



IDIQ Contract for Tunnel Inspection Services

Contract No. 4400028222

December 19, 2023



Bradley Mistich
Project Manager
Louisiana Department of Transportation and Development

Your Reference
4400028222

Our Reference
507109817

Proposal for Contract No. 4400028222
IDIQ Contract for Tunnel Inspection Services Statewide

December 19, 2023

Dear Bradley Mistich:

Louisiana Department of Transportation and Development's (LADOTD) Harvey and Houma Tunnels are a vital part of both the Jefferson and Terrebonne Parishes' regional transportation infrastructure. They provide a convenient means for pedestrians, motorists, and cargo to cross local waterways. These tunnels also represent a significant financial investment with challenging design, construction, and operational issues, which if not adequately maintained, could require more costly and extensive repairs. Structural, civil, and functional systems deteriorate at accelerated levels because of the harsh tunnel environment. Many tunnels also incorporate complicated functional systems such as lighting, ventilation, drainage, fire detection and alarm, fire suppression, communication, and traffic control. These systems must be kept in good condition to minimize the risk of death and injury during an emergency such as a vehicle collision, fire, flood, or criminal act.

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To help safeguard tunnel users and to ensure reliable levels of service, the LADOTD, in compliance with the FHWA's National Tunnel Inspection Standards (NTIS), Tunnel Operations Maintenance Inspection and Evaluation (TOMIE) Manual, and the Specifications for National Tunnel Inventory (SNTI), has set in place a rigorous tunnel inspection program. This new contract aims to continue LADOTD's compliance with FHWA and its dedication to maintaining its tunnels in safe and reliable condition.

To meet the requirements of this Advertisement and the LADOTD tunnel inspection program, a team of experienced National Certified Tunnel Inspectors (NCTI) and tunnel specialists is needed. This team should have experience, not only with general tunnel inspections, but with the specific Houma and Harvey Tunnels and the various systems they incorporate. The proposed team should also have a tight grasp of the LADOTD's program requirements.

To this aim, Mott MacDonald has assembled a multidisciplinary team of highly qualified and experienced professionals to tackle all tasks required for the successful completion of this project. Our extensive team of NCTIs and tunnel experts have amassed a great deal of experience inspecting tunnels in compliance with the NTIS, TOMIE, and SNTI. We have also inspected the LADOTD tunnels, Harvey, Houma, and Belle Chasse, multiple times, starting with the initial baseline inspections and continuing over each inspection cycle since. We are also pleased to have authored the LADOTD Tunnel Inspection Policies and Procedures on which the tunnel inspection program is based.



Lastly, Mott MacDonald has also provided engineering services for the Harvey Tunnel Lighting Replacement and Full Rehabilitation projects. This experience allows us to field an effective team, that can quickly mobilize to efficiently perform the work, while meeting the needs and expectations of the LADOTD.

Joining the Mott MacDonald team in presenting qualifications for this IDIQ will be WSP USA, ECM Consultants, Inc., Dufrene Surveying & Engineering Inc., and Urban Systems, Inc. WSP provides significant experience in tunnel inspection and engineering, having taken part in previous LADOTD tunnel inspection cycles, bringing FHWA certified tunnel inspectors across multiple disciplines with a broad range of expertise. ECM Consultants brings additional tunnel engineering and inspection expertise, having received various accolades throughout Louisiana. Specializing in traffic engineering and transportation planning, Urban Systems brings an imaginative approach to traffic/transportation planning and engineering. Lastly, Dufrene Surveying & Engineering, having provided land surveying services since 1967, will round out the team with their experienced, LA Registered Land Surveyors.

Our team will be led by Antonio Gonzalez Jr., based out of the Tampa, Florida office. Mr. Gonzalez is a professional engineer licensed in 10 states, including Louisiana, as well as a National Certified Tunnel Inspector (NCTI) and will serve as the team's Project Manager. Mr. Gonzalez has played key management and technical roles in the last three inspection cycles for the Belle Chasse, Harvey, and Houma Tunnels, serving as Project Manager, team leader and inspector. He has also played a key role in the Harvey Tunnel Lighting Replacement and Full Rehabilitation projects and is slated to serve as Project Manager and technical lead on the pending Houma Tunnel Full Rehabilitation. Mr. Gonzalez is extremely familiar with DOTD inspection policies and procedures as well as with the subject tunnels and associated systems.

We trust that this proposal meets or exceeds your requirements for the Project and look forward to hearing from you soon. Should you require any clarification or have any questions, please contact me at 303.275.8064.

On behalf of Mott MacDonald and each of our team partners, thank you again for the opportunity to submit our qualifications and we look forward with great anticipation to working with the LADOTD on this important project.

Sincerely,

Mott MacDonald, LLC

A handwritten signature in blue ink that reads 'Julia K. Barker'.

Julia K. Barker, PE
Senior Vice President
South Central Unit General Manager
+1 303 275 8064
julia.barker@mottmac.com

DOTD FORM: 24-102

(Revised January 1, 2023)

PROPOSAL TO PROVIDE CONSULTANT SERVICES

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

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

1. Contract Name as shown in the advertisement	IDIQ Contract for Tunnel Inspection Services
2. Contract Number(s) as shown in the advertisement	4400028222
3. State Project Number(s), if shown in the advertisement	
4. Prime consultant name (name must match as registered with the Louisiana Secretary of State where such registration is required by law)	Mott MacDonald, LLC
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. 0003450 VF. 0000593
6. Prime consultant mailing address	650 Poydras Street, Suite 2550 New Orleans, Louisiana 70130
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	650 Poydras Street, Suite 2550 New Orleans, Louisiana 70130
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Antonio Gonzalez Jr. Principal Engineer - Electrical 813.448.2184 antonio.gonzalez@mottmac.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Julia K. Barker, PE Senior Vice President South Central Unit General Manager 303.275.8064 julia.barker@mottmac.com

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

10. This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.



Signature above shall be the same person listed in Section 9:

Date: **12/18/2023**

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):
Urban Systems, Inc.

Firm(s)' %: **5%**

12. Past Performance Evaluation 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 past performance evaluation discipline, as well as the overall total percent of the contract.

The **only** past performance evaluation disciplines to be used are: Road, Bridge, Traffic, CE&I/OV, Geotech, Survey, Environmental, Data Collection, Planning, Right-of-Way, CPM, ITS, Appraiser and Other (please specify).

Past Performance Evaluation Discipline(s)	% of Overall Contract	Mott MacDonald	ECM Consultants, Inc.	WSP USA	Dufrene Surveying & Engineering Inc.	Urban Systems, Inc.	Each Discipline must total to 100%
Other (Multi-Discipline Tunnel Inspections)	20%	50%	25%	25%	0%	0%	100%
Other (Multi-Discipline Tunnel Design)	50%	60%	10%	25%	2.5%	2.5%	100%
Other (Multi-Discipline Construction Administration Support)	20%	65%	10%	25%	0%	0%	100%
Survey	5%	0%	0%	0%	100%	0%	100%
Traffic	5%	0%	0%	0%	0%	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%	53%	12%	22.5%	6.25	6.25	100%

13. Firm Size:

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

The DOTD Job Classification(s) to be used can be found at the following link:

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

Firm name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
Mott MacDonald	Principal	3	6
Mott MacDonald	Supervisor Other	2	8
Mott MacDonald	Other (Tunnel Specialist)	4	11
Mott MacDonald	Senior Tunnel Engineer	4	7
Mott MacDonald	Other (Tunnel Engineer IV)	4	4
Mott MacDonald	Other (Tunnel Engineer III)	2	6
Mott MacDonald	Other (Tunnel Engineer II)	1	3
Mott MacDonald	Other (Tunnel Engineer I)	0	
Mott MacDonald	Supervisor Engineer	1	9
Mott MacDonald	Engineer	0	3
Mott MacDonald	Pre-Professional	0	4
Mott MacDonald	Senior Technician	0	3
Mott MacDonald	Technician	0	3
Mott MacDonald	CADD Technician	0	4
Mott MacDonald	CADD Drafter	0	3
Mott MacDonald	Other (Clerical/Admin)	0	3
Mott MacDonald	Architect	0	3
Mott MacDonald	Supervisor Architect	0	3
ECM Consultants, Inc.	Principal	1	2
ECM Consultants, Inc.	Engineer	1	6
ECM Consultants, Inc.	Inspector – Certified	5	15
ECM Consultants, Inc.	Inspector	2	16
WSP USA	Principal	1	10
WSP USA	Supervisor - Engineering	5	7
WSP USA	Engineer	5	7
WSP USA	Engineer Intern	1	3
WSP USA	Engineer - Other	3	25
WSP USA	Inspector – Lead	1	3

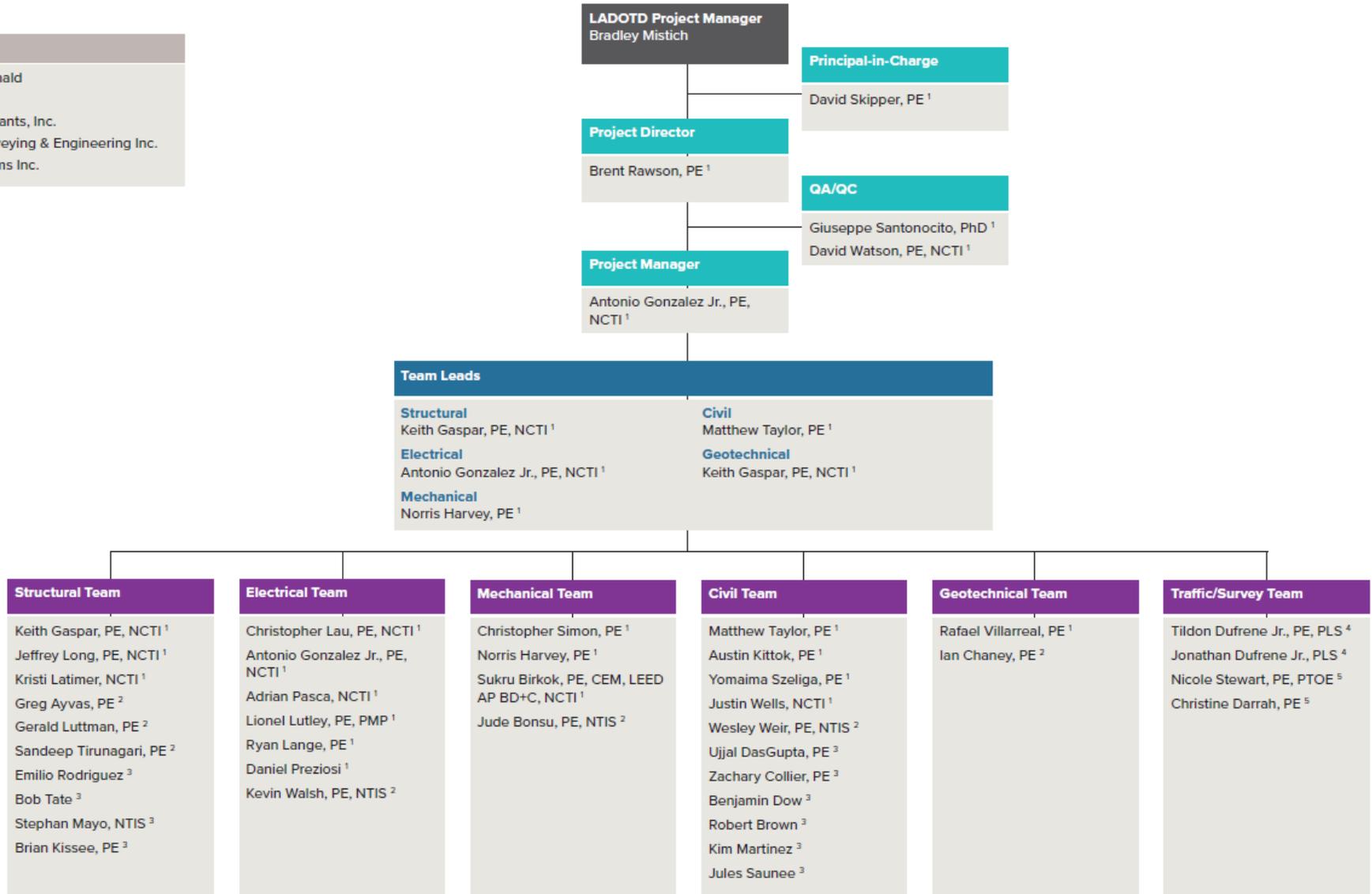
Mott MacDonald, LLC

WSP USA	Inspector – Certified	2	3
WSP USA	ITS Technician - Lead	1	3
WSP USA	ITS Technician	1	10
WSP USA	Professional	1	25
WSP USA	Supervisor	3	5
WSP USA	Technician	1	10
Dufrene Surveying & Engineering Inc.	Other (Land Surveying)	4	14
Urban Systems, Inc.	Supervisor-Eng	2	2
Urban Systems, Inc.	Engineer	1	2
Urban Systems, Inc.	Engineer Intern	1	1
Urban Systems, Inc.	Senior Technician	1	1
Urban Systems, Inc.	CAD Technician	1	1
Urban Systems, Inc.	Inspector	0	1
Urban Systems, Inc.	Engineering Aide	1	3

14. Organizational Chart:

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

Legend
1. Mott MacDonald
2. WSP USA
3. ECM Consultants, Inc.
4. Dufrene Surveying & Engineering Inc.
5. Urban Systems Inc.



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	Antonio Gonzalez Jr., PE, NCTI*	Mott MacDonald	PE #0038719 – Electrical	LA	09/30/2024
1	Norris Harvey, PE	Mott MacDonald	PE #0038849 – Mechanical	LA	09/30/2024
1	Matthew Taylor, PE*	Mott MacDonald	PE #0043254 – Civil	LA	09/30/2025
2	Keith Gaspar, PE, NCTI*	Mott MacDonald	PE #44509 – Civil	LA	09/30/2024
2	Matthew Taylor, PE	Mott MacDonald	PE #0043254 – Civil	LA	09/30/2025
2	Austin Kittok, PE	Mott MacDonald	PE #45850 – Civil	LA	03/31/2024
3	Norris Harvey, PE*	Mott MacDonald	PE #0038849 – Mechanical	LA	09/30/2024
4	Jeffrey Long, PE, NCTI	Mott MacDonald	FHWA-NHI-130125	N/A	04/01/2026
4	Adrian Pasca, NCTI	Mott MacDonald	FHWA-NHI-130110	N/A	07/12/2024
4	Kristi Latimer, NCTI	Mott MacDonald	FHWA-NHI-130125	N/A	04/08/2027
4	Sukru Birkok, PE, CEM, LEED AP BD+C, NCTI	Mott MacDonald	FHWA-NHI-130125	N/A	05/20/2026
4	Wesley Weir, PE, NTIS*	WSP USA	FHWA-NHI-130110 PE#0035035 – Civil	PE: LA	NHI: 01/08/2024; PE: 03/31/2024
5	Christopher Lau, PE, NCTI	Mott MacDonald	PE #44605 – Electrical	LA	09/30/2024
5	Kevin Walsh, PE, NTIS*	WSP USA	PE #0044049 – Electrical	LA	03/31/2024
6	Ujjal Dasgupta, PE	ECM Consultants, Inc.	PE #0019849 – Civil	LA	09/30/2025
6	Ben Dow	ECM Consultants, Inc.	DOTD Certified Embankment and Base Course Inspector; Movable Bridge Inspector; NHI In-Service Bridge Inspector	N/A	04/21/2027
6	Emilio Rodriguez	ECM Consultants, Inc.	NACE Certified Coating Inspection Level II, LADOTD Movable Bridge Inspection Workshop	N/A	N/A

6	Bob Tate	ECM Consultants	N/A	N/A	N/A
6	Gerald Luttmann, PE	WSP USA	PE #6201042077 – Civil	MI	08/30/2024
6	Greg Ayvas, PE	WSP USA	PE #084879 – Civil	NY	09/30/2024
6	Stephen Mayo, NTIS	WSP USA	FHWA-NHI-130110	N/A	03/25/2027
6	Brian Kisse, PE	WSP USA	PE #29557 – Civil (KS); PE #2022002322 – Civil (MO)	KS; MO	KS: 04/30/2024; MO: 12/31/2024
6	Sandeep Tirunagari, PE	WSP USA	PE #126665 – Structural (TX); PE #099570-1 – Structural (NY); PE #24GE05375700 – Structural (NJ)	TX; NY; NJ	TX: 03/31/2024; NY: 04/30/2024; NJ: 04/30/2024
6	Ian Chaney, PE	WSP USA	PE #0042288 – Civil	LA	09/30/2024
6	Jude Bonsu, PE, NTIS	WSP USA	PE #0044561 – Mechanical	LA	09/30/2024

*Personnel committed to meeting this contract MPR requirement; additional personnel available to meet this MPR are also noted without an ' * '.

16. Staff Experience:

Résumés shall be provided for all prime and sub-consultant personnel listed in Sections 14 and/or 15 of the proposal. Résumés of personnel not identified in Section 14 or Section 15 of the proposal should not be included and will not be evaluated. Résumés should be **limited to 2 pages per person**. Any certificates required by the advertisement are to be placed in Section 20.

Firm employed by Mott MacDonald				
Name	David Skipper, PE		Years of relevant experience with this employer	21
Title	Division General Manager		Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization			BS / 1996 / Civil Engineering	
Active registration number / state / expiration date			#58972 / FL / 2025; #24741 / AL / 2023	
Year registered	FL: 2002; AL: 2002; GA: 2007	Discipline	Professional Engineer: Civil	
Contract role(s) / brief description of responsibilities			Mr. Skipper is a principal project manager and oversees the firm's projects and offices in Florida. Throughout Mr. Skipper's career he has managed, supervised, designed or supported a wide variety of transportation projects for FDOT and various transportation authorities and municipalities. His experience includes all phases of transportation development from feasibility and PD&E studies through final design and construction. His design experience includes resurfacing, restoration and rehabilitation (RRR) projects, intersection improvements, drainage improvements, bridge replacements, concrete rehabilitation and multi-lane capacity projects, including both design and construction engineering and inspection (CEI). Mr. Skipper's role for this IDIQ is Principal-in-Charge.	
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).			
12/17 – 06/20	SR 77 Resurfacing, Restoration, and Rehabilitation (RRR), FDOT District 3, Bay County, FL: Principal-in-Charge. This 10.1-mile RRR project primarily consisted of resurfacing SR 77 from the end of curb and gutter near the Southport community to south of the Washington County line. Existing travel lanes, auxiliary lanes, median crossovers, paved shoulders, and truck pull-offs were resurfaced. In addition, a 2' inside paved shoulder was added throughout the project limits where not already present. Due to severe pavement failure, a portion of the road was designed to be excavated, layered with geogrid, and reinforced with thicker base. This project was accelerated to meet an advanced letting due to rapid deterioration following Hurricane Michael. To meet the District's advanced schedule, it was mutually agreed to skip the Phase II, IV, and PS&E1 submittals.			
04/14 – 08/17	Detroit Boulevard, Escambia County, FL: Project Director. The 2.4-mile project runs from Pine Forest Road (SR 297) to Pensacola Blvd. (SR 95 / US 29) and consists of two phases. Phase I included a preliminary engineering study to determine roadway improvements that would upgrade the safety and traffic flow of the corridor. Factors considered and discussed in the study included traffic analysis, safety review, preliminary pavement condition survey, existing drainage analysis, environmental assessment, project coordination, and public involvement. Phase II of the project involves the actual design improvements of Detroit Boulevard. Current design involves milling and resurfacing the first 1.5 miles of the project with the			

	addition of paved shoulders and a pedestrian sidewalk on the north side of the roadway. The remaining 0.9 miles of the project will be reconstructed to a curb and gutter section, with 4' bike lanes on each side and a pedestrian sidewalk on the north side.
02/15 – 04/18	Girvin Road, Jacksonville Transportation Authority (JTA), Duval County, FL: Project Director. This 2.8-mile project runs from Atlantic Blvd. (SR 10) north to Wonderwood Dr. (SR 116). The entire project will be reconstructed to be an urban section with bike lanes and sidewalk on each side of the roadway. The first 1.1 miles of the project will be widened to five lanes, while the remaining 1.7 miles of roadway will be widened to three lanes. Major design components for the project include detailed MOT plans, two signalized intersections, four stormwater detention ponds, closed drainage system, and relocation of major utility lines.
04/14 – 06/16	Gulf Coast Parkway, FDOT District 3, Bay County, FL: Project Principal. This capacity project involved the design of a new alignment for 6.7 miles of a rural two-lane facility with a shared use path, connecting SR 22 and CR 2315 (Star Avenue). Five stormwater facilities, along with the right-of-way, were designed and set to accommodate the future 4-laning of this section of roadway. This project was one of several segments that combine to make Gulf Coast Parkway. Heavy coordination efforts were required to ensure a smooth connection with adjacent segments that were being designed simultaneously. Responsibilities include project management activities as well as roadway design.
09/06 – 10/15	SR 87 Segment 4 Plans Update – Vonnice Tolbert Rd to 2 miles S of Yellow River, FDOT District 3, Santa Rosa County, FL: Project Principal for the widening of 5.4 miles of roadway from two-lane rural to four-lane divided rural typical. The project included detailed MOT plans, open and closed drainage systems, numerous detailed stormwater management facilities, access management including adding wildlife fencing, and close coordination with permitting agencies, existing utilities and Eglin AFB. As part of the final plan update, design plans were added for Eglin AFB's main communications line that traverses the project corridor and alignment. Design of this system is per Eglin standards and specifications. The entire project is within Eglin AFB property, therefore requiring extensive coordination for acquiring additional easement area for the roadway widening.
05/13 – 02/15	Group 14-05 Patricia Drive over Bayou Marcus Creek (Bridge No. 484069) FDOT D3, Escambia County, FL: Project Director. The principal intent of this project is to replace the existing structurally deficient bridge (no. 484069) on Patricia Drive over Bayou Marcus Creek south in south eastern Escambia County, FL. The existing bridge is 22' wide, has a timber substructure (piles, bents, stringers) and a concrete deck with an asphalt overlay. The overall approx. project length is 0.143 miles.
05/11 – 06/13	12th Avenue Bridge Replacement over Bayou Texar, Pensacola, FL: Project Manager (Engineer of Record) to replace the functionally obsolete bridge (No. 485005) on 12th Avenue over Bayou Texar in Escambia County, Florida. The design features of the bridge and corresponding roadway will be set consistent with the Florida "Green Book" and AASHTO standards. In addition to the minimum lane and shoulder widths detailed in the Green Book, there are additional elements that the City of Pensacola would like on the bridge. Items relevant to this project include: establishing a design speed for the roadway, minor roadway re-alignment to accommodate the new bridge typical, stormwater design, wetland delineation and coordination, permitting, signing and pavement marking, utility coordination, joint participation agreements, maintenance agreements, survey and mapping, erosion control and public involvement.

Firm employed by Mott MacDonald			
Name	J. Brent Rawson, PE		Years of relevant experience with this employer
Title	Principal Project Manager		19
Degree(s) / Years / Specialization			BS / 1981 / Civil Engineering
Active registration number / state / expiration date			#22345 / LA / 2024
Year registered	1986	Discipline	Professional Engineer: Civil
Contract role(s) / brief description of responsibilities			Mr. Rawson has more than 40 years of experience providing services on a variety of transportation and roadway projects. His experience includes project management for all types of roadway projects spanning the past 30 years. In the course of these projects he was responsible for technical oversight of roadway design, stormwater design, transportation planning, maintenance of traffic plans, and integration of other design elements into the overall project plans (structural, electrical, etc.). Mr. Rawson has also managed several Project Development and Environment (PD&E) Studies, with responsibilities including oversight of the engineering and environmental document preparation needed to complete the NEPA process and qualify these needed roadway improvements for Federal funding. Mr. Rawson's role for this IDIQ is Project Director.
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).		
04/18 – Present	Dauphin Street Improvements, City of Mobile, Mobile, AL: Project Manager: The project includes the improvements to a major corridor in Mobile, AL by controlling access, improving existing intersections and improving the I-65 Interchange. MM is responsible for providing innovative design concepts that include roundabouts, boulevard corridor sections and a diverging diamond interchange at I-65. The Project includes Corridor Studies, Survey, Geotechnical Investigations, Preliminary Plans, and final Design Plans. Mr. Rawson is the project manager overseeing the design, coordination with sub-consultants, public involvement, Right-of-Way, utilities and permitting.		
09/20 – Present	Aransas County CDBG, Aransas County, TX (Project No. 507102346): Project Manager. Mott MacDonald was selected by Aransas County as the engineer for eight projects funded by Community Development Block Grants (CDBG). The projects are proposed improvements to local area street and drainage infrastructure in low-income areas. Mr. Rawson was part of the team that developed the scopes of work, estimates, and schedules for the projects in order to complete the grant applications and secure the funding. Mr. Rawson will also be part of the design team. Mott MacDonald's services will include survey, geotechnical engineering, environmental assessment and permitting, design, and construction engineering and inspection.		
01/18 – 10/22	McDonald Road Full Depth Reclamation, Mobile County, Pay-As-You-Go, Mobile, AL (Project No. 382212): Project Manager: McDonald Road is a rural two-lane road in Mobile County that was significantly damaged by heavy truck traffic during the construction of the Walmart distribution center. Mobile County Engineering had the road on schedule to be resurfaced, but realized the level of damage and decided to make repairs to the base as well as the surfacing. Mott MacDonald was selected for this project to perform the survey, design, environmental permitting, and construction engineering and		

	inspection. Mr. Rawson was the project manager responsible for coordinating of all design efforts for the project including, the full-depth reclamation (FDR), drainage design, traffic control, erosion control, stormwater permitting, and preparation of plans and bid documents.
01/18 – 05/23	Cottage Hill Road and McFarland Road, Mobile County, AL (Project No. 502100375): Cottage Hill Road from Dawes Road to McFarland Road and McFarland Road from Cottage Hill Road to Jeff Hamilton Road will be expanded from 2-lane to 5-lane roadways. Mott MacDonald will provide all survey and right-of-way services, preliminary and final roadway design and coordination and oversight on all geotechnical and environmental services. The project will include extensive drainage analysis and design and detailed MOT plans. Mr. Rawson will provide senior oversight of the geometric design, drainage design, traffic control design, and will provide oversight in plans preparation and submittals.
12/19 – 01/22	CR 13 at CR 32, Baldwin County, AL (Project No. 502100215): Project Principal. This project involved improvements to the intersection of CR13 and CR32. Mott MacDonald is contracted with Baldwin County Highway Department to design a roundabout at this location. The project includes survey, coordination of all geotechnical activities, obtaining environmental clearances and all aspects of the preliminary and final roadway design of the roundabout. Mr. Rawson provided senior oversight of the geometric design and layout of the roundabout, drainage, and the plans preparation. Mr. Rawson also was a chief client contact.
02/19 – 06/20	Natchez Trace Road and John Paul Road Roadway Improvements (PAYGO), Mobile County Commission, Mobile, AL (Project Number 502100001-001): Project Manager. This project included the design surveys, right-of-way surveys, right of way acquisition, engineering design, construction quality assurance, and geotechnical firm's preliminary and construction testing. Mr. Rawson's responsibilities included acting as the client liaison, coordination of subconsultants, civil design including geometric layout, right of way, grading, drainage, paving, and traffic design; specifications and bid package.
02/19 – 04/20	Joyce Circle, Williams Road, Lloyd Road Roadway Improvements (PAYGO), Mobile County Commission, Mobile, AL (Project Number 502100001-003): Project Manager. This project included the design surveys, right-of-way surveys, right of way acquisition, engineering design, construction quality assurance, and geotechnical firm's preliminary and construction testing. Mr. Rawson's responsibilities included acting as the client liaison, coordination of subconsultants, civil design including geometric layout, right of way, grading, drainage, paving, and traffic design; specifications and bid package.
01/15 – Present	Mobile River Bridge, Mobile, AL: Project Engineer. Preliminary design work included roadway alignments, maintenance of traffic plans, erosion control, drainage, pedestrian and cyclist access to the bridge, determination of logical termini on the eastern approach to the bridge, conceptual interchange design, and lighting. Responsible for the development of 21 schematic designs for consideration on the eastern end of the project, including improving existing interchanges and development of new interchange configurations. Helped to develop and review the technical provisions, design criteria, traffic, and lane rental for proposing teams on the P3 project as advisors to ALDOT.
02/17 – 11/18	Roseland Outfall, Mobile County Commission, Mobile, AL: Project Manager. Located in Semmes, AL, Mott MacDonald was tasked to perform an emergency repair of a severely eroded outfall ditch and a failing underground pipe network that was affecting adjacent homes in the subdivision. Our team coordinated with Army Corps of Engineers for permitting of a stream restoration that will stabilize and enhance the outfall ditch.
05/17 – 04/21	Roger Phillips Roadway Improvements (PAYGO), Mobile County Commission, Mobile, AL: Project Manager. Resurfacing of the existing paved road (RRR) from Highway 43 eastward to the End of Maintenance.

Firm employed by Mott MacDonald				
Name	Giuseppe Santonocito, PhD		Years of relevant experience with this employer	8
Title	Principal Project Manager – Geotechnical/Structural		Years of relevant experience with other employer(s)	21
Degree(s) / Years / Specialization			PhD / 1994 / Civil Engineering/Transportation	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Dr. Santonocito has extensive experience in civil, structural, and geotechnical engineering, particularly in the design and project management of deep excavations, foundation systems, rehabilitation design of tunnel fan and ventilation shafts, underground, marine, and earth retaining structures. He has provided planning, structural design, and construction management services for a wide variety of residential, commercial, municipal, and industrial facilities, including stormwater collection and pumping systems, drainage improvements, and pipeline repair/rehabilitation. His project management responsibilities include coordinating, supervising, and providing quality assurance/quality control for the services provided by teams of designers, drafters, and field inspectors. Dr. Santonocito's role for this IDIQ is QA/QC, Structural Engineer, and Structural Inspector.	
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).			
01/22 – Present	I-64 Hampton Roads Bridge-Tunnel Expansion, Hampton Roads, VA: As part of this \$3.1B design-build project, currently serving as the Mott MacDonald structural technical lead for the lightning system protection and coordination with other design discipline leads, and other joint venture entities. The project is currently in progress.			
05/21 – Present	I-93 Mainline Tunnel (O'Neil Tunnel) Lighting Restoration, Massachusetts Department of Transportation (MassDOT), Boston, MA: Structural leader for the plans, specifications, and estimate (PS&E) design package to demolish the existing tunnel lighting, provide structural calculations for an improved tunnel design, and install new lighting based on the calculations in the Mainline northbound (NB) and southbound (SB) Tunnels of I-93, including sections of the on-ramps and off-ramps.			
01/19 – 12/21	MECH 003 - Tunnel Shaft Rehabilitation, Washington Metropolitan Area Transit Authority (WMATA), Washington, DC: Provided Civil/Structural design support for the rehabilitation design of fan and ventilation shafts on the A, B, and G Lines. The project included the LIDAR survey and REVIT model development for 64 tunnel shafts, electrical rehabilitation design of ventilation fan equipment at 26 shafts, and structural, civil, and mechanical rehabilitation design at 82 shafts, as well as geographic information system (GIS) survey of over 400 access shafts throughout the WMATA system.			
01/22 – 09/23	MECH002- Washington Metropolitan Area Tunnel Ventilation Improvement, Washington Metropolitan Area Transit Authority (WMATA), Washington, DC: Lead Structural Engineer responsible for the design and layout of tunnel ventilation improvements to prepare design-build contract drawings and technical requirements to upgrade the existing system to meet NFPA 130 requirements. Led field investigations to determine existing conditions and prepared reports of findings to guide			

	the design. Proposed improvements of the multiple underground stations and tunnel segments include ventilation system equipment, structural modifications and support, monorail systems, electrical power, and control systems upgrades.
01/16 – 11/17	Parallel Thimble Shoal Tunnel, Chesapeake Bay Bridge and Tunnel District, Virginia Beach, VA: Provided structural design support for the detailed design for two 7-level ventilation buildings on Portal Islands #1 and #2, including a 34.5 to 13.8kV supply substation which supports a 1-mile-long tunnel. Duties included the preparation of design drawings, calculations, coordination documents, and specifications.
10/15 – 07/17	Lehigh Tunnel Refurbishment, Pennsylvania Turnpike Commission, Slatington, PA: Provided structural design support for the tunnel lighting and controls, designed to RP-22, electrical, closed-circuit television (CCTV), and fiber optic system design and package delivery. Design responsibilities included a capacity analysis of the existing structure to accommodate the increased floor loading, coordination with HVAC, architectural, and mechanical disciplines, and the development of design drawings and specifications.
04/12 – 09/14	Analysis of Tunnel and Stations, Con Edison, Various Sites, NY and NJ: The project involved the preparation of the Design Basis and System Description Report addressing the water vulnerability analysis associated with the existing oil/water separator and drainage systems for 13 sites. The analysis included the review of the Spill Control and Countermeasure (SPCC) Plan, the State Pollution Discharge Elimination System (SPDES) permit issued by the NYSDEC, and the preparation of the Engineering Cost. Served as Design Lead for the replacement and upgrade of the stormwater and emergency pumping systems. Structural upgrades included the addition of several new hatches along with the removal of several existing hatches, sealing of floor penetrations, new monorail, and hoists for the removal of the new pumping equipment, floor slab strengthening, and a new fiberglass-reinforced plastic (FRP) walkway and platform. Design responsibilities included a capacity analysis of the existing structure to accommodate the increased floor loading, HVAC, architectural, and mechanical disciplines, and the development of design drawings and specifications.

Firm employed by Mott MacDonald				
Name	David Watson, PE, NCTI		Years of relevant experience with this employer	22
Title	Principal Project Manager		Years of relevant experience with other employer(s)	N/A
Degree(s) / Years / Specialization		MEng / 2000 / Civil Engineering		
Active registration number / state / expiration date		PE #0038839 / LA / 2024; National Certified Tunnel Inspector		
Year registered	2014	Discipline	Professional Engineer: Civil	
Contract role(s) / brief description of responsibilities		Mr. Watson has civil, structural, and geotechnical engineering design, tunnel inspection, rehabilitation design, and construction site experience on a variety of projects. This experience includes jacked tunnels, TBM- driven tunnels, segmental lining design, microtunnels, sprayed concrete lined shafts and tunnels, diaphragm (slurry) wall shafts and portals, caisson sinking, and cut-and-cover tunnels. Mr. Watson has experience with various procurement methods including traditional design-bid-build and design-build. Mr. Watson's role for this IDIQ is QA/QC, Structural Engineer, and Structural Inspector.		
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).			
02/15 – 06/16	Tunnel Inspections and Rehabilitation, Louisiana Department of Transportation and Development, LA: Structural Team Leader for the inspection of the Belle Chasse Tunnel, Harvey Tunnel, and Houma Tunnel in Louisiana. Responsible for planning and performing structural inspections of reinforced concrete tunnel structures. Inspection procedures and reporting were performed in general accordance with the draft Federal Highways Association Tunnel Operations Maintenance Inspection and Evaluation (TOMIE) Manual and the National Tunnel Inspection Standards (NTIS). Evaluation of inspection findings included developing repair and rehabilitation strategies for the tunnel owner and preparing conceptual cost estimates for the work.			
09/14 – 02/15	Bankhead Tunnel Inspection, Alabama Department of Transportation, Mobile, AL: Structural Team Leader responsible for special inspection of air duct in steel bent section of Bankhead Tunnel. Inspection was requested due to owner concerns about major deterioration within localized area of air duct invert. Performed detailed inspections, prepared report, and provided repair and rehabilitation recommendations to ALDOT.			
01/17 – 12/18	Belle Chasse Tunnel Rehabilitation, Louisiana Department of Transportation and Development, LA: Project Manager and Team Leader for the rehabilitation design for the Belle Chasse Tunnel. Structural rehabilitation included repair of concrete defects, tile finishes, and design of leak remediation solutions, including the repair of six unique joints exhibiting significant water inflow. Investigations included laser scanning of the existing facilities and both non-destructive and destructive testing to evaluate the condition of the existing structures.			
03/13 – 07/14	Hugh L. Carey Tunnel Rehabilitation Project (formerly Brooklyn Battery Tunnel), MTA B&T, New York, NY: Senior Tunnel Engineer responsible for investigation, design, and delivery of construction documents for the rehabilitation and repair of the tunnels and structures following the full tunnel flooding of the Brooklyn Battery Tunnels during Superstorm Sandy. Developed selective demolition plans and repairs for various structures to restore degraded sections of catwalk, ventilation			

	flues, conduits, and other structures. Repair methodologies were developed to ensure that work could be performed within limited closure windows allowed by the MTA B&T. Also responsible for conducting inspections, including confined space entry into the Manhattan Cellular Structure, to inspect the condition of the structures. Inspection reports, including safety flag reports, were issued along with recommended immediate and long-term repair methodologies. Follow-up inspections were performed to verify that safety flags could be removed.
03/10 – 11/20	Access to the Region’s Core: Trans-Hudson Express Tunnel – Palisades Tunnels, New Jersey Transit, Hoboken, NJ: Design Engineer for the Hoboken Shaft. Primary responsibilities included structural analysis and design for this large diameter (130-foot), 103-foot deep shaft in complex ground conditions including soft organic and estuarine deposits and a sloping soil/rock interface. The design also requires provision for future tunnel breakouts by a follow-on contract.
05/01 – 07/01	Dartford Tunnels Annual Inspection, Dartford River Crossing, London: Part of the annual inspection team for the Dartford Tunnels that form part of the major M25 orbital motorway system around London. The inspection included segmental linings, cladding systems, road deck, sub-deck walkways, ventilation buildings, offices, mechanical and electrical equipment rooms, and sumps. Produced a detailed inspection and condition assessment report with recommendations for necessary remedial works.
01/09 – 06/10	Euclid Creek Tunnel, Northeast Ohio Regional Sewer District, Cleveland, OH: Structural Design Engineer that led the design of several structural elements for this 3.4-mile-long 24-foot-diameter combined sewer overflow tunnel. Structural design components included shaft lining, baffle, and shaft cap design for baffle drop shafts up to 50 feet in diameter including associated connecting adits and connections with the segmentally lined main tunnel.
08/2021 – Present	Southerly Tunnel and Consolidation (SOTC), Northeast Ohio Regional Sewer District (NEORS), Cleveland, OH: Project Manager responsible for the overall design and delivery of this project. The SOTC project includes approximately 18,000 feet of 23-foot internal diameter tunnel installed by TBM with a segmental lining at depths of over 150 feet in soft ground. Diversion structures at depths of over 80-feet will convey flows through gate and screening structures and baffle drop shafts into the tunnel. The project includes hydraulic model evaluations, recalibration with new flow monitoring data, and design of hydraulic structures using Computational Fluid Dynamics (CFD). Condition assessment of existing sewers was performed including over 15,000-feet of the Southerly Interceptor which had to overcome significant access and flow issues using techniques ranging from personnel entry to submersible multi-sensor inspection equipment and an ROV unit. The project is part of Control Measure #21 which is identified in a consent decree with the EPA and is required to improve control of Combined Sewer Overflows (CSOs) in the Southerly Tunnel System.

Firm employed by Mott MacDonald				
Name	Antonio Gonzalez Jr., PE, NCTI		Years of relevant experience with this employer	7.5
Title	Principal Engineer – Electrical		Years of relevant experience with other employer(s)	12
Degree(s) / Years / Specialization			BS / 2004 / Electrical Engineering	
Active registration number / state / expiration date			#0037819 / LA / 2024; National Certified Tunnel Inspector	
Year registered	2014	Discipline	Professional Engineer: Electrical	
Contract role(s) / brief description of responsibilities			Mr. Gonzalez is a Principal Electrical Engineer with significant experience in industrial, transit and ports related electrical power engineering and design. His experience encompasses a wide range of infrastructure including roadway and transit tunnels, movable bridges, cruise terminals, container yards, water and wastewater facilities, and more. Responsibilities include medium and low voltage power system design, analysis and inspection, taking projects from the conceptual stage through commissioning. Mr. Gonzalez’s role for this IDIQ is Project Manager, Lead Inspection Team Leader, Electrical Inspection Team Leader, National Certified Tunnel Inspector, and Professional Engineer: Electrical.	
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).			
02/19 – 10/23	<p>LADOTD 2019, 2021 & 2023 FHWA Tunnel Inspection Projects, LA: Lead electrical engineer, inspector, and project manager for multiple FHWA Bi-Annual Routine Tunnel Inspections for the Belle Chasse, Harvey, and Houma Tunnels. As Lead Electrical Engineer/Inspector, tasked to lead the electrical inspections team, inspecting the electrical systems associated with each of these tunnels, still currently in use for vehicular traffic. Visual and thermographic inspection as well as operational and electrical testing (insulation resistance, operating currents, and voltages, etc.) of the electrical equipment throughout the tunnels. Systems include tunnel ventilation, drainage, lighting, fire/life safety, security, and communications as well as the overall power distribution and control systems supporting each. As Project Manager, coordinated all inspections efforts with internal inspection team, sub-consultants, and LADOTD engineering and maintenance. Also managed and participated in the preparation of inspections reports and AssetWise reports. Projects include the following tunnels:</p> <ul style="list-style-type: none"> • Houma Tunnel Bi-Annual Inspection, 2021 & 2023, LA DOTD, Harvey, LA (Project Manager) • Harvey Tunnel Bi-Annual Inspection, 2021 & 2023, LA DOTD, Harvey, LA (Project Manager) • Belle Chasse Tunnel Bi-Annual Inspection, 2019 & 2021, LA DOTD, Plaquemines Parish, LA 			
11/19 – 05/21	<p>Additional Tunnel Inspection Projects, NJ / NY / PA / WA: Lead electrical engineer and inspector for the FHWA Bi-Annual Routine Electrical Tunnel Inspection of various roadway Tunnels. Tasked to lead the electrical inspections team, inspecting the electrical systems associated with tunnels currently in use for vehicular traffic. Visual and thermographic inspection and electrical testing (insulation resistance, operating currents, and voltages, etc.) of the electrical equipment throughout the tunnels. Systems include tunnel ventilation, drainage, lighting, fire/life safety, security, and communications as well as the overall power distribution and control systems supporting each. Prepared report of all findings. Projects include the following tunnels:</p>			

	<ul style="list-style-type: none"> • Mount Baker Ridge Tunnel Bi-Annual Inspection, 2020, WA DOT, Seattle, WA • George Washington Bridge Tunnels Bi-Annual Inspection, 2019 & 2021, PANY/NJ, Fort Lee, NJ • Seattle-Tacoma International Airport S. 188th St. Tunnel Rehabilitation Inspection, Seattle, WA • Lehigh Tunnel Bi-Annual Inspection, 2017, Lehigh County, PA
10/17 – 04/18	Belle Chasse Tunnel Rehabilitation Project, LADOTD, Plaquemines Parish, LA: Lead Professional Electrical Engineer and electrical task manager for the design and production of construction documents (drawings, specifications, and calculations) for the installation of new and rehabilitated tunnel systems at the Belle Chasse tunnel. Systems include tunnel ventilation, drainage, lighting, fire/life safety, security, and communications as well as the overall power distribution and control systems supporting each. The project was ultimately cancelled due to pending Belle Chasse Bridge proposal.
11/18 – 02/19	Harvey Tunnel Rehabilitation Project, LADOTD, Harvey, LA: Lead Professional Electrical Engineer and electrical task manager for the preliminary design and production of construction documents (drawings, specifications, and calculations) for the installation of new and rehabilitated tunnel systems at the Harvey Tunnel. Systems include tunnel ventilation, drainage, lighting, fire/life safety, security, and communications as well as the overall power distribution and control systems supporting each.
09/18 – 04/19	Red Line Tunnel Ventilation Improvement Pilot Project, WAMATA, Washington, DC: Lead Professional Electrical Engineer for a pilot project aimed at providing a design basis/template for the implementation of an emergency tunnel ventilation system at the track segment between the Cleveland and Woodley Park Subway Stations that can be scaled for reproduction along the remaining segments between the 27 Red Line stations. The project includes partial replacement of the existing redundant unit substations at each station and all required modifications/additions to accommodate the proposed tunnel ventilation fan system including an updated SCADA system to fully automate the emergency tunnel ventilation System.
04/13 – 09/14	Brooklyn Battery Tunnel Rehabilitation and Flood Mitigation, TBTA, New York, NY: Lead Professional Electrical Engineer for the design and production of construction documents (drawings, specifications, and calculations) for the installation of new and rehabilitated tunnel systems at the Brooklyn Battery Tunnel to restore the tunnel post Superstorm Sandy with a focus on resiliency. Systems include tunnel ventilation, drainage, lighting, fire/life safety, security, and communications as well as the overall power distribution and control systems supporting each.
05/13 – 12/13	Port Authority Transit Corp. Subway Tunnel Ventilation Study, PATCO/DRPA, Philadelphia, PA & Lindenwold, NJ: Professional Electrical Engineer participating in a study to determine the base design of a new ventilation system. The project involved field visits, coordination with the mechanical group's layout for the tunnel ventilation fans and determining the type of electrical service and layout required to maintain the system
11/17 – 04/19	East Link Tunnels Project, Sound Transit, Seattle, WA: Lead Professional electrical engineer for the design and production of construction documents (drawings, specifications, and calculations) for the installation of new tunnel systems to support a new tunnel extension along the Sound Transit subway system from S. Bellevue to Overlake. Systems include tunnel ventilation, drainage, lighting, fire/life safety, security, and communications as well as the overall power distribution and control systems supporting each. Projects include the following tunnels:

Firm employed by Mott MacDonald				
Name	Keith Gaspar, PE, NCTI		Years of relevant experience with this employer	6
Title	Principal Project Manager – Tunnels		Years of relevant experience with other employer(s)	19
Degree(s) / Years / Specialization			BS / 1999 / Civil Engineering	
Active registration number / state / expiration date			#44509 / LA / 2024; National Certified Tunnel Inspector	
Year registered	2020	Discipline	Professional Engineer: Structural	
Contract role(s) / brief description of responsibilities			Mr. Gaspar has experience in the practice of civil and structural engineering for the design, inspection, and construction management of tunnels and underground structures for highways, transit systems, sanitary, and storm water facilities. He serves as Project Manager, Structural Engineer, and Tunnel Design Engineer for new construction, as well as the rehabilitation of existing facilities. Mr. Gaspar’s experience includes the condition inspection of highway, rail, and water/sewer tunnels, as well as the design of initial supports and final linings of tunnels and shafts. Mr. Gaspar’s role for this IDIQ is Structural Team Lead and Geotechnical Team Lead, National Certified Tunnel Inspector, Professional Engineer: Structural, and Senior Structural Technical Advisor.	
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).			
04/18 – Present	Harvey Tunnel Full Rehabilitation, LaDOTD, LA: Structural Lead responsible for the tunnel full rehabilitation project which includes structural concrete lining repair design, construction and expansion joint repairs, structural modifications to the tunnel structure within the ventilation buildings for reconfiguration of the tunnel ventilation system, specifications, construction opinion of probable cost, and schedule.			
03/20 – Present	Louisiana Department of Transportation and Development – Harvey Tunnel Lighting Replacement, Jefferson Parish: Structural Lead. Mott MacDonald performed professional design services for the LaDOTD to replace the tunnel lighting of the Harvey Tunnel, including a new emergency life safety lighting system, lighting control system and an upgraded tunnel lighting system in accordance with current codes and standards. Design plans include the full replacement of luminaires, raceways, wiring, approach portal light poles, electrical panelboards, an uninterruptible power supply (UPS) for emergency lighting and new fire life safety directional signage. The design also accommodated for structural repairs and ventilation upgrades associated with the new electrical equipment. Pre-design tasks included laser scanning of the existing facilities; non-destructive and destructive testing to evaluate the condition of the existing elements.			
11/19 – 04/20	Louisiana Department of Transportation and Development – State Tunnel Inspection Policies and Procedures Manual, Statewide: Structural Lead. Mott MacDonald developed the Tunnel Inspection Policies and Procedures for the LaDOTD to formally establish written standards for the inspection and record keeping of their tunnels, ensuring compliance with the Federal Highway Administration: Tunnel Operations, Maintenance, Inspection, and Evaluation Manual, (FHWA TOMIE). It defines the applicable inspection standards, frequencies, team personnel qualifications and roles, inventory and element			

	identification procedures, critical findings procedures, lists required equipment for tunnel inspection, and identifies access points and general procedures for tunnel inspection for tunnels in the state of Louisiana.
03/19 – 02/21	Tunnel Inspection and Repair/Rehabilitation, LADOTD, New Orleans, LA: This project involved repair/rehabilitation plan preparation for the Houma, Harvey, and Belle Chasse Tunnels. These tunnels were originally constructed in the late 1950's. Mott MacDonald performed a visual inspection of the structural, geotechnical, mechanical, and electrical components of the tunnels. Additionally, we will be responsible for non-destructive testing of the structural and geotechnical components, evaluating the defects during testing, as well as preparing plans and specifications for each tunnel repairs and rehabilitation.
01/19 – Present	Call-In Services for Geotechnical Tunneling Engineering, Port Authority of NY & NJ (PANYNJ): Task Leader for various leak investigations and repair projects as part of the geotechnical engineering services on-call contract. The structures include PATH Tunnels E & F between Exchange Place and World Trade Center (including Tunnels E3X/E4), E-Cave Utility Shaft at Exchange Place, Caissons 1 and 3, 9th Street Station, and Newport Station Equipment Room. Responsibilities included scheduling and performing field inspections to identify source and locations of leaks and structural defects, analyze the cause of leaks, and prepare leak repair plans, specifications, and construction cost estimate. Provided design support services during repair construction.
10/09	Harlem River Tunnel Utility Support Design, Consolidated Edison, Inc., Bronx and Manhattan, NY: Project Manager responsible for the structural design for steel support of utilities within the new 12 ft x 13 ft diameter, 670 ft long tunnel and shafts.
01/02	First Avenue Steam Tunnel, Consolidated Edison, Inc., Manhattan, NY: Structural Engineer for the design of tunnel and shaft linings, personnel walkway, and steam pipe support for a steam tunnel 12 ft OD, 4,200 ft in length and two 22 ft diameter, 110 ft deep shafts. The tunnel alignment passed 18 ft beneath Amtrak rail tunnels and other sensitive structures.
05/12	Howard County Water Main Replacement, Howard County Dept. of Public Works, Howard County, MD: As Structural Engineer, designed water transmission tunnel, 6 ft in diameter, 300 ft long, crossing under a major highway using microtunneling. Used a Microtunneling Boring Machine (MTBM) with a pressurized face as the selected method of construction, due to the relatively high-water table in the area. A pressurized face machine successfully stabilized the tunnel heading in soft saturated soils, preventing excessive ground loss and surface settlement.
04/19 – 04/21	2019 and 2021 Holland and Lincoln Tunnel Biennial FHWA Tunnel Element Inspections, Port Authority of NY & NJ (PANYNJ), NJ & NY: Project Manager for the routine inspection performed on all structural components of the Holland Tunnel, Lincoln Tunnel, 41st Street Tunnel, and other systems required for tunnel operation, including civil, mechanical, electrical/lighting, fire/life safety/security, signs, and protective coating elements in compliance with the latest NYSDOT/FHWA/NTIS requirements, including NYSDOT Technical Advisory 16-001 inspection of highway tunnels in the State of New York. Responsibilities included managing staff while scheduling inspections with facilities for each discipline, performing multidisciplinary inspections, and preparing Condition Survey Reports for the Port Authority and NYSDOT, in addition to as inspected load ratings for the tunnel roadways.

Firm employed by Mott MacDonald			
Name	Norris Harvey, PE		Years of relevant experience with this employer
Title	Principal Project Manager – FLS		10
Degree(s) / Years / Specialization	BS / 1994 / Mechanical Engineering		
Active registration number / state / expiration date	#0038849 / LA / 2024		
Year registered	2014	Discipline	Professional Engineer: Mechanical
Contract role(s) / brief description of responsibilities	<p>Mr. Harvey is the Mott MacDonald Practice Leader for Fire & Life Safety in North America. This practice is primarily devoted to fire & life safety systems which include tunnel ventilation, egress, fire protection, and fire detection in underground structures and tunnels, including road, transit, and rail. Additionally, he has experience with evacuation modeling for determining emergency egress requirements and has tunnel inspection and assessment experience. Mr. Harvey is the current chairman serving the Committee for NFPA 502, Standard for Road Tunnels, Bridges and Other Limited Access Highways. Mr. Harvey also sits on the PIARC working group dealing with alternative propulsion systems under the Technical Committee “Road Tunnel Operations” which is developing international guidance for tunnel owners and tunnel designers regarding the use of alternative fuels in road tunnels. Mr. Harvey’s role for this IDIQ is Mechanical Tunnel Inspector, Professional Engineer: Mechanical, and Senior Mechanical Technical Advisor.</p>		
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).		
05/18 – Present	Hampton Roads Bridge Tunnel, Hampton Roads Connector Partners (HRCP), Norfolk, VA: Lead Mechanical Engineer and Mechanical Engineer of Record for the design of Fire & Life Safety and mechanical systems in this 8,500 ft long twin bore, new tunnel. Responsible for the following systems: tunnel ventilation (using jet fans), tunnel egress and egress corridor ventilation, emissions monitoring, roadway deluge system, and standpipe. Project is a design-build delivery.		
10/19 – Present	Rehabilitation of the Harvey Tunnel, Louisiana Department of Transportation and Development (LaDOTD), Jefferson Parish, LA: Lead Mechanical Engineer and Mechanical Engineer of Record for the rehabilitation of Fire & Life Safety and mechanical systems in this 1,079 ft long tunnel. Responsible for the following systems: tunnel ventilation, tunnel egress, emissions monitoring, standpipe, building HVAC, and heating. Project is a design-bid-build delivery.		
04/16 – Present	Parallel Thimble Shoal Tunnel, Chesapeake Tunnel JV, VA Beach, VA: Lead Mechanical Engineer and Mechanical Engineer of Record for the design of Fire & Life Safety and mechanical systems in this 6,525 ft long new tunnel. Responsible for the following systems: tunnel ventilation (using jet fans), tunnel egress and egress corridor ventilation, emissions monitoring, roadway deluge system, standpipe, HVAC, and ventilation building fire protection. Also involved in tunnel drainage. Project is a design-build delivery.		

06/13 – 02/18	BB-28, Triborough Bridge and Tunnel Authority, New York, NY: Supervising Engineer who managed, reviewed, signed, and sealed the standpipe design and sump room ventilation design through the 100 percent submission. Also supported the construction administration with review of submittals and RFIs.
08/13 – 04/18	Lytle Tunnel Rehabilitation, Ohio Department of Transportation (ODOT), Cincinnati, OH: Supervising Engineer and Mechanical Engineer of Record that is managing the mechanical elements of the rehabilitation of the 900 ft long Lytle Tunnel. Project requirements include tunnel ventilation, standpipe and carbon monoxide detection, ventilation building HVAC, and fire protection. The project requires development of specifications, drawings, and supporting documents to the 100 percent level. Also responsible for signing and sealing the contract documents.
10/6 – 02/18	Rehabilitation of the Belle Chasse Tunnel, LaDOTD, Plaquemines Parish, LA: Lead Mechanical Engineer and Mechanical Engineer of Record for the design of Fire & Life Safety and mechanical systems in this 800 ft long tunnel. Responsible for the following systems: tunnel ventilation (using point extract and supply), tunnel egress, emissions monitoring, standpipe, building HVAC, and heating. Thirty percent design documents were prepared. Project was a design-bid-build delivery.
03/16 – Present	Purple Line Extension, Purple Line Transit Partners, Riverdale, MD: Lead Mechanical Engineer and Mechanical Engineer of Record for the design of Fire & Life Safety and mechanical systems in the Manchester Place Station, the adjacent Plymouth Tunnel (800 ft), Bethesda Station, the adjacent Bethesda Enclosed Trainway (650 ft in length), and the Bethesda South Station Entrance which connects the Purple Line with the WMATA Red Line. Responsible for the following systems: tunnel and station ventilation, tunnel egress, trackway deluge system, standpipe, station and trackway drainage, building HVAC, plumbing, and fire protection. Providing fire protection for existing conduit in existing structures, including a gas main crossing the trainway adjacent to Bethesda Station. Coordinating the design of these systems with the Authority having jurisdiction (Montgomery County Fire Marshal), Maryland Transportation Authority, Washington Metropolitan Area Transit Administration (WMATA), other design leads, including air rights development over the Bethesda Station, the Contractor – Purple Line Transit Constructors (PLTC), and Washington Gas. Project is a design-build delivery.
02/20 – 06/22	Hugh L. Carey Tunnel, Navillus Contracting, New York City, NY: Highway Tunnel Fire Protection Specialist providing consulting services to the Contractor installing a high pressure mist system at the Hugh L. Carey Tunnel on behalf of Triborough Bridge and Tunnel Authority. Consulting services include full scale testing review and observe installation testing, computational fluid dynamics (CFD) review, proposed installation review, and review of equipment installation impacts in the exhaust airduct. Project is currently in construction.

Firm employed by Mott MacDonald				
Name	Matthew Taylor, PE		Years of relevant experience with this employer	5
Title	Senior Project Engineer – Civil		Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization			BS / 2010 / Mechanical Engineering	
Active registration number / state / expiration date			PE #0043254 / LA / 2025	
Year registered	2019	Discipline	Professional Engineer: Civil	
Contract role(s) / brief description of responsibilities			Mr. Taylor provides engineering support for a range of projects including civil/site developments, gravity stormwater systems, and roadway construction. Mr. Taylor is experienced in the development of cost estimates, quantity calculations, drainage design, stormwater management plans, geometric design, erosion control, maintenance-of-traffic, preparation of specifications, and construction inspection. Mr. Taylor’s role for this IDIQ is Civil Tunnel Inspector, Professional Engineer: Civil, and Senior Civil Technical Advisor.	
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).			
06/20 – Present	Harvey Tunnel Rehabilitation Plan Preparation, LADOTD, Harvey, LA: Project Engineer responsible for the performing a variety of professional design services for the LADOTD to rehabilitate the Harvey Tunnel, including civil, electrical, mechanical, and structural. Design plans include repair of concrete defects, design of leak remediation solutions, upgrades to the tunnel ventilation system, roadway resurfacing, new fire and life safety systems, new HVAC, new drainage system, electrical repair and rehabilitation.			
02/19 – 05/20	Bourbon Street Rehabilitation (Canal Street to Dumaine Street), City of New Orleans, Department of Public Works, New Orleans, LA: Project Manager, providing Engineering, Construction Administration, and resident Inspection services for the repair of Bourbon Street surface and underground infrastructure from Canal Street to Dumaine Street as part of the Citywide Public Safety Improvement Program. Mott MacDonald coordinated and sequenced construction after engaging the City of New Orleans, Department of Public Works, The Sewerage and Water Board of New Orleans, residents, business owners, utilities, and contractors.			
09/19 – 04/21	Loyola Interchange, LADOTD, Kenner, LA: Project Engineer, providing roadway and utility plan reviews for the Design Build project that will widen a portion of I-10 between Loyola Drive and Williams Boulevard, elevated ramps to and from Loyola Drive, and improvements to Loyola Drive to enhance operational conditions and increase the capacity of this interchange accommodating future traffic demand in the area and ingress and egress for airline passenger traffic to the new Louis Armstrong New Orleans International Airport terminal.			
03/19 – 10/20	City of New Orleans - FEMA Street Repairs at Milneburg, New Orleans, LA: Project Engineer for professional engineering design and surveying services for FEMA-eligible street repairs. The project scopes of work include conducting topographic and boundary surveys, developing preliminary design plans, final plans and specifications, and bid documents for use in the reconstruction of damaged roadways, curbs, drainage, utilities, and driveways for approximately 18 linear miles of roadways. Mott MacDonald conducted detailed field assessments to identify locations and extents of damage that has occurred			

	as a result of Hurricane Katrina. Mott MacDonald was responsible for compiling and organizing the data to present to our client along with recommendations for repair and reconstruction in order to obtain FEMA funds. Additional responsibilities include engineering design for all civil aspects including pavement design, coordination with utility owners, opinion of probable cost and providing construction administration services.
09/19 – 09/20	Kingfish Yard Design, NOPB, New Orleans, LA: Project Manager for the development of construction plans for the proposed Kingfish storage yard. This project included the rehabilitation of existing track and the addition of four new storage tracks each approximately 2800 ft long. Mott MacDonald also assisted in grant submittal documentation.
05/19 – 11/19	France Street Yard, NOPB, New Orleans, LA: Project Manager for the development of a conceptual master plan for the expansion of France Street Yard. The project included the addition of 229 hopper cars.

Firm employed by Mott MacDonald				
Name	Jeffrey Long, PE, NCTI		Years of relevant experience with this employer	15
Title	Portfolio Manager		Years of relevant experience with other employer(s)	11
Degree(s) / Years / Specialization		BS / 1997 / Civil Engineering		
Active registration number / state / expiration date		#PE12663 / ME / 2025; #24GE05141900 / NJ / 2024; #PE076272 / PA / 2025; #PE.77162 / OH / 2025; #77283 / FL / 2025; #097704 / NY / 2025; #46210 / MA / 2024; #PE11100160 / IN / 2024; #018.0091944 / VT / 2024; #PEN.0026869 / CT / 2025; #11243 / NH / 2025; National Certified Tunnel Inspector		
Year registered	ME: 2011; NJ: 2014; PA: 2009; OH: 2012; FL: 2014; NY: 2017; MA: 2005; IN: 2011; VT: 2013; CT: 2009; NH: 2004	Discipline	Professional Engineer: Structural	
Contract role(s) / brief description of responsibilities		Mr. Long is a Principal Project Manager and Structural Engineer with experience primarily focused on transportation related structures, including bridge design, ratings, inspections, and construction services on numerous bridge and structural projects throughout New England. His experience includes multiple projects for Connecticut DOT, MassDOT - Highway Division, New Hampshire Department of Transportation (NH DOT), Vermont Agency of Transportation (VTrans), Maine Department of Transportation (MDOT), Massachusetts Bay Transportation Authority (MBTA), City of Boston Public Works Department (BPWD), and multiple other municipalities. Additional experience includes design of several retaining walls, parking garage rehabilitations, buildings, and other structures. His extensive experience has required him to interface with most engineering disciplines including highway, rail, civil/site, and MEP. Mr. Long's role for this IDIQ is Civil/Structural Inspection Team Leader, National Certified Tunnel Inspector, Professional Engineer: Structural, and Senior Structural Technical Advisor.		
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).			
04/15 – 04/20	Patriot Corridor Clearance Initiative, MassDOT - Planning Division, MA: Senior Structural Engineer for the inventory and evaluation of four bridges and two tunnels for this project. Tasks included evaluating four bridges in North Adams and preparing recommendations to improve the railroad clearance beneath each structure. Also served as structural lead for the inventory and inspection of the 4.75-mile long Hoosac Tunnel and Little Tunnel.			

04/12 – 09/17	Inspection of In-Service CA/T Structures Program, MassDOT - Highway Division, MA: Project Manager and Team Leader for this inspection contract. The contract includes NBIS Bridge Inspections and Tunnel Inspections that are part of Boston’s Central Artery. Assignments include Routine, Fracture Critical, and Special Member Bridge Inspections with reports that are completed within MassDOT’s 4D database. Tunnel inspection assignments include triennial all item inspections and annual overhead items, which comprises all structural items suspended for the tunnel’s ceiling including all ceiling panels and hangers.
12/08 – 12/11	MassDOT District 6 (formerly MTA) Bridge & Tunnel Inspection Program, MassDOT - Highway Division, MA: Project Manager and Team Leader for this inspection contract. Assignments included NBIS Routine, Fracture Critical, and Special Member Inspections for several bridges within District 6. Bridge Inspections included prestressed concrete beams, reinforced concrete, and steel box beam superstructures. All of the bridge inspection reports were completed utilizing MassDOT’s 4D database. Tunnel inspection assignments included an all item inspection of the Ted Williams Tunnel EB (I-90 EB), annual overhead items inspections of the Ted Williams Tunnel (I-90 WB), I-90 WB Connector Tunnel, I-90 EB Connector Tunnel, and the Tip O’Neal (I-93 NB) Tunnel in Boston. Tunnel overhead items inspections included all structural items suspended from the tunnel’s ceiling, including all sign structures, lights, ceiling panels and hangers.
04/13 –06/22	Main Street and Merchants Row Bridge Replacements, Middlebury, VT: Project Manager for the replacement of the Main Street and Merchants Row Bridges over Vermont Rail. Tasks included conceptual design for replacing the two existing bridges with a 350-ft. long tunnel structure that incorporates lowering the existing rail tracks three feet. Final design of the replacement structure is ongoing.
04/13 – 04/17	Downtown Crossing Vertical Transportation Improvements – Redundant Elevators, MBTA, Boston, MA: Senior Structural Engineer for the design work of an elevator pit in the basement of a historic building and adjacent subway tunnel. The project involves developing a solution to improve ADA access at the Washington St. Station located in the heavily congested Downtown Crossing (DTX) area of Boston. Washington Station provides passenger access to the Orange Line (OL) and Red Line (RL) subway tunnels. Existing elevators at the station only allow for street access to the O.L. However, ADA access from street level to the RL tunnel, which is beneath the OL tunnel at DTX, is only available at the next station in Park Street. Design includes a temporary truss in order to underpin a building column along with all structural components related to the pit construction.
04/16 – Present	NTIS Inspection of MHS Tunnel Structures, MassDOT - Highway Division, Boston, MA: Project Manager and Team Leader for this inspection contract. The contract includes NTIS Tunnel Inspections of Boston’s Mass Highway System. Assignments include Routine, Overhead, and Special Member Tunnel Inspections with reports that are completed within MassDOT’s 4D database. The inspection assignments include all item inspections, annual overhead items, which comprises all structural items suspended for the tunnel’s ceiling including all ceiling panels and hangers, and special member inspections of the lights. Assignments include inspections of the Ted Williams Tunnel EB & WB (I-90 EB & WB), I-90 EB & WB Connector Tunnels, Prudential Tunnel (I-90 EB & WB), and the Tip O’Neal (I-93 NB & SB) Tunnel in Boston.
09/08	Green Line Subway Tunnel, MassDOT – Transit Division, Boston, MA: Project Engineer for the inspection of portions of the Green Line subway tunnel.

Firm employed by Mott MacDonald				
Name	Kristi Latimer, NCTI		Years of relevant experience with this employer	6
Title	Principal Project Manager – Tunnels		Years of relevant experience with other employer(s)	22
Degree(s) / Years / Specialization			BS / 1993 / Civil Engineering; BA / 1993 / Mathematics	
Active registration number / state / expiration date			National Certified Tunnel Inspector	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			<p>Ms. Latimer has experience in the practice of civil, structural, and construction engineering for the design and construction management of tunnels and underground structures for highways, transit systems, water resources, storm, and sanitary facilities. Serves as structural engineer, tunnel design, construction engineer, and chief inspector for new construction as well as the rehabilitation and modernization of existing facilities. Her experience includes condition assessments, full-time tunnel construction inspections, full-time construction management for tunnel rehabilitation, logistical site inspection planning and coordination, environmental health and safety plan development, and condition assessment/facility planning/design report development.</p> <p>Ms. Latimer’s role for this IDIQ is Structural Inspector and National Certified Tunnel Inspector.</p>	
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).			
04/20	HARVEY Tunnel Condition Survey, Louisiana DOT, LA: Project Engineer/Inspector for cyclical condition assessment inspections of the tunnel system in New Orleans. Responsibilities included inspection and evaluation of the structural conditions of the concrete tunnel structure, recorded field notes, and assisted in development/preparations for the final report inclusive of condition ratings and repair recommendations.			
05/19 – Present	2019, 2021, and 2023 Biennial Holland and Lincoln Tunnel FHWA Tunnel Element Inspections, Port Authority of NY & NJ (PANYNJ), NJ & NY: Assistant Team Lead/Inspection Coordinator for the routine inspection performed on all structural components of the Lincoln Tunnel, 41st Street Tunnel, Holland Tunnel, and other systems required for tunnel operation, including civil, mechanical, electrical/lighting, fire/life safety/security, signs, and protective coating elements in compliance with the latest NYSDOT/FHWA/NTIS requirements, including NYSDOT Technical Advisory 16-001 inspection of highway tunnels in the State of New York. Responsibilities included scheduling inspections with facilities for each discipline, performing structural inspections, and preparing Condition Survey Reports for the Port Authority and NYSDOT.			
02/97 – 11/15	Lincoln (three tubes) and Holland (two tubes) Tunnels Condition Survey, Port Authority of NY & NJ (PANYNJ), NY: Project Engineer/Inspector for cyclical inspections of the tunnel system throughout New York and New Jersey. Responsibilities included inspection and evaluation of the structural condition of the concrete and cast-iron tunnel structures, recorded field notes, and prepared a final report inclusive of condition ratings and repair recommendations.			
11/15 – 11/17	Queens Midtown Tunnel, QM40/40S/18, Triborough Bridge and Tunnel Authority, New York City, NY: Chief Inspector/Tunnel Engineer for the rehabilitation of the Queens Midtown Tunnel and ventilation buildings. Performed full-time on-site field inspection for construction operations in the Manhattan/Queens Plaza and North and South Tunnels. Performed			

	structural condition assessments for both tunnels in the exhaust air duct, fresh air ducts, and roadway. Evaluated and commented on submittals. Developed daily reports, verified all structural work, and quantities were performed in accordance with contract documents, specifications, and design criteria. Verified and recorded material quantities in accordance with the contract documents and total quantities in support of monthly progress payments. Provided coordination/scheduling with field personnel, construction personnel, and the Authority.
05/07 – 02/08	Queens Midtown Tunnel, Condition Inspection Services, Triborough Bridge and Tunnel Authority (TBTA), New York City, NY: Inspector responsible for performing the condition inspection of tunnels and ventilation buildings, including tunnel roadway slabs, shafts, underpasses, suspended roadway ceiling panels, fresh air and exhaust ducts, and Manhattan and Queens ventilation buildings, plazas, and sumps.
11/19 – 1/20	Metro North Hudson Line Rail Tunnels, NY: Project Engineer/Inspector for cyclical inspections of several of the Hudson Line concrete lined tunnel. Responsibilities included inspection and evaluation of the structural condition, recorded field notes, and assisted in report preparation.
02/95 – 12/15	PATH Tunnels A, B, C, D, E, F, G, H, J, K, L, Caissons 1, 2, 3, and Miscellaneous Structures, Condition Survey, PANYNJ, Jersey City, NJ and New York, NY: Project Manager/Inspector for the inspection of cast iron tunnels and miscellaneous structures. Responsibilities included inspection and evaluation of the structural condition of the concrete and cast-iron tunnel structures and underground building structures, recorded field notes, and prepared a final report inclusive of condition ratings and repair recommendations.
06/14 – 02/15	Condition and Inspection Assessment of the Waller Creek Tunnel, Austin, TX: Assistant Project Manager/Senior Inspector for the in-depth/hands-on inspections of the main tunnel, 4th Street Shaft, 8th Street Shaft, and inlet and outlet structures for the City of Austin's flood remediation tunnel. Provided inspection and repair recommendations for each structure. Provided on-site inspection of repairs and verified all work was performed in accordance with the approved repair plans and the contract documents. Reviewed and commented on contractor's safety plan submittal, formal safety plan amendment, SWP for lining repairs, and other contractors' safety plans. Recorded field notes and prepared reports inclusive of inspection findings and recommendations as well as repair progress.
03/03 – 07/10	Water Tunnel No. 3, Contract TCM-51, Stage 2, Construction Management Services for Water Tunnel Construction, NYCDEP, New York City, NY: Field Inspector/Engineer for the dewatering procedures and emergency repairs at Shaft 13B for the completion of construction of the Manhattan portion of City Water Tunnel No. 3. Responsibilities included development of the dewatering sequence, coordination of video inspection, dewatering data collection, recorded field notes, prepared the final report, and the development and preparation of a Health and Safety Program between the construction management team, contractor, and the NYCDEP.

Firm employed by Mott MacDonald				
Name	Christopher Lau, PE, NCTI		Years of relevant experience with this employer	9
Title	Senior Project Engineer – Electrical		Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization			MS / 2014 / Electrical Engineering; BS / 2012 / Electrical Engineering	
Active registration number / state / expiration date			#44605 / LA / 2024; National Certified Tunnel Inspector	
Year registered	2020	Discipline	Professional Engineer: Electrical	
Contract role(s) / brief description of responsibilities			Mr. Lau is a senior project engineer and has undertaken the design lead of several tunnel and other transportation related projects. He specializes in power distribution and tunnel lighting providing both numeric and rendered solutions as well as 3D photometric modelling. His lighting designs are installed in multiple roadway tunnels in operation today. His responsibilities include emergency power systems, LV and MV power distribution, tunnel and site lighting, code review, and feasibility studies. Mr. Lau is a Nationally Certified Tunnel Inspector (NCTI) and has inspected numerous tunnels since his certification in 2016. Mr. Lau’s role for this IDIQ is Lead Inspection Team Leader, Electrical Inspection Team Leader, National Certified Tunnel Inspector, and Professional Engineer: Electrical.	
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).			
09/16 – 03/19	Parallel Thimble Shoal Tunnel, Chesapeake Bay Bridge and Tunnel District (CBBT), Virginia Beach, VA: Electrical Engineer involved with medium voltage substation design, low voltage power distribution, temporary electrical construction, and tunnel, site, and pump station lighting layout. Provide electrical 3D Revit support acting as Electrical AutoCAD Lead to ensure that the project follows all AutoCAD standards.			
08/20 – Present	Full Rehab of the Harvey Canal Tunnel, Louisiana Department of Transportation and Development (LaDOTD), Harvey, LA: Engineer of Record overseeing the rehabilitation of the tunnel power and emergency distribution systems. The project includes a new natural gas generator for emergency backup, upgraded ventilation fans and drainage pumps, and fire alarm system.			
03/19 – 11/19	Tunnel Lighting Rehab of the Harvey Canal Tunnel, Louisiana Department of Transportation and Development (LaDOTD), Harvey, LA: Lighting design lead for the rehabilitation of two 1080-foot roadway tunnels. Performed numeric and rendered lighting analysis and modeling for the tunnel approach and roadways. Designed both the normal and emergency lighting distribution systems with harmonic canceling transformers. Provided a powerline lighting control system using state-of-the-art technologies.			
07/15 – 04/16	Fire Alarm System, Route 29 Tunnel, New Jersey Department of Transportation (NJDOT), Trenton, NJ: Electrical Inspector for the fire alarm system installed at the tunnel. Prepared an inspection report consisting of inspection findings and recommendations for the fire alarm system in accordance with NFPA standards. Inspection led to the design of the fire alarm system with multiple notification and detection components, including wiring diagrams and control panel layouts.			
04/29 – 12/19 06/21 – 12/21	Holland and Lincoln Tunnel Baseline FHWA Tunnel Element Inspections, Port Authority of NY & NJ (PANYNJ), NJ & NY: Team Lead for the baseline inspection performed on all electrical components of the Lincoln Tunnel, 41st Street			

07/23 – 12/23	Tunnel, and other systems required for tunnel operation, including electrical/lighting, traffic control, fire life safety, security, and signage in compliance with the latest NYSDOT/FHWA/NTIS requirements, including NYSDOT Technical Advisory 16-001 inspection of highway tunnels in the State of New York.
09/16 – 09/18	Inspection of the Lytle Road Tunnel, Ohio Department of Transportation (ODOT), Cincinnati, OH: Team Lead for the inspection performed on all electrical systems of three (3) 800-foot tunnels. Systems included tunnel power distribution, emergency system, fire alarm, CCTV, traffic control and signage. Final report and recommendations in accordance with FHWA/SNTI requirements.
06/15 – 11/16	Downtown Bellevue to Spring District Rail Stations, Central Puget Sound Regional Transit Authority, Seattle, WA: Performed design services for rail tunnel lighting and electrical services for the ventilation buildings. Other duties included voltage drop calculations, conduit fill, grounding grid layouts, lightning protection, overcurrent protection, and panel board schedules.
01/15 – 06/15 02/23 – 06/23	Tunnel Inspection of the Harvey Canal Tunnel, Houma Tunnel, and Belle Chasse Tunnel, Louisiana Department of Transportation and Development (LaDOTD), Various Counties, LA: Electrical Inspector for inspection of all electrical components, including evaluation of switchboards, ventilation fan and drainage pump motors, primary and emergency power backup distribution, fire alarm system, and tunnel lighting. Prepared an inspection report consisting of inspection findings, repair recommendations, and code compliance review with NFPA 502, 72, 70E, and NEC 70 guidelines and standards.
09/14 – 05/15	Hugh L. Carey/Brooklyn Battery Tunnel Rehabilitation and Flood Mitigation (BB-28), Triborough Bridge and Tunnel Authority (TBTA), New York, NY: Provided design support of raceways for electrical and communication equipment. Provided support for cable and conduit sizing with voltage drop calculations that ensured design specifications were met. Performed design services for lighting control system options, including power line control throughout the tunnel.
06/14 – 01/15	Controls Systems and Control Room Renovation at Queens Midtown Tunnel (QMT), Triborough Bridge and Tunnel Authority (TBTA), New York, NY: Performed instrumentation and controls (I&C) design services for decision documents leading up to the control room upgrade with state-of-the-art controls and features. Duties included reports and investigations, O&M SCADA system design services, and plan drawings, including conduits and raceways, installation of an uninterrupted power supply (UPS) system, network architecture and connectivity diagrams, control schematics, wiring diagrams and layouts.
04/14 – 09/14	Lytle Tunnel Rehabilitation, Ohio Department of Transportation (ODOT), Cincinnati, OH: Performed design services for the rehabilitation of the Lytle Road Tunnel, including tunnel lighting design and distribution, low voltage calculations, and raceway design.

Firm employed by Mott MacDonald				
Name	Adrian Pasca, NCTI		Years of relevant experience with this employer	11
Title	Principal Project Manager		Years of relevant experience with other employer(s)	9
Degree(s) / Years / Specialization			MSc / 2017 / Electrical Power Systems; BSc / 2011 / Electrical Engineering	
Active registration number / state / expiration date			National Certified Tunnel Inspector	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Mr. Pasca is a specialist in electrical, instrumentation, controls, automation (EICA) power systems, providing innovative problem-solving approaches to intricate engineering problems to develop multiple solutions, and communicate those solutions clearly. He leads a team of electrical engineers for projects involving tunnels, substations, power distribution, rail power systems, including overall station design, and water and wastewater infrastructure. His experience encompasses high, medium, and low voltage electrical design for projects from the preliminary/concept/planning stages through to testing and commissioning. In addition, Mr. Pasca has comprehensive transmission and distribution project experience up to 400 kV ranging from detailed and preliminary high and medium voltage substation design and high voltage underground cable and overhead lines to medium voltage wind farm power distribution design. Mr. Pasca's role for this IDIQ is Electrical Tunnel Inspector and National Certified Tunnel Inspector.	
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).			
04/18 – 05/2022	Harvey Tunnel Full Rehabilitation, LaDOTD, LA: Electrical Lead responsible for the tunnel full rehabilitation project which includes power distribution & SWGR design, lighting, SCADA, CCTV, specifications, construction opinion of probable cost, and schedule.			
07/18 – 05/2023	Hampton Roads Bridge Tunnel, Hampton Roads Construction Partnership, VA: Electrical Designer and Project Coordinator for two new 6,000’ long tunnels involving MV and LV distribution systems, MV back-up generators, specialist tunnel lighting, and power systems for tunnel ventilation buildings. Responsible for designing the two 34.5/13.2 kV Dominion Virginia Power utility substations, two 13.2 kV VDOT distribution substations and project wide 13.2kV and 480V power system.			
08/18 – 10/20	Lytle Tunnel Federal Highway Administration Inspections, Ohio Department of Transportation, OH: Coordinated and performed inspections of the Lytle Tunnel EICA systems in line with FHWA and NTIS requirements. Reported critical defects to ODOT subsequent to inspections and produced findings report in line with FHWA requirements.			
11/18 – 06/20	Harvey Tunnel Lighting Replacement, Louisiana Department of Transportation, LA: Electrical Lead responsible for the design and successful delivery of the tunnel lighting replacement project which included AGI32 lighting analysis and design, lighting control design, power distribution design, specifications, construction opinion of probable cost, and schedule.			
05/17 – 06/20	Parallel Thimble Shoal Tunnel, Chesapeake Bay Bridge and Tunnel District, Virginia Beach, VA: Detailed Design Coordinator for two 7-level ventilation buildings on Portal Islands #1 and #2, including a 34.5 to 13.8kV supply substation			

	<p>which supports a 1-mile long tunnel. The distribution system was designed with a high level of resiliency, included dual supplies, double ended distribution substations, UPS systems, and diesel emergency generators. Electrical Designer for the grounding grid and lightning protection design elements. Duties included preparation of design drawings, calculations, coordination documents, and specifications.</p>
07/17 – 03/19	<p>Lehigh Tunnel Refurbishment, Pennsylvania Turnpike Commission, PA: Responsible for project coordination of specialized tunnel lighting and controls, designed to RP-22, electrical, closed-circuit television (CCTV), and fiber optic system design and package delivery. Attended and managed client meetings. Prepared technical and contractual specifications as well as construction permit application to the Labor and Industry department.</p>
04/21 – 11/21	<p>Lincoln Tunnel Federal Highway Administration Inspections, Port Authority of New York New Jersey, NY/NJ: EICA discipline Project Manager, Coordinator, Team Lead and Inspector. Supported bid efforts, maintained budgets, daily and weekly progress reports, schedule and quality assurance of deliverables, stakeholder coordination and review meetings. Managed operations ensured staff obtained the necessary security and tunnel facility clearances and performed physical inspections of the Lincoln Tunnel EICA systems in line with FHWA and NTIS requirements. Reported critical defects to PANYNJ subsequent to inspections and produced findings report in line with FHWA and client requirements. Managing and supervising project team professionals and admin staff.</p>
02/21 – 08/21	<p>Belle Chasse / Harvey / Houma Tunnels Federal Highway Administration Inspections, Louisiana Department of Transport & Development, LA: EICA discipline project manager, and Coordinator. Maintained budgets, schedule and quality assurance of deliverables as well as coordinated EICA tunnel inspection team travel logistics. Performed general oversight and inspection report QA/QC duties. Managing and supervising project team professionals and admin staff.</p>
04/21 – 11/21	<p>Holland Tunnel Federal Highway Administration Inspections, Port Authority of New York New Jersey, NY/NJ: EICA discipline Project Manager, Coordinator, Team Lead and Inspector. Supported bid efforts, maintained budgets, daily and weekly progress reports, schedule and quality assurance of deliverables, stakeholder coordination and review meetings. Managed operations ensured staff obtained the necessary security and tunnel facility clearances and performed physical inspections of the Holland Tunnel EICA systems in line with FHWA and NTIS requirements. Reported critical defects to PANYNJ subsequent to inspections and produced findings report in line with FHWA and client requirements. Managing and supervising project team professionals and admin staff.</p>

Firm employed by Mott MacDonald				
Name	Lionel Lutley, PE, PMP		Years of relevant experience with this employer	22
Title	Principal – Electrical		Years of relevant experience with other employer(s)	16
Degree(s) / Years / Specialization			BEng / 1995 / Electrical, Electronics, IT Engineering	
Active registration number / state / expiration date			#PE.0040498 / LA / 2024	
Year registered	2016	Discipline	Professional Engineer: Electrical	
Contract role(s) / brief description of responsibilities			Mr. Lutley specializes in major rail and road infrastructure projects with experience in all aspects of electrical underground road tunnel, railway, subway and light rail electrical design, inspection, and project management. Systems include power distribution, electrical services, road tunnel lighting, uninterruptable power supply (UPS), medium voltage distribution system, electrical protection systems, traction, Supervisory Control and Data Acquisition (SCADA) systems, cable coordination, grounding, standby generation, power systems studies and EMC management within railway, road tunnel and wastewater treatment infrastructure. Mr. Lutley’s project experience covers the whole project life cycle from feasibility for Public Inquiry to detailed design, construction, commissioning, and project close-out. His duties include managing small teams of 10-15 senior engineers, to prepare project deliverables including writing specifications, reports, preparing drawings, managing scope schedule, cost, estimation and whole life cost budgeting. Mr. Lutley is an active member of the IES Roadway Lighting Sub-Committee for ANSI/IES RP-8, design of Road Tunnel Lighting. Mr. Lutley’s role for this IDIQ is Electrical Tunnel Inspector, National Certified Tunnel Inspector, Professional Engineer: Electrical, and Senior Electrical Technical Advisor.	
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).			
06/17 – 06/18	Belle Chasse Tunnel Rehabilitation, Louisiana Department of Transportation and Development (LaDOTD), Various Counties, LA: Lead Electrical Engineer responsible for electrical power distribution and tunnel lighting design. Design elements include low voltage and medium voltage distribution system, closed-circuit television (CCTV), SCADA, tunnel lighting, uninterrupted power supply (UPS), standby generator, drainage pumps, electrical cable routes, and cable support systems.			
06/15	Tunnel Inspection of the Harvey Canal Tunnel, Houma Tunnel, and Belle Chasse Tunnel, Louisiana Department of Transportation and Development (LaDOTD), Various Counties, LA: Lead Electrical Engineer responsible for providing electrical power distribution and tunnel lighting inspection during day time closures of the existing Belle Chasse, Harvey, and Houma tunnels. Tunnel elements inspected included low voltage and medium voltage distribution system, closed-circuit television (CCTV), SCADA, tunnel lighting, uninterrupted power supply (UPS), standby generator, ventilation motor drainage pumps, electrical cable routes, and cable support systems. Additional responsibilities included post-inspection data processing, power quality assessment, report preparation, and cost estimating.			

06/16 – Present	Purple Line Light Rail, Maryland Transit Administration, Bethesda, MD: Design-Build Contract Lead and Lead Electrical Engineer responsible for electrical design of two subsurface stations and rail tunnels. Designs include low voltage and medium voltage power distribution, standby generators, life safety ventilation fans, rail tunnel lighting, emergency egress lighting, and power supplies to communications equipment. Other duties include liaison with PEPCo power utilities to secure redundant power supplies. Project deliverables include 100% design drawings and specifications.
06/13 – 06/15	Sound Transit East Link Extension, Sound Transit, Seattle, WA: Lead Electrical Engineer responsible for electrical design of subsurface and surface stations and tunnel. Designs include electrical supplies to life safety ventilation fans, rail tunnel lighting, low and medium voltage power distribution, egress lighting, and power supplies to communications equipment. Other duties include liaison with electrical utilities to secure redundant power supplies and preparation of 100% design drawings and specifications.
06/19 – Present	I-64 Hampton Roads Bridge-Tunnel Expansion, Virginia Department of Transportation (VDOT), Hampton and Norfolk, VA: Lead Electrical Engineer responsible for project management and electrical design for electrical power distribution and tunnel services design. Duties include 155kV substation design for permanent tunnel loads, power distribution, tunnel lighting design and lighting controls, design of secure power supplies uninterrupted power supply (UPS) and generators, electrical cable routes, and cable support systems. Managing a 15-person design team and performing systems coordination coordinating tasks with sub consultants. Contract management tasks include managing scope, schedule and \$5million design budget. The design-build project entailed design and design services during construction for the \$3.3B expansion of a 10-mile corridor of I-64 across the James River. Mott MacDonald, in Joint Venture, served as the Hampton Roads Connector Partners lead designer for 10 mile I-64 Corridor Improvements, increasing capacity to 4 lanes in each travel direction. Mott MacDonald was specifically responsible for design and construction phase services for the twin 1.4-mile long subaqueous bored tunnels, interior structures, Electrical, ICA, mechanical, fire life safety, and SCADA/ITS, buildings, and utility relocation.
06/18 – 06/19	I-93 Central Artery Road Tunnel Lighting Refurbishment, Massachusetts Department of Transportation (MassDOT), Boston, MA: Lead Electrical Engineer responsible for electrical power distribution and tunnel lighting design. Design elements to 25% stage. Duties include tunnel lighting design, lighting controls, uninterrupted power supply (UPS), electrical cable routes, and cable support systems.
06/13	Lytle Road Tunnel Lighting and Electrical Systems, Ohio Department of Transportation (ODOT), Cincinnati, OH: Lead Electrical Engineer responsible for detailed design of tunnel lighting and electrical systems. Duties included preparation of 100% construction plans, specifications, and costs for low voltage distribution, motor control centers, LED tunnel lighting, medium voltage distribution, transformers, and uninterrupted power supply (UPS) and grounding systems. Other duties included systems coordination for SCADA and traffic management systems, and preparing SKM power systems study for arc flash, short circuit, and breaker coordination study.

Firm employed by Mott MacDonald				
Name	Ryan Lange, PE		Years of relevant experience with this employer	9
Title	Principal Engineer – Electrical		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			BS / 2007 / Electrical Engineer	
Active registration number / state / expiration date			#100632-1 / NY / 2024; #88099 / FL / 2025; #59387 / MD / 2024; #0402065331 / VA / 2024; # PE40000775 / DC / 2024	
Year registered	NY: 2018; FL: 2019; MD: 2020; VA: 2020; DC: 2020	Discipline	Professional Engineer: Electrical Engineer	
Contract role(s) / brief description of responsibilities			Mr. Lange provides electrical engineering experience as a design lead for multiple power and communication distribution projects as well as engineering support for transportation projects, including rail tunnel and station lighting and power distribution, road tunnel lighting and power distribution, grounding and lightning protection, and fire alarm systems. He has been responsible for leading multiple teams to deliver quality design products while working within aggressive schedule constraints and high client expectations. Mr. Lange has a proven ability to interface and build ongoing relationships with clients and internal team members. Mr. Lange’s role for this IDIQ is Electrical Tunnel Inspector and Professional Engineer: Electrical.	
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).			
02/20 – Present	Harvey Tunnel Full Rehabilitation, Louisiana Department of Transportation and Development (LaDOTD), Various Counties, LA: Electrical Engineer involved in rehabilitation design of tunnel electrical distribution system. Responsible for low voltage distribution, lighting design of ancillary spaces through simulation and calculation in AGI-32 and delivery of a final design package. Project involves a complete Structural, Civil, & MEPF rehabilitation of the tunnel and approach systems including normal and emergency power distribution.			
02/19 – Present	Harvey Tunnel Lighting Rehabilitation, Louisiana Department of Transportation and Development (LaDOTD), Various Counties, LA: Electrical Engineer involved in tunnel lighting design. Responsible for optioneering preliminary lighting design concepts through simulation and calculation in AGi-32 and delivering a 30% design submission. Provided design and drafting support for intermediate and final design. Currently the primary engineer providing construction support (submittal/RFI review). Project involves complete rehabilitation of the tunnel lighting and approach lighting systems including normal and emergency power distribution.			
05/17	Belle Chasse Tunnel Rehabilitation, Louisiana Department of Transportation and Development (LaDOTD), Various Counties, LA: Electrical Engineer involved in electrical power distribution and tunnel lighting design. Responsible for lighting design calculations and power distribution and lighting plans. Performed site investigations to verify existing tunnel and facility conditions and determine design intent. Design elements include low voltage and medium voltage distribution			

	system, closed-circuit television (CCTV), SCADA, tunnel lighting, uninterrupted power supply (UPS), standby generator, drainage pumps, electrical cable routes, and cable support systems.
04/14 – 08/19	Rehabilitation of the Hugh L. Carey (formerly Brooklyn Battery) Tunnel, Triborough Bridge and Tunnel Authority (TBTA), New York, NY: Responsible for coordinating, preparing, and delivering submittal and request for information (RFI) responses. Assisting with drawing management and accuracy assurance for the tunnel rehabilitation. Duties include undertaking an assessment of equipment damaged during SuperStorm Sandy, providing assistance with tunnel lighting design in accordance with RP-22-11, inspecting the existing system, developing a construction sequencing plan, preparing 100% design drawings, and assisting with the preparation of FEMA flood damage assessments claims.
04/14 – 03/18	Lytle Tunnel Rehabilitation and Modernization, Ohio Department of Transportation (ODOT), Cincinnati, OH: Responsible for coordinating, preparing, and delivering submittal and request for information (RFI) responses. Assisting with tunnel lighting design, including grounding network and lighting configuration for equipment rooms. Responsible for compiling material quantities for costing purposes. Duties include assisting with the preparation of a performance-based specification for the rehabilitation of low voltage distribution, motor control centers (MCCs), tunnel lighting, medium voltage distribution, transformers, and standby diesel generators and grounding systems.

Firm employed by Mott MacDonald				
Name	Daniel Preziosi		Years of relevant experience with this employer	5
Title	Senior Project Manager – Electrical		Years of relevant experience with other employer(s)	22
Degree(s) / Years / Specialization			BS / 1996 / Electrical Engineer	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			<p>Mr. Preziosi has extensive experience and expertise with electrical, information technology (IT), automation and control system projects. His experience includes detailed design drawings and specifications, programming, integration, commissioning, troubleshooting, quality assurance, validation, and documentation of control systems. He currently serves as an Instrumentation, Controls, and Automation (ICA) Team Leader. Mr. Preziosi’s controls experience ranges from simple electro-mechanical control systems to complex, networked, virtualized, state-of-the-art Programmable Logic Controller (PLC) and SCADA systems. His technical design and integration skills include SCADA system HMI/OIT programming, control panel designs, networking, database design, historians, reporting, virtualization, and cybersecurity. Mr. Preziosi’s role for this IDIQ is Electrical (Controls) Tunnel Inspector, Professional Engineer: Electrical (Controls), and Senior Electrical Technical Advisor (Controls).</p>	
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).			
10/19 – 10/20	Green Line Transformation, Central Tunnel Track, Power, and Signal Replacement, Massachusetts Bay Transportation Authority (MBTA), Boston, MA: Non-Signal Communications Engineer evaluating the existing communications networks throughout the Central Tunnel and designing resiliency into existing systems. Responsibilities included coordination with the MBTA Communications Department to identify station networks on the existing communications backbone cable that can be tied over to a new secondary cable system to provide resiliency throughout the system.			
02/20	Lytle Tunnel Inspection, Ohio Department of Transportation (ODOT), Cincinnati, OH: Designed and implemented cloud-based software application to allow tunnel inspectors to use smart phones and tablets to record live inspection data while in the field. Data was uploaded to a central repository during multiple collection sessions and compiled into one automated final inspection report upon return.			
06/19 – 11/20	I-93 Mainline Tunnel Lighting Restoration, MassDOT, Boston, MA: Lighting Control Technical Lead for the PS&E design package to demolish the existing tunnel lighting, provide new efficient lighting controls to integrate with existing control hardware for an improved tunnel design, and install new lighting based on the calculations in the Mainline NB and SB Tunnels of I93 (O’Neil tunnel), including sections of the on-ramps and off-ramps.			
05/19 – Present	I-64 Hampton Roads Bridge –Tunnel Expansion Project, Virginia Department of Transportation, Norfolk, VA: Responsible for the tunnel systems designs associated with the new tunnel that will accommodate four lanes of traffic for a			

	total of eight lanes of capacity and will be constructed as a bored-tunnel. The tunnel systems include SCADA ITS (Intelligent Transportation Systems), SCADA EPCS (Electrical Power Control System), CCTV system, Emergency Call Box system, mass notifications system, District 2-Way Radio system, and a fire alarm system. The technical requirements also include integrating all new systems with the existing tunnel systems.
10/18 – Present	Harvey Tunnel Rehabilitation Project, Louisiana Department of Transportation and Development (LaDOTD), New Orleans, LA: Discipline lead for ICA, responsible for design to upgrade and add required tunnel systems to meet current NFPA 502 requirements. These systems include controls and instrumentation for drainage, power monitoring, security/CCTV, tunnel ventilation, fire detection and annunciation, cellular boosters and overall SCADA system.
05/18 - Present	Parallel Thimble Shoal Tunnel, Chesapeake Bay Bridge and Tunnel District (CBBT), Virginia Beach, VA: Member of the design engineering team for the design-build project for the construction of a new 6,000 ft. long bored tunnel in the Chesapeake Bay. Design includes multiple control and communications systems, including fiber optic data networking, fire and life safety systems, fire alarming and notification, fire protection systems, SCADA control systems for Intelligent Transportation Systems (ITS), mass notification systems, VoIP communications, access control, closed-circuit television (CCTV), drainage systems, electrical power and control systems, and overall SCADA integration of these systems.

Firm employed by Mott MacDonald				
Name	Christopher Simon, PE		Years of relevant experience with this employer	2
Title	Senior Project Engineer – Mechanical		Years of relevant experience with other employer(s)	16
Degree(s) / Years / Specialization			MS / 2005 / Mechanical Engineering; BE / 2004 / Mechanical Engineering	
Active registration number / state / expiration date			#087173-01 / NY / 2023; #062071104 / IL / 2025; #133169 / TX / 2023; #86786 / FL / 2025	
Year registered	NY: 2009; IL: 2019; TX: 2019; FL: 2019	Discipline	Professional Engineer: Mechanical	
Contract role(s) / brief description of responsibilities			Mr. Simon is a senior mechanical engineering professional with experience in the design and construction of building HVAC, tunnel ventilation, plumbing and fire protection systems in commercial, educational, arts and culture, food service buildings, and transportation buildings including rail and airports. His extensive international experience includes leading the mechanical design on multiple successful projects. Mr. Simon also has experience with Forensics Engineering where he diagnoses MEP system failures and the remedial design of corresponding repairs. He has managed the investigation and litigation support projects involving damage to MEP systems from accidents, catastrophes, construction defects, and other deficient conditions. Mr. Simon’s role for this IDIQ is Mechanical Tunnel Inspector and Professional Engineer: Mechanical.	
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).			
03/21 – Current	Harvey Tunnel Rehabilitation, LADOTD, Harvey, LA: Lead Mechanical Engineer for design and construction support services for the rehabilitation of the approximately 1,000 foot long Harvey Tunnel including the ventilation and electrical buildings at either end of the tunnel. Scope includes design of tunnel ventilation, HVAC, and fire protection systems.			
04/22 - Current	Purple Line Rail Project, Maryland Transit Authority (MTA)/Washington Metropolitan Area Transit Authority (WMATA), Various Locations, MD: Lead Mechanical Engineer for design services during construction for two new light rail stations as part of Maryland Transportation Administration’s new Purple Line. Mechanical services within the stations include station HVAC systems and tunnel ventilation as well as fire protection and plumbing and drainage systems.			
07/22 - Current	20-FQ19172-ENGA-001 WO6 Fan Shaft Structural SOGR, WMATA, Washington, DC and Montgomery CO, MD: Project Manager and lead mechanical for the survey of seven fan shafts with WMATA’s metro rail system and completion of 30% bridging documents for the state of good repair work to be completed. Overall scope for the shafts included mechanical, electrical, structural and architectural state of good repair work and upgrades. Additional services included analysis of existing fans for tolerance to updates to egress stairs within fan shafts.			
2006 – 2011	Second Avenue Subway Project, MTA NYCT, New York, NY: Project Engineer for the tunnel ventilation of the new subway line in the City of New York. Assisted on the design of the tunnel ventilation systems and performed, prepared and analyzed the final equipment selection on multiple stations.			

2016 – 2018	Enhanced Station Initiative, MTA NYCT, New York, NY: Lead Mechanical Engineer including leading both the HVAC and the plumbing design teams for each of more than 30 New York City subway stations. Coordinated mechanical and plumbing requirements with design team and client on design and retrofit requirements, developed project wide design criteria manual and individual scope of work narrative for each station. Led the mechanical and plumbing team through development of 30% design documents and acted as sole point of contact to the client and design build contractor/designer teams.
2014 – 2017	Fulton Street Transit Center, MTA NYCT, New York, NY: Lead Mechanical Engineer during construction for the MTA NYCT transportation hub. Coordinated mechanical installation with design requirements, produced revised drawings to accommodate client changes, oversaw start-up and testing of smoke management system. Oversaw production of detailed database of rental space MEP connections. Provided review of tenant fit out drawings for compliance with base building infrastructure for both the Transit Center building and the attached Corbin Building.

Firm employed by Mott MacDonald				
Name	Sukru Birkok, PE, CEM, LEED AP BD+C, NCTI		Years of relevant experience with this employer	10
Title	Principal Engineer – Mechanical		Years of relevant experience with other employer(s)	16
Degree(s) / Years / Specialization			BS / 2011 / Mechanical Engineering; BS / 1991 / Architecture	
Active registration number / state / expiration date			#49542 / MA / 2024; #097590-1 / NY / 2025; National Certified Tunnel Inspector	
Year registered	MA: 2011; NY: 2017	Discipline	Professional Engineer: Mechanical	
Contract role(s) / brief description of responsibilities			Mr. Birkok is a Senior Mechanical Engineer with extensive experience in the design of HVAC, plumbing, fire protection systems, LEED® certification, and construction and project management. During his career, he has managed, designed, and supervised HVAC, plumbing, and fire protection projects for governmental, institutional, commercial, and healthcare projects. He has a strong technical background in building mechanical and fire protection design, energy optimization, and modeling. Mr. Birkok also has broad experience in design of LEED® certified and energy efficient systems used in buildings. Mr. Birkok’s role for this IDIQ is Mechanical Inspection Team Leader, Mechanical Tunnel Inspector, National Certified Tunnel Inspector, and Professional Engineer: Mechanical.	
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).			
04/21 – 11/21; 04/19 – 11/19; 07/23 – 08/23	Element Level Inspection of Lincoln and Holland Tunnels, The Port Authority of NY&NJ: Mechanical Lead of the project. Project consists of National Tunnel Inspection Standards (NTIS) level inspection of two tunnels, Lincoln and Holland, with five 1.5-mile long tubes. Inspection included following components: <ul style="list-style-type: none"> Local and central controls with control center located in NJ side, emergency and non-emergency ventilation systems including supply and exhaust fans, airways, and related components such as grilles and automatic dampers, Fire Protection Systems including Fire Standpipes, Extinguishers, Fire Pumps, and related piping. Drainage systems including pumps, piping, and heat tracing. Inspection findings reported in four different categories that were critical (need immediate attention), priority, safety, and routine. Vibration analysis of the fans and pumps to determine any deficiency. (Summer 2019) 			
10/18 – Present	Lytle Tunnel Inspection, Ohio Department of Transportation, Cincinnati, OH: Mechanical Lead for the inspection team. Inspected three tubes’ emergency ventilation systems, including fans and automatic dampers, related controls with SCADA system, and Fire Standpipe systems. All the fans have been tested per their sequence of operations. All of the inspection was based on NTIS.			
07/16	Inspection of MHS Tunnels, MassDOT, MA: Mechanical Lead of the inspection team. Evaluated existing fan conditions and related components for Tip O’Neill and Ted Williams tunnels. Evaluation included following components: exhaust and			

	supply fans, automatic dampers, louvers, and related controls. All of the evaluation and report were based on National Tunnel Inspection Standards (NTIS).
01/19 – Present	Back Bay Ventilation Improvements, Phase-2, Massachusetts Bay Transportation Authority (MBTA), MA: Senior mechanical engineer. Designing and evaluating the current structure of Back Bay area trackway tunnels with several ventilation points of Yarmouth St., West Newton St., and Holyoke St. The scope of work comprises the following components: Trackway ventilation update analysis, tunnel LIDAR scan, ambient air quality analysis, noise and vibration analysis, jet fan design and related noise impact, and replacement of current tunnel fans with new and additional sound attenuation.
12/13 – Present	Mt. Lebanon Tunnel, Port Authority of Allegheny County, Pittsburgh, PA: Mechanical and Fire Protection Engineer responsible for replacement of existing fans with new sound attenuation to prevent any issue with surrounding neighborhood. The design also includes heating, ventilation, and cooling systems for electrical room, common areas, and control room.
12/13 – Present	Lytle Tunnel Ventilation, Ohio Department of Transportation, Cincinnati, OH: Mechanical and Fire Protection Engineer responsible for the design of heating, ventilation, and cooling systems for electrical room, common areas, and control room.
05/13 – 05/15	Downtown Crossing, MBTA, Boston, MA: Mechanical Engineer responsible for designing staircase pressurization, passenger tunnel ventilation, and electrical and mechanical room cooling systems. All design is based on optimum energy saving strategies.

Firm employed by Mott MacDonald				
Name	Austin Kittok, PE		Years of relevant experience with this employer	7
Title	Project Manager – Civil		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			BS / 2016 / Civil Engineering	
Active registration number / state / expiration date			#45850 / LA / 2024	
Year registered	2021	Discipline	Professional Engineer: Civil	
Contract role(s) / brief description of responsibilities			Mr. Kittok provides engineering support and project management for a range of civil infrastructure projects within Louisiana, Alabama, and Florida ranging from roadways, tunnels, aviation, stormwater management, sanitary sewers, and water transmission/distribution systems. Management experience surrounds projects for municipal clients within the state of Louisiana. Such experience includes project management (reporting-financial, project, and construction status), development of cost estimates, preparation of project specifications, stormwater management plans, proposals, business development, Temporary Traffic Control Plans (TTCP), permitting, and construction administration/inspection. Mr. Kittok’s role for this IDIQ is Civil Tunnel Inspector and Professional Engineer: Civil.	
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).			
03/2017 – Present	Tunnel Inspection and Repair/Rehabilitation, LADOTD, New Orleans, LA: Project Engineer for the repair/rehabilitation plan preparation for the Houma, Harvey, and Belle Chasse Tunnels. These tunnels were originally constructed in the late 1950’s. Mott MacDonald performed a visual inspection of the structural, geotechnical, mechanical, and electrical components of the tunnels. Additionally, we will be responsible for non-destructive testing of the structural and geotechnical components, evaluating the defects during testing, as well as preparing plans and specifications for each tunnel repairs and rehabilitation.			
07/19 – 02/23	Loyola Interchange OVS, LADOTD, Kenner, LA: Project Engineer assisting in plan review of all contractors and utility company’s apart of the project. Mott MacDonald’s scope of work is providing plan review for LADOTD and residential inspection during the construction phase of the project.			
08/22 – Present	Airbus FAL USA Expansions 2022, HPM, Mobile, AL: Project Engineer assisting with the design build of the A220 hangar, Civil portion, for the Airbus FAL USA Expansion project. Mott MacDonald’s scope of work consists of the development of plans and specifications for the construction of the A220 aviation hangar. The Civil portion of this project consisted of providing drainage design, fire and domestic water, sanitary sewer, electric duct banks, telecommunications, gas, hydraulics, and pavement design.			
03/17 – 02/18	Bourbon Street Rehabilitation Phase I (Canal Street to St. Louis Street), City of New Orleans, New Orleans, LA: Engineering Intern provided plan review services for the reconstruction of Bourbon Street surface and subsurface infrastructure from Canal Street to St. Louis Street as part of the City-wide Public Safety Program. Mott MacDonald coordinated and sequenced construction of the design build after engaging the City of New Orleans, Department of Public Works, the Sewerage and Water Board of New Orleans, residents, business owners, utilities, and contractors.			

09/19 – 07/20	<p>St. Ann Street Rehabilitation (Bourbon Street to Dauphine Street), City of New Orleans, New Orleans, LA: Engineering Intern, providing project management and plan development services for the full reconstruction of St. Ann Street surface and subsurface infrastructure from Bourbon Street to Dauphine Street. MacDonald coordinated the accelerated design as a result of the existing sewer system being in poor condition causing large subsurface voids beneath the existing roadway. The sequence of construction was also developed while engaging the City of New Orleans, Department of Public Works, the Sewerage and Water Board of New Orleans, residents, business owners, utilities, and contractors and lesson learned during Bourbon Street Phase I/II.</p>
11/19 – Present	<p>Conti Street Rehabilitation (Bourbon Street to Chartres Street), City of New Orleans, New Orleans, LA: Lead Project Engineer, providing plan development services for the full reconstruction of Conti Street surface and subsurface infrastructure from Bourbon Street to Chartres Street. Mott MacDonald is currently coordinating the design and construction sequenced construction after engaging the City of New Orleans, Department of Public Works, the Sewerage and Water Board of New Orleans, residents, business owners, utilities, and contractors.</p>

Firm employed by Mott MacDonald				
Name	Yomaima Szeliga, PE		Years of relevant experience with this employer	9
Title	Senior Project Engineer – Structural		Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization			MS / 2012 / Civil (Structural) Engineering; BS / 2010 / Civil Engineering	
Active registration number / state / expiration date			#36302 / AL / 2023; #82977 / FL / 2025	
Year registered	AL: 2018; FL: 2018	Discipline	Professional Engineer: Civil	
Contract role(s) / brief description of responsibilities			Ms. Szeliga is a professional engineer in our structural engineering department. Her experience includes performing detailed inspection of various types of bridges, design of bridge superstructures and substructures, performing of life cycle cost analysis, and various other calculations and analyses related to the designing of complex bridges and elevated rail line projects. Her professional experience includes structural design, load rating and inspection of pedestrian and transportation structures including concrete and timber fishing piers, concrete and timber bridges and box culverts for vehicles and pedestrians as well as the design of miscellaneous structures associated with transportation and drainage projects. Ms. Szeliga is competent in LEAP Bridge Concrete, MicroStation, Mathcad, ProjectWise, LARSA, BC (Bridge Construction), SP Column, RISA, and FB MultiPier programs. Ms. Szeliga’s role for this IDIQ is Civil Tunnel Inspector and Professional Engineer: Civil.	
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).			
07/14 – 04/18	Girvin Road Improvements, Jacksonville Transportation Authority (JTA), Duval County, FL: Structural Engineer. Assisted with the drainage design and plans preparation. This 2.8-mile project runs from Atlantic Blvd. (SR 10) north to Wonderwood Dr. (SR 116). The entire project will be reconstructed to be an urban section with bike lanes and sidewalk on each side of the roadway. The first 1.1 miles of the project will be widened to five lanes, while the remaining 1.7 miles of roadway will be widened to three lanes. Major design components for the project include detailed MOT plans, two signalized intersections, four stormwater detention ponds, closed drainage system, and relocation of major utility lines.			
07/14 – 12/14	SR 30 (US 98) – Okaloosa County Line to Tang O Mar Drive, FDOT District 3, Walton County, FL: Structural Engineer for 17 mast arm designs and 1,045 linear feet of non-standard gravity wall utilized around two retention ponds to reduce wetland impacts for a 3.4-mile project along the Emerald Coast in the panhandle serving as the primary access to the commercial and resort developments along the beaches. This 3.4-mile project runs along the Emerald Coast in the panhandle serving as the primary access to the commercial and resort developments along the beaches. Design efforts for the project included 5 major signalized intersections, 5 drainage basins with 4 new detention ponds, all permitting, topographic and right of way control surveys, 14 major utility lines, and extensive access management and public involvement. Included with the project was the preparation and ultimately the construction of a new signalized intersection at Geronimo as a Push Button Contract with Traffic Operations.			
07/14 – 06/18	Gulf Coast Parkway, FDOT District 3, Bay County, FL: Structural Engineer Intern. This capacity project involves the design of a new alignment for 6.7 miles of a rural two-lane facility with a shared use path, connecting SR 22 and CR 2315			

	(Star Avenue). Five stormwater facilities, along with the right-of-way, were designed and set to accommodate the future four-laning of this section of roadway. This project was one of several segments that combine to make Gulf Coast Parkway. Heavy coordination efforts were required to ensure a smooth connection with adjacent segments that were being designed simultaneously.
07/14 – 12/14	12th Avenue Bridge Replacement over Bayou Texar, FDOT District 3, Pensacola, FL: Structural Engineer for final design and post design of a 116'-0" long x 78'-0" wide, 3 span bridge utilizing a prestressed flat with composite topping superstructure supported by precast concrete pile caps and 18" square piles. The bridge was designed to be constructed in two phases. This bridge contains pedestrian features on both sides, sheet pile approach walls and was constructed in phases over a tidally influenced creek.
07/14 – 06/18	Gulf Coast Parkway over Callaway Creek, FDOT District 3, Bay County, FL: Structural Engineer for BDR development, 60% design, and load rating for 417'-0" long x 57'-8" wide 4-span bridge utilizing FIB-63 beams supported by conventional concrete pile caps and 24" prestressed concrete piles.
02/14 – 08/19	SR 87 over Yellow River, FDOT District 3, Santa Rosa County, FL: Structural Engineer for BDR development, load rating and final design of a 4,751'-3" long x 49'-0" wide bridge consisting of 53-spans utilizing FIB 45 beams supported by conventional concrete pile caps and 24" prestressed concrete piles. The cross-section included a pedestrian path and a boat launch area was designed for the south bank. The project was constructed over an environmentally sensitive river and wetlands using a temporary work bridge and both design and construction complied with numerous environmental commitments.

Firm employed by Mott MacDonald				
Name	Justin Wells, NCTI		Years of relevant experience with this employer	1
Title	Engineer – Civil		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			BS / 2022 / Civil Engineering	
Active registration number / state / expiration date			FHWA-NHI-130110 Tunnel Safety Inspection	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Mr. Wells is a civil engineer with experience in performing field inspection of construction work, tunnels, and other structures within the Boston area. Skills include inspection reporting, tunnel inspection, and AutoCAD. He is working towards increasing his field of experience and gaining an in-depth understanding of work. Mr. Wells’ role for this IDIQ is Civil Tunnel Inspector and National Certified Tunnel Inspector.	
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).			
07/22 – 05/23	MassDOT I-90 Westbound Connector Tunnel All Item Inspection, Boston, MA: Tunnel Inspection team member for the I-90 Westbound Connector Tunnel and adjacent boat sections. The Tunnel Inspection included overhead members and lighting fixtures as well as roadway elements and the exhaust/supply plenums. Responsibilities include detection of defects and a determination of condition state based on the Specifications for the National Tunnel Inventory and Mass DOT guidelines. Additional responsibilities include identifying spalling, delamination, and efflorescence/rust staining in concrete segments, operating a bucket truck for in-depth inspection of tunnel lighting fixtures and condition of connections, and preparing All-Item reports with relevant defect charts in accordance with Mass DOT standards.			
11/22 – Present	Green Line Dedicated Test Track Project, Boston MA: Team member for preliminary feasibility study of a proposed dedicated Green Line test track. The project involves the addition of a proposed track for Type 10 “Supercar” vehicles to be tested in operation prior to being employed in revenue operations. Responsibilities included superimposing existing bridge structure locations onto a proposed alignment and evaluating clearance requirements of a proposed track at select locations. Additional responsibilities include comparing vertical clearances to the type 10 dynamic envelope to ascertain feasibility at select locations.			
03/23 – Present	MBTA Eliot Street Pedestrian Bridge Canopy Addition, Newton MA: Assisted professional engineers in the load rating and review of multiple components with the addition of an overhead canopy. Examples include foundations, retaining walls, and bridge superstructure.			
01/23 – Present	Barre Bridge Replacement, Hubbardston MA: Assisted professional engineers in developing survey limits for the bridge location based on environmental, hydraulic analysis, and design requirements. Graphic was developed via Google Earth Pro.			
09/23 – Present	Vehicle Maintenance Facility Project, Boston MA: Assisted professional engineers in the load rating and review of multiple components of the Riverside maintenance facility. Assisted professional engineers in the development of 30% design deliverables for Green Line Extension Carhouse updates.			

06/21 – 01/22	MassDOT I-95 Guide Sign Replacement, Attleboro MA: Monitored contractors' road-sign construction and review materials and work in accordance with specification. Assisted in project documentation and cost-of-materials estimations.
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Firm employed by Mott MacDonald				
Name	Rafael Villarreal, PE		Years of relevant experience with this employer	9
Title	Project Manager – Civil		Years of relevant experience with other employer(s)	6
Degree(s) / Years / Specialization			MS / 2013 / Geotechnical Engineering; BS / 2009 / Civil Engineering	
Active registration number / state / expiration date			#24GE05498700 / NJ / 2024; #102667 / NY / 2025	
Year registered	2/11/2019	Discipline	Professional Engineer: Geotech	
Contract role(s) / brief description of responsibilities			Prior to obtaining his Master’s Degree in Geotechnical Engineering in the United States, Mr. Villarreal worked as a civil engineer in his home country of Panama for three years. His previous experience includes construction of deep foundations and design of temporary facilities on the Panama Canal Expansion Project. As a member of Mott MacDonald’s tunnel group, Mr. Villarreal has been involved in the numerical modeling of deep excavations, interpretation and assessment of geotechnical data, preparation of geotechnical reports, damage assessment of existing structures, space proofing for LRV, and roadway tunnels. Mr. Villarreal’s role for this IDIQ is Geotechnical Tunnel Inspector and Professional Engineer: Geotechnical.	
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).			
04/15	Belle Chasse, Harvey, and Houma Tunnels, Louisiana Department of Transportation and Development, New Orleans, LA: Structural Inspector during daytime closures of the existing Belle Chasse, Harvey, and Houma tunnels in Louisiana. Tunnel elements inspected included: walls, ceilings, supports, barriers, walkways, hatches, manways, niches, and passage doors. Typical defects recorded included cracks, leakage, scaling, spalls, staining, exposed reinforcement, corrosion, honeycomb, and patch failures.			
08/16 – Present; 05/14 – 08/14	Purple Line Light Rail Project, Maryland Transit Administration, MD: The Plymouth Tunnel consists of an underground portion of the proposed 16.2-mile-long Purple Line Light Rail Project. The Plymouth tunnel includes a 1,022-ft-long mined section, with cut and cover and portal sections on either end. The mined tunnel section is approximately 35 ft wide and 27 ft high, with a maximum ground cover of approximately 40 ft, and will be constructed through soils and rock of metamorphic origin. Responsibilities as Geotechnical Designer during bid phase for this project included geotechnical and structural design of Support of Excavation (SOE) Systems for the cut and cover and portal sections, and structural design of the cut and cover tunnel section. Additional activities being performed for this project include risk assessment for utilities within the area of influence of tunnel-induced settlement, and assistance in the preparation of the Geotechnical Baseline Report. Responsibilities during the post award phase included the structural design of the Sequential Excavation Method (SEM) tunnel lining, design of temporary ground support elements including steel spiles and pipe canopy, space proofing of the tunnel cross section, shop drawing reviews, and check and review of the design drawings.			
02/18 – Present; 05/17 – 09/17; 06/16 – 07/16; 09/15 – 02/16	Parallel Thimble Shoal Tunnel Project, Chesapeake Bay Bridge and Tunnel District, VA: The Parallel Thimble Shoal Tunnel Project will construct a new 42-ft OD bored tunnel parallel to the existing Immersed Tube Tunnel under Thimble Shoal Channel. When complete, the new tunnel will be approximately one mile long and will carry two lanes of traffic southbound, while the existing tunnel will carry two lanes of traffic northbound. Main responsibilities include the			

	<p>geotechnical/structural design of the Support of Excavation (SOE) for the TBM launch and retrieval for bid and post-award phases. The SOE design considered the construction of secant piles and slurry walls through man-made islands with a maximum excavation depth of 70-ft and a total ground water head of 50-ft, approximately. The SOE required unsupported spans for TBM launch and retrieval of up to 50-ft, and required the use of jet grout base plugs for buoyancy and base stability. Additional challenges include the proximity of the SOE to the existing Immersed Tunnel Approach Structures. The complexity of the design required the use of soil structure interaction computer programs to better capture the excavation sequence. Additional responsibilities include assisting in the development of the movement report for the project, preparation of damage assessment for the existing structures, assisting the development of the materials handling report for the interior structures, and design of discrete interior structure elements of the bored tunnel.</p>
03/15 – 09/16	<p>Broad Creek Augmentation Project, Washington Suburban Sanitary Commission, Prince George’s County, MD: Project included eight microtunnel drives and two bore-and-jack drives. Construction passed beneath numerous utilities and highways and included microtunnel drives over 1,500-ft at 66-inch diameter. Main responsibilities included assisting in reviewing support of excavation designs and geotechnical reports.</p>
02/15 – 12/16	<p>Bergen Basin Sewer Value Engineering Proposal, New York City Department of Environmental Protection, New York, NY: The Bergen Basin Sewer Value Engineering Project included the construction of one 54-inch diameter, 250-ft-long micro tunnel; and two parallel 36-inch diameter, 300-ft-long micro tunnels. The new tunnels connect with the existing sewer system and help to reduce Combined Sewer Overflow discharges. Main responsibilities included the geotechnical/structural design of two underground drainage concrete structures. Other responsibilities included review of submittals, including support of excavation systems for MTBM launch and receiving pits, concrete design mixes, field inspection of two microtunnel drives, and assistance with the cost estimate for the Value Engineering Proposal.</p>
10/14 – 01/15	<p>New Irvington Tunnel, San Francisco Public Utilities Commission, Sunol, CA: Quality Assurance (QA) Inspector for repair works at the New Irvington Tunnel (NIT). QA inspection included contact grouting and removal and replacement of damaged steel tunnel lining. The NIT is approximately 3.5 miles long and consists of a 12- by 14-ft horseshoe shape excavation with a welded steel pipe final liner of 8.5 ft. internal diameter. The NIT runs nearly parallel to the existing Irvington Tunnel, and was designed to provide redundancy to the Hetch Hetchy Regional water system.</p>
06/18 – 08/18	<p>Hampton Roads Bridge-Tunnel Expansion Project Bid Phase, Virginia Department of Transportation, VA: The I-64 Hampton Roads Bridge-Tunnel in south-eastern Virginia has long been one of the region’s most congested corridors. The 3.5-mile facility consisted of two 2-lane immersed-tube tunnels on artificial islands, with trestle bridges to shore. These tunnels opened in 1957 (current westbound lanes) and 1976 (eastbound lanes) and were approximately 7,500 feet long. Traffic on these four lanes exceeded 100,000 vehicles per day during peak summer traffic. The Hampton Roads Bridge-Tunnel Expansion project eased this congestion by widening the four-lane segments of the I-64 corridor in the cities of Hampton and Norfolk. Responsibilities included development of tunnel cross section options and space proofing for each option for bid phase.</p>

Firm employed by WSP USA Inc.				
Name	Wesley Weir, PE, NTIS		Years of relevant experience with this employer	5
Title	VP, Bridge Inspection TEC Manager		Years of relevant experience with other employer(s)	29
Degree(s) / Years / Specialization			BS / 1989 / Civil Engineering	
Active registration number / state / expiration date			PE #35035 / LA / 2024; FHWA-NHI Course #130110 Tunnel Safety Inspection January 9-13, 2017 at Sacramento, CA (refresher coming 1/8/24); HWA-NHI Course #130055 - Safety Inspection of In-Service; Bridges (1997, 2016); FHWA-NHI Course #130078 - Fracture Critical Inspection for Steel Bridges; FHWA/NHI Course #130053 - Bridge Inspection Refresher Training; SPRAT – Level 1 Rope Access Technician; OSHA 10-Hour Construction Safety	
Year registered	2009	Discipline	Professional Engineer: Civil	
Contract role(s) / brief description of responsibilities			<p>Wesley (Wes) Weir has 32 years of experience in the design, rehabilitation, inspection and load rating of all types of fixed and moveable bridges, highway and rail structures, and complex tunnel structures. Much of his career has focused on becoming a nationally recognized expert on fracture critical structures. He is an expert in inspection safety and inspection systems including inspection vehicles, rigging systems and technical climbing techniques. Wesley has supervised multiple design and inspection teams composed of both in-house personnel and subconsultants and has participated in assignments involving underwater inspection and scour analysis, material sampling and testing, various non-destructive testing and maintenance and protection of traffic. He has also been a design engineer for the rehabilitation of fixed and movable bridges, including steel, concrete, masonry, timber, and cable structures. His responsibilities have included training personnel, preparation of contract documents, specification, construction cost estimates, rating calculations, condition evaluation and rehabilitation reports. <i>Relevant Training: HWA-NHI Course #130055 - Safety Inspection of In-Service Bridges (1997, 2016), FHWA-NHI Course #130110 Tunnel Safety Inspection, FHWA-NHI Course #130078 - Fracture Critical Inspection for Steel Bridges, FHWA/NHI Course #130053 - Bridge Inspection Refresher Training, SPRAT – Level 1 Rope Access Technician, OSHA 10-Hour Construction Safety.</i> Mr. Weir’s role for this IDIQ is Civil Team, Structural Inspector, National Certified Tunnel Inspector, Professional Engineer: Structural, and Senior Structural Technical Advisor.</p>	
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).			
06/18 – Present	TXDOT NBIS Bridge Inspection and Load Rating, Statewide TX: As Project Manager Wes was responsible for coordinating staff and resources required for conducting comprehensive inspections and load ratings of various structures. Additionally, he played a key role in assisting with the culvert load posting avoidance program, which involved rigorous load			

	testing and analysis to remove thousands of unnecessary load postings. The reports generated as part of these assessments were instrumental in making informed decisions regarding load limits and ensuring the structural integrity and safety of the infrastructure. The team also successfully completed more than 3463 NBIS routine bridge inspections for TxDOT, along with over two hundred load ratings. The range of inspections and load ratings encompassed reinforced concrete slabs, steel floor system superstructures, steel rolled and plate girders, and prestressed concrete girders for both simple and continuous spans.
03/21 – Present	HAM-71-1.34, Lytle Tunnel Inspection, Cincinnati, OH: Project Manager and lead structural inspector for the NTIS inspections of the Lytle Tunnel in 2021, 2022 and 2023. The Lytle Tunnel carries I-71 NB, I-71 SB, and a SB exit to Third Street in three separate bores below Lytle Park and local streets in downtown Cincinnati, Ohio. Inspections will include visual and hands-on structural assessment of concrete tunnel liner, mechanical (ventilation, drainage), electrical (lighting, switchgear, generators), and life-safety (fire detection and suppression, emergency notification systems, etc) in order to satisfy the NTIS requirements and provide updated tunnel element quantities.
2021 – 2022	2021-2022 Bridge and Tunnel Inspection with Load Ratings of Metra Project Management Office, Chicago, IL: Rail Bridge Engineer for the Metra Transit Authority under the PMO in charge of their bridge inventory of over 445 bridges within 5 Districts of Chicago and the metropolitan area. Engineering services include FRA annual inspections, load rating, and maintenance programs as well as forecasting capital improvements and engineering support for emergency repair plans.
06/16 – 09/20	MassDOT, Bridge and Tunnel Inspection Services, Metropolitan Highway System: Team leader and senior Structural Engineer for emergency tunnel inspection services for the MassDOT. This project includes inspection of the Central Artery tunnels and bridges, including the Leonard P. Zakim Bunker Hill Bridge as well as the Overhead inspections of the Sumner, Callahan and Ted Williams Tunnels and All-Item inspection of the I-90 WB Connector Tunnel. Responsibilities included performing tunnel and bridge inspections in accordance with NBIS requirements, submitting completed inspection reports and updating SI&A information. As part of this contract, we also provided special member inspections (lighting inspection) of multiple tunnel BIN's on the I-93SB, I-90 Collector and associated ramps. These inspections were necessitated due to the condition of the existing light fixtures. We also assisted MassDOT with developing and writing the "Tunnel Inspection Handbook for Overhead Items" which is used by MassDOT and its consultants to serve as a standard to provide uniformity in the inspection and reporting of the tunnel overhead items.
02/17 – 12/19	TxDOT, 88-7IDP5069, Routine Tunnel Inspection (Work Authorizations 1-3): Project Manager for on- and off-system routine safety tunnel inspections including the Washburn Tunnel, Loop 1 MOPAC Tunnel, and Addison Airport Toll Tunnel. Coordinated with facility owners (Harris County, TxDOT, and NTTA) to obtain historical records, previous inspection reports (if available), and coordinate traffic control or closures during each inspection. Inspections included visual and hands-on structural assessment of concrete tunnel liner, mechanical (ventilation, drainage, pumps), electrical (lighting, switchgear, generators, CCTV), and life-safety (fire detection and suppression, emergency notification systems, etc.).
03/12 – 12/13	GCRTA Airport Tunnel Inspection and Rehabilitation, Cleveland, OH: Senior inspector and structural engineer for the inspection, evaluation, and preparation of scope of work for rehabilitation recommendations including cost estimates of the rail transit tunnel into Hopkins International Airport in the City of Cleveland. The project included hands on inspection of tunnel structure, track systems, internal and external drainage system inspection and evaluation including pump stations. Subsurface investigation including soil borings to obtain foundation material properties and ground water elevation was performed throughout the length of tunnