspector. Mr. Rodriguez provided construction quality assurance inspection services for the construction of BA-27c Barataria Basin Land Bridge. This project was designed to significantly reduce the wave energy impacting the shorelines of Little Lake and Bayou Perot and to protect the adjacent marsh areas from further degradation. This involved dredging for access channels to construct approximately 4 miles of rock dike utilizing 143,000 Tons of R-300 Rip Rap, 27,000 CYs of Encapsulated Light Weight Aggregated and 118,000 SY's of Geotextile fabric. He was responsible for daily inspection, coordination with COTRs, attending progress meetings, preparation of daily dairies and recordation of work quantities and maintaining project progress photo album in ECM's FTP site.
05/10 – 03/11	Periodic Inspection of Mississippi River East Bank Levee System (Bonnet Carre Spillway to Baton Rouge), USACE, T.O.0047: Mr. Rodriguez served as Levee Inspector for this project consisting Periodic Inspections (PI) of the Mississippi River East Bank Levee System (Baton Rouge to New Orleans). The work included 108 miles of levees and floodwall sections and several closure structures and pumping stations. The purpose of the PI was to verify proper operation and maintenance, evaluate operational adequacy and structural stability, review design criteria to identify changes in current design standards, identify features to monitor over time, and improve the ability to communicate the overall condition.
11/19 – 08/21	Northwest Turtle Bay Marsh Creation for CPRA, Jefferson Parish, LA: Mr. Rodriguez was Lead QA inspector and provided construction QA inspection services for this \$23 million project that involved creating and nourishing over 1093 acres of marsh land in the Barataria Basin. Scope: This project involved creating marsh in current open-water and broken marsh areas, including four separate cells: The marsh creation area was designed to minimize the use of traditional earthen containment dikes by relying on existing marsh and vegetation to contain the hydraulically dredged fill from a nearby borrow source. Approximately 2,000,000 CY of fill material was pumped utilizing 16" diameter hydraulic dredges, 7,296 SY of Articulated Concrete Mats was installed along 2,623 LF of the Earthen Containment Dikes for erosion protection. He was responsible for daily inspection, coordination with CPRA representatives, attending progress meetings, preparation of daily dairies and recordation of work quantities and maintaining project progress photo album in ECM's FTP site. Mr. Rodriguez is a FAA certified drone operator and provided drone flown construction progress aeriels.

16. Staff Experience:

Firm employed by ECM Consultants, Inc.		
Name	Marilyn "Missy" Reynolds, EI	
Title	Deputy Project Manager	
Degree(s) / Years / Specialization		
Active registration number / state / expiration date		
Year registered	1996	
Contract role(s) / brief description of responsibilities		Years of relevant experience with this employer: 7 Years of relevant experience with other employer(s): 23 B.S./Civil Engineering/1996 E.I No. 16639/LA/ 3.31.28 Civil Engineering Ms. Reynolds will provide support for Civil /H&H Engineering services.
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).	
30 years of experience	<i>Ms. Reynolds has 30 years of experience in project management, construction management, and engineering design for construction of roadways, subsurface drainage, canals, drainage structures, utility relocations and water treatment facilities. She has provided oversight for civil engineering design and construction of new construction, reconstruction and rehabilitation of existing roads, drainage and utility relocations projects. This included elevated roadways and on grade roadway involving excavations, subbase and aggregate base, drainage, utilities relocation, PCC and asphalt roadway pavement. She is a certified ATSSA Traffic Control Flagger and Supervisor</i>	
05/17–On going	Program and Construction Management for 2017 Jefferson Parish Road Bond Project, DPW- Jefferson Parish, LA: Ms. Reynolds is serving as Deputy Project Manager for the 2017 Jefferson Parish Road Bond Project on the East bank of Jefferson Parish. This project currently has \$208 million of construction projects and includes the design and construction of roadways, bridges, drainage, utilities and pedestrian bike paths. Ms. Reynolds is responsible reviewing consultants' PS&E and coordinating with local and State agencies. Her duties include working with several consulting firms to resolve design and constructions issues and coordinating with private businesses and utilities including railroad companies. Ms. Reynolds reviews contractor submittals to ensure conformity, resolves construction issues, performs site visits and reviews testing lab reports and performed substantial completion and final walk-throughs for the completed projects.	
10/15-08/17	Mid-City Street Improvements, Gentilly Woods & Read Boulevard East Group C Neighborhoods, New Orleans, LA: Ms. Reynolds performed engineering services for rehabilitation and reconstruction of roadways in several neighborhoods, identifying storm-related damages to both roadways and subsurface drainage and utilities totaling more than \$15 million. She prepared detailed scoping reports to capture each damaged area in accordance with FEMA guidelines; created an in-depth tracking system to detail location, scope and eligibility of each item; developed drawings for FEMA eligibility approval along with corresponding support documentation for federal funding. She also performed construction cost estimates and tracked individual quantities to multiple funding sources, and prepared specifications.	
04/12-11/13	Congressman Hebert Canal Widening & Stabilization, St. Bernard Parish, LA: Ms. Reynolds served as Project Manager, examining existing drainage capacity and bank stabilization for a major outfall canal in St. Bernard, which was adjacent to residences and schools. She utilized Autodesk SWMM to size the approximately 3,000 LF proposed earthen canal , box culverts, and concrete U-channel in accordance	

Prime consultant name: **ECM Consultants, Inc.**

	with the Parish Drainage Master Plan. The design also included relocation of several subsurface utilities, tying in existing drainage culverts, and roadway rehabilitation.
2015	Waggaman Hydraulic Study, Jefferson Parish, LA: Ms. Reynolds performed a hydrologic study for several subdivisions in Waggaman and South Kenner, LA. Each subdivision was approximately 200-600 acres and included residential, industrial and unimproved areas. Ms. Reynolds utilized the Storm Water Management Model (EPA SWMM) to evaluate existing conditions and performed hydrologic and hydraulic design model for each subdivision and recommendation for drainage improvements to reduce flooding. She also presented a detailed Hydraulic and Hydrology Report to show existing conditions and proposed improvements.
2016	Cypress Park & Erindale Subdivisions Hydraulic Study, St. Tammany Parish, LA: Ms. Reynolds performed a hydrologic study for two residential subdivisions utilizing Autodesk Storm Water Management Model (EPA SWMM) to evaluate the existing drainage capacities and contributions to bayous. She developed a hydrologic and hydraulic design model for each area and presented a detailed report showing existing and proposed design conditions along with associated probable construction costs.
09/13-05/15	Jean Lafitte Drain Line Replacement, St. Bernard Parish, LA: Ms. Reynolds designed 4,500 LF of major drain line and an outfall in conjunction with the Parish Drainage Master Plan and FEMA funding guidelines. The plans also included design for several large junction boxes, catch basins, roadway restoration, and redirection of smaller drain lines to intercept runoff and tie directly into the junction boxes.

Prime consultant name: ***ECM Consultants, Inc.***

16. Staff Experience:

Firm employed by SJB Group, LLC.				
Name	Ralph Burgess, PLS			
Title	Surveyor/Surveyor Department Manager			
Degree(s) / Years / Specialization		Years of relevant experience with this employer		1
Active registration number / state / expiration date		Years of relevant experience with other employer(s)		26
Year registered	2010	Discipline		Professional Land Surveyor
Contract role(s) / brief description of responsibilities		Mr. Burgess will serve as Surveyor for this contract. He meets MPR # 5		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s)			
26 years of experience	<i>With more than 26 years' experience, Mr. Burgess has served as Surveyor of Record and Project Manager for numerous transportation infrastructure projects supporting LA DOTD. His experience includes management of topographic surveys, right-of-way mapping, survey control development, and integration of conventional, terrestrial scanning, and mobile LiDAR data for roadway, bridge, and infrastructure improvement projects. Mr. Burgess has provided surveying services for major transportation efforts including the I-10 Calcasieu River Bridge P3 Project and other roadway and bridge projects throughout Louisiana. His work includes supervision of survey crews, coordination with SUE and utility providers, and preparation and quality control of survey deliverables in accordance with LA DOTD Location and Survey standards.</i>			
9/25 - 1/26	LA DOTD Project No. H.000112 US 190: UPRR Overpass, Opelousas, LA: <i>Surveyor of Record/Project Manager. Managed topographic surveys for the I-49 and UPRR Railroad Bridge in Opelousas, as well as the US 190 and Bayou Teche Bridge replacements. Oversaw crew coordination, topography work, review and integration of Mobile LiDAR data. Traditional Field work and coordination of SUE.</i>			
08/24 - Ongoing	LA DOTD Project No. H.003931 – I-10 Calcasieu River Bridge P3 Project, Calcasieu Parish, LA: <i>Department Manager.</i> SJB Group provided an additional Topographic Survey and Right-of-Way Mapping for this project, which is the largest in LA DOTD history. This project covers a 5.5 mile stretch of Interstate 10 and includes 15 bridges and 19 ramps. The topographic survey component of the project include recovery and verification of existing control, preparation of the primary and secondary control sketch, supplemental topographic survey and dtm preparation.			
9/25 – 10/25	Office of Louisiana Highway Construction Bridge Bundle 6 - O.B.2025.03.047, Vermilion Parish, LA <i>Survey Manager/Responsible Charge. Oversaw a complete topographic, hydrographic/bathymetric, and property survey for a single bridge, ensuring full compliance with project standards. Responsibilities included coordinating field crews; processing survey control, topographic, and hydrographic/bathymetric data; and calculating property boundaries and right-of-way limits. Prepared survey control, topographic, hydrographic/bathymetric, and property survey packets for submittal and review by the supervising professional, maintaining a high level of accuracy, quality, and consistency throughout the project.</i>			

Prime consultant name: **ECM Consultants, Inc.**

9/25 – 01/26	Office of Louisiana Highway Construction Bridge Bundle 6 - O.B.2025.03.048 , Vermilion Parish, LA <i>Survey Manager/Responsible Charge</i> . This project involved a complete topographic, hydrographic/bathymetric, and property survey for seven bridge projects. Managed all aspects of field and office operations, including crew coordination, survey control, topographic and hydrographic/bathymetric data collection and processing, and property/right-of-way calculations. Directed the creation and review of survey control, topographic, hydrographic/bathymetric, and property survey deliverables to ensure accuracy, consistency, and full compliance with project standards.
4/25-07/25	LA DOTD Project No. H.00000 Doucet Road Sidewalks , LA: <i>Project Manager</i> . Final Coordination, QA/QC, and responsible charge of the topographic survey which included the location of utilities. Work include roughly 1.5 miles of topography via traditional means and methods along with mobile scanning.
08/21 – 04/24	LA DOTD Project No. H.011833.5 St. Mary Street Sidewalks , Scott, LA: <i>Surveyor of Record/Project Manager</i> . Mr. Burgess completed a topographic along this route. The survey utilized 3D Terrestrial Scanning of all hard surfaces and traditional methods for all other features. SUE personnel worked to coordinate the collection for all the utility information and location such that survey crews could collect data and incorporate for the submittal up to QLD Level B however an official SUE submittal was not required of this project. Final submittal will be in accordance with latest LADOTD Location and Survey standards.
02/22-11/22	Louisiana Watershed Initiative Region 5 – Task Order #2 , Multiple Parishes, LA: <i>Surveyor of Record/Project Manager</i> . Worked as a subconsultant on this project was responsible for topographic survey of various structures in Lafayette Parish, Vermillion Parish, and St. Mary Parish to help fill in data for the watershed model. The topographic data for this project was collected both traditionally and utilizing 3D Scanning
02/22-11/22	Louisiana Watershed Initiative Region 5 – Task Order #3 , Multiple Parishes, LA: <i>Surveyor of Record/Project Manager</i> . Worked as a subconsultant on this project was responsible for topographic survey of various structures in Lafayette Parish, Vermillion Parish, and St. Mary Parish to help fill in data for the watershed model. The topographic data for this project was collected both traditionally and utilizing 3D Scanning.
02/21 – 07/22	LA DOTD H.013958 Carpenters Bridge Rd. Whiskey Chitto Creek : <i>Surveyor of Record/Project Manager</i> . Managed and directed the topographic survey while coordinating with local utility companies for asset location. Conducted thorough quality control and quality assurance reviews of all topography submissions and drainage maps. The topographic data for this project was collected using both traditional means and methods. Additionally, this project included property surveys and right-of-way mapping in accordance with LA DOTD standards.
09/21 – 03/22	LA DOTD Project No. H.014747 Southern University Ravine Protection , East Baton Rouge Parish, LA.: <i>Surveyor of Record/Project Manager</i> . Worked as a subconsultant on this project was responsible for topographic survey of the sites at Southern University. The topographic data for this project was collected both traditionally utilizing terrestrial Scanning and Drone LiDAR
01/21 – 06/21	LA DOTD H.013959 Reeds Bridge Rd. Calcasieu River Relief , Allen Parish, LA: <i>Surveyor of Record/Project Manager</i> . Managed and directed the topographic survey while coordinating with local utility companies for asset location. Conducted thorough quality control and quality assurance reviews of all topography submissions and drainage maps. The topographic data for this project was collected using both traditional means and methods. Additionally, this project included property surveys and right-of-way mapping in accordance with LA DOTD standards.
07/20 – 04/21	LA DOTD. Comite River Diversion Bridge at LA 67, LA 19 and LA 19 Railroad Bridge , East Baton Rouge Parish, LA. <i>Surveyor of Record/Project Manager</i> . Working as a subconsultant on this project was responsible for topographic surveying the LA 67 and LA 19 sites of the Comite River Diversion project. This included merging data from a previous survey on one portion of the site and field verifications of that data. The topographic data for this project was collected traditionally.

Prime consultant name: **ECM Consultants, Inc.**

16. Staff Experience:

Firm employed by Chustz Surveying, LLC			
Name	James H. Chustz, Jr. PLS		
Title	Project Manager		
Degree(s) / Years / Specialization		1983 / Boundary Surveying Classes / LSU	
Active registration number / state / expiration date		PLS #4657 / Louisiana / 03/31/2028	
Year registered	1992	Discipline	Surveying
Contract role(s) / brief description of responsibilities			Mr. Chustz will serve as the Survey Manager for this contract. Mr. Chustz meets the minimum requirement of one registered professional surveyor in Louisiana with over 5 years of experience per MPR No. 5.
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
<i>52 years of experience</i>	Mr. Chustz has over 52 years of experience in surveying including topographic surveys utilizing mobile LiDAR, uncrewed aerial LiDAR, conventional, RTK, and GPS/GNSS survey methods meeting LADOTD specifications, single beam hydrographic surveys utilizing uncrewed aerial LiDAR and photogrammetry and property surveys, right-of-way surveys, research, title take-off, for acquisition of parcels		
05/23-02/25	LA 44: Roundabouts @ I-10, LADOTD, H.015569.5. Project Principal/Surveyor – Mr. Chustz was responsible for the overall management of this task order consisting of topographic surveys utilizing mobile LiDAR, uncrewed aerial LiDAR, conventional, RTK, and GPS/GNSS survey methods to meet LA DOTD specifications. Deliverables included a Drainage Map and Bentley InRoads DGN, DTM, and ALG files. Cost: \$212K		
02/24-07/24	US 71: UPRR Overpass CLR Adjustment, LADOTD, H.015119.5. Principal/Surveyor – Mr. Chustz was responsible for the overall management of this task order consisting of topographic surveys utilizing mobile and stationary LiDAR, conventional, RTK, and GPS/GNSS survey methods to meet LA DOTD specifications. Deliverables included a Drainage Map and Bentley InRoads DGN, DTM, and ALG files. Cost: \$148K		
05/23-12/23	LA 44: Pelican Point Roundabout & Widen, LADOTD, H.015568.5. Principal/Surveyor – Mr. Chustz was responsible for the overall management of this task order consisting of topographic surveys utilizing mobile LiDAR, uncrewed aerial LiDAR, conventional, RTK, and GPS/GNSS survey methods to meet LA DOTD specifications. Deliverables included a Drainage Map and Bentley InRoads DGN, DTM, and ALG files. Cost: \$120K		
03/22-08/22	LA 20: LA 304 – LA 307, Lafourche Parish, LADOTD, H.014728.5. Principal/Surveyor – Mr. Chustz was responsible for the overall management of this task order consisting of topographic and uncrewed single beam hydrographic surveys utilizing uncrewed aerial LiDAR and photogrammetry, conventional, RTK, and GPS/GNSS survey methods to meet LA DOTD specifications. Deliverables included a Drainage Map and Bentley InRoads DGN, DTM, and ALG files. Cost: \$204K		
11/21-02/22	LA 73 Bayou Manchac Bridge, Ascension and East Baton Rouge Parishes. Principal/Surveyor – Mr. Chustz was responsible for the overall management of this project consisting of topographic surveys, property surveys, right-of-way surveys, and title research, utilizing mobile LiDAR, uncrewed aerial LiDAR, conventional, RTK, and GPS/GNSS survey methods to meet LA DOTD specifications. Deliverables included Bentley InRoads DGN, DTM, and ALG files. Cost: \$101K		

Prime consultant name: **ECM Consultants, Inc.**

12/24-01/25	LA 1206: Creek Bridge, Rapides Parish, LADOTD, H.016313.5. Principal/Surveyor – Mr. Chustz was responsible for the overall management of this task order consisting of topographic surveys utilizing conventional, RTK, and GPS/GNSS survey methods to meet LA DOTD specifications. Deliverables included Bentley InRoads DGN, DTM, and ALG files. Cost: \$53K
12/24-03/25	LA 463: Drainage Bridge, Vernon Parish, LADOTD, H.016315.5. Principal/Surveyor – Mr. Chustz was responsible for the overall management of this task order consisting of topographic surveys utilizing conventional, RTK, and GPS/GNSS survey methods to meet LA DOTD specifications. Deliverables included Bentley InRoads DGN, DTM, and ALG files. Cost: \$53K
12/24-02/25	LA 3187: Creek Bridge, Evangeline Parish, LADOTD, H.016320.5. Principal/Surveyor – Mr. Chustz was responsible for the overall management of this task order consisting of topographic surveys utilizing conventional, RTK, and GPS/GNSS survey methods to meet LA DOTD specifications. Deliverables included Bentley InRoads DGN, DTM, and ALG files. Cost: \$53K
12/24-03/25	LA 970: Creek Bridge, Pointe Coupee Parish, LADOTD, H.016321.5. Principal/Surveyor – Mr. Chustz was responsible for the overall management of this task order consisting of topographic surveys utilizing conventional, RTK, and GPS/GNSS survey methods to meet LA DOTD specifications. Deliverables included Bentley InRoads DGN, DTM, and ALG files. Cost: \$46K
07/21-10/21	LA 29 Bayou Cocodrie Bridge Scour Repair, Ville Platte, LADOTD, H.014633.5. Principal/Surveyor – Mr. Chustz was responsible for the overall management of this task order consisting of topographic and hydrographic surveys utilizing conventional, RTK, and GPS/GNSS survey methods to meet LA DOTD specifications. Deliverables included Bentley InRoads DGN, DTM, and ALG files. Cost: \$75K
08/21-12/21	LA 301 Priest Cana Bridge, Crown Point, LADOTD, H.014284.5. Project Manager/Surveyor – Mr. Chustz was responsible for managing the logistics of this contract consisting of topographic and hydrographic surveys utilizing conventional, RTK, and GPS/GNSS survey methods to meet LA DOTD specifications. Deliverables included Bentley InRoads DGN, DTM, and ALG files. Cost: \$83K
02/22-12/23	West Baton Rouge Court St. Sidewalks, West Baton Rouge Parish. Principal/Surveyor – Mr. Chustz was responsible for the overall management of this contract consisting of topographic surveys, property surveys, right-of-way surveys, and title research, utilizing mobile LiDAR, uncrewed aerial LiDAR, conventional, RTK, and GPS/GNSS survey methods to meet LA DOTD specifications. Deliverables included Bentley InRoads DGN, DTM, and ALG files. Cost: \$115K
06/23-04/25	LA HWY 22 Gapping Project ROW Maps, Ascension Parish. Principal/Surveyor – Mr. Chustz was responsible for the overall management of this contract consisting of topographic surveys, property surveys, right-of-way surveys, research, title take-off, and acquisition of parcels utilizing conventional, RTK, and GPS/GNSS survey methods to meet LA DOTD specifications. Deliverables included Bentley InRoads DGN, DTM, and ALG files, PDF maps, and title reports. Cost: \$200K

16. Staff Experience:

Firm employed by Eustis Engineering L.L.C.					
Name	Sean G. Walsh, P.E.			Years of relevant experience with this employer	14
Title	Engineering Manager			Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization				M.S / 2010 / Civil Engineering, B.S./ 2007 / Civil Engineering	
Active registration number / state / expiration date				PE.0037905 / LA / 9-30-2027	
Year registered	2013	Discipline		Civil Engineering	
Contract role(s) / brief description of responsibilities			Mr. Walsh will serve as a Supervisor Geotechnical Engineer and will be responsible for the overall execution of geotechnical engineering design 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 years of experience specified in the applicable MPR(s).				
19 years' experience	Mr. Walsh is a Geotechnical Engineer with Eustis Engineering and has 19 years of experience supporting flood protection and levee system projects throughout Louisiana. His experience includes geotechnical engineering analysis and design for levees, floodwalls, and floodgate structures, including stability, seepage, settlement, and soil-structure interaction analyses. He has performed advanced modeling and analysis, including finite element methods, to evaluate structural performance and long-term behavior of flood protection systems. Mr. Walsh has also conducted levee inspections and geotechnical evaluations, assessing embankment conditions, under seepage potential, and overall system performance. His work supports flood risk reduction, dam and levee safety, and resilient infrastructure design.				
09/12 – 02/18	Terrebonne Levee & Conservation District – Morganza to the Gulf of Mexico Hurricane Protection Project, Floodgate Structure at Falgout Canal, Terrebonne Parish, Louisiana (21949): Mr. Walsh served as the geotechnical project engineer, developing axial pile load capacity estimates, stability analyses using SLOPE/W, and seepage analyses for the floodgate and braced walls using SEEP/W. As part of the engineering team, Mr. Walsh performed detailed analyses of soil-structure interaction in accordance with the State of Louisiana, Coastal Protection and Restoration Authority's (CPRA's) Louisiana Flood Protection Design Guidelines (LFPDG). Analyses included downdrag and settlement analyses, settlement-induced bending moments in piles, and 3D modeling of fill and structural load placements to predict time-rate settlements using Settle3. This was a significant project because soil-structure interaction modeling (SSI) using the finite element method (FEM) was performed using SIGMA/W. We used our FEM modeling of flood protection structures to define stresses and deformations. This work provided insight to the CPRA on how FEM can be used for flood protection structures that are not standard flood protection systems (e.g., Hurricane and Storm Damage Risk Reduction System Design Guidelines).				
03/13 – 05/16	St. Mary Levee District – Bayou Chene Flood Protection and Diversion Structure, St. Mary Parish, Louisiana (21838, 22147, 24043.00-.05): As geotechnical project engineer, Mr. Walsh directed the activities associated with an extensive geotechnical field exploration to support the design of the earthen and structural systems used to provide flood protection to the project area. Geotechnical engineering design recommendations were developed for a braced sheet pile floodwall (using CWALSHT), float-in barge gate (using SLOPE/W), earthen levee tie-ins at the floodwall extents (using SLOPE/W and Settle3), dredging design recommendations, levee design and construction recommendations, levee settlement (using Settle3), pile settlement, estimates of allowable axial and lateral pile capacity, and deep-seated and local stability analyses of walls and gates using Spencer's Method within SLOPE/W. Our engineering analyses and recommendations were generally in accordance with the CPRA's LFPDG dated 16 July 2015.				
06/10 – 08/11	National Levee Safety Program – Periodic Levee Inspections, Louisiana (various parishes), U.S. Army Corps of Engineers (USACE), New Orleans District: Mr. Walsh served as a geotechnical engineer and field inspector on multiple USACE Levee Safety Periodic Inspections (PI) across Louisiana, including the Oakville to City Price Levee System (Plaquemines Parish), Melville Ring Levee (Rapides Parish/Atchafalaya Basin), Krotz Springs Ring Levee (St. Landry Parish), Bayou Sale Levee System (St. Mary Parish), and portions of the Morganza Floodway Levee System (Atchafalaya River and adjacent Mississippi River levees). His responsibilities included pre-inspection documentation review; geotechnical design criteria evaluation; and field inspections of earthen levees, floodwalls, revetments, pump stations, and levee appurtenances. He conducted assessments of embankment conditions, underseepage potential, settlement, slope stability, and revetment performance; identified deficiencies; and contributed to overall system ratings in accordance with the USACE Levee Safety guidance. He worked as part of a multidisciplinary inspection team (geotechnical, civil, structural, hydraulic, electrical, and geographic information system) supporting flood risk management and public safety for federally authorized levee systems.				

16. Staff Experience:

Firm employed by Eustis Engineering L.L.C.					
Name	Jonathan W. Sherwood, P.E.			Years of relevant experience with this employer	1
Title	Project Manager			Years of relevant experience with other employer(s)	8
Degree(s) / Years / Specialization				Bachelor of Science / 2018 / Civil Engineering	
Active registration number / state / expiration date				PE.0046048 / LA / 3-31-28	
Year registered	2021	Discipline		Civil Engineering	
Contract role(s) / brief description of responsibilities			Mr. Sherwood will serve as Senior Engineer and be responsible for overseeing performance of geotechnical design services..		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
9 Years Experience	Mr. Sherwood is a Geotechnical Engineer with Eustis Engineering and has nine years of experience supporting flood protection and levee system projects. His experience includes geotechnical design, construction oversight, and technical evaluation for large-scale levee and flood risk reduction systems, including stability, seepage, settlement, and pile foundation analyses. Mr. Sherwood has managed geotechnical investigations, developed foundation and ground improvement designs, and implemented instrumentation to monitor settlement and pore pressures during construction. He has also performed inspections, damage assessments, and real-time monitoring during flood and hurricane events, supporting emergency response and system performance evaluations. His work includes technical review and quality control of geotechnical analyses and designs, supporting flood risk reduction, dam and levee safety, and resilient infrastructure systems.				
09/18 – 03/26	New Orleans to Venice Level of Risk Reduction (LORR) Against Storm Surge Events: Mr. Sherwood took over as the U.S. Army Corps of Engineers (USACE) Mississippi Valley Division (MVD) lead engineer for the current construction and design of the New Orleans to Venice (NOV) Hurricane Storm Damage Risk Reduction System (HSDRRS), which is located in Plaquemines Parish and includes approximately 37 miles of back levees and 29 miles of co-located Mississippi River levees (MRLs) along the west bank of the Mississippi River from St. Jude (approximately 39 miles south of New Orleans), down to the vicinity of Venice, Louisiana (Mississippi River Miles 47.1 to 10.0). As the USACE New Orleans District (MVN) lead geotechnical engineer, Mr. Sherwood provided project design, construction oversight, and technical advice across multiple projects led and designed by multiple districts. Mr. Sherwood’s responsibilities included interpreting original design specifications, conducting site-specific evaluations, and coordinating with original designers of record. Mr. Sherwood performed technical designs over multiple projects including, but not limited to, developing axial pile load capacity estimates, pile downdrag analyses, settlement-induced bending moments on pile foundations, stability analyses (SLOPE/W), settlement analyses, preload designs, wick drain designs, levee foundation designs utilizing geotextile reinforcement, and seepage analyses (SEEP/W) for both structural and earthen flood protection features. Responsibilities also included managing geotechnical investigations and design; implementing instrumentation (including settlement and real-time piezometric pressure monitoring) to verify strength gains and settlement at critical locations; and ensuring compliance with USACE standards and federal regulations.				
04/21 – 03/26	Dugas to Celotex Seepage Control Project: Mr. Sherwood served as the geotechnical project engineer for 0.6 mile of levee on the right descending bank of the MRL in Jefferson Parish, adjacent to Mississippi River Mile 100.4. The right-of-way limits extend from baseline Station Nos. 734+00 to 770+00. The land side of the project runs along LA Highway 541. The area had reported consistent seepage as pin boils and water blisters during high river events. The seepage remediation consists of a hydraulic sheet pile cutoff through the core of the levee. The predesign foundation investigation utilized multiple methods such as geophysical testing, undisturbed borings, cone penetration tests (CPTs), and historical observations. The investigation				

	also involved working with the USACE Environmental and Engineering Geophysics (EEG) Community of Practice (CoP) to utilize experts in soil resistivity testing and mapping to develop the limits of the design remediation. SEEP/W models were utilized to design the embedment of the sheet pile cutoff.
03/19 – 03/26	Principal Geotechnical Engineer for Flood and Hurricane Events: Mr. Sherwood served as the principal geotechnical engineer for high river events in November 2018, February 2019, May 2019, and January 2020, during which he reviewed points of concern along the Mississippi River Flood Control System. The system is made up of earthen levees, floodwalls, gates, locks, spillways, and other hardened water flow control structures. His work included multiple weeks of deployment to conduct daily monitoring and inspections of the Old River Control Structure (ORCS), as well as to monitor instrumentation. Inspection points included areas of erosion, damage, or other conditions affecting the features' foundations that could result in changes to their designed performance. As part of the inspection and reporting effort, Mr. Sherwood utilized the USACE ArcGIS Field Maps application to document locations; take photographs and videos; and capture relevant notes. Throughout the events and at the conclusion, Mr. Sherwood compiled the data into reports for distribution within the USACE and to local levee districts.
09/21 – 10/24	Principal Geotechnical Engineer for Hurricane Events: Mr. Sherwood served as the principal geotechnical engineer for multiple emergency hurricane events. He performed damage assessments for federal and non-federal levee systems after Hurricane Ida in September 2021. Inspection points included areas of erosion, damage, or other conditions affecting the features' foundations that could result in changes to designed performance. The damage assessment team worked with local and state sponsors to determine damage caused by the hurricane. Mr. Sherwood participated as a field engineer during dewatering operations for Hurricane Ida in Plaquemines Parish. During the dewatering mission, the non-federal levee had engineered cuts placed at chosen points to allow the trapped water to drain. The field engineer monitored the cuts and water levels by airboats daily and reported and documented observations. Mr. Sherwood was part of the bunker team during Hurricane Francine in September 2024 for the USACE, where the team assessed overtopping risk and severity using updated storm surge modeling as the hurricane approached the Louisiana coast. Mr. Sherwood deployed to the USACE Jacksonville District (SAJ) as part of the dewatering team during Hurricane Milton in October 2024. He inspected and provided technical assistance to local government authorities for flood mitigation utilizing temporary dams and pumps. Mr. Sherwood deployed to Ashville, North Carolina, as part of the Hurricane Helene recovery in October 2024, assisting with the mission to help restore potable water distribution to the area. His role included providing quick field assessments to ensure the safe placement and loading of the needed equipment.
09/18 – 03/26	Principal Geotechnical Engineer Performing Technical Review and Quality Control: During his employment with the USACE, Mr. Sherwood served as a national reviewer of Drilling and Invasive Program Plans (DIPPs) for the USACE Risk Management Center (RMC), which focuses primarily on the review of vertical drilling and Horizontal Directional Drilling (HDD) under or within federal flood control infrastructure, such as dams and levees. He served as the primary reviewer for the USACE MVN, handling technically complex permits involving HDD beneath the Mississippi River and its flood control system, as well as Section 408 permits involving work on or over flood control. He also acted as a mentor and advisor to engineers and geologists within the USACE MVN and other districts on the technical aspects of HDD installations and best practices. Mr. Sherwood performed Agency Technical Reviews (ATRs) and District Quality Control (DQC) reviews of technical analyses, reports, and manuals for USACE MVD projects throughout the design process to ensure compliance with USACE standards. He was the reviewer for over 1,000 work request permits to ensure proposed work did not negatively impact federal and non-federal levee systems, and he assisted in training junior engineers to perform this task.

16. Staff Experience:

Firm employed by Ardaman & Associates, Inc.			
Name	Megan Bourgeois, P.E.		
Title	Project Engineer / Assistant Branch Manager		
Degree(s) / Years / Specialization		Years of relevant experience with this employer: 20 Years of relevant experience with other employer(s): 0 B.S. / 2006 / Civil Engineering Traffic Control Supervisor, Flagger Certified NHI Drilled Shaft Inspector	
Active registration number / state / expiration date		0036725 / LA / 03-31-2028	
Year registered	2011	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			Ms. Bourgeois will serve as a Supervisor Geotechnical Engineer and will be responsible for the overall execution of geotechnical engineering design services.
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
20 Years' Experience	Ms. Bourgeois has more than 20 years of experience with shallow foundations, embankment settlement, pile and drilled shaft foundations, LRFD design, slope stability (embankment and excavation), pipeline and pump station recommendations, geotechnical instrumentation, and construction monitoring. She has managed numerous geotechnical investigations and design evaluations, managed laboratory testing programs, while also serving as Ardaman's program manager for many LADOTD projects for bridges and roadways throughout Louisiana. Ms. Bourgeois also serves as the director of our geotechnical engineering laboratory in Baton Rouge. In this role, she supervises the laboratory manager, oversees testing, provides guidance to laboratory staff, and ensures appropriate protocol is followed and deadlines are met in addition to provide training material and maintaining AASHTO certifications.		
03/13-10/14	Iatt And Nantachie Lake Dams Evaluation & Remediation: Grant Parish, LA. LADOTD SP H.010600.5 Project Manager. Served as project manager for the project that included a geotechnical engineering evaluation of the earthen dams for two lakes in Grant Parish for slope stability issues. Study included initial site reconnaissance, review of available design, construction, inspection and repair documents, collection of additional field and laboratory data and engineering analyses to develop recommendations for repairs and long-term geotechnical performance monitoring.		
10/13-06/16	FEMA 40 Arpent Levee Certification Phase 2, Tetra Tech (Owner: South Louisiana Flood Protection Authority – East): Orleans & St. Bernard Parishes, LA. Laboratory Director. Ardaman conducted extensive field exploration and laboratory testing programs including CPTs and borings and supervised seepage and stability analyses for FEMA levee certification of the 40 Arpent Levee System that included more than 20 miles of levee with various closure structures. Ms. Bourgeois was involved with review of laboratory data throughout the project.		
10/13-10/15	Maxent Levee Certification Phase 2, Tetra Tech (Owner: South Louisiana Flood Protection Authority – East): Orleans & St. Bernard Parishes, LA. Laboratory Director. Ardaman conducted extensive field exploration and laboratory testing programs including CPTs and borings and supervised seepage and stability analyses for levee certification of the Maxent Levee System that included 5 miles of levee. Ms. Bourgeois was involved with review of laboratory data throughout the project.		
04/21-Ongoing	SP NO. H.013987 / Rural Bridges Phase I: Claiborne Parish, LA. Project Engineer. The Rural Bridges project initiative is to replace many older bridges throughout the State of Louisiana. The geotechnical design includes geotechnical exploration, analyses, and foundation recommendations for 3 bridges (recall numbers 016831, 016842, and 016850).		

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2010	New Orleans To Venice Levee Raising Design (NOV-7): LA. Assistant Project Engineer. The general scope for NOV-07 levee project consists of raising approximately 12.1 miles of hurricane protection levee to an authorized grade of Elev. +15.6 ft. plus overbuild of the levee and berm that would be needed to compensate for settlement so that the authorized grade will be maintained for at least a 10 year period after completion of construction. In addition, wave berms as prescribed by the GDM and seepage or stability berms as required by design will be added to the general levee section. Ardaman conducted a geotechnical analysis for this study which utilized the available geotechnical information provided by USACE including the new soil borings, laboratory test data and CPTs.
2008	ST. Mary Sugarcane Facility Levee: St. Mary Parish, LA. Assistant Project Engineer. Completed inspection of the levee to observe several failures prior to the investigation. Conducted geotechnical engineering analyses including slope stability for the levee and provided repair recommendations for the failures.
10/18-06/21	SP NO. H.000263 / Chef Menteur Pass Bridge & Approach, Orleans Parish, LA. Project Manager. Managed and oversaw all aspects of an extensive field investigation program including performing 26 deep soil borings and 12 CPT soundings, including borings over 200 feet in over 80 feet deep of high flow water. Ms. Bourgeois also managed laboratory testing program to provide geotechnical characterization data for use in design of deep foundations and embankments, oversaw the field resistivity testing program, and developed the data report.
08/08 – 12/13	SP NOs 700-09-0166 & H.003886.5 / I-49 North Phase II, Caddo Parish, LA. Laboratory Director/Assistant Project Engineer. Closely coordinated an extensive laboratory testing program with an aggressive schedule to provide geotechnical characterization data for use in design of deep foundations, earth retaining structures and culverts.
07/15-Ongoing	SP NO. H.004273.5 / I-49 Connector (Lafayette Regional Airport To I-10/I-49/US 167 Interchange), Lafayette Parish, LA. Project Engineer. Assisting the Program Manager in overseeing the geotechnical investigation and design of the 5 miles of freeway consisting of a 3.5-mile elevated structures that will include pile supported approach slabs, pile foundations, slope stability, embankment settlement, pavement design, advanced pile load test programs, and earth retaining structures. Overseeing laboratory program which will include a total of more than 400 borings including deep borings, shallow borings, and CPT soundings. Ms. Bourgeois is the project lead to develop the Geotechnical Investigation and Design Report.
03/19-07/20	SP NO. H.004100.5-2 / I-10 Widening (LA 415 TO HOWARD ST): East Baton Rouge Parish, LA. Project Manager. Comanaged all aspects of the widening of the East and Westbound lanes, elevated structures, and construction of interchange and ramps on westbound lanes along I-10 between LA 415 and Howard Street spanning approximately 1 mile. The geotechnical investigation included 54 deep borings and 13 cone penetrometer (CPT) soundings, field resistivity testing, and associated laboratory testing, as well as, the preparation of a geotechnical data report.
10/09-Ongoing	SP NO. H.004646.5 / I-20 Mississippi River Bridge Review: Vicksburg, MS. Project Manager. She manages this multi-million-dollar, high risk, high technical needs, and high visibility project. She managed a highly technical team including academia, outside experts, including internationally recognized geotechnical engineers, geohydrologist, instrumentation specialists, and 3-D geotechnical modeling experts. She managed and personally oversaw a comprehensive laboratory testing program and was involved in refining the geotechnical site characterization for the bank/bluff where there was evidence of shifting creating movement in the bridge structure. The specialized testing, she personally performed or managed included x-ray diffraction for the determination of mineralogy, x-ray scanning of unextruded samples to identify existing shearing plane, stress-reversal direct shear tests to determine true residual angles of critical strata. She was instrumental in designing the geotechnical instrumentation for this project including vibrating wire piezometers, Casagrande type piezometers, In-place inclinometers, SAA inclinometers, and traditional inclinometers. In addition, Ms. Bourgeois performed seepage and drawdown analyses, slope stability analyses, evaluation of remedial measures, and developed technically feasible solutions. Co-authored the geotechnical analysis and design report.

16. Staff Experience

Firm employed by Ardaman & Associates, Inc.			
Name	Mark Woodward, P.E.		
Title	Principal Geotechnical Engineer		
Degree(s) / Years / Specialization		Years of relevant experience with this employer: 8 Years of relevant experience with other employer(s): 36 M.S. / 2019 / Risk Management M.S. / 1986 / Civil Engineering B.S. / 1982 / Civil Engineering	
Active registration number / state / expiration date		24206 / LA / 9-30-2027	
Year registered	1991	Discipline	Civil
Contract role(s) / brief description of responsibilities			Mr. Woodward will serve as Geotechnical Engineer and be responsible for overseeing performance of geotechnical design services.
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
44 Years’ Experience	Mr. Woodward served as a geotechnical engineer for 44 years in the geotechnical branch of USACE New Orleans District, retiring as the Deputy Chief of the Geotechnical Branch and Dam and Levee Safety Program Manager. He was responsible for managing all departments in the branch including engineering, drilling, soils laboratory, dredge material testing, concrete testing, and administration. Mr. Woodward has considerable experience designing and managing various types of projects on the Mississippi River, Atchafalaya Basin and Storm Surge Levees in Southeast Louisiana, Mississippi and Texas, as well as mitigation and coastal projects in Louisiana. These projects included design of major foundation elements for dams, earthen levees, hydraulic structures, floodwalls, revetments, channel stabilization, bank degrading, ground improvement, deep excavations, relief wells, wick drains, dewatering systems, seepage and stability berms, preloads, reinforced levees and marsh creation for mitigation, coastal restoration and protection and beneficial use of dredge material in marsh and coastal environments with field investigations requiring use of specialized marine and marsh drilling equipment. Since 2018, Mr. Woodward has served as Principal Geotechnical Engineer of Ardaman for Louisiana, Mississippi, Alabama, Arkansas, and Texas. Mr. Woodward provides oversight and review of design major foundation elements for transportation, industrial, commercial and municipal projects.		
1998	Seven Oak Dam: San Bernardino, CA. Embankment Engineer. Mr. Woodward served as the embankment engineer for the 600-ft high earth fill Seven Oaks Dam during construction. This dam was for flood control, with no constant pool against it. It was a zoned dam with a clay core and varying rock gradations towards the upstream and downstream sides. Performed many large diameter sand cones on the rock fill. Looked for cracks at edges of the dam against the canyon wall so shotcrete could be applied, ensured that the clay core was not contaminated by equipment traffic, ensure proper gradation and compaction, monitored outlet works, spillway and tunnel construction. Monitored blasting and clay delivery system.		
01/19-12/23	SP NO. H.008226 / Cheniere Spillway & Bridge Replacement: Ouachita Parish, LA. Principal Engineer. Mr. Woodward served as the Principal Engineer for this project which included the replacement of the current damaged spillway and bridge structure in Ouachita Parish, Louisiana.		
05/18-08/19	SP NO. H.011152.5 / I-12 WIDENING (US 190 to LA 59): St. Tammany Parish, LA. Principal Engineer. Mr. Woodward provided technical oversight for this project which included the widening of I-12 in St. Tammany Parish. Ardaman conducted a geotechnical investigation which included 23 deep soil borings, sampling, and laboratory testing along the 3-mile alignment between US 190 and LA 59 for lane widening which included four bridges structures. Mr. Woodward provided oversight to perform additional soil borings, lab testing and engineering analyses for a retaining wall for one of the bridge abutments		

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2014 - 2018	Dam And Levee Safety Program Manager, USACE New Orleans District: Various Locations, LA. <i>Dam and Levee Safety Program Manager.</i> Responsible for levee evaluation reports for levee certifications and the national flood insurance program, levee inspection reports on 1,300 miles of levee on an annual basis, risk assessments (estimation of conditional probabilities of failure for static, hydrologic, and seismic failure modes as well as Loss of Life and Economic Consequences estimates), and risk communication for all levees in the district's jurisdiction. Responsible for final Section 408 permitting approval to ensure that construction activities do not increase risk or diminish function of levees and do not cause harm to the public. Teamed with flood risk management. Led potential failure mode analysis and participated in probable failure mode analysis (PFMA). Prepared Event Trees. Oversaw and performed review of Risk Analysis (RA) reports for other Districts. Completed Post Baccalaureate Certificate in Risk Assessment and Management from Notre Dame of Maryland University in 2017 and completed requirements for master's degree in Risk Management, May 2019.
2018-Ongoing	Mid-Breton Sediment Diversion: Plaquemines Parish, LA. <i>Senior Geotechnical Engineer.</i> Mr. Woodward serves as the Geotechnical Engineer of Record for CPRA's Mid-Breton Sediment Diversion Project which will reconnect the Mississippi River to the deteriorating deltaic wetlands in the Breton Sound Basin. This project includes a control structure in the mainline levee along the Mississippi River. The project also includes an associated river inlet channel, a conveyance channel across the protected landside area, and a back structure through the existing hurricane surge protection levee.
2018-Ongoing	Mid-Barataria Sediment Diversion: Plaquemines Parish, LA. <i>Senior Geotechnical Engineer.</i> Mr. Woodward served as the senior geotechnical engineer on the Construction Manager At-Risk (CMAR) services for the Mid-Barataria Diversion Project. The Mid-Barataria Sediment Diversion will provide sediment, water, and nutrients from the Mississippi River to the Barataria Basin to build, maintain, and sustain wetlands.
06/16-07/16	Southeast Louisiana Urban Flood Control, Louisiana Avenue Paving: Orleans Parish, LA. <i>Chief of Structural Design.</i> Served as decision maker as Chief of Structural Design, USACE New Orleans, for asphalt or concrete paving, looking at factors such as construction cost, durability, maintenance cycles and costs, constructability, construction duration, etc.
2014-2018	Dam And Levee Safety Program, USACE New Orleans District: Orleans Parish, LA. <i>Dam and Levee Safety Program Manager.</i> Mr. Woodward served as the USACE New Orleans District Levee Safety Program Manager for over four years, responsible for Levee Evaluation Reports for Levee Certifications and the National Flood Insurance Program, Levee Inspection Reports on over 1300 miles of levee on an annual basis, Risk Assessments and Communication for all levees in the District's jurisdiction. Responsible for final Section 408 permitting approval to ensure that construction activities do not increase risk or diminish function of levees and do not cause harm to the public.
2006	Homeplace Levee With Ground Improvement - P24: Plaquemines Parish, LA. <i>Lead Geotechnical Engineer.</i> In the aftermath of Hurricane Katrina, Mr. Woodward was assigned to USACE Task Force Guardian as Geotechnical Engineer for Plaquemines Parish to restore levee damage to pre-Katrina conditions. The Homeplace Floodwall had translated due to loading and had to be removed. In order to replace the risk reduction system with an earthen levee, the foundation had to be improved. Using knowledge gained from full scale test section Mr. Woodward had coordinated pre-Katrina for Deep Mixing, Mr. Woodward designed ground improvement and reviewed/ approved all construction submittals and oversaw construction.
1983-2015	Mississippi River And Tributaries Project – Geotechnical Investigation, Design And Construction Oversight: LA. <i>Senior Geotechnical Engineer.</i> Mr. Woodward conducted or oversaw the review of existing geotechnical data and implementation of field investigation to obtain subsurface data, selection and reduction of laboratory testing, geotechnical engineering analyses, development of conclusions and recommendations, final report preparation and construction oversight for over 50 levee and floodwall projects on the Mississippi River and Atchafalaya Basin. Responsible for providing final geotechnical approval of 1000 permits a year for construction activities on and around levees.

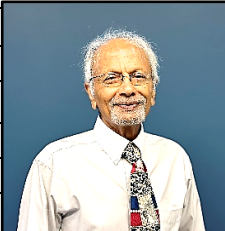
16. Staff Experience

Firm employed by ECM Consultants, Inc.					
Name	April Falcon-Villa, PE, PMP			Years of relevant experience with this employer	<1
Title	Sr. Vice President			Years of relevant experience with other employer(s)	25
Degree(s) / Years / Specialization		MS / Civil & Environmental Engineering, (UNO, 2009) BS / Civil & Environmental Engineering, (UNO, 1999) Risk Management Certificate (NDMU, 2018)			
Active registration number / state / expiration date		35159 / LA / 3.31.2028			
Year registered	2009	Discipline		Civil Engineering	
Contract role(s) / brief description of responsibilities				Ms. Falcon-Villa will serve as a Structural Engineer for this contract. She meets the minimum requirement of MPR Nos. 2, 3 and 4.	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
26 years of experience	<i>Ms. Falcon-Villa has over 26 years of experience in civil and structural engineering design, project and construction management, engineering during construction (EDC), and inspection of completed works during routine conditions and emergency operations for features such as Port Facilities, buildings, warehouses and sheds, bridges, drainage, and hurricane storm damage risk reduction system features (levees, floodwalls, navigation and access gates, and surge barriers. She spent the majority of her career working with the U.S. Army Corps of Engineers, New Orleans District under various roles as a Structural Designer, Project Manager, Construction Manager and Levee Safety Program Technical manager, retiring as a Branch Chief in Programs and Projects Management Branch over New Orleans to Venice Projects (NOV), South Louisiana Urban Flood Damage Reduction Projects (SELA), and Westbank and Vicinity (WBV) all totaling over \$7 billion-dollar of construction projects for USACE.</i>				
05/21 – 5/25	Various (Engineering/Construction/Project Management) USACE MVN Damage Assessment Reports (DARs) and Permit Reviews: Ms. Falcon-Villa provided inspection of various Mississippi River Levees during high and low water events; hurricane and storm damage risk reduction features during hurricane season; and navigation features throughout the USACE New Orleans District area of responsibility (AOR) after major hurricane landfall over the course of her career. She technically inspected structural features for soundness and thoroughly documented damages and deficiencies ultimately producing a Damage Assessment Report (DAR) for use in developing repair plans and specifications when needed. Reviewed permits for compliance with Inspection of Completed Works and Section 408 alterations. Permits varied in complexity from residential modifications (swimming pool excavation near flood protection) to industrial complexes such as loading docks on the Mississippi River to 20+story hotels in downtown New Orleans within the zone of influence.				
03/18 – 03/21	Various Recon, Feasibility, and Engineering Designs – USACE, New Orleans District (MVN), LA: Ms. Falcon-Villa prepared preliminary designs for cost estimating and coordinated with the local sponsor and their engineering representative for the Port of Iberia on bulkhead and fender features for an existing slip to be dredged to a deeper draft elevation. She worked with other district departments to identify a holistic set of problems and ensured proper resolution of issues identified to ensure that the project studies, reports and other required data are prepared on schedule and within budget. Reviewed engineering data, available maps, soil profiles, and boring logs, to develop appropriate data. Prepared engineering design of reconnaissance and feasibility reports and design memoranda covering assigned studies. Preparation of plans and specifications attended meetings with professionals and sub-professionals to contribute recommendations on structural engineering.				
10/11 – 10/18	Levee Safety Program Lead – USACE, New Orleans District (MVN), LA: Ms. Falcon-Villa served as Team Lead for the USACE - Levee Safety Program, inspecting all facets of USACE’s portfolio during routine maintenance cycles and immediately following storm events to document any damages and design recommended repairs. Communicated with all non-federal levee district sponsors, the risk associated with system performance				

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	and quality of maintenance practices. Coordinated with FEMA to release findings and worked with Geospatial personnel to populate the National Levee Database. Assignment at USACE Headquarters in Washington D.C. led to communications with the Chief of Engineers and Business Line Industry Heads with briefs on changes to new Engineering Circular (EC) 1165-2-220 which Ms. Falcon-Villa led in updating, requiring extensive collaboration with industry, public sector, and the USACE Civil Works enterprise. Levee Safety Evaluation Reports (LSERs): Ms. Falcon-Villa served as a Lead Project Delivery Team (PDT) member for the Levee Safety Program, with particular emphasis on the Levee System Evaluation Reports (LSER). Responsible for completing and coordinating the LSERs with all disciplines in Engineering Division (ED) for 22 of 25 systems. These systems include the review and analysis of levees, embankments, floodgates, pumping stations, control structures, bridges, drainage structures and culverts, temporary braced excavations, dikes, and channel slopes for acceptance into the National Flood Insurance Rate Maps (NFIRM). Assisted in the development of technical input for the LSER; and coordinated assigned studies with personnel of all engineering branches, local interest groups, state, and Federal agencies. Reviewed basic engineering data, available maps, soil profiles, boring logs, structural periodic inspection reports to develop appropriate data to create reports pertaining to specific project area. Coordinated with FEMA to release the LSERs to the Local Sponsors using Risk Communication Framework. Worked with Geospatial personnel to populate the National Levee Database.
05/08 – 10/11	Resident Engineer/Project Engineer – USACE, New Orleans District IHNC Surge Barrier, St. Bernard Floodgates & Floodwalls: Ms. Falcon-Villa served as a Construction Manager at the Project Engineer and Resident Engineer levels on the IHNC Surge Barrier and St Bernard HSDRRS (Hurricane Storm Damage Risk Reduction System) Projects under design-build (DB) and early contractor involvement (ECI), respectively. She managed a team of Project Engineers, Construction Quality Managers, and Quality Assurance Inspectors to ensure requirements were met. These projects were large scale Civil Works Mega Projects: Surge Barrier, \$1.3B and St. Bernard HSDRRS \$1.2 Billion.
2004	Structural Engineer – USACE MVN, LA (Old River Complex Bridge Inspection) Ms. Falcon-Villa trained in Safety Inspection of In-service Bridges for Professional Engineers (FHWA-NHI-130056) and performed safety inspection of in-service bridge structures associated with the USACE MVN-Old River Control Complex. The complex includes 3 major structures which regulate the flow of water from the Mississippi River into the Atchafalaya River. The 3 structures are 1) Low-sill 2) Overbank 3) Auxiliary. The inspection of over and under bridge concrete and steel conditions, providing structural assessments and designing repair for pier abutments where concrete spalling was found to be excessive and unsafe.
01/00 – 03/01	Structural Design/Analysis, Foundation Design, Bulkhead Design, Marine Structure Design, Highway and Road Design, Site Development, Cost Estimates, and Structural Stability Inspections – Lanier & Associates: Ms. Falcon-Villa managed and led teams in day-to-day activities providing them with administrative and technical leadership to meet the quality, quantity and timeliness of several projects. Prepared design details, monitored construction, and evaluated operation and maintenance activities for companies like Houston Fuel Oil, Trans Global Solutions, UNOCAL Corp., BUNGE Corporation, Boh Bros for Elmwood Pumping Station, Port of Beaumont, and the Port of New Orleans, with budgets ranging from \$30,000 to \$30 million. Inspected warehouse facilities and loading docks for deficiencies. For warehouses, designed roofing solutions and replacement of deteriorated steel members. For docks, designed developed plans & specs for timber pile replacements and upgrades to bollards to accommodate increased design criteria for mooring of larger vessels. Coordinated with surveyors in gathering and interpreting hydrographic data for dredging and was the on-site construction manager to the sub-contractor King Fisher. Reviewed plans and specifications of a conveyor designed for the BUNGE Corporation Grain Terminal Expansion Project.
06/03 – 09/21	Emergency Operations Experiences (All under USACE tenure): *Hurricane Ida Response Team assigned to Westbank and Vicinity Project Features. Deployed assets immediately after landfall for damage assessments and report completion for timely funding request. *Local Government Liaison to Southeast Louisiana Flood Protection Authority – East and deployed for Hurricane Isaac to facilitate closures of over 150+ openings to include the IHNC Seabrook and Surge Barrier Gates. Conducted immediate damage assessments after landfall. *Alternate Command Post Team for Hurricanes Gustava and Ike to track impacts and plan responses. *Debris Missions include Hurricanes Ivan and Maria. *Deployed to Iraq in support of Operation Iraqi Freedom to assess wartime damages and oversee rehabilitation and repairs.

16. Staff Experience:

Firm employed by ECM Consultants, Inc.					
Name	Sudhir Mehta, P.E.			Years of relevant experience with this employer	8
Title	Senior Structural Engineer			Years of relevant experience with other employer(s)	47
Degree(s) / Years / Specialization				BS/1972/Civil Engineering, MS/1974/Civil Engineering	
Active registration number / state / expiration date				18950 / LA / exp 3/2028	
Year registered	1980	Discipline		Civil Engineering	
Contract role(s) / brief description of responsibilities			Mr. Mehta will serve as Structural Engineer for this contract.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
55 Years of experience	<i>Mr. Mehta has 55 years of experience in civil and structural engineering design, analysis and construction of flood control structures including gated water control structures, sector gates, sluice gates, Drainage pumping stations, levees and flood walls, major drainage structures such as concrete box culverts, concrete lined canals as well as roads and bridges. Majority of the flood risk reduction projects were performed d for multiple USACE districts, states and local municipalities.</i>				
05/21 - Ongoing	S.P. No. 4400020842 Inspection of State-Regulated Dams, LADOTD, Statewide majority in Districts 03, 07, 61 and 62, LA: T.O. for Rehabilitation of Gate Structure at Lower Anacoco Dam: Mr. Mehta performed structural analysis and prepared P&S for the two sluice gates with manual hoists in the drainage structure at Lake Anacoco were stuck in the partially open position approximately halfway up the openings and couldn't be moved further. The LADOTD wanted to dewater the gate structure so that the gates could be inspected and, if needed, repaired to restore full functionality. To accomplish this, SOW required the A/E to design a closure plate to seal off the trash screen, approximately 22 ft high, to permit the dewatering of the gate structure. The maximum plate thickness and weight of the plate were dictated by SOW. A removable closure plate meeting the SOW parameters and lifting devices were designed to block off the trash screen located just upstream of the gates. The manual lifting devices were designed to handle the installation and removal of each section of the closure plate. The plate was designed in four sections of equal length to not exceed the maximum weight specifications. The construction Plans and specifications were prepared and submitted to LADOTD.				
07/19 – 11/19	USACE Contract No. W912-P8-16-D-0005, Task Order 0009, Low Sill Old River Gate Structure Dewatering Design, Concordia Parish, LA: Project Structural Engineer. Mr. Mehta performed structural stability investigation and analysis of pile foundation using CPGA program 3D pile analysis for the grouted Low Flow, Transition and Weir Monoliths, which are supported by steel H piles. He was also responsible for determining the stability of the existing wingwalls as well as ascertaining that an adequate factor of safety exists with respect to flotation of the stilling basin. Project concept involved construction of two earthen cofferdams across the width of the channel on either side of the low sill gated water control structure and simultaneously dewatering between the cofferdams to permit inspection by USACE. He prepared DDR, assisted in design development of Plans & Specs for sand cofferdam, design of access to the site on either side of the channel, developing design to dewater inflow and outflow simultaneously as well as coordination with Geotech engineers and USACE.				
05/17 – 09/19	Strain Road Bridge Over Drainage Bayou, Baton Rouge, LA: Mr. Mehta served as a project engineer for a design study report that included comprehensive hydrologic and hydraulic analysis and preliminary and final design services for Strain Road Bridge over Drainage Bayou project. He was involved in preparation of a design report with two design alternatives that included the replacing of existing bridge with two 60				

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	foot long, 8' x 8' box culverts with 150 feet of channel improvement and second included replacing existing bridge with a new 100 foot long bridge with some channel improvement downstream of the channel. Based on the cost benefit analysis first alternative was selected. He performed design and responsible for preparation of construction plans of two 8' x 8' box culverts and a two-lane asphaltic concrete roadway with subsurface drainage system.
12/18 – ongoing	Veterans (North and South) and West Esplanade Ave. Drainage Pump Station, Jefferson Parish, LA: Structural Engineer. Performed structural engineering design for the three new steel H pile supported pumping stations with multiple axial flow pumps. Mr. Mehta also performed calculations of the system head loss and the NPSHA; layout of the pump station including geometrics of the suction chambers based on the pump selected and in conformance with HI standards. Design services include P&S and USACE 408 permit. Project site at each of the three pump stations is located in a close proximity of the existing flood protection and an earthen canal. Special precautions were needed for the flood protection stability and seepage issues.
08/20 - ongoing	USACE Contract No. W912P8-16-D-0005, Task Order W912P820F0177, West Shore Lake Pontchartrain Flood Risk Reduction Project, Segments WSLP 102 and 106, St. Charles Parish, LA: Project Structural Engineer. The purpose of this project is to construct a 100-year level flood risk reduction system for the residents of the three parishes. The WSLP 102 and WSLP 106 of approximately 2 miles, is a part of 18.5 miles long West Shore Lake Pontchartrain project at its east approach. The salient features of this contract are earthen Levees, T-walls, and a Drainage Structure in the Montz canal with four (4) stainless steel sluice gates. The flood mitigation configuration is such that a portion of T-wall construction in this reach crosses the existing I-10 alignment and must be constructed under the I-10 east bound and west bound bridges. The scope of work of the WSLP 102 & 106 contracts includes engineering design, and preparation of PS&E for all civil, structural, mechanical, electrical, and geotechnical engineering considerations. Mr. Mehta is responsible for all structural design for Flood walls, and gated drainage structure in Montz canal for both the segments.
03/17-04/19	Drainage Box culvert, Phase I of Mounes Street (Dickory Avenue to Elmwood Park Blvd.), DPW-Jefferson Parish, LA: Mr. Mehta performed structural analysis and design for the phase 1 of this four-phase project that includes 4,900 LF of 10'x8' box culvert from Dickory Ave. to Crochet Ditch. This first phase included approximately 1,280 linear feet precast 10'x8' box culverts which will tie-in to the existing box culverts from the Pump-to-the-River (PTTR) project. He also provided analysis and design for the concrete junction boxes and conflict boxes.
08/12-06/14	Caernarvon Freshwater Diversion Floodwalls, USACE New Orleans District, St. Bernard Parish, LA: Mr. Mehta served as Structural Engineer responsible for the preparation of a design report to heighten floodwalls, swing gate and roller gate in the area near the Caernarvon Freshwater Diversion Structure. Construction and cost estimates for various alternatives.
10/11-02/15	Frontal Protection & Discharge Basin Modifications, Drainage Pumping Station No. 3, Sewerage & Water Board of New Orleans/Orleans Levee Board, New Orleans, LA: Structural Engineer. Performed structural engineering design for this new 180 CFS drainage pumping station located at the east end of the W. Esplanade Canal, discharging into the 17 th Street Canal. He performed calculations of the system head loss and the NPSHA; layout of the pump station including geometrics of the suction chambers based on the pump selected and in conformance with HI standards; layout of the suction and discharge piping; preliminary design of temporary earth retaining structures for the excavation based on the geotechnical investigation and analyses; structural design of steel H pile supported reinforced concrete suction basin and the structural concrete pump station. He also analyzed and design the pipe supports for the steel discharge pipes which cross and the existing flood wall overhead.

Prime consultant firm Name: **ECM Consultants, Inc.**

16. Staff Experience

Firm employed by ECM Consultants, Inc. (Contract)					
Name	Neil Logan, P.E.			Years of relevant experience with this employer	21
Title	Senior Structural Engineer			Years of relevant experience with other employer(s)	28
Degree(s) / Years / Specialization		B.S./ 1961 /Civil Engineering			
Active registration number / state / expiration date		14607 / LA / 03/31/2027			
Year registered	1974	Discipline		Civil Engineering	
Contract role(s) / brief description of responsibilities			Mr. Logan will serve as Senior Structural Engineer for this contract.		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
49 years of Experience	<i>Mr. Logan has over 49 years of experience as a structural engineer, with project experience involving design of levees, floodwalls, drainage pumping stations, culverts, breakwater structures, bridges, commercial buildings, and industrial facilities. He has provided structural design for multiple US Army Corps of Engineers' flood control projects.</i>				
08/20 - ongoing	USACE Contract No. W912P8-16-D-0005, Task Order W912P820F0177, West Shore Lake Pontchartrain Flood Risk Reduction Project, Segments WSLP 102 and 106, St. Charles Parish, LA: Structural Engineer performing Internal Technical Review (ITR) of all structural design. computations and reviewing plans. The purpose of this project is to construct a 100-year level flood risk reduction system for the residents of the three parishes. The WSLP 102 and WSLP 106 of approximately 2 miles, is a part of 18.5 miles long West Shore Lake Pontchartrain project at its east approach. The salient features of this contract are earthen Levees, T-walls, and a Drainage Structure in the Montz canal with four (4) stainless steel sluice gates. The flood mitigation configuration is such that a portion of T-wall construction in this reach crosses the existing I-10 alignment and must be constructed under the I-10 east bound and west bound bridges. The scope of work of the WSLP 102 & 106 contracts includes engineering design, and preparation of PS&E for all civil, structural, mechanical, electrical, and geotechnical engineering considerations.				
2012-2013	USACE IDIQ No. W912P8-07-D-0031, West Bank Mississippi River Levee, Venice Floodwall (NOV 15), Plaquemines Parish, LA, USACE Vicksburg Dist. under USACE NOD Contract T.O. 0036: Mr. Logan provided structural engineering services for this \$37 million project involving Preliminary Engineering Design (PED) to evaluate a T-wall alternative for providing hurricane protection to the authorized grade, replacing the existing I-Wall at Venice as part of the New Orleans to Venice (NOV) Hurricane Protection Project. The design analysis was performed for 2,590 LF of batter-pile supported T-wall as an alternative to the existing I-wall and a closeable perpendicular flood gate at the Jump Basin Road crossing. Overall design considerations included Safe Water Level, Wave Loads and Barge impacts.				

2010-2011	USACE IDIQ Contract No. W912P8-07-D-0055: Duncan Canal breakwater and Bridges, Kenner, LA (2010-2011): As senior structural engineer for this USACE New Orleans District Project, Mr. Logan designed two bridges north of the Duncan Canal Pumping Station as per AASHTO standards. Services included design and preparation of plans and specifications and engineering during construction. Design included piles, pile caps, pre-stressed concrete girders, concrete slab, concrete barrier, and wing walls. An innovative design of a 45' pre-stressed concrete girder span removable section instead of conventional steel section was used. A removable section was required for barge/barge crane access to the drainage pumping station.
2011-2014	USACE IDIQ Contract No. W912P8-07-D-0031 T.O.0029 Storm Proofing Jefferson Parish Pump Stations, Jefferson Parish, LA USACE-New Orleans District: Mr. Logan provided Structural Engineering design services for \$7.2 million Cousins Pump Stations No. 1, 2 and 3 and Elmwood No. 1 and 2 Pump Stations. The purpose was to provide storm proofing for the building envelopes as well as the ancillary systems in order to achieve reliable and redundant systems and ensure sustained operation during storm events. Structural design included retrofit metal roofs, hardening of siding's steel structural systems, and concrete foundations for generators and fuel tanks and other ancillary systems.
08/03-06/04	S.P. No. 700-29-0121: Off-System Bridge Replacement-St. John Bridge over Bayou Lafourche, Lafourche Parish, LA: Mr. Logan provided structural engineering services for the replacement of an existing bridge with a 9x20' slab span bridge. The project involved hydraulic analysis; design; preparation of plans, specifications, and estimates (PS&E) for the removal of existing bridge; new pile foundation substructure; bridge superstructure; concrete barrier rails; asphalt roadway transition; striping; ripraps; and guardrails.
06/09-09/11	USACE Contract No. W912P8-07-D-0055: Causeway Boulevard Overpass Complex, USACE-New Orleans District, Jefferson Parish, LA: Mr. Logan designed North and South approaches for the overpass structure at Causeway Boulevard in Jefferson Parish for the U.S. Army Corps of Engineers. Work included design of approach slab, slab spans, piles and pile caps. Structural design was conducted using AASHTO Standard Specifications for Highway and Bridges.
04/02-11/04	S.P. Nos. 713-59-0221 & 713-59-0222: Poplas Street Bridge over Coburn Creek & Noble Cemetery Road Bridge over Thomas Creek, Washington Parish, LA: Mr. Logan designed pile foundation substructures for five span x 20' slab bridges conforming to both LADOTD and AASHTO standards for the Poplas Street Bridge over Coburn Creek and Noble Cemetery Road Bridge over Thomas Creek in Washington Parish for LADOTD.

16. Staff Experience:

Firm employed by Specialty Diving of Louisiana, Inc.					
Name	Marshall Whitmer			Years of relevant experience with this employer	29
Title	Project Manager			Years of relevant experience with other employer(s)	17
Degree(s) / Years / Specialization		Commercial Diver Certified NHI Certified U/W Bridge Team Leader NHI Certified Private Pilot License ADCI Diver No. 3814			
Active registration number / state / expiration date				NA	
Year registered		Discipline	NA		
Contract role(s) / brief description of responsibilities			Underwater investigations Manager		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s)				
46 years of experience	<i>Mr. Whitmer attended Wesleyan College in Owensboro, Kentucky. He is a private pilot, as well as a commercial diver. He is a certified underwater bridge inspector. Mr. Whitmer's ability to solve underwater problems is well known throughout the industry. He has been a manager or owner of several dive companies since 1975 and has worked both in the United States and Internationally.</i> <i>• Mr. Whitmer, along with the owner of Specialty Diving, assisted in the development of the Underwater Inspection Program, in 1986, traveling to Washington, D.C. to meet with the FHA along with the company engineer.</i> <i>• Mr. Whitmer, along with the civil engineer, conducted the first U/W Inspection School at Louisiana State University, sanctioned by the FHWA, 1997 through 2001.</i> <i>• Mr. Whitmer was the Project Manager for the first comprehensive underwater bridge inspection project throughout the state of Mississippi, (298) bridges. In addition, all State Aid and County bridges, approximately 100 bridges in 1988-1989.</i> <i>• Mr. Whitmer, working with our engineer, designed and completed a major repair project on the Mississippi Jourdan River Bridge. This was completed due to an underwater inspection conducted by Specialty resulting in the bridge closure and an emergency repair, 1988.</i> <i>• Mr. Whitmer was the Project Manager for the first underwater inspection demonstration project on the Hwy. 11 bridge in the state of Louisiana, 1987.</i> <i>• In 2012, Mr. Whitmer was the Project Manager in charge of three (4-man) dive teams that travelled to North Dakota, South Dakota and Montana to conduct underwater dam assessments after the major flood in 2011.</i>				

Prime consultant name: **ECM Consultants, Inc.**

2014 - 2016	LADOTD, LA: Mr. Whitmer was the Team Leader and Project Manager for the underwater bridge inspection project (#4400003534). He was the logistics coordinator researching all bridge sites, assessing conditions; boat access, number of bents, pilings and other pertinent data in order to plan the weekly schedule for maximum productivity. Working with a sub-consulting engineering firm, he conducted regular meetings to review all field reports and progress, including any concerns of findings. Level I and II inspections were conducted. This contract for District #02 and District #62 encompassed approximately 400 bridges, including the one of the largest bridge spans in Louisiana, the Bonnet Carre bridge and Highway 11 bridge. Meetings were held with the LADOTD Project Manager and the Owner of Specialty Diving periodically for communications and progress reports. Engineered reports and narrated videos were submitted.. Mr. Whitmer prepared the report.
2011 - 2021	USACE New Orleans District: PM for several of the projects through this 10 year contract to provide diving services for (14) different lock and dam sites, inspection and maintenance.
2019	Terrebonne Parish Bridge Inspection, Dulac, LA : Project Manager and Team Leader for emergency inspection of 72 pilings to assess for damage.
2018	CHS Export Grain Elevator Dock Inspection, Myrtle Grove, LA: Project Manager to conduct Level I, II, & III inspection of 256 (24") steel piles.
2017	Port of New Orleans: Project Manager for inspection of several hundred piles at four different locations in New Orleans. Worked with Paul Bartow to review findings and submit to Client. Inspections included; 280 steel round piles at the Seventh Street Wharf. In addition, inspections conducted on 99 Bents at Harmony Street, 145 Bents at Nashville Avenue, and 131 bents at First Street. A Level I and Level III were required on approximately 5% of the piles. An NHI certified bridge team was utilized.
2015 - 2016	LADOTD #4400002538: Project Manager for Level & II Inspections of 114 (14") timber piles and the fender system on the Peery Bridge in Louisiana. Level III core samples were taken by the divers and documented on three random timber piles.
2012	USACE Omaha District – North Dakota, South Dakota, Montana: Working under the direction of Arcadis U.S., Mr. Whitmer, as the Project Manager conducted dam spillway assessments for (4) Dams after the flooding in 2011.

Prime consultant name: ***ECM Consultants, Inc.***

16. Staff Experience:

Firm employed by <i>Specialty Diving of Louisiana, Inc.</i>				
Name	Paul Bartlow, Louisiana		Years of relevant experience with this employer	26
Title	Assistant Project Manager		Years of relevant experience with other employer(s)	11
Degree(s) / Years / Specialization			Comprehensive Bridge Inspectors Training, LSU1987 & 1991 FHWA-NHI-130053 Bridge Inspection Refresher, (04/2013) Commercial Diver Certification, (1974) ADCI Certified Diving Supervisor No. 3824 Taylor Diving & Salvage: Diver Development Program, (1975) US Army Corps of Engineers Quality Control Program, (2002)	
Active registration number / state / expiration date			NA	
Year registered		Discipline	NA	
Contract role(s) / brief description of responsibilities			Diving Team Leader	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s)			
37 years of experience	<i>Mr. Bartow has over 37 years of experience working on dams, bridges, and levees, and has implemented safety planning on hundreds of projects, meeting the requirements of 23 CFR 650.309 for Program Manager as well as the Association of Diving Contractors Consensus Standards. He has been actively involved in underwater bridge inspections since 1987 and was among the first divers to perform underwater bridge inspections in Louisiana as part of an early pilot program reviewed by the Federal Highway Administration and the Louisiana Department of Transportation and Development. This work included inspection of bridge piles and girders along Interstate 10 between Slidell and New Orleans. Mr. Bartow also completed the FHWA-approved Comprehensive Bridge Inspection Course, further supporting his qualifications in bridge inspection and underwater evaluation.</i>			
2014 -2015	Underwater Bridge Inspection for the LADOTD: As one of the Inspection Team Leaders, he ensured the safety aspects of the project as well as the quality controls, for approximately 400 bridges, including the long spans of Hwy. 11 bridge spans, & Bonnet Carre Spillway bridge.			
2012	Underwater Bridge Inspection for the Louisiana Department of Transportation and Development: Project Manager for U/W Bridge Inspection of four bridges that carry I- 10, between Slidell and New Orleans East. Specialty Diving was contracted to conduct this bridge inspection, and provide a report, under the direction of Mr. Steven Sibley for the LADOTD. These Bridges (450902124-1 & 2124-2 and #450901985-1 & 1985-2) are actually the same bridges that Paul and our company inspected in that FIRST Pilot Program in 1987.			

Prime consultant name: ***ECM Consultants, Inc.***

2003 - 2007	Underwater Bridge Inspection on Multiple sites in Louisiana and Mississippi: Team Leader/ Project Manager for 12 different bridge sites of Canadian National Railway. Paul was involved as the Team Leader on various U/W Bridge Inspections, overseeing the dive crews from Specialty throughout Louisiana and Mississippi. Level I, II and level III inspections were required for these inspections. In 2010, Marshall Whitmer as PM, and Mr. Bartow as Team Leader completed underwater bridge inspections in Northern Mississippi to report on the heavy scour effects.
2011	Underwater Inspection on Bridge Pier Fenders on the Sunshine Bridge: Project Manager to work with Modjeski & Masters to perform an underwater inspection of the two damaged Bridge Pier Fenders, on Sunshine Bridge across Mississippi River. Specialty's Divers collected the field information and Mr. Bartow assisted with the final reporting data to submit to Modjeski & Masters.
1995	Underwater Bridge Inspection for the Louisiana Department of Transportation and Development: • Inspection Team Leader for inspection of 100 bridges for the LADOTD Districts 05 and 58. He provided a single point of contact for the responsibility of managing the project. • Collect initial Bridge data and site information • Oversee the Field operations of the 3-man dive team and work with subcontractor to complete final reports. Once LADOTD assessed damages from this inspection, Mr. Bartow was the Project Manger to encapsulate (40) steel piles on 2 piles in District No.58.

Prime consultant name: **ECM Consultants, Inc.**

16. Staff Experience:

Firm employed by <i>Specialty Diving of Louisiana, Inc.</i>					
Name	Benjamin Swan, Louisiana			Years of relevant experience with this employer	10
Title	NHI Certified Team Leader and Diver			Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization		Divers Academy International; Commercial Diver 2008 FHWA-NHI-130091 – Underwater Bridge Inspection Course; 2013 ADCI Commercial Diver; #35339 Certified First Aid/ CPR / AED / O2: American Red Cross TWIC card holder Divers Academy International; Commercial Diver 2008			
Active registration number / state / expiration date			NA		
Year registered		Discipline	NA		
Contract role(s) / brief description of responsibilities			Certified Commercial Diver		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s)				
12 years of experience	<i>Mr. Swan has been a Certified Commercial Diver since 2008. He graduated from The Divers Academy International, an accredited commercial diving school in Erial, New Jersey. He is a certified NHI Underwater Inspector. His skills and experience since becoming a commercial diver include the following:</i> <i>Underwater Inspections, rigging (API RP2D), Chamber Operations, Air Decompression Treatments, Emergency Procedures, Safety and Survival, Surface and Underwater Welding and Cutting, Hazardous Waste Operations & Emergency Response, Ultrasonic Testing, Level I & II, Responsibilities and Functions of Support Equipment. He has current Rigger Training as per API RP 2D, current Water Survival Course certificate, as well as Hyperbaric Medical Training in 2007, Level I & II NDT certification, and a holder of the Safe Gulf certificate.</i>				
2011 - Present	Commercial Diver for Specialty Diving of Louisiana, Inc.: Mr. Swan has logged several hundreds of hours working on inspection, maintenance and construction projects. • These projects have been for docks, piers, bridges and levees. • Over 40 separate jobs as a commercial diver for the U.S. Corps of Engineer projects, requiring inspection and maintenance on their locks and gate structures. • Worked on jobs requiring experience in Haz-mat diving, running river current, and cold water. • Worked for almost two months on a project for the Port of Baton Rouge, where Specialty Diving assisted in the removal and replacement of the dock. • Worked in Refineries, conducting inspections and maintenance on their intake and outfall lines.				

Prime consultant name: ***ECM Consultants, Inc.***

	• Worked on ship survey projects, conducted site clearances, as well as several underwater construction projects. • 2012, Mr. Swan was a USACE Inspection Diver at Houma River Bridge in the Gulf Intracoastal Waterways. • 2016, Mr. Swan conducted U/W dock pile inspection for United Bulk Terminals, Level I, II & III. • 2017, Mr. Swan was an NHI Diver of Level I, II & III U/W inspection of 5 dock walls and 6 mooring piers at the Stennis Space Center. (54) piles were surveyed and videoed.
2014 - 2015	Underwater Bridge Inspection Diver for Specialty Diving of Louisiana, Inc.: The LADOTD Retainer contract No. 4400003534 included U/W bridge inspections throughout District #02 and District #62. Approximately 400 bridges were inspected, including the long bridges of the Hwy. 11 bridge spans, & Bonnet Carre Spillway bridge. Mr. Swan was one of the Underwater NHI Certified Dive Inspectors. Mr. Swan inspected the sub surface bridge structures and relayed his findings following the reporting guidelines defined in the LADOTD PONTIS Inspection manual via underwater audio communications and live, dive helmet mounted video recording. ECM Consultants, our Engineering sub-consulting firm, utilized this relayed data to complete the LADOTD U/W Inspection form and assign element ratings and an NBI substructure rating for the final inspection report. Mr. Swan primarily conducted Level 1 Inspections of the sub surface structures, and where requested, conducted Level II Inspections.

Prime consultant name: **ECM Consultants, Inc.**

17. Firm Experience:

Firm name	ECM Consultants, Inc.		Discipline(s)*	Other (Dam Inspection)
Project name	IDIQ Contract for Engineering and Inspection Services of State-Regulated Dams, Statewide with majority Work in Districts 03, 07, 61,62		Firm responsibility (prime or sub?)	Prime
Project number	4400020842	Owner's name	LADOTD	
Project location	Various locations in the DOTD Districts of 03, 07, 61 and 62, Louisiana		Owner's Project Manager	Ed Knight
Owner's address, phone, email	P.O. Box 94248, Baton Rouge, LA 70804, Phone : 225-379-3007, Email: ed.knight@la.gov			
Services commenced by this firm (mm/yy)	05/21	Total consultant contract cost (\$1,000's)		\$1,250
Services completed by this firm (mm/yy)	On going	Cost of consultant services provided by this firm (\$1,000's)		\$1,250

Inspection Services –

ECM has performed inspections of 329 publicly and privately owned dams to date, under this 5-year contract. Inspections were performed for High Hazard, Significant Hazard, and Low Hazard dams each year as per rotation frequency to ensure that man-made impoundment structures and attendant water control devices are functioning adequately and safely. **The inspections are performed in accordance with the Louisiana Dam Safety Program to make certain that public safety is not compromised by the presence of dams, and to minimize potential hazards to downstream life and property in the event of a dam failure.**

The scope of work includes the following: scheduling and notifying the dam owner, local public officials, USDA-NRCS, and DOTD of impending inspections; reviewing available “as-built” plans, previous DOTD Dam Evaluation Reports and documents including EAPs, prior inspections, reports, performing safety inspections of dams; and preparing and submitting Dam Assessment and Evaluation Reports to DOTD for review and **inclusion in the National Inventory of Dams**. Inspections are scheduled by classification of the dams. High Hazard potential dams are inspected annually, Significant Hazard every three years, and Low Hazard every five years.

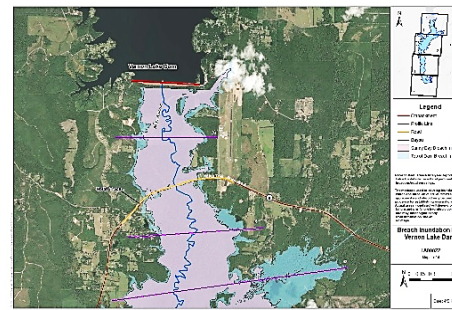
Some notable Dams inspected during this period for the (1) LA State are: Vernon Lake, Bundick Lake, Chicot Lake, Sinclair Lake, Highland Lake, Holbrook Park Lake Dam, Beaver Creek Dam, Valentine Lake, and Lower Anacoco Dam; and (2) NRCS Dams such as Kincaid Reservoir, Cotile Lake and Indian Creek Dam.

Engineering Services –

ECM is performing hydraulic and hydrologic (H&H) analyses, 2D dam breach modeling, flood inundation mapping, and preparation of Emergency Action Plan (EAP) reports for 10 dams under this contract. ECM utilized LiDAR data and conducted simplified hydrologic analyses to develop flood inundation maps. The scope of work includes performing 2D dam breach modeling and developing inundation maps for modified sunny-day, top-of-dam, and inflow design flood (IDF) conditions, with all

assumptions and modeling approaches fully documented. Deliverables include electronic dam breach analysis reports, EAP reports, maps, and associated computational files, all prepared in accordance with DOTD standards and submitted through designated FTP systems.

Some notable EAP's during this contract duration are: Bayou Cocodrie Dam, Black Bayou Lake Dam, Bundick Creek Dam, Chivery Dam, Lake Chicot Dam, Lake Iatt Dam, Lower Anacco Dam, Nantachie Lake Dam, Saline Lake Dam, and Vernon Lake Dam.

**Firm members working on this project and used in this proposal:**

Ujjal Dasgupta, P.E., Kazem Alikhani, P.E., Sunina Shrestha, P.E., PMP, John Rasi, P.E., Chris Capretto, P.E.PMP, Benjamin Dow, Emilio Rodriguez

Prime consultant name: **ECM Consultants, Inc.**

17. Firm Experience:

Firm name	ECM Consultants, Inc.			Discipline(s)*	Other (Dam Inspections & Engineering)
Project name	Dam Safety Inspections, Assessment & Related Engineering and Emergency Action Plan (EAP) preparation for State Regulated Dams, LA			Firm responsibility (prime or sub?)	Prime
Project number	4400011393		Owner's name	LADOTD	
Project location	Various Locations		Owner's Project Manager	Ed Knight, P.E.	
Owner's address, phone, email	P.O. Box 94245, Baton Rouge, LA 70804, Phone: 225.379.3007 , Email : ed.knight@la.gov				
Services commenced by this firm (mm/yy)	2018	Total consultant contract cost (\$1,000's)			\$2,500
Services completed by this firm (mm/yy)	2021	Cost of consultant services provided by this firm (\$1,000's)			\$2,500

ECM Consultants, Inc. is providing safety inspections, assessments, evaluations and reporting to LADOTD for **over 250 dams**. ECM collected and reviewed the available as built drawings, reviewed available "as-built" plans, previous DOTD Dam Evaluation Reports and documents including EAPs, prior inspections reports and performed safety inspections after scheduling and notifying the dam owner, local public officials, USDA-NRCS, and DOTD of upcoming inspections. This was to determine the condition of the existing dams and downstream area, and assessing the dams to ensure that man-made impoundment structures and attendant water control devices are functioning adequately and safely. ECM prepared Dam Assessment and Evaluation Reports and submitted to DOTD for review and **inclusion in the National Inventory of Dams**

The inspections were performed in accordance with the Louisiana Dam Safety Program to make certain that public safety is not compromised by the presence of dams, and to minimize potential hazards to downstream life and property in the event of a dam failure.

The inspections included all accessible features of the dams including embankments, concrete sections, spillways, galleries, intakes, outlet works, and discharge channels. Inspections include identifying and documenting evidence of leakage, erosion, seepage, instability, undue settlement, displacement, tilting, cracking, deterioration, and improper function of drains and relief wells. The condition of dams, adequacy and quality of maintenance and operating procedures as they pertain to the safety of the dam and operation of the control facilities are also accessed, and rehabilitation and corrective measures are recommended.

All dams were located using GPS system with latitude and longitude coordinates and recorded for future inspections. Photos, documentation, and condition assessments

were included in the report. All changes to the condition, and/or classification are preserved in the DOTD electronic database. Inspection teams included experienced inspectors and professional engineers. Quality of inspections are ensured by occasional inspection by supervising engineer or Project Manager.

ECM also performed Hazard Classification of dams and performed Dam Breach analysis, inundation map, and prepared Emergency Action Plans (EAPs) reports of several significant hazard category dams using LiDAR images and a simplified hydrologic analysis and modeling to develop flood inundation maps, as requested by DOTD.

Some Dams inspected during this period are University Lake, Lower Weir Lake, Jimmy Major Lake, Daryl Pennington Dam, Beaver Lake, Alligator Lake Dam, Braxton Moody Dam 1, 2, & 3, Bundick Creek Dam, Redwood Lake, Lake Forest, Lake Choctaw, and TL James Lake.



Firm members working on this project and used in this proposal:

Sunina Shrestha, P.E. PMP, Ben Dow, John Rasi, P.E, Emilio Rodriguez

Prime consultant name: **ECM Consultants, Inc.**

17. Firm Experience:

Firm name	ECM Consultants, Inc.		Discipline(s)*	Other (Dam Safety inspection)
Project name	Retainer Contract for Inspection of State-Regulated Dams		Firm responsibility (prime or sub?)	Prime
Project number	4400003970	Owner's name	LADOTD	
Project location	Various locations, Statewide, LA		Owner's Project Manager	Ed Knight
Owner's address, phone, email	P.O. Box 94248, Baton Rouge, LA 70804, Phone : 225-379-3007, Email : ed.knight@la.gov			
Services commenced by this firm (mm/yy)	11/13	Total consultant contract cost (\$1,000's)		\$2,300
Services completed by this firm (mm/yy)	10/17	Cost of consultant services provided by this firm (\$1,000's)		\$2,300

ECM performed 525 inspections for 289 publicly and privately owned dams under this contract for a period of 4 years. Inspections were performed for High Hazard, Significant Hazard, and Low Hazard dams each year as per rotation frequency to ensure that man-made impoundment structures and attendant water control devices are functioning adequately and safely. The inspections are performed in accordance with the Louisiana Dam Safety Program to make certain that public safety is not compromised by the presence of dams, and to minimize potential hazards to downstream life and property in the event of a dam failure.

The scope of work involves the following: scheduling and notifying the dam owner, local public officials, USDA-NRCS, and DOTD of impending inspections; reviewing available "as-built" plans, previous DOTD Dam Evaluation Reports and documents including EAPs, prior inspections, reports, performing safety inspections of dams; and preparing and submitting Dam Assessment and Evaluation Reports to DOTD for review and inclusion in the National Inventory of Dams. Inspections are scheduled by classification of the dams. High Hazard potential dams are inspected annually, Significant Hazard every three years, and Low Hazard every five years. The Emergency Action Plans (EAPs) are also updated on several significant hazard category dams using LiDAR images and a simplified hydrologic analysis to develop flood inundation maps.

The inspections include all accessible features of the dams including embankments, concrete sections, spillways, galleries, intakes, outlet works, and discharge channels. Inspections include identifying and documenting evidence of leakage, erosion, seepage, instability, undue settlement, displacement, tilting, cracking, deterioration, and improper function of drains and relief wells. The condition of dams, adequacy and quality of maintenance and operating procedures as they pertain to the safety of the dam and operation of the control facilities are also accessed, and rehabilitation and corrective measures are recommended. All dams were located using GPS system with latitude and

longitude coordinates and recorded for future inspections. Photos, documentation, and condition assessments are included in the report. All changes to the condition, and/or classification are preserved in the DOTD electronic database. Inspection teams included experienced inspectors and professional engineers. Quality of inspections are ensured by occasional inspection by supervising engineer or Project Manager.

In addition, **ECM has also prepared a comprehensive breach analyses for 22 dams with high or significant downstream hazard classifications as required by the State Dam Safety Rules and Regulations and the Federal Emergency Management Agency (FEMA).** The analyses were performed to update the flood inundation maps and preliminary EAPs for each dam. The project involved developing HEC-RAS models to establish the magnitude of the inundation area, peak flood elevations, arrival times of the peak flood, and elevations at critical locations.

Some of our dam inspections have included: Lake Rosemound, Grand Bayou Reservoir, Ivan Lake Dam, Lake Bistineau Dam, Lake Claiborne, Lower Caney Dam, Acadia Power Partners Holding Pond, Bundicks Creek Dam, Bayou D'Arbonne Dam & Reservoir, Bayou Desiard, Defee Lake Dam, Kendrick Pond Dam, Smith Pond No. 3 and No. 4, Carrie Lou Pond Dam, Guy Kinnebrew Dam, Charlie Hunter Pond, and Carolyn Beaubouef Dam. These dams were high, significant, and low hazard and ranged in length from 500 to more than 9,000 feet and are located across the state.

Some Notable Dam Breach Analysis include Loch Carden Dam and Longville Lake Dam.



Firm members working on this project and used in this proposal:

Ujjal DasGupta, P.E., Kazem Alikhani, P.E., Sunina Shrestha, P.E., PMP, John Rasi, P.E., Ben Dow, Chris Capretto, P.E., PMP, Emilio Rodriguez

Prime consultant name: **ECM Consultants, Inc.**

17. Firm Experience:

Firm Name	ECM Consultants, Inc.	Discipline(s)*	Other (Dam Safety Inspection)
Project Name	Inspections of State Regulated Dams, Statewide	Firm responsibility (prime or sub?)	Prime
Project number	S.P No. 750-99-0155	Owner's name	LADOTD
Project location	Various locations Statewide	Owner's Project Manager	Ed Knight, P.E.
Owner's address, phone, email	P.O. Box 94245, Baton Rouge, LA 70804, Phone : 225.379.3007, Email : ed.knight@la.gov		
Services commenced by this firm (mm/yy)	11/08	Total consultant contract cost (\$1,000's)	\$2,149
Services completed by this firm (mm/yy)	10/13	Cost of consultant services provided by this firm (\$1,000's)	\$2,149

Under this contract, **ECM performed 908 dam inspections on over 550 state-regulated dams for a period of five years.** These inspections were performed to ensure that the dams and the water control devices are functioning adequately and safely. The inspections were performed in accordance with the Louisiana Dam Safety Program to make certain that public safety is not compromised by the presence of dams, and to minimize potential hazards to downstream life and property in the event of a dam failure. The following are examples of a few dams inspected by ECM:

[Rogers Pond](#), [Nancy Albury Pond No. 1](#), [Timberlane Village Dam](#), [Willow Lake Dam](#), [Kay Thompson Dam](#), [Keen Pond Dam](#), [Ollie Holm Lake](#), [Bee Lake](#), [Gray Lake Dam](#), [Corney Dam](#), [Ben Rush Dam](#), [Jay Burford Dam](#), [McCullough Pond](#), [Upper Bayou Nezpieque No. 3](#), [Chico Lake Dam](#), [Cane River Dam](#), [Toulon Bayou No. 1](#), and [Lake Shreve Estates Dam](#). These structures were located across the state and ranged in length from 250 feet to more than 6,000, holding classifications of Low, High and Significant Hazard.

The scope of work involved planning, scheduling inspections, notifying the dam owners, local public officials, USDA-NRCS and other dam owners, and DOTD of upcoming inspections. Prior to inspections, planning work included reviewing available plans, previous DOTD Dam Evaluation Reports, EAPs, and other documents. Safety inspections were performed for high hazard, significant hazard, and low hazard category dams. Rotation frequency for inspection of various categories of dams are high hazard dams annually, significant hazard dams every three years, and low hazard dam every five years.

The scope included inspections of all accessible features of the dams including embankments, concrete sections, spillways, galleries, intakes, outlet works, and discharge channels. Inspections included detecting and documenting evidence of leakage, erosion, seepage, instability, undue settlement, displacement, tilting, cracking, deterioration, and improper function of drains and relief

walls. The condition of dams, adequacy and quality of maintenance and operating procedures as they pertain to the safety of the dam and operation of the control facilities are also accessed, rehabilitation and corrective measures and hazard classifications are recommended.

In addition, ECM has also prepared comprehensive breach analyses for **23 Dams** with high or significant downstream hazard classifications as required by the State Dam Safety Rules and Regulations and the Federal Emergency Management Agency (FEMA). **The analyses were performed to update the flood inundation maps and preliminary EAPs for each dam. The project involved developing HEC-RAS models to establish the magnitude of the inundation area, peak flood elevations, arrival times of the peak flood, and elevations at critical locations.**



Firm members working on this project and used in this proposal:

Ujjal DasGupta, P.E., Kazem Alikhani, P.E., Sunina Shrestha, P.E., PMP, John Rasi, P.E., Chris Capretto, P.E., PMP, Ben Dow, Emilio Rodriguez

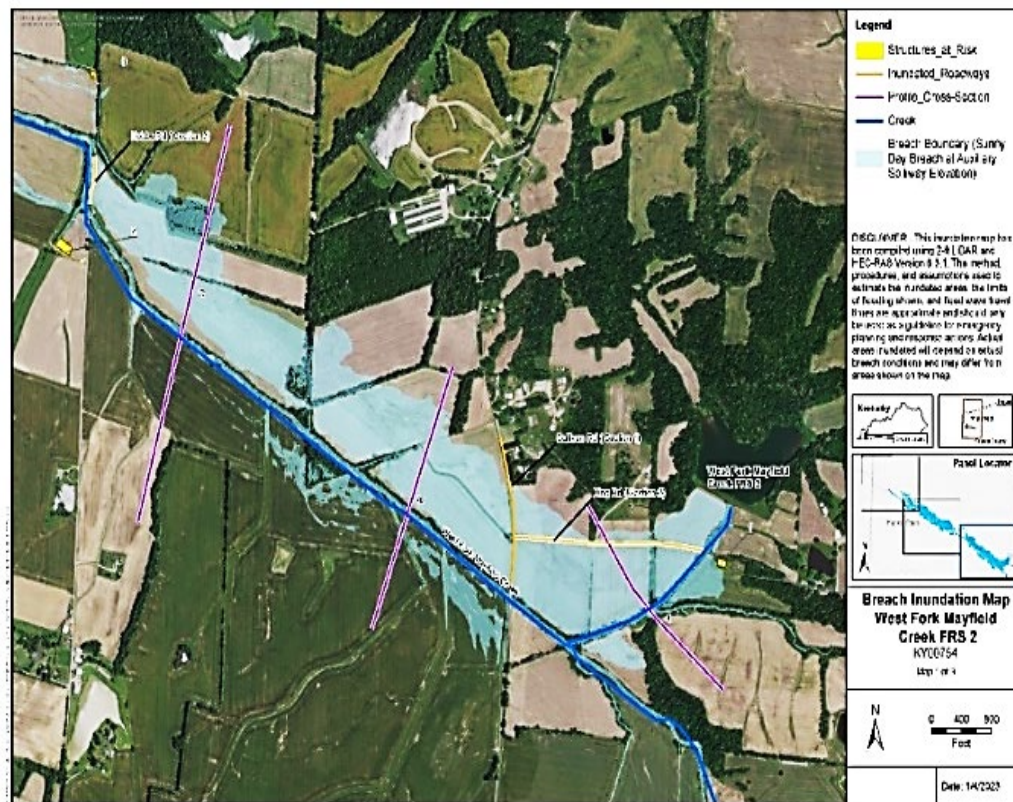
Prime consultant name: **ECM Consultants, Inc.**

17. Firm Experience:

Firm name	ECM Consultants, Inc.		Discipline(s)*	Other (Dam Breach Analysis)
Project name	Dam Breach Analysis for 80 Dams for Kentucky Watershed		Firm responsibility (prime or sub?)	Prime
Contract number	12SPEC18D0013	Owner's name	USDA –NRCS (FPAC, NRCS, KY)	
Project location	State of Kentucky		Owner's Project Manager	Scott E. Schneider, P.E.
Owner's address, phone, email	771 Corporate Dr, Suite 300, Lexington, KY 40503; Phone (859) 224-7383, Email : scott.schneider@usda.gov			
Services commenced by this firm (mm/yy)	04/18	Total consultant contract cost (\$1,000's)		\$500
Services completed by this firm (mm/yy)	12/23	Cost of consultant services provided by this firm (\$1,000's)		\$300

Under a \$10 million, 5-year IDIQ contract with USDA-NRCS, ECM in association with AECOM prepared Dam Breach model for 80 dams in the state of Kentucky. ECM was responsible for 48 dams and our subconsultant, AECOM was responsible for 32 dams and both performed all hydraulic and hydrologic analysis of this task. ECM developed all the necessary hydrologic and hydraulic characteristics of the 48 dams and prepared the dam breach model, the inundation map and reports, coordinated with all stake holders and managed all 80 Kentucky dams. This work included the obtaining data via ArcGIS, development of the Stage – Area curve upstream of the dam and the determination of the drainage area, determining the land use for the drainage basin, Calculating the CN value for the drainage basin, determining the manning's coefficient for the downstream and upstream area, developing the inflow hydrographs, and determining the upstream and downstream condition. The inflow hydrographs were developed using the NRCS TR-60/TR-66 method to estimate the peak breach discharge values and hydrograph distribution for earthen embankment dams. The sunny day breach water surface elevation was taken at the auxiliary spillway crest. This hydrograph was applied as the upstream boundary condition for each model at the downstream toe of the dam. The downstream boundary condition for the model was based on an estimated normal depth for the channel centerline. The upstream boundary condition used as the energy grade for distributing flow along the upstream boundary condition was based on an estimated normal depth for the channel centerline. Manning roughness coefficient were obtained reviewing the soil and land use maps and associated with the 2019 NLCD.

Unsteady state 2D models were developed with hydrographs, calculated and the best available dam as-built data for each site. The HEC-RAS 6.3.1 software was utilized for modeling purposes. The breach analysis was conducted in accordance with the National Watershed. Program Manual (2014) and NRCS Breach Analyses requirements. The hydraulic models were run using the Full momentum, SWE-ELM equation set with maximum and minimum courant numbers of 1.0 and 0.4, respectively, for a 24-hours simulation window. Inundated area, water surface elevation, velocity and depth obtained from the model were utilized to prepare the reports and inundation maps. This breach analysis information would provide local sponsors and NRCS with data regarding the risks to the public should the dam fail.



Firm members working on this project and used in this proposal:

Ujjal Dasgupta, P.E., Kazem Alikhani, P.E., Sunina Shrestha, P.E., PMP, John Rasi, P.E.

Prime Consultant: **ECM Consultants, Inc.**

17. Firm Experience:

Firm name	<i>Eustis Engineering L.L.C.</i>			Discipline(s)*	Geotech	
Project name	Bayou Chene Flood Protection and Diversion Structure			Firm responsibility (prime or sub?)	Sub	
Project number	Eustis Engineering Project Nos. 22147, 21838, 24043.00-05	Owner's name		St. Mary Levee District Through CB&I		
Project location	St. Mary Parish, Louisiana	Owner's Project Manager		Jeffery Pena		
Owner's address, phone, email		197 Elysian Drive, Houma, LA, 70363 / 985-868-3434 / Jeffery.pena@cbi.com				
Services commenced by this firm (mm/yy)		03/13	Total consultant contract cost (\$1,000's)			Unknown
Services completed by this firm (mm/yy)		12/21	Cost of consultant services provided by this firm (\$1,000's)			\$980

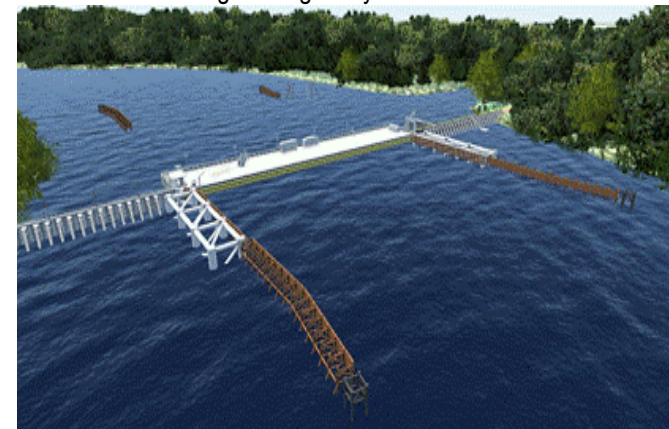
Eustis Engineering performed an extensive geotechnical exploration to support the design of earthen and structural systems that would collectively be used to provide flood protection to the project area. St. Mary Parish planned to phase the entire project into four construction contracts. Phase 1 was dredging and material placement along the south bank of Bayou Chene and Tabor Canal. Phases 2 and 3 were the construction of the Bayou Chene floodgate and adjacent floodwalls. Phase 4 comprised earthen levee embankment construction along Avoca Road and Avoca Island.

Our field explorations in 2012 and 2013 comprised 74 soil borings (both 3 and 5-in. diameter), 38 cone penetration tests, and 32 auger borings to assess subsoil stratification at the project site. Soil mechanics laboratory tests were performed in our in-house laboratory to evaluate the physical properties of the substrata.

Eustis Engineering developed preliminary design recommendations for this project in 2012 and 2013 in accordance with the U.S. Army Corps of Engineers' Hurricane and Storm Damage Risk Reduction Design Guidelines. Since completing the geotechnical explorations, a new set of geotechnical guidelines was issued by the State of Louisiana, Coastal Protection and Restoration Authority entitled Louisiana Flood Protection Design Guidelines. Therefore, engineering analyses associated with this project reflect both design guidelines.

The focus of Phase 1 was to dredge the Bayou Chene channel bottom and excavate the side slopes of Bayou Chene. Material was placed along the south bank of Bayou Chene and west bank of Tabor Canal to serve as a bridge lift for a future levee section. To establish acceptable design slopes and dimensions near dredge locations (for Phase 4), Eustis Engineering performed analyses with earthen levees adjacent to slopes to determine necessary setbacks between the cut slopes and earthen levees. Engineering analyses concentrated on settlement and levee overbuild estimates, deep seated global stability analyses, and construction recommendations. The focus of Phases 2 and 3 were design and construction of a barge flood gate, adjoining braced "Plumb & Batter" steel sheet pile floodwalls within Bayou Chene, and a tidal control structure within Tabor Canal. We performed deep seated global stability analyses for the floodgate structure; seepage and piping analyses; estimates of axial pile load capacities; and horizontal soil reaction as well as lateral pile deflection relationships.

Phase 4 comprised earthen levee embankment construction along Avoca Road and Avoca Island. The project is currently in Phase 4B. For this portion, Eustis Engineering sampled the bridge lift material (33 hand borings taken through the bridge lift, each to a depth of 4 feet), tested the soil in our laboratory (visual classification, natural water content, percent organics, particle size distribution, and Atterberg limits determinations), and developed new estimates of potential levee settlement based on the current, expedited construction schedule. Engineering During Construction efforts included project submittal and RFI reviews along with development and execution of a dynamic pile test program to substantiate the use of 2.5 as the foundation design safety factor.



Eustis Engineering utilized **GeoStudio software (SLOPE/W, SEEP/W, etc.)** to perform the stability and seepage analyses for this project. **Gwen Sanders, P.E.** served as the Principal for this project. **James Hance, P.E.** was the Project Manager on several phases and performed analyses and reviews. **Sean Walsh, P.E.** was the Project Engineer for these projects responsible for analyses using GeoStudio and other software.

Prime consultant name: ***ECM Consultants, Inc.***

17. Firm Experience:

Firm name	<i>Eustis Engineering L.L.C.</i>	Discipline(s)*	Geotech
Project name	Houma Navigational Canal Lock Complex Optimization		Firm responsibility (prime or sub?) Sub
Project number	Eustis Engineering Project No. 21757	Owner's name	USACE Through URS Corporation
Project location	Terrebonne & Lafourche Parishes, Louisiana	Owner's Project Manager	Barry Fehl
Owner's address, phone, email	1001 Highlands Plaza Drive West, St. Louis, MO 63310 / 314-743-4147 / barry_fehl@urs.com		
Services commenced by this firm (mm/yy)	03/12	Total consultant contract cost (\$1,000's)	Unknown
Services completed by this firm (mm/yy)	04/12	Cost of consultant services provided by this firm (\$1,000's)	\$21

Eustis Engineering was part of the AECOM/URS Corporation team for this project. Together, URS and Eustis Engineering provided (1) reconnaissance level engineering and design, and (2) preparation of a value engineering study Appendix to the Post Authorization Change report (including preparation of plans, performance of reconnaissance level geotechnical analyses, preparation of reconnaissance level quantity estimates, and a reconnaissance level design documentation). The purpose of the project was to examine changes for the 100-year level risk reductions and a sill level of -23 to the existing Houma Navigation Canal lock complex as detailed in the 50% plans and specifications developed by URS in 2008. The geotechnical stability reconnaissance level design, of the levees into the channel to determine T-wall lengths, would be performed for both 35 and 100-year levels of risk reduction. The temporary retaining structural reconnaissance level would be performed for both a sill elevation of -18 and -23.

For Eustis Engineering specifically, our geotechnical design documentation would be prepared in accordance with the U.S. Army Corps of Engineers' ER-1110-2-1150, Engineering and Design for Civil Works Projects (31 August 1999). Eustis Engineering would perform analyses necessary for a reconnaissance level of design including, but not limited to, global stability (using GeoStudio's SLOPE/W software), pile foundations, temporary retaining structures, and allowable excavation cuts for an earthen lock chamber. Data used to perform these analyses were provided from previous USACE data and multiple investigations performed by Eustis Engineering between 1999 and 2002. To evaluate the earthen lock chamber side slopes, Eustis Engineering's personnel considered the prior geotechnical studies when evaluating a suitable slope configuration. For the temporary retaining structure analyses, Eustis Engineering performed two-dimensional analyses of a multi-level braced cofferdam. Eustis Engineering evaluated consolidation settlement and means to accelerate the rate of consolidation settlement in these areas. **James J. Hance, P.E.**, was the project manager and **Gwendolyn P. Sanders, P.E.**, performed internal reviews of the data reports.

Prime consultant name: ***ECM Consultants, Inc.***

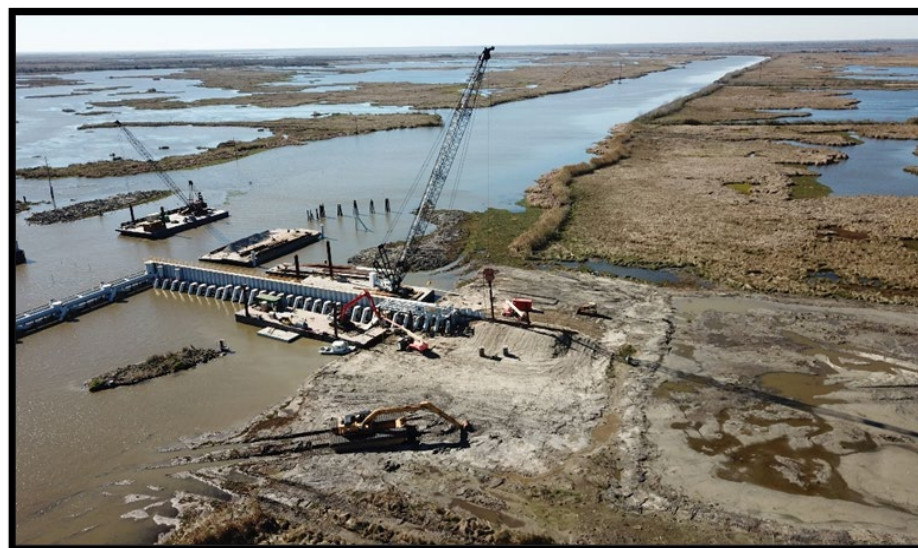
17. Firm Experience:

Firm name	<i>Eustis Engineering L.L.C.</i>			Discipline(s)*	Geotech
Project name	Floodgate Structure at Falgout Canal			Firm responsibility (prime or sub?)	Sub
Project number	Eustis Engineering Project Nos. 21948.00-.04, 21949, 23689	Owner's name	Terrebonne Levee & Conservation District Through GIS Engineering, L.L.C.		
Project location	Terrebonne Parish, Louisiana		Owner's Project Manager	Dustin Malbrough	
Owner's address, phone, email	2503 Petroleum Drive, Houma, LA 70363 / 985-219-1000 / dustinm@gisy.com				
Services commenced by this firm (mm/yy)	09/12	Total consultant contract cost (\$1,000's)			Unknown
Services completed by this firm (mm/yy)	02/19	Cost of consultant services provided by this firm (\$1,000's)			\$717

Eustis Engineering L.L.C. developed geotechnical recommendations and analyses to support the design of flood protection at Falgout Canal in Terrebonne Parish, Louisiana. Flood protection consisted of a 195-ft swinging barge floodgate in Falgout Canal and braced walls that extended from the floodgate and tie-in to an earthen levee alignment on the northern and southern sides of Falgout Canal. A borrow canal would be constructed on the floodside of the earthen levee alignment, and the borrow material obtained from this canal would be used as fill for constructing the earthen levees. Our geotechnical exploration supplemented data from existing borings and cone penetration tests performed by FFEB JV, L.L.C. (of which Eustis Engineering was a member) with nine new soil borings. The soil borings were accessed with one of our drill rigs mounted on a marsh cargo buggy or a barge.

We provided axial pile load capacity estimates, stability analyses, and seepage analyses for the floodgate and braced walls. Stability analyses and settlement analyses were performed for the two levee tie-ins. These stability and seepage analyses were performed using GeoStudio's SLOPE/W and SEEP/W software. We performed detailed analyses of soil-structure interaction in accordance with the Coastal Protection and Restoration Authority's (CPRA's) Louisiana Flood Protection Design Guidelines. Our analyses included downdrag and settlement analyses, numerical modeling using the Finite Element Method (FEM), settlement induced bending moments in piles, and 3D modeling of fill and structural load placements for predictions of time-rate settlements. We used our FEM modeling of flood protection structures to define stresses and deformations. This numerical modeling is rarely provided in practice, typically only on massive design-build projects that involve value engineering.

James J. Hance, P.E., and **Sean G. Walsh, P.E.**, presented the results of Eustis Engineering's findings to the CPRA in May 2015. The findings were also presented with members of Eustis Engineering, the CPRA, and CB&I at the ASCE-ACI Fall Technical Conference in New Orleans in September 2015. After our initial exploration was completed, we were asked to perform additional analyses to provide access to equipment and material during construction. A boat shed and a temporary bridge crossing a drainage canal would be built. Our analyses included estimates of allowable load capacity for various sizes of timber piles and square, prestressed, precast concrete piles. Our analyses also addressed settlement estimates due to structural loads, levee construction, and fill placement. We later completed engineering services associated with instrumentation services for the levee and floodwall tie-ins. The geotechnical instrumentation was used to assess the response of the foundation soils to the earthen preloading. The assessment included monitoring the rates and magnitudes of consolidation settlement and dissipation of excess pore pressures due to the earthen preload program to verify/modify the design.



Prime consultant name: ***ECM Consultants, Inc.***

17. Firm Experience:

Firm name	Ardaman & Associates, Inc.		Discipline(s)*	Geotech
Project name	FEMA Levee Certification of the 40 Arpent, Florida Ave., Maxent and Paris Road Levee Systems & Levee and Floodwall Design 113-13-84-2883		Firm responsibility (prime or sub?)	Sub
Project number	N/A	Owner's name	Southeast Louisiana Flood Protection Authority - East	
Project location	Orleans and St. Bernard Parishes, LA	Owner's Project Manager	Bob Turner, P.E.	
Owner's address, phone, email	6920 Franklin Avenue, New Orleans, LA 70122; 504-280-2411; rturner@slfpae.com			
Services commenced by this firm (mm/yy)	10/13	Total consultant contract cost (\$1,000's)		\$1,046
Services completed by this firm (mm/yy)	06/16	Cost of consultant services provided by this firm (\$1,000's)		\$1,561

In response to a Provisionally Accredited Levee (PAL) agreement signed between SLFPA, Orleans Levee District (OLD), Lake Borgne Basin Levee District (LBBLD), and FEMA; Tetra Tech was contracted to provide engineering support services. The PAL agreement covers the 40 Arpent Levee (including 20 miles of earthen levee, sheet pile and concrete floodwall, culverts, pump stations, and closure structures) and the Maxent Levee (including 5 miles of earthen levee and pump stations). The 40 Arpent Levee extended from the Lower Ninth Ward of New Orleans into St. Bernard Parish. The Maxent Levee is located in New Orleans. Phase 1 of this project, completed in August 2013, included Data Collection, Levee Inspection, and a Needs Assessment to define work required for certification. The levee inspection was performed according to reporting guidelines established by the State as well as USACE guidelines that have been established nationwide for the inspection of levee systems. The results of the Needs Assessment identified maintenance improvements as well as structural improvements (in particular at closure structures) and detailed the analysis requirements.

Ardaman provided geotechnical field investigation, laboratory testing, and engineering analyses including stability analyses for the existing levees. The project consisted of two separate field, lab and engineering analyses for the Maxent and 40 Arpent Levee systems, respectively. The Maxent Levee exploration consisted of 49 Cone Penetration Tests (CPTs) and 18 soil borings to depths of 40 to 60 feet. Laboratory testing was performed on the soil borings and along with the CPT data, was used to characterize the levee and perform stability analyses. After the analyses were through, a FEMA certification report was completed in August 2014, which FEMA approved and accepted.

The 40 Arpent levee field exploration consisted of 244 CPTs and 98 soil borings ranging from 40 to 100 feet. Laboratory testing was performed on the soil borings and along with the CPT data, was used to characterize the levee and perform stability analyses. The field exploration and laboratory testing are complete for the 40 Arpent levee and engineering analyses were performed.



Firm members working on this project and used in this proposal:

Mark Woodward, Robert Jewell, Megan Bourgeois, Rob Rousset

Prime consultant name: **ECM Consultants, Inc.**

17. Firm Experience:

Firm name	Ardaman & Associates, Inc.			Discipline(s)*	Geotech
Project name	Iatt & Nantachie Lake Dams Remediation 113-13-80-3732			Firm responsibility (prime or sub?)	Prime
Project number	H.010600.5	Owner's name		LADOTD	
Project location	Grant, Parish			Owner's Project Manager	Benjamin Fernandez
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA; 225-379-1100; Benjamin.Fernandez@la.gov				
Services commenced by this firm (mm/yy)	03/13	Total consultant contract cost (\$1,000's)			\$119.3
Services completed by this firm (mm/yy)	10/14	Cost of consultant services provided by this firm (\$1,000's)			\$119.3

The Iatt Lake Dam (NID ID LA00018) was constructed across Bayou Rigolette to create the 7,000-acre Iatt Lake in 1956-1957. The dam was constructed using local borrow soil excavated from a trench along and offset from the inboard toe of the dam. The Iatt Lake Dam has a history of slope stability problems that have been characterized as circular arc-type dam slope failures that have periodically occurred in the fill section, with recurring failures in the inboard slope. Dam slope failures have occurred periodically since 1962, mostly affecting the inboard slope. Recent repair efforts incorporated lime treatment of the near surface soils to restore two failure sections that developed in 2009. Inboard slope failures along this same section re-occurred in 2012, and this study focused on this section of the dam alignment.

The Nantachie Lake Dam (NID ID LA00018) was constructed in 1964 across Nantachie Creek to create the 1,580-acre Nantachie Lake. The Shell Point Levee, which pre-dated the Nantachie Dam construction, was upgraded to slightly flatten the outboard slope in conjunction with the 1964 Nantachie Dam project. A supplemental control structure, the "Shell Point Structure", was constructed in 2005. A temporary earthen cofferdam was constructed to facilitate installation of the new control structure and outfall piping.

Aerial photos taken in November 2006 and October 2007 (when the lake level was very low), suggest that at least a portion of the original Shell Point Levee was constructed using local borrow soil excavated from a trench along and

offset from the inboard toe of the dam. The source of borrow materials used for the 1964 outboard slope upgrade work and for construction of the temporary cofferdam in 2005 is not known. The 2004 construction plans for the Shell Point structure included provisions for repair of an outboard levee [slope failure area located near the new structure](#).

Over the past few years, at least three pavement repairs were made in the southbound lane of LA Hwy 1240 related to development and propagation of cracks in the travel lane and along the narrow southbound shoulder. Significant tilting of a power pole has also occurred. The affected areas are generally located just north of the Shell Point structure. In addition to lateral separation, cracking in the travel lane area has exhibited slight vertical displacement, dropping toward the lake. Beyond this section, movements have been reflected as a long crack propagating along the edge of the pavement and into the shoulder that extends nearly 400 feet.

Ardaman completed an initial site visit to both the Iatt Lake dam and Nantachie Lake dam in order to observe the existing conditions, perform limited test pit explorations and evaluate site access as needed to develop a work plan for the field exploration and monitoring instrumentation phase of the study. Research was also completed to gather historical information for both sites. After collection of additional field and laboratory data, engineering analyses including site

Firm members working on this project and used in this proposal:

Mark Woodward, Robert Jewell, Megan Bourgeois, Rob Rousset



17. Firm Experience:

Firm name	Ardaman & Associates, Inc.		Discipline(s)*	Geotech
Project name	Mid-Breton Sediment Diversion 113-18-84-2844		Firm responsibility (prime or sub?)	Sub
Project number	N/A	Owner's name	Mosaic Fertilizer, LLC	
Project location	Plaquemines Parish, LA		Owner's Project Manager	Brad Barth, PE
Owner's address, phone, email	150 Terrace Avenue, Baton Rouge, LA 70802; 225.342.4553; bradley.barth@la.gov			
Services commenced by this firm (mm/yy)		2018	Total consultant contract cost (\$1,000's)	\$2,400
Services completed by this firm (mm/yy)		Ongoing	Cost of consultant services provided by this firm (\$1,000's)	\$20

The Mid-Breton Sediment Diversion will reconnect the Mississippi River to the deteriorating deltaic wetlands in the Breton Sound Basin. The project will be located in Plaquemines Parish, Louisiana, on the east side of the Mississippi River and is intended to divert sediment rich water from the Mississippi River to create new land in the Breton Sound Basin. This project will include a gated diversion structure in line with a realigned segment of the Mississippi River Levee, diversion channel and conveyance levees, inlet and outfall channels, and state highway bridge. Ardaman is performing the geotechnical investigation for the project including field investigations such as soil boings and CPTS and engineering analyses such as global stability, settlement, seepage, and pile capacity. Ardaman is also supporting the permit process. Ardaman and Associates, Inc. serves as geotechnical consultant to Stantec for this project.

Ardaman has completed several Geotechnical Investigation Phases, inclusive of soil borings and/or CPTs in the Mississippi River, Batture, the protected side of the Mississippi River Levee, and within the marsh area beyond the Hurricane Protection back levee.

Ardaman has conducted preliminary geotechnical engineering analyses during the 5% and 15% Design Phase inclusive of stability, seepage, and settlement analyses.



Firm members working on this project and used in this proposal:

Mark Woodward, Rob Rousset, Daniel Cimino

Prime consultant name: **ECM Consultants, Inc.**

17. Firm Experience:

Firm name	SJB Group, LLC		Discipline(s)*	Survey	
Project name	LA 1 to LA 415 Connector to Interstate 10			Firm responsibility (prime or sub?)	Prime
Project number	H.005121	Owner's name	LA Department of Transportation and Development		
Project location	Port Allen, West Baton Rouge Parish, Louisiana			Owner's Project Manager	Jonathan Herrod
Owner's address, phone, email	1202 Capital Access Road, Baton Rouge, LA 225-379-1105 Jonathan.Herrod@la.gov				
Services commenced by this firm (mm/yy)	10/23	Total consultant contract cost (\$1,000's)			\$1.117
Services completed by this firm (mm/yy)	12/24	Cost of consultant services provided by this firm (\$1,000's)			\$1.117

Firm's Role and Responsibilities: Topographic Survey, Subsurface Utility Engineering (SUE)

Highlighted Team Members: C. Tim Brewer, PLS | Tyler Foster | Phillip Dowden | Erick Kidder

The project provides field data for the final design of a roadway to connect LA 1 to LA 415. The project is a supplement to previously performed surveying for the realignment of the due to recent development and construction. The project limits included a 2.9-mile corridor beginning approximately 0.2 miles north of the intersection of I-10 and LA 415 and continuing in a southeasterly direction along the extension of LA 415 across the intercoastal canal, industrial areas, and agriculture field to the intersection of LA. The project limits also include an approximate 1.8-mile corridor along LA 1 that extends from the roadway into residential, commercial, and retail areas. The project includes the collection of current conditions of the areas included in the project limits and merging the current data with the previous survey and updating any observed condition changes. The project included the recovery and supplement of the existing control network and working to stay within the Federal Railroad Administration regulations. The collection of field data is completed through the utilization of conventional survey methods with survey total stations and global positioning systems (GPS). **Mobile LiDAR survey** methods utilized for the collection of data along the high traffic segments of LA 1, Interstate 10 ramps, and LA 415. The data was



processed through Trimble Business Center, with data extraction performed through TopoDot. The survey is being conducted according to the Louisiana Department of Transportation and Development Location and Survey Manual. The deliverables were provided in accordance with the LA DOTD guidelines for electronic deliverables.

Prime consultant name: **ECM Consultants, Inc.**

17. Firm Experience:

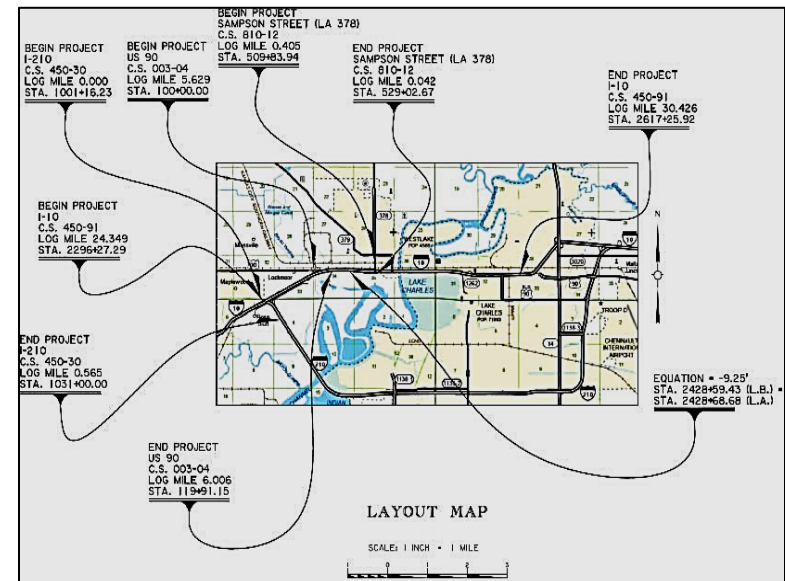
Firm name	SJB Group, LLC			Discipline(s)*		Survey, Right-of-Way, Other (SUE)	
Project name	I-10 Calcasieu River Bridge Public-Private Partnership Project					Firm responsibility (prime or sub?)	Sub
Project number	H.003931	Owner's name		LA DOTD			
Project location	Calcasieu Parish				Owner's Project Manager		Paul Vaught, PE
Owner's address, phone, email		1201 Capitol Access Road, Baton Rouge, LA 70802 225-379-1816 paul.vaughtiii@la.gov					
Services commenced by this firm (mm/yy)		8/24	Total consultant contract cost (\$1,000's)				\$130,000
Services completed by this firm (mm/yy)		8/31	Cost of consultant services provided by this firm (\$1,000's)				\$3,000

Firm's Role and Responsibilities: Property Survey, Topographic Survey, Right-of-Way Mapping, Subsurface Utility Engineering (SUE)

Highlighted Team Members: Karen M. Kennedy, PE | Matthew S. Estopinal, PE, PLS | C. Tim Brewer, RF, PS, PLS, RPLS, RPP | Colin Gravois, PLS | Marshall Pounds | Ralph Burgess, PLS

SJB Group is undertaking critical tasks for the I-10 Calcasieu River Bridge project, including Property Surveying, limited Topographic Surveying (to verify and supplement existing topographic surveys), and Utility Coordination throughout the project limits. This initiative is the largest in the history of the Louisiana Department of Transportation and Development (LA DOTD) and one of North America's most substantial infrastructure projects commissioned in 2023. The existing bridge demolition and replacement will have a significant impact on existing properties and utility facilities within the limits of the project which is a heavily congested residential, commercial and industrial corridor.

The Property Surveying work covers a 5.5-mile stretch of Interstate 10 within the design-build boundaries. This extensive task involves thorough title research to gather existing surveys and deeds, field surveying, and mapping for all parcels along the corridor. The range of properties includes small residential lots to large commercial and industrial tracts. Right of way acquisition will be necessary for segments of the project. All property surveys and Right-of-Way Mapping will adhere to the Standards of Practice for route surveys set forth by the Louisiana Professional Engineering and Land Surveying Board, as well as LA DOTD's Location and Survey Manual requirements. The project works to follow the Federal Railroad Administration guidelines. The technical provisions of the project require the developer to verify and confirm the location, accuracy and datum of the survey control network provided by DOTD in the bid phase of the project. This was completed using a control network from the provided network to establish fixed horizontal coordinate results for each location of the provided control. There will also be additional topographic surveys necessary to supplement the topographic survey provided by DOTD.



Prime consultant name: **ECM Consultants, Inc.**

17. Firm Experience:

Firm name	SJB Group, LLC		Discipline(s)*	Survey	
Project name	Office of Louisiana Highway Construction Bridge Bundle 6		Firm responsibility (prime or sub?)		Sub
Project number	O.B.2025.03.047 and O.B.2025.03.048	Owner's name	Office of Louisiana Highway Construction		
Project location	Vermillion Parish, LA		Owner's Project Manager	Archie Chaisson	
Owner's address, phone, email	1201 N. Third Street, Baton Rouge, La 70802 (225) 342-7178 archie.chaisson@la.gov				
Services commenced by this firm (mm/yy)	9/2025	Total consultant contract cost (\$1,000's)			\$212
Services completed by this firm (mm/yy)	1/2026	Cost of consultant services provided by this firm (\$1,000's)			\$212

Firm's Role and Responsibilities: Topographic Survey, Property Survey and Hydrographic Survey

Highlighted Team Members: Ralph Burgess, PLS, Bradley Jacobs, EI, Tyler Foster, Phillip Dowden, Robert Stanley, John Burleigh, Trenten Norris, Erick Kidder, Daniel Biggs, Jaedon Kinler, Corey Savoie, Charles Young, Jr., Duke Koontz

Project Description: SJB Group completed a comprehensive topographic, hydrographic/bathymetric, and property survey for seven bridge sites in support of roadway and bridge design, hydraulic analysis, and right-of-way planning. Survey services were performed using methodologies and deliverable conventions consistent with state highway and bridge design workflows, ensuring compatibility with plan development, hydraulic evaluations, and right-of-way decision-making associated with major transportation infrastructure projects.

SJB Group managed all phases of survey execution, including coordination of multiple field crews, scheduling around traffic control and site access constraints, and establishment and verification of horizontal and vertical control. Control networks were processed and adjusted to provide accurate, consistent survey control suitable for bridge layout, approach roadway design, and future construction activities. Topographic and hydrographic/bathymetric surveying documented roadway geometry, existing bridge features, drainage infrastructure, utilities, channel alignment, streambed elevations, submerged features, and potential scour-critical conditions supporting hydraulic modeling and foundation evaluation.



SJB Group conducted detailed property research and boundary analysis, including calculation of property limits and identification of existing and proposed right-of-way corridors. Final deliverables included survey control diagrams, topographic and hydrographic base mapping, and complete property and right-of-way survey packages formatted for incorporation into bridge and roadway plan sets. Internal QA/QC reviews and coordination with Louisiana-licensed professionals ensured all submissions were accurate, consistent, and review-ready for agency-style evaluation.

Prime consultant name: ***ECM Consultants, Inc.***

17. Firm Experience:

Firm Name	Chustz Surveying, LLC			Discipline(s)*	Survey
Project Name	LA 44: Roundabouts at I-10			Firm responsibility (prime or sub?)	Prime
Project number	H.015569.5		Owner's name	LADOTD	
Project location	Ascension Parish, Louisiana		Owner's Project Manager	Stan Ard, PLS	
Owner's address, phone, email	1201 Capitol Access Rd., Baton Rouge, LA, 70802, 225-379-1101, Stanley.Ard@LA.GOV				
Services commenced by this firm (mm/yy)	05/23	Total consultant contract cost (\$1,000's)			\$212
Services completed by this firm (mm/yy)	02/25	Cost of consultant services provided by this firm (\$1,000's)			\$212

LA DOTD Sate Project No. H.015569.5: Chustz Surveying was tasked to conduct a comprehensive survey of LA 44 at the I-10 intersection for roundabout installations. The survey extended 1500 feet north and south of I-10 and to the end of the entrance and exit ramps along the interstate. All topographic features and utilities, both above and underground were collected.

For this project, Chustz deployed multiple crews to the site to establish control in addition to the provided control points utilizing RTK with Trimble GPS/GNSS receivers and establish the centerline. Once the control and centerline were established, the crew began collecting the required topographic, utility and drainage features using RTK survey methods. Additional drainage features were collected within 300 ft of the project limits to facilitate the required Drainage Map. To collect the remaining data on the interstate and HWY 44, Chustz utilized both our Riegl VUX-1uav Mobile LiDAR system mounted to our truck and our Riegl miniVUX-1UAV from our BFD aerial surveying platform. This allowed us to collect the data in areas that would otherwise be dangerous or require a stoppage of interstate traffic.

The data was transferred to the office on a regular basis where it was processed utilizing Trimble Business Center (TBC) and verified against the provided control data. The LiDAR data was processed using the Riegl software and features were extracted using TBC. The datasets were then merged in Trimble Terramodel and mapped in Bentley InRoads adhering to the DOTD Software and Deliverable Standards for Electronic Plans and DOTD CAD Standards. Final deliverables included DGN, DTM, ALG, and ASCII files along with utility forms and a survey report. All work performed adhered to our QA/QC plan and was in accordance with the LA DOTD Location and Survey Manual.



Firm members working/will work on this project and used in this proposal:

James H. Chustz, Jr, PLS; Chad Woods, PLS; Robbie Benoit; Daniel Reed;
Brandon Guidroz; Chris Dixon; Craig Villemarette; Lonnie Dupont, CST, TCT;
Blake Conner, CST, TCT

Prime consultant name: **ECM Consultants, Inc.**

17. Firm Experience:

Firm Name	Chustz Surveying, LLC				Discipline(s)*	Survey
Project Name	US 71: UPRR Overpass Clr Adj				Firm responsibility (prime or sub?)	Prime
Project number	H.015119.5		Owner's name	LADOTD		
Project location	Rapides Parish, Louisiana		Owner's Project Manager	Stan Ard, PLS		
Owner's address, phone, email	1201 Capitol Access Rd., Baton Rouge, LA, 70802, 225-379-1101, Stanley.Ard@LA.GOV					
Services commenced by this firm (mm/yy)	02/24	Total consultant contract cost (\$1,000's)				\$148
Services completed by this firm (mm/yy)	07/24	Cost of consultant services provided by this firm (\$1,000's)				\$148

LA DOTD Sate Project No. H.015119.5: Chustz Surveying conducted a topographic survey of the US 71 bridge over the Union Pacific railroad in Rapides Parish. The survey consisted of collecting all topographic features and utilities, both above and underground along 3,000 feet of US 71 and 2,000 feet of railroad from apparent right of way to apparent right of way. Additional drainage features were located within 300 feet of the survey limits for the required Drainage Map.

To collect the required data, Chustz first deployed a crew to the site to establish control with static GPS/GNSS and establish the centerline all using Trimble receivers. This project also required us to collect the low chord of the overpass structure, approximately 25 feet above the ground and under the structure. This effort required the use of our Trimble SX10 total station/terrestrial LiDAR scanner. Our crew was able to successfully set up under the structure and conduct numerous scans, capturing all girders, pilings, caps, abutments, and any other information needed to not only map the structure, but provide an accurate distance between the railroad tracks and the bottom of the overpass girders. To facilitate with data collection on US 71, we utilized our Riegl VUX-1uav Mobile LiDAR system mounted to our truck, safely obtaining the necessary data. The remaining topographic, utility, and drainage features were collected using RTK survey methods.

The terrestrial LiDAR, mobile LiDAR, and RTK data was all processed and adjusted to the static GPS/GNSS network. It was then mapped using Bentley InRoads adhering to the DOTD Software and Deliverable Standards for Electronic Plans and DOTD CAD Standards. Final deliverables included DGN, DTM, ALG, and ASCII files along with utility forms and a survey report. All work performed adhered to our QA/QC plan and was in accordance with the LA DOTD Location and Survey Manual.



Firm members working/will work on this project and used in this proposal:

James H. Chustz, Jr, PLS; Jacob Loeske, PE, LSI; Evan Chiasson, PLS; Chad Woods, PLS; Eric Gardiner, LSI; Robbie Benoit; Daniel Reed; Brandon Guidroz; Chris Dixon; Mark Voinche, CST, SSHO; Craig Villemarette, Lonnie Dupont, CST, TCT; Blake Conner, CST, TCT; Troy Major, CST

Prime consultant name: **ECM Consultants, Inc.**

17. Firm Experience:

Firm Name	Chustz Surveying, LLC			Discipline(s)*	Survey
Project Name	LA 20: LA 304 – LA 307			Firm responsibility (prime or sub?)	Prime
Project number	H.014728.5		Owner's name	LADOTD	
Project location	Lafourche Parish, Louisiana		Owner's Project Manager	Stan Ard, PLS	
Owner's address, phone, email	1201 Capitol Access Rd., Baton Rouge, LA, 70802, 225-379-1101, Stanley.Ard@LA.GOV				
Services commenced by this firm (mm/yy)	03/22	Total consultant contract cost (\$1,000's)			\$204
Services completed by this firm (mm/yy)	08/22	Cost of consultant services provided by this firm (\$1,000's)			\$204

LA DOTD Sate Project No. H.014728.5: Chustz Surveying was tasked to conduct a comprehensive topographic and hydrographic survey along 5 miles of LA HWY 20 from LA HWY 304 to LA HWY 307. The survey extended from apparent right-of-way to apparent right-of-way with cross sections every 50 feet. All roads, utilities above and underground, including all sewer, water, electric, telephone, television, gas, pipelines, and traffic utilities were part of the survey.

For this survey, Chustz deployed multiple crews to the job site to conduct the static GPS Control surveys utilizing Trimble GPS/GNSS receivers and establish the centerline. Prior to the GPS survey, LA OneCall was notified and the site was marked. Once control was established, the crew collected the required topographic, hydrographic, and utility data. Hydrographic data was collected from our CEE-USV unmanned single beam survey drone. The crews collected data at and accessed all manholes to acquire shots at all pipe/catch basin inverts along with measuring all pipe dimensions and creating sketches.

Due to heavy traffic, Chustz collected the required road and bridge data with aerial LiDAR from our Reigl Ricopter sUAS equipped with a Reigl VUX-1uav laser scanner. In addition, Chustz collected Aerial Photogrammetry surveys from our SenseFly eBee X survey drone to provide real-time high resolution aerial imagery. Once all data was processed it was then mapped in Bentley InRoads and final deliverables included DGN, DTM, ALG, and ASCII files. All work performed adhered to our QA/QC plan and was in accordance with the LA DOTD Location and Survey Manual.



Firm members working/will work on this project and used in this proposal:

James H. Chustz, Jr, PLS; Jacob Loeske, PE, LSI; Evan Chiasson, PLS; Eric Gardiner, LSI; Robbie Benoit; Daniel Reed; Tom Odom, CST; Brandon Guidroz; Chris Dixon; Mark Voinche, CST, SSHO; Craig Villemarette; Lonnie Dupont, CST, TCT; Blake Conner, CST, TCT; Troy Major, CST, Corey Lee

Prime consultant name: **ECM Consultants, Inc.**

17 Firm Experience:

Firm name	<i>Specialty Diving of Louisiana, Inc.</i>		Discipline(s)*	Other (Diving for Underwater investigation)
Project name	Diving services for various USACE Districts.		Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	USACE	
Project location	New Orleans, Omaha, Louisville Districts Great Lakes and Ohio river Division, and MS Valley		Owner's Project Manager	Renee Scholl
Owner's address, phone, email	7400 Leake Avenue, New Orleans, LA 70116; 504-862-1080, renee.s.scholl@usace.army.mil			
Services commenced by this firm (mm/yy)	1992	Total consultant contract cost (\$1,000's)		\$5,000
Services completed by this firm (mm/yy)	Present	Cost of consultant services provided by this firm (\$1,000's)		\$5,000

Specialty Diving has worked for the USACE since 1992, throughout the United States, adhering to all guidelines set forth in the 385-1-1 Safety Manual.

- Areas of service include the Great lakes and Ohio River Division and the Mississippi Valley, including the New Orleans and Vicksburg Districts.
- Held the Professional Diving Services Contract USACE New Orleans District since 2011 for 14 locks and dams. This project was for the construction of a concrete cutoff wall located at Walter F. George Lock, Spillway and Powerhouse. The cofferdam was 40' high by 40' across. The lock was active, Divers worked at night, and were allowed within 200' of an open Spillway Gate, with all other spillway Gates closed and locked out. Specialty's Divers worked at depths of 110 feet.

[Under the following contracts with USACE-New Orleans District Over 220 Task Orders completed:](#)

USACE CONTRACT NO. DACW29-00-D-0004 from 2000-2003:

USACE CONTRACT NO. W912P8-16-D-0021 from 2011 to 2016

USACE CONTRACT NO. W912P8-16-D-0013 from 2016 through 2021:

Task Orders include inspection, maintenance and repairs and salvage for the 14 Louisiana Sites in control of navigation, flood control, environmental projects, and other Corps of Engineers related missions.

- Emergency Response mandated at no more than five hours arrival time
- Clearing pumps and sills of mud at the Outfall Canals
- Dewatering projects in various locations
- Repairs of cracks in the concrete walls or floor of the lock structures
- Removal, replacement and/or adjustments of lock gates or valves
- Placement of packing material in valves or around steel cofferdams
- Emergency stop-log bulkheads or concrete de-watering needles.
- Locate, identify, and remove wrecks and obstructions.
- Inspect and repairs to the M/V Dredge Wheeler.

SDI follows all USACE guidelines set forth in the 385-1-1 Safety Manual. Crews work from land, docks, boats or barge platforms. AHA are provided in advance of any project. JSA's are completed each morning prior to commencement of any work.

SDI utilizes four-man team to at times an eight-man team. Our professional **commercially certified divers** are required to burn, weld, jet, hydro-blast, use hydraulic equipment, operate boats, operate decompression chambers and all ancillary equipment. They must hold Rigging certifications, First Aid, CPR and O2 Training.

Procedure used to Inspect and repair concrete floors and walls in water passage:

- Divers lowered 40 feet to waterline by crane, inside clearwell.
- Prepared report of findings of any damage to concrete or steel inserts that act as sealing surfaces for water-control Gate.
- Damaged gate seals were temporarily sealed the affected areas using Okum.
- Permanent repairs were made after the Divers assisted the USACE crew in removing and lifting the Tainter Gate to the surface.



Prime consultant name: ***ECM Consultants, Inc.***

17. Firm Experience:

Firm name	<i>Specialty Diving of Louisiana, Inc.</i>			Discipline (s)*	Other (Underwater Inspections)	
Project name	Underwater Investigations of 400 bridges District #02 & #62- LA			Firm responsibility (prime or sub?)		Prime
Project number	#4400003534		Owner's name	LADOTD		
Project location	District No. 02 and District #62			Owner's Project Manager		Haylye Brown, P.E.
Owner's address, phone, email		1201 Capitol Access Road, Baton Rouge, LA 70802, (225) 379-1500, hayle.brown@la.gov				
Services commenced by this firm (mm/yy)			05/14	Total consultant contract cost (\$1,000's)		\$3.667
Services completed by this firm (mm/yy)			01/16	Cost of consultant services provided by this firm (\$1,000's)		\$3.257

Specialty Diving of Louisiana, Inc. was contracted by the LADOTD to conduct comprehensive underwater bridge inspections of approximately 400 bridges throughout districts #02 and #62, including the longest spans of bridges in Louisiana. Specialty sub-contracted an engineering firm, ECM Consultants to assist in the report submittals and compliance factors.

Specialty Diving was rated the highest on this proposal criteria and therefore was given the largest contract of the three that were awarded for this underwater inspection project.

The criteria: Level 1 inspection for all bridges. Any deficiencies found were further evaluated by a Level II inspection as authorized by the Project Manager. Level II inspections were performed on all steel elements indicated by the PM.

All guidelines and criteria set forth by the NHI and FHWA were adhered to. The final reports submitted were commended by the PM of the LADOTD. Inspection element level based (AASHTWO and Bridge Management/ PONTIS) criteria was implemented.

This project was delayed due to weather and a protest filed, but was completed ultimately in a timely manner.

Firm members working on this project and used in this proposal:

Marshall Whitmer, Paul Bartow, Grant Gillespie, Charles Lastique, Jamerson Grames, and Ben Swan



Prime consultant name: ***ECM Consultants, Inc.***

17. Firm Experience:

Firm name	<i>Specialty Diving of Louisiana, Inc.</i>		Discipline (s)*	Other (Underwater Inspections)
Project name	Underwater Investigations of Old LA Hwy 1 Leeville Bridge		Firm responsibility (prime or sub?)	Sub
Project number	LADOTD#4400005774	Owner's name	LADOTD	
Project location	Leeville Bridge, LA		Owner's Project Manager	Unknown
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802 (see below for reference as sub)			
Services commenced by this firm (mm/yy)	05/16	Total consultant contract cost (\$1,000's)		\$8
Services completed by this firm (mm/yy)	05/16	Cost of consultant services provided by this firm (\$1,000's)		\$9.5

The bridge at Old LA Hwy 1, at Leeville, LA was scheduled to be demolished by the LADOTD. In order to conduct this operation, the LADOTD wanted underwater inspections of this bridge both prior to the demolition and afterwards. The target area was the remaining structure of Pier #1, primarily the concrete footing, sub-footing, and the surrounding areas extending approximately 20 feet from both directions of the pier. This diving work provided quality control for the LADOTD.

Specialty was responsible for coordinating with the USCG, to ensure jobsite safety. The details of the information submitted included; record water level based on the tide chart, set benchmark and assign reference dimensions of footing and seal, find the vertical and horizontal dimension from the top of the footing to the top of the seal, identify the composition and high elevation areas found south and southeast of the pier, identify if sheet metal was removed around the seal, look for any anomalies in an area 20' around the seal perimeter, and identify if the top layer rebar mat has been removed from the footing.



Specialty utilized a commercial dive crew working off of specialty's 30' deck boat. A four man dive team was dispatched.

A benchmark on Pier 3 of the new bridge was established. The 'top of the footing' was temporarily marked, then a measurement was taken (6 foot to waterline). The team set safe anchoring positions for the dive boat positioning. Once in the proper location, the diver left the surface to perform visual and tactile inspections of the condition of the substructure at Pier #1 of the old bridge.

A report was submitted to Modjeski & Masters. Contact: Mr. Zolan Prucz (504) 524-4344 zprucz@modjeski.com
1055 St. Charles Avenue, Suite 400, New Orleans, LA 70130

Firm members working on this project and used in this proposal:

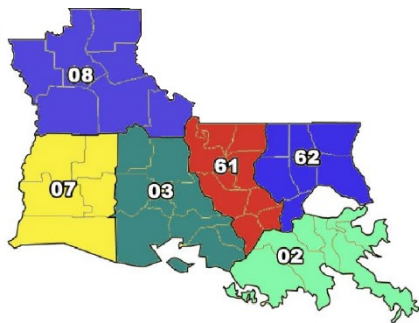
Paul Bartow and Grant Gillespie

Prime consultant name: ***ECM Consultants, Inc.***

SECTION 18 – APPROACH AND METHODOLOGY

1. PROJECT UNDERSTANDING

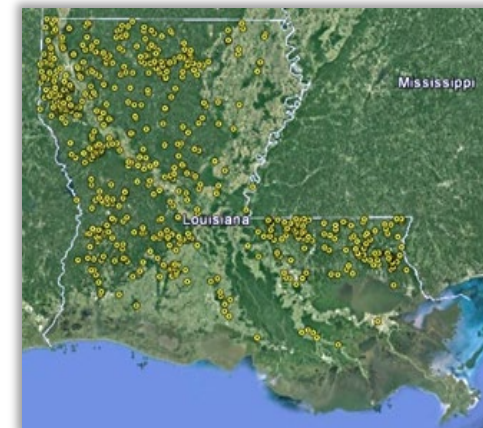
ECM Consultants, Inc. (ECM) understands that Contract No. 4400035030 is an Indefinite Delivery/Indefinite Quantity (IDIQ) contract for **engineering and inspection services of state-regulated dams statewide**, with the majority of work in Districts 02, 03, 07, 08, 61, and 62. Under this contract, **ECM** will support the Louisiana Department of Transportation and Development (DOTD) through multiple concurrent Task Orders (TOs), each requiring independent scoping, scheduling, execution, and delivery. The contract anticipates **up to three (3) simultaneous Task Orders**, which is the basis for our staffing approach and team structure.



DOTD Districts where work will be performed

The required services include, but are not limited to:

- Inspection scheduling and coordination
- Field inspections and data collection
- Reporting inspection results and regulatory compliance
- Follow-up on corrective actions
- Engineering services including breach analysis, inundation mapping, EAP development, geotechnical and structural evaluations, and underwater investigations



ECM brings over eighteen (18) years of continuous experience supporting the LADOTD Dam Safety Program, having **successfully completed more than 2,500 dam inspections of more than 600 publicly and privately owned dams in Louisiana in accordance with the State Dam Safety Program**, statewide under four (4) consecutive IDIQ contracts spanning all districts. **ECM** has provided, **since 2008**, dam safety inspections, assessments, evaluations, and watershed analysis, hydraulics and hydrologic analysis, modeling, reports preparation, dam breach analysis, inundation mapping, EAP reports and related services. This experience, combined with our established team structure and proven methodologies, ensures efficient delivery aligned with DOTD expectations. We are very familiar with the Louisiana Dam Safety Rules and Regulations. The yellow dots on the map above show locations of all the dams in Louisiana inspected by ECM.

ECM's strategy is built around one core objective:

Deliver consistent, high-quality, and on-schedule results across multiple simultaneous TOs while minimizing risk, cost, and DOTD oversight burden.

2. TEAM STRUCTURE AND WORKLOAD DISTRIBUTION

At the core of **ECM's** methodology is a commitment to delivering consistent, high-quality results across all Task Orders while minimizing risk to DOTD. This is achieved by maintaining strong prime consultant control over the work, supported by targeted use of specialized subconsultants. The largest portion of the effort is dedicated to field inspections, which **Mr. Benjamin Dow** has performed and now has predominately led for **ECM** since 2008. This reflects the central role that inspections play in the dam safety program and ensures that sufficient resources are allocated to this critical activity. **ECM will perform approximately 80 % of the overall contract work**, thereby ensuring direct oversight of all critical activities, including project management, dam safety inspections, reporting, and most engineering services. The remaining 20 % of the work is allocated to highly qualified subconsultants who provide specialized expertise in geotechnical engineering, surveying, and underwater investigations. This distribution is intentional and reflects **ECM's** philosophy of maintaining accountability and continuity while leveraging specialized capabilities only where they add measurable value. The result is a streamlined team structure that reduces coordination complexity, enhances communication efficiency, and ensures that all deliverables meet DOTD's expectations for quality and timeliness. Meet **TEAM ECM**.

Prime Consultant (ECM): 80% of Total Contract Work



Subconsultant (Combined): 20% of Total Contract Work

Geotechnical (Eustis / Ardaman): 8% total



Survey (SJB / Chustz): 8% total



Underwater (SDI): 4% total



This structure minimizes coordination risk while ensuring access to specialized capabilities.

3. APPROACH TO TASK ORDER EXECUTION

3.1 PRE-INSPECTION, SCHEDULING, AND NOTIFICATIONS

ECM initiates each Task Order with a structured planning phase that includes:

- Review of DOTD dam inventory and inspection frequency requirements
- Grouping of dams geographically to optimize travel efficiency
- Review of historical inspection reports, EAPs, and NID data
- Coordination with DOTD and stakeholders
- Issuance of notification letters **21 days prior to inspection**

This proactive planning ensures compliance with DOTD requirements and maximizes efficiency.

3.2 FIELD INSPECTIONS

Field inspections are the core of the contract and are executed by **ECM's** three dedicated teams. The **ECM Team** has knowledge and experience using electronic collection software having worked on previous DOTD dam inspections and levee inspection projects for the U.S. Army Corps of Engineers. We will not require additional

Classification	Loss of Human Life	Economic, Environmental, Lifeline losses
A- Low	None Expected	Low and Generally limited to Owner
B- Significant	None Expected	Yes
C- High	Probable, one or more expected	Yes

training and will be able to seamlessly continue dam inspection services.

Our engineers and inspectors have been on sites over the last four contracts and are intimately

knowledgeable of the unique features of Low, Significant, and High Hazard dams. They

spend time reviewing all available data and drawings for each structure before visiting the site. Our inspectors will efficiently travel to optimize cost. Once they are at the sites, they work expeditiously to thoroughly assess and document each structure, all accessible features, and appropriate surroundings. Our overall site assessment approach is:

- Embankment and structural evaluation, upstream and downstream structure and both sides of the banks, including spillways, bell-mouth spillways, weirs, galleries, embankments, intakes, drawdown structures, stilling basins, chute blocks and baffle blocks, and other features.
- Spillway and outlet assessment
- Identification of seepage, erosion, instability (settlement, displacement or tilting, cracks, malfunctioning drain relief wells and piezometers), and structural deficiencies (over all deterioration)
- Evaluation of maintenance and operational practices
- Photographic and GIS-based documentation

All inspections utilize DOTD's electronic data collection system and are conducted by experienced personnel, including Professional Engineers for high and significant hazard dams.

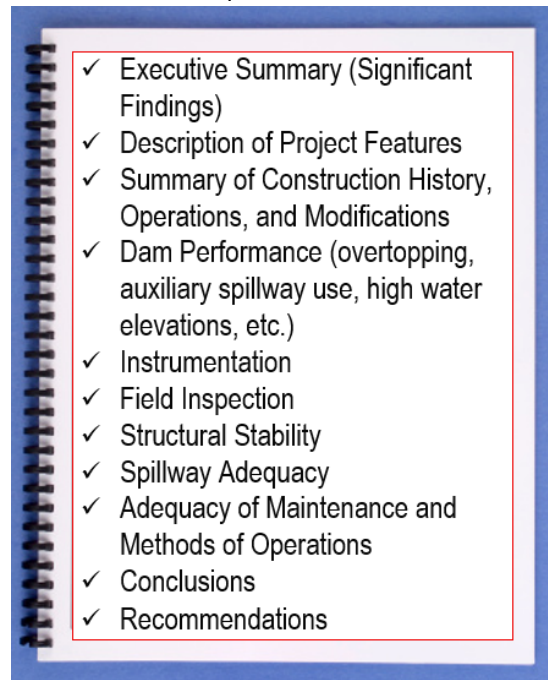
ECM's past performance includes Wallace Lake Dam, an earthen embankment with a 644-foot ogee weir and total length of 4,930 feet, featuring outlet conduits, a stilling basin, and a riprap-lined discharge channel. **ECM's** inspection determined the dam to be in poor condition and identified key deficiencies, including structural deterioration, missing access and safety fencing, clogged pressure relief wells, and erosion affecting the low water crossing. **ECM** provided thorough evaluation and recommendations, demonstrating its capability to identify critical dam safety issues and support effective corrective actions in accordance with DOTD requirements.

3.3 REPORTING OF INSPECTION RESULTS

ECM prepares comprehensive inspection reports in accordance with DOTD templates and timelines:

- Draft report: within **15 working days**
- Final report: within **10 working days** after comments

Reports include:



3.4 FOLLOW-UP AND CORRECTIVE ACTIONS

ECM ensures continuity beyond reporting by:

- Tracking recommended corrective actions
- Coordinating with dam owners and stakeholders
- Issuing follow-up communications, including certified letters when required
- Maintaining communication with DOTD Project Manager

4. ENGINEERING SERVICES APPROACH

Engineering services are performed under Task Order authorization that may include, but limited to:

Hydrologic & Hydraulic Analysis

- HEC-RAS and HEC-HMS modeling
- Flood routing and spillway adequacy

Dam Breach Analysis & Inundation Mapping

- Development of breach scenarios
- Mapping flood extents, depths, and arrival times
- Hazard classification verification

Emergency Action Plans (EAPs)

- FEMA-compliant EAP development and updates
- Coordination with stakeholders and emergency agencies

Structural Engineering

- Evaluation of spillways, outlet works, and control structures
- Design recommendations for repairs and rehabilitation

Geotechnical Engineering

- Subsurface investigations (**Eustis and Ardaman**)
- Slope stability, seepage, and settlement analyses

Land and hydrographic surveys will be performed (**SJB and Chustz**)

Underwater Investigations will be performed by **SDI** using certified divers

Drone use – **ECM** has two (2) DJI Mavic Pro Zoom Aerial Drones which can capture crystal clear images and video feed operated by **ECM's** FAA certified Drone Operators. **ECM** has incorporated drone use to provide a more enhanced report that includes an aerial overview of the site. This has proven to be very useful in assessing changes and pinpointing the location of problem areas.

6. PROJECT MANAGEMENT AND COMMUNICATION

Effective communication is central to **ECM's** methodology:

- Dedicated Project Manager for contract duration
- Clear communication channels with DOTD PM
- Monthly progress reporting
- Coordination with dam owners and stakeholders

ECM emphasizes the "Three Cs": **Communication, Coordination, and Cooperation.**

7. SCHEDULE AND RESPONSIVENESS

ECM's three-team structure enables:

- Execution of **multiple Task Orders concurrently**
- Rapid mobilization across districts
- Flexible scheduling to meet DOTD priorities

Work plans and staffing breakdowns are submitted within **10 days of Task Order receipt**, ensuring timely project initiation.

8. DELIVERABLES

8.1 STAFFING PLAN

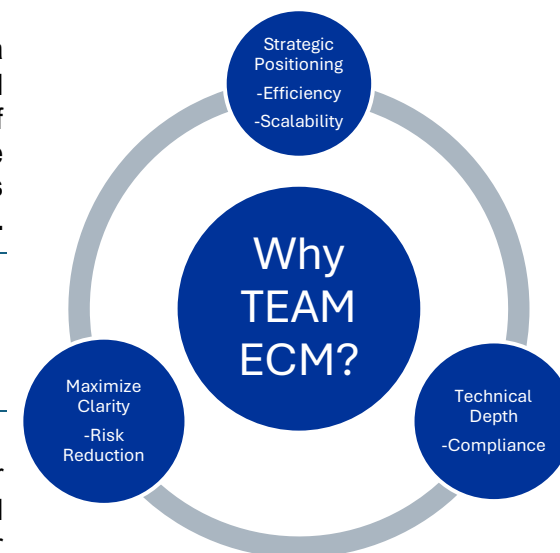
ECM will submit a work hour proposal for each task order within 10 days of receipt of task order scope and then prepare a staffing plan detailing category and number of personnel and their potential duration to form the basis of our labor estimates and fee proposal to DOTD. Since this is a 5-year Retainer Contract, our assigned project manager will serve for the entire duration of the contract for continuity. Also, for continuity, we will have one of our Project Engineer works closely with the PM so that he/she can manage the projects in the absence of the PM. **Our Organization Chart shows multiple personnel in various categories to demonstrate our capacity and capability to provide our services to multiple TOs at different locations, simultaneously.**

8.2 DOTD LIAISON

Our experience working on DOTD dam safety inspection projects have taught us that communication with all parties is the most important part of making a project successful. Specially, we may need assistance during scheduling inspections for the dams that are privately owned and located in some remote places.

8.3 QUALITY ASSURANCE / QUALITY CONTROL

ECM implements a robust QA/QC program compliant with DOTD requirements by providing dedicated QA/QC Manager oversight; independent review of all deliverables; standardized templates and checklists; and subconsultant coordination and review. This ensures consistency, accuracy, and compliance across TOs. We will prepare and submit a detailed QA/QC Plan for dam safety inspection and related services conforming to DOTD requirements, after the contract award.



9. PROJECT SCHEDULE

Below is a Basic Schedule as an example of dam safety inspection of 10 dams per week for a total duration of 55 calendar days starting on June 1, 2026, and ending on August 24, 2026. Start date: **June 1, 2026**, and End date: **August 24, 2026**.

ID	Task Name	Start	Finish	2026	June	July	August
				E	B M E	B M E	B M E
1	Typical Dam Inspection Schedule (For 10 Dams per Week)	Mon 6/1/26	Mon 8/24/26				
2	Notice to Proceed	Mon 6/1/26	Tue 6/2/26				
3	Dams Selection for Inspection	Wed 6/3/26	Fri 6/5/26				
4	Approval from DOTD	Mon 6/8/26	Fri 6/12/26				
5	Calls and Notification Letters to Owners	Mon 6/15/26	Fri 6/19/26				
6	Review of Existing Documents	Fri 6/12/26	Sun 7/5/26				
7	Damn Inspections (10 Dams)	Mon 7/6/26	Mon 7/20/26				
8	Draft Report to DOTD for Review	Tue 7/21/26	Tue 7/28/26				
9	DOTD Review	Wed 7/29/26	Thu 8/6/26				
10	Final Report to DOTD	Fri 8/7/26	Thu 8/13/26				
11	Distribution to Stakeholders	Fri 8/14/26	Mon 8/24/26				
12	Engineering Services (Full duration of contract): Breach analysis, inundation maps, EAPs etc.	Mon 6/1/26	Fri 7/24/26				
	Initial Submittal	Mon 6/1/26	Fri 6/19/26				
	DOTD Review	Mon 6/22/26	Tue 7/7/26				
	Final Submittal	Wed 7/8/26	Fri 7/24/26				

19. Workload:

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

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

For indefinite delivery/indefinite quantity (IDIQ) contracts, list open Task Orders individually.

List only the portion of the fees attributable to firms on the team.

Firm(s) <u>ALL FIRMS</u> MUST BE REPRESENTED IN THIS TABLE	Discipline(s) *	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance**
ECM Consultants, Inc	Other (dam safety)	Contract# 4400020842 Task Order 4	IDIQ Contract for Engineering & Inspection of State Regulated Dams with Majority of work in District 02, 03,07,61 & 62 Statewide (<i>Dam Safety South Louisiana</i>)	\$68,326
ECM Consultants, Inc.	Other (Dam Safety feature evaluation)	Contract# 4400020842 Task Order 5 H016487.5	IDIQ Contract for Engineering & Inspection of State Regulated Dams with Majority of work in District 02, 03,07,61 & 62 Statewide (<i>Dam Safety South Louisiana</i>)	\$111,537
ECM Consultants, Inc.	CE&I/OV	Contract#4400031761 H.010557.6	IDIQ CE&I Inspection Services Statewide with Majority of Work in District 03 (<i>LaJaunie Rd./ Lateral 1 Bayou St. Clair</i>)	\$249,010
ECM Consultants, Inc.	Other (Dam Safety feature evaluation)	Contract# 4400020842 Task Order 6	IDIQ Contract for Engineering & Inspection of State Regulated Dams with Majority of work in District 02, 03,07,61 & 62 Statewide(<i>Dam Safety South Louisiana</i>)	\$82,435
ECM Consultants, Inc.	CE&I/OV	Contract# 4400021680 H.008145.6	DOTD LA1 Leeville to Golden Meadow	\$2,158,810
ECM Consultants, Inc.	CE&I/OV	Contract# 4400023838 Task Order 3, H013719.6	IDIQ CE&I Services for Safety Projects US 61 @1-10EB off Ramp Ped IMPR (NO) Route:61	\$56,189
ECM Consultants, Inc.	CE&I/OV	Contract# 4400023838 Task Order 4, H014629	IDIQ CE&I Services for Safety Projects - Lafourche Parish signing and striping	\$195, 551
ECM Consultants, Inc	CE&I/OV	Contract# 4400023838 Task Order 5, H013722.6	IDIQ CE&I Services for Safety Projects - Morgan City Sidewalks - downtown & Myrtle St Mary Parish	\$163,430
ECM Consultants, Inc.	CE&I/OV	Contract# 4400025845 H.013025.6	CE&I Engineering & Inspection Univ AV PH1:100' S RR-500' S I-10 EB RMP	\$533,785
ECM Consultants, Inc.	CE&I/OV	Contract#4400027364 H.003184.6	IDIQ CE&I Services District 07 (<i>TX State Line-E. of Coone Gully</i>)	\$744,336

Prime consultant name: **ECM Consultants, Inc.**

ECM Consultants, Inc.	CE&I/OV	Contract# 4400030092 H.013968.6	IDIQ CE&I and Staff Augmentation Dist. 61 (LA 404: Bayou And Canal Bridges)	\$1,016,283
ECM Consultants, Inc.	CE&I/OV	Contract# 4400030092 H.015548.6	IDIQ CE&I and Staff Augmentation Dist. 61 (E Flanacher Road Over Drainage Bayou)	\$10,000
ECM Consultants, Inc.	CE&I/OV	Contract # 4400032522 H016762.6	IDIQ Contract for CE&I for safety projects Dist. 3,7,8 Sidewalks (Oberlin)	\$178,794
Eustis Engineering L.L.C.	CE&I/OV	S.P./Task Order No. H.015028.6. Boh Bros. Subcontract No. 23210- 009. Boh Bros. Project No. 2321034. Work Order No. 23210-017	LA 302: Bayou Barataria Bridge Replacement, Phase 1, Jefferson Parish, Louisiana, Eustis Engineering Project No. 24515.02 (Construction materials testing services and vibration monitoring)	\$15,000
Eustis Engineering L.L.C.	Geotech	S.P No. H.015028.6. Contract No. 4400024654, Task Order 1	IDIQ Contract for Geotechnical Services Statewide, LA Highway 302: Bayou Barataria Bridge Replacement, Phase 1, Jefferson Parish, Louisiana. S.P. No. H.015028.6. F.A.P. No. H015028. Contract No. 4400024654. Task Order No. 1, Eustis Engineering Project No. 24515.04	\$51,000
Eustis Engineering L.L.C.	CE&I/OV	Contract No. 4400021740. S.P. No. H.004100.6. F.A.P. No. H004100. 11265001.000 I-10 CMAR	Roosevelt Boulevard, Intersection of West Napoleon Avenue to Intersection of West Metairie Avenue, Kenner (Jefferson Parish), Louisiana. Prime Contract No. 4400031036. S.P. No. H015120. F.A.P. No. H015120. Digital Engineering Project No. 25R00002.000, Eustis Engineering Project No. 25500	\$5,000
Eustis Engineering L.L.C.	CE&I/OV	S.P. No. H.012867.6. F.A.P. No. H012867	Urban System Project, South Larriviere Road, LA Highway 92 to Chemin Metairie Parkway, Youngsville (Lafayette Parish), Louisiana. S.P. No. H.012867.6. F.A.P. No. H012867, Eustis Engineering Project No. B0822	\$1,000
Ardaman & Associates, Inc.	Geotech	44-4128; H.004273	I-49 Connector, Lafayette	\$740,206
Ardaman & Associates, Inc.	Geotech	44-18899; H.004791	LA 23: Belle Chasse Bridge & Tunnel (HBI)	\$48,501
Ardaman & Associates, Inc.	Geotech	44-19013; H.004100.5 & .6	I-10 CMAR Design Continuation: LA 415 TO ESSEN ON I-10 & I-12	\$1,112,599
Ardaman & Associates, Inc.	Geotech	H.004435	I-12 to Bush Construction Phase	\$39,040
Ardaman & Associates, Inc.	Geotech	44-8671; H.009266	I-10 Widening: LA 73 to LA 30	\$46,811
Ardaman & Associates, Inc.	Geotech	44-17438; H.013284	MRB GBR LA 1 to LA 30 Connector	\$3,979
Ardaman & Associates, Inc.	Geotech	44-6189; H.004647.6	I-20 Mississippi River Bridge at Vicksburg	\$1,341,878

Prime consultant name: **ECM Consultants, Inc.**

<i>Ardaman & Associates, Inc.</i>	Geotech	44-25025; H.015452, H.015453, H.015456, H.015458	IIJA	\$32,612
<i>Ardaman & Associates, Inc.</i>	Geotech	44-24652, H.015569	Pelican Point Roundabouts	\$757
<i>Ardaman & Associates, Inc.</i>	Geotech	44-21519; H.012030.5	KCS RR Overpasses US 371	\$39,877
<i>Ardaman & Associates, Inc.</i>	Geotech	44-21887; H.012542, H.012453, H.012047	Replacement of 15 Bridges	\$282,487
<i>Ardaman & Associates, Inc.</i>	Geotech	44-6189; H.016313.5, H.016314.5, H.016315.5, H.016316.5, H.016318.5, H.016319.5, H.016325.5	Culvert Replacements	\$4,518
<i>Ardaman & Associates, Inc.</i>	Geotech	H.015430	IIJA	\$3,192
<i>Ardaman & Associates, Inc.</i>	Geotech	H.001798	LA 531: Bridges Near Dubberly	\$13,301
<i>Ardaman & Associates, Inc.</i>	Geotech	H.016094	US 371: Brushy Creek Bridge	\$52,582
<i>Ardaman & Associates, Inc.</i>	Geotech	H.016204	Benton Sidewalks & RR Crossing	\$14,370
<i>SJB Group, LLC</i>	Survey	Contract No. 4400017033 / S.P. No. H.005121.5 /	LA 415 Connector - I10 to La 1	\$32,904
<i>SJB Group, LLC</i>	Other (SUE)	Contract No. 4400017033 / S.P. No. H.005121.5 / F.A.P.	SUE - LA 415 Connector - I10 to La 1	\$627,159
<i>SJB Group, LLC</i>	Other (SUE)	Contract No. 4400027349 S.P. No. H.003931.6	I-10 Calcasieu Project P3	\$7,144,086
<i>SJB Group, LLC</i>	Other (DBE Supportive Services)	Contract No: 44-26952 S.P. No. N/A	LA DOTD DBE Support Services	\$98,301
<i>SJB Group, LLC</i>	Survey	Contract No. 44-28371 S.P. No. H.004100.5	I-10: LA 415 TO ESSEN	\$3392
<i>SJB Group, LLC</i>	CPM	Contract #44-31512 S.P. Multiple	IDIQ Contract for Critical Path Method (CPM) Analysis	N/A
<i>SJB Group, LLC</i>	CPM	Contract # 44-30226 S.P. H.014258.6	RCL - LA 1: Port Allen Canal Bridge Replacement (Phase 2) (HBI)(CE&I)	\$82,832
<i>SJB Group, LLC</i>	CPM	Contract# 44-31862 S.P. Multiple	Contract For Consulting Services Critical Path Method (CPM) Analysis	\$316,272

Prime consultant name: **ECM Consultants, Inc.**

<i>Chustz Surveying, L.L.C.</i>	Survey	4400021531 SP H.011829	IMP@LA 13 & LA 100 & I-10 Acc. Rd. (Crowley)	\$16,119
<i>Chustz Surveying, L.L.C.</i>	Survey	4400021976 SP H.016507	US 90 over Wax Lake Outlet Scour Repair	\$26,550
<i>Chustz Surveying, L.L.C.</i>	Survey	4400021976 SP H.016308	I-49: Lafayette P/L – Evangeline P/L	\$240,525
<i>Specialty Diving</i>	N/A	N/A	N/A	N/A

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

** Round to the nearest dollar. **Do not** round to the nearest thousands. If there are no active contracts with a remaining unpaid balance, place N/A in the Remaining Unpaid Balance column. **NOTE: ALL FIRMS MUST BE REPRESENTED IN THIS TABLE.** LEAVING THE “REMAINING UNPAID BALANCE” COLUMN BLANK IS NOT ACCEPTABLE

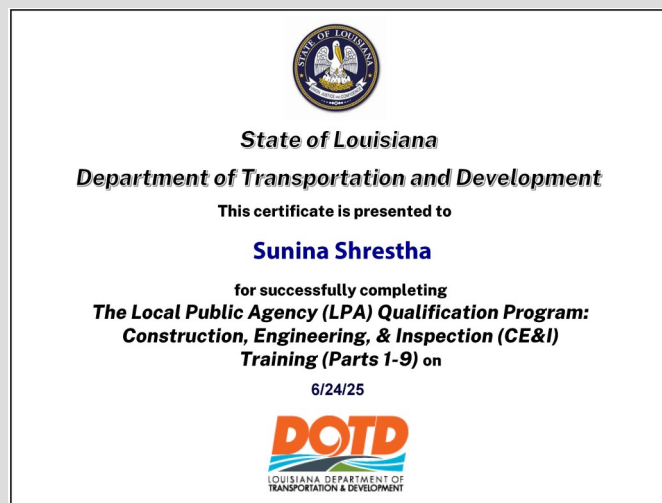
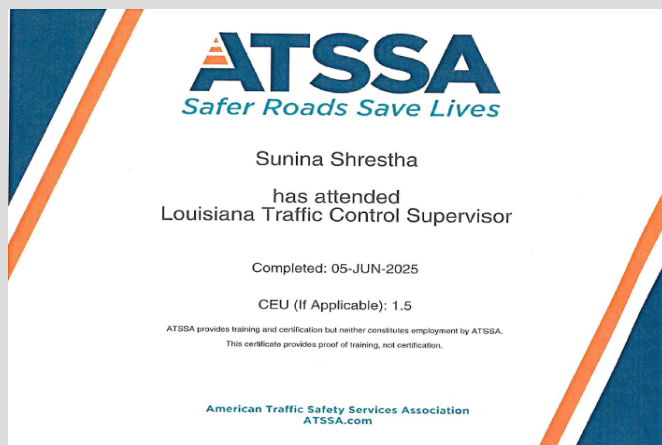
Certifications:

Ujjal DasGupta, P.E.



Certifications:

Sunina Shrestha, P.E., PMP



Certifications:

Kazem Alikhani, P.E.

ATSSA American Traffic Safety Services Association
Safer Roads Save Lives

This is to affirm that
Kazem Alikhani
has satisfied the requirements to be designated as a
CERTIFIED FLAGGER

Issue Date: 6/24/2025 ATSSA
Exp. Date: 6/23/2029 Instructor Name
State Issued: Louisiana Instructor Signature
A1000336188

Verify at Flagger.com

ATSSA
Safer Roads Save Lives

Kazem Alikhani
has attended
Louisiana Traffic Control Supervisor

Completed: 05-JUN-2025
CEU (If Applicable): 1.5

ATSSA provides training and certification but neither constitutes employment by ATSSA.
This certificate provides proof of training, not certification.

American Traffic Safety Services Association
ATSSA.com

U.S. ARMY CORPS OF ENGINEERS
USACE LEARNING CENTER
HUNTSVILLE, ALABAMA

CERTIFICATE
Alikhani Kazem
MVS-07-22-00409

has completed the Corps of Engineers and Naval Facility Engineering Command Training Course
CONSTRUCTION QUALITY MANAGEMENT FOR CONTRACTORS - #784

ST. LOUIS, MO	09 November 2022	MVS - ST. LOUIS DISTRICT	Jacob Prebianca
Location	Training Date(s)	Instructional District/NAVFAC	COM-C Manager
Jacob Prebianca	jacob.a.prebianca@usace.army.mil	(314) 331-8315	Jacob Prebianca
Facilitator/Instructor	Email	Telephone	Facilitator/Instructor Signature

THIS CERTIFICATE EXPIRES FIVE YEARS FROM DATE OF ISSUE

Jacob Prebianca
Director, USACE Learning Center

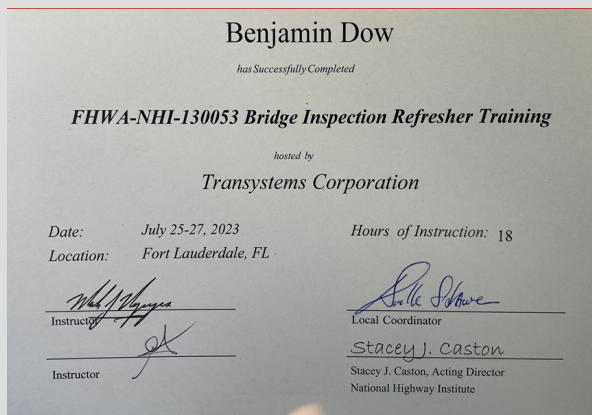
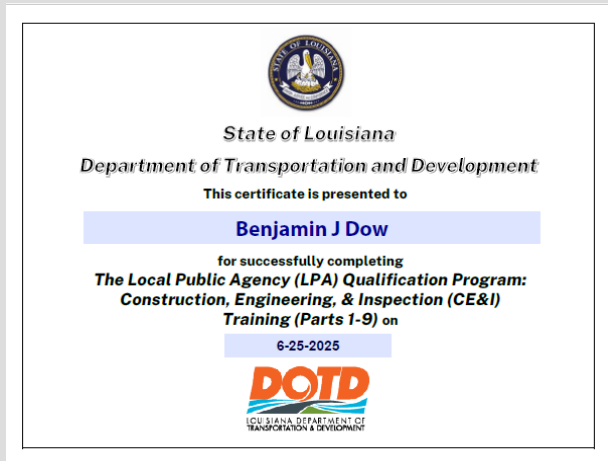


State of Louisiana
Department of Transportation and Development

This certificate is presented to
Kazem Alikhani
for successfully completing
The Local Public Agency (LPA) Qualification Program:
Construction, Engineering, & Inspection (CE&I)
Training (Parts 1-9) on
6/24/2025

DOTD
LOUISIANA DEPARTMENT OF
TRANSPORTATION & DEVELOPMENT

Certifications: Benjamin Dow

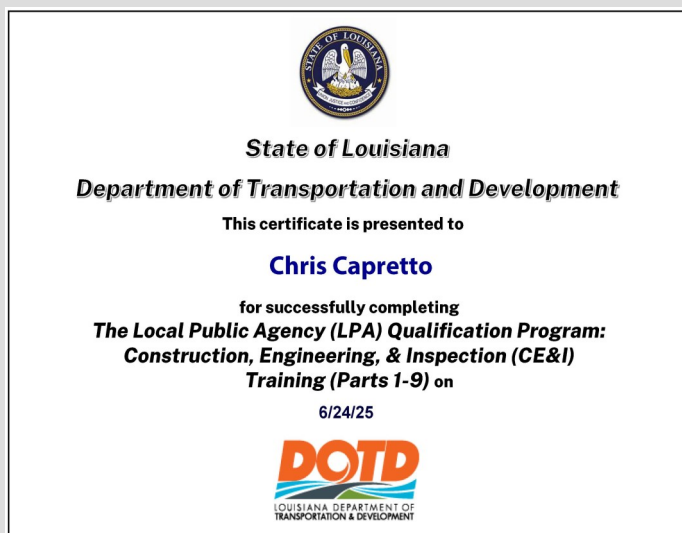
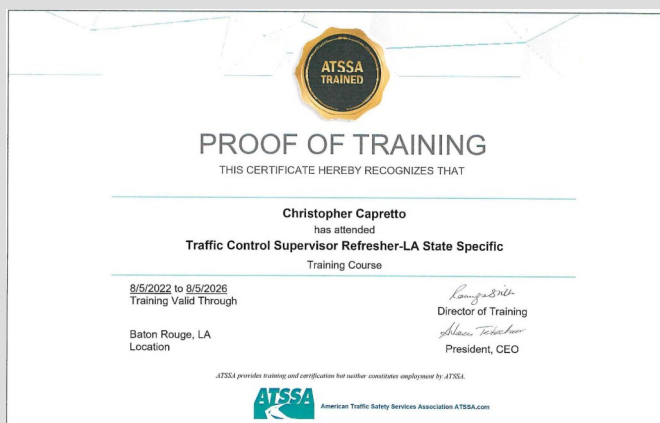


Certifications:
Kumar Ambati, E.I.

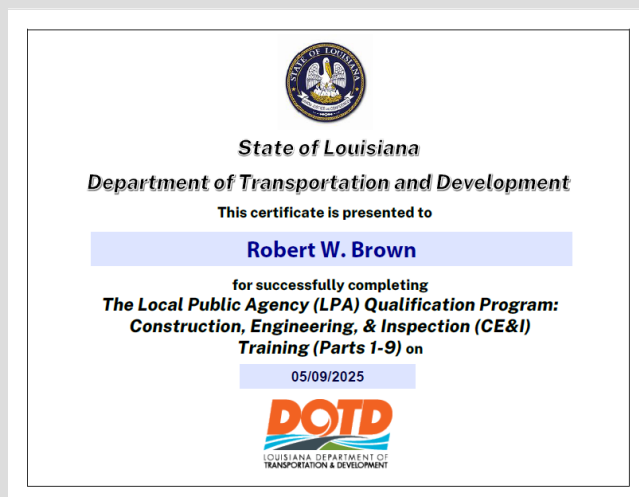
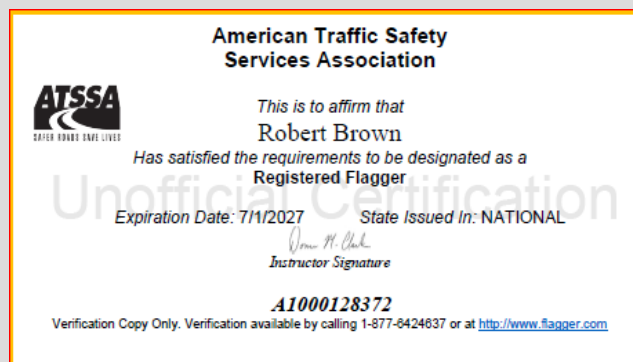
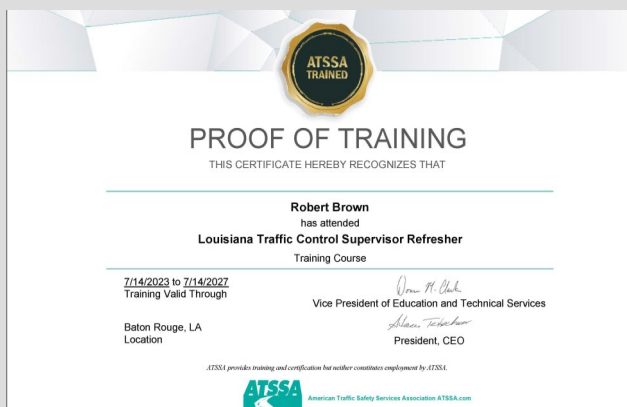


Certifications:

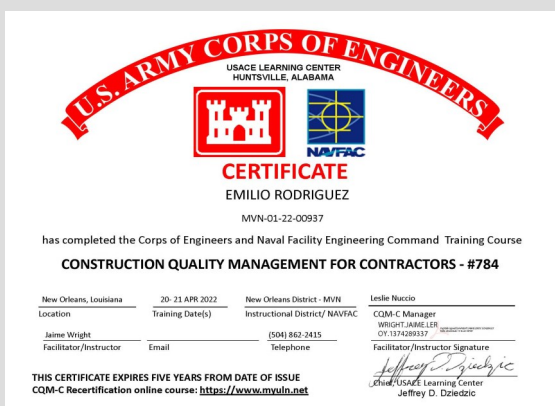
Chris Capretto, P.E., PMP



Certifications: Robert Brown



Certifications: Emilio Rodriguez



Certifications:
Marilyn "Missy" Reynolds, E.I.



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Fax Numbers

225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

Name	Type	City	Status
ECM CONSULTANTS, INC.	Business Corporation	METAIRIE	Active

Previous Names

Business: ECM CONSULTANTS, INC.

Charter Number: 34505176D

Registration Date: 9/5/1995

Domicile Address

1301 CLEARVIEW PARKWAY, SUITE 200
METAIRIE, LA 70001

Mailing Address

1301 CLEARVIEW PARKWAY, SUITE 200
METAIRIE, LA 70001

Principal Office Address

1301 CLEARVIEW PARKWAY, SUITE 200
METAIRIE, LA 70001

Status

Status: **Active**

Annual Report Status: **In Good Standing**

File Date: 9/5/1995

Last Report Filed: 8/6/2025

Type: Business Corporation

Registered Agent(s)

Agent: UJJAL DASGUPTA
Address 1: 18 RUE BAYONNE
City, State, Zip: KENNER, LA 70065
Appointment Date: 9/5/1995

Officer(s)

Additional Officers: No

Officer: UJJAL DASGUPTA
Title: President, Director
Address 1: 18 RUE BAYONNE
City, State, Zip: KENNER, LA 70065

Officer: KABITA DASGUPTA
Title: Secretary, Director
Address 1: 18 RUE BAYONNE
City, State, Zip: KENNER, LA 70065

Amendments on File (6)

Description	Date
Disclosure of Ownership	6/9/1998
Disclosure of Ownership	6/11/2007
Disclosure of Ownership	3/3/2009
Disclosure of Ownership	2/15/2013
Domicile, Agent Change or Resign of Agent	11/22/2019
Amendment	4/19/2021

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225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

Name	Type	City	Status
EUSTIS ENGINEERING L.L.C.	Limited Liability Company	METAIRIE	Active

Previous Names

EUSTIS ENGINEERING SERVICES, L.L.C. (Changed: 3/31/2016)

Business: EUSTIS ENGINEERING L.L.C.

Charter Number: 36251453K

Registration Date: 8/17/2006

Domicile Address

3011 28TH STREET
METAIRIE, LA 700026019

Mailing Address

C/O GWENDOLYN P. SANDERS
3011 28TH ST.
METAIRIE, LA 700026019

Status

Status: **Active**

Annual Report Status: **In Good Standing**

File Date: 8/17/2006

Last Report Filed: 7/23/2025

Type: Limited Liability Company

Registered Agent(s)

Agent:	GWENDOLYN SANDERS
Address 1:	3011 28TH STREET

City, State, Zip: METAIRIE, LA 700026019

Appointment Date: 3/16/2020

Officer(s)

Additional Officers: No

Officer: GWENDOLYN P. SANDERS
Title: Manager
Address 1: 3011 28TH STREET
City, State, Zip: METAIRIE, LA 70002

Officer: JAMES HANCE
Title: Manager
Address 1: 3011 28TH STREET
City, State, Zip: METAIRIE, LA 70002

Officer: CHAD HELD
Title: Manager
Address 1: 3011 28TH STREET
City, State, Zip: METAIRIE, LA 70002

Officer: TRAVIS RICHARDS
Title: Manager
Address 1: 3011 28TH STREET
City, State, Zip: METAIRIE, LA 70002

Officer: LAWRENCE W. ROME
Title: Manager
Address 1: 3011 28TH STREET
City, State, Zip: METAIRIE, LA 70002-6019

Officer: SEAN WALSH
Title: Manager
Address 1: 3011 28TH STREET
City, State, Zip: METAIRIE, LA 700026019

Officer: BENJAMIN CODY
Title: Manager
Address 1: 3011 28TH STREET
City, State, Zip: METAIRIE, LA 700026019

Officer: MATTHEW MORALES

Title: Manager
Address 1: 3011 28TH STREET
City, State, Zip: METAIRIE, LA 700026019

Amendments on File (7)

Description	Date
Disclosure of Ownership	9/15/2006
Domestic LLC Agent/Domicile Change	5/28/2014
Domestic LLC Agent/Domicile Change	3/31/2016
Appointing, Change, or Resign of Officer	3/31/2016
Name Change	3/31/2016
Domestic LLC Agent/Domicile Change	3/16/2020
Appointing, Change, or Resign of Officer	3/8/2021

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Fax Numbers

225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

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

Previous Names

Business: ARDAMAN & ASSOCIATES, INC.

Charter Number: 34396031F

Registration Date: 12/13/1991

Domicile Address

8008 SOUTH ORANGE AVENUE
ORLANDO, FL 32809

Mailing Address

3475 E. FOOTHILL BLVD.
PASADENA, CA 91107

Principal Business Office

8008 SOUTH ORANGE AVENUE
ORLANDO, FL 32809

Registered Office in Louisiana

3867 PLAZA TOWER DR.
BATON ROUGE, LA 70816

Principal Business Establishment in Louisiana

316 HIGHLANDIA DR.
BATON ROUGE, LA 70816

Status

Status: **Active**

Annual Report Status: In Good Standing

Qualified: 12/13/1991

Last Report Filed: 11/13/2025

Type: Business Corporation (Non-Louisiana)

Registered Agent(s)

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

Officer(s)

Additional Officers: No

Officer: MOHAMAD AL-HAWAREE
Title: President
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: DAN L. BATRACK
Title: Vice-President
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: WILLIAM R. BROWNLIE
Title: Vice-President
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: STEVEN M. BURDICK
Title: Treasurer
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: FRANCIS K. CHEUNG
Title: Vice-President
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: CHARLES H. CUNNINGHAM

Title: Vice-President
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: RODRIGO HOME
Title: Vice-President
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: PRESTON HOPSON
Title: Secretary
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: EVELIO N. HORTA
Title: Vice-President
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: THOMAS S. INGRA
Title: Vice-President
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: ROBERT E. JEWELL
Title: Vice-President
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: COLIN T. JEWSBURY,
Title: Vice-President
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: RICHARD A. LEMMON
Title: Vice-President, Director
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: JASON P. MANNING
Title: Vice-President

Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: JASON M. PARKER
Title: Vice-President
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: ASHRAF H. RIAD
Title: Vice-President
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: ROBERT E. ROUSSET
Title: Vice-President
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: RAJENDRA K. SHRESTHA
Title: Vice-President
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: MICHAEL WILSON
Title: Vice-President
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Officer: BRIAN D. RUNKLES
Title: Vice-President
Address 1: 3475 E. FOOTHILL BLVD.
City, State, Zip: PASADENA, CA 91107

Amendments on File (7)

Description	Date
Stmt of Chg or Chg Prin Bus Off	2/1/1993
Revoked	3/21/2003
Reinstatement	12/31/2003

Stmt of Chg or Chg Prin Bus Off	1/29/2008
Disclosure of Ownership	8/21/2008
Merger	9/22/2009
Stmt of Chg or Chg Prin Bus Off	10/18/2015

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225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

Name	Type	City	Status
SJB GROUP, L.L.C.	Limited Liability Company	BATON ROUGE	Active

Previous Names

Business: SJB GROUP, L.L.C.

Charter Number: 36063779K

Registration Date: 12/2/2005

Domicile Address

5344 BRITTANY DRIVE

BATON ROUGE, LA 70808

Mailing Address

C/O MATTHEW ESTOPINAL

5344 BRITTANY DRIVE

BATON ROUGE, LA 70808

Status

Status: **Active**

Annual Report Status: **In Good Standing**

File Date: 12/2/2005

Last Report Filed: 11/3/2025

Type: Limited Liability Company

Registered Agent(s)

Agent:	MATTHEW ESTOPINAL
Address 1:	5344 BRITTANY DRIVE
City, State, Zip:	BATON ROUGE, LA 70808

**Appointment
Date:** 4/17/2023

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Officer(s)

Additional Officers: No

Officer: MATTHEW ESTOPINAL
Title: Manager, Member
Address 1: 5344 BRITTANY DRIVE
City, State, Zip: BATON ROUGE, LA 70808

Mergers (1)

Filed Date	Effective Date:	Type	Charter#	Chater Name	Role
12/2/2005	12/2/2005	MERGE	36063779K	SJB GROUP, L.L.C.	SURVIVOR
			22203280D	SJB GROUP, INCORPORATED	NON-SURVIVOR

Amendments on File (9)

Description	Date
Merger	12/2/2005
Disclosure of Ownership	10/6/2006
Appointing, Change, or Resign of Officer	4/5/2011
Appointing, Change, or Resign of Officer	10/11/2016
Domestic LLC Agent/Domicile Change	5/5/2017
Appointing, Change, or Resign of Officer	3/8/2023
Domestic LLC Agent/Domicile Change	4/17/2023
Appointing, Change, or Resign of Officer	4/17/2023
Domestic LLC Agent/Domicile Change	8/15/2024

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Fax Numbers

225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

Name	Type	City	Status
CHUSTZ SURVEYING, L.L.C.	Limited Liability Company	GALLIANO	Active

Previous Names

CHUSTZ SURVEYING, INC. (Changed: 12/31/2016)

CHUSTZ-GARRETT, INC. (Changed: 9/2/1998)

CHUSTZ SURVEYING, INC. (Changed: 11/5/1997)

Business: CHUSTZ SURVEYING, L.L.C.

Charter Number: 34494673K

Registration Date: 5/25/1995

Domicile Address

18838 HWY. 3235

GALLIANO, LA 70354

Mailing Address

P.O. BOX 820

GALLIANO, LA 70354

Status

Status: **Active**

Annual Report Status: **In Good Standing**

File Date: 5/25/1995

Last Report Filed: 4/27/2026

Type: Limited Liability Company

Registered Agent(s)

Agent: DANIEL ST. GERMAINE
Address 1: 18838 HWY. 3235
City, State, Zip: GALLIANO, LA 70354
Appointment Date: 3/9/2022

Officer(s)

Additional Officers: No

Officer: MARK PREGEANT, II
Title: Manager
Address 1: 18838 HWY. 3235
City, State, Zip: GALLIANO, LA 70354

Officer: BRAD PREGEANT
Title: Manager
Address 1: 18838 HWY. 3235
City, State, Zip: GALLIANO, LA 70354

Officer: DANIEL ST. GERMAINE
Title: Manager
Address 1: 18838 HWY. 3235
City, State, Zip: GALLIANO, LA 70354

Officer: GIS ENGINEERING, LLC
Title: Member
Address 1: 18838 HWY. 3235
City, State, Zip: GALLIANO, LA 70354

Officer: BILLY JOSEPH PELLEGRIN
Title: Manager
Address 1: 18838 HWY. 3235
City, State, Zip: GALLIANO, LA 70354

Officer: ROBERT BLANTON
Title: Manager
Address 1: 18838 HWY. 3235
City, State, Zip: GALLIANO, LA 70354

Amendments on File (8)

Description	Date
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Appointing, Change, or Resign of Officer	1/17/1996
Name Change	11/5/1997
Name Change	9/2/1998
Disclosure of Ownership	1/5/2005
Appointing, Change, or Resign of Officer	7/14/2014
Conversion	12/31/2016
Name Change	12/31/2016
Domestic LLC Agent/Domicile Change	3/9/2022

[Print](#)

**State of
Louisiana
Secretary of
State**



COMMERCIAL DIVISION
225.925.4704

Fax Numbers

225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

Name	Type	City	Status
SPECIALTY DIVING OF LOUISIANA, INC.	Business Corporation	LORANGER	Active

Previous Names

SPECIALTY DIVING, INC. (Changed: 6/5/2000)

Business: SPECIALTY DIVING OF LOUISIANA, INC.

Charter Number: 34422201D

Registration Date: 12/11/1992

Domicile Address

24358 GLIDERPORT RD.
LORANGER, LA 70446

Mailing Address

P. O. BOX 2853
HAMMOND, LA 70404

Principal Office Address

24358 GLIDERPORT ROAD
LORANGER, LA 70446

Status

Status: **Active**

Annual Report Status: **In Good Standing**

File Date: 12/11/1992

Last Report Filed: 11/12/2025

Type: Business Corporation

Registered Agent(s)

Agent: DEBORAH WALLACE
Address 1: 24358 GLIDERPORT ROAD
City, State, Zip: LORANGER, LA 70446
Appointment Date: 3/27/2015

Officer(s)**Additional Officers: No**

Officer: DEBORAH WALLACE
Title: President, Director
Address 1: 24358 GLIDERPORT RD.
City, State, Zip: LORANGER, LA 70446

Amendments on File (2)

Description	Date
Name Change	6/5/2000
Domicile, Agent Change or Resign of Agent	3/27/2015

[Print](#)

21. QA/QC Plan:

If the advertisement requires submission of a QA/QC plan, include it here. **Otherwise, leave this section blank. If a QA/QC plan is included in this section and was not required by the advertisement, it will be redacted.**

Not applicable.

Prime consultant name: ***ECM Consultants, Inc.***

22. Sub-consultant information:

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

Firm Name (Name must match <u>exactly</u> as registered with Louisiana's Secretary of State (SOS): <u>including punctuation, include screenshot(s) from SOS at the end of Section 20</u>)	Address	Point of Contact and email address	Phone Number
Eustis Engineering L.L.C.	3011 28 th Street Metairie, LA 70002	Gwendolyn P. Sanders, P.E. gsanders@eustiseng.com	(504) 834-0157
Ardaman & Associates, Inc.	316 Highlandia Drive, Baton Rouge, LA 70810	Robert Jewell RJewell@ardaman.com	(225) 666-4598
SJB Group, L.L.C.	5344 Brittany Drive Baton Rouge, LA 70808	Matthew Estopinal Matt.Estopinal@SJBGroup.com	(225) 769-3400
Chustz Surveying, L.L.C.	21 Richy Street New Roads, LA 70760	James H. Chustz, Jr., PLS jchustz@chustz.com	(225) 718-7103
Specialty Diving of Louisiana, Inc.	24358 Gliderport Road Loranger, LA 70446	Marshall Whitmer mwhitmer@sdive.com	(925) 542-8771

(Add rows as needed)

Prime consultant name: **ECM Consultants, Inc.**

23. Location:

If location is an evaluation criterion for this advertisement (see page 2) and the prime consultant intends to establish a local presence, describe the plan for doing so. **Otherwise, leave this section blank. Any information included in this section will be redacted if not required by the Evaluation Criteria section of the advertisement.**

Prime consultant name: ***ECM Consultants, Inc.***

ECM Consultants, Inc.

8048 One Calais Avenue, Suite F, Baton Rouge, Louisiana 70809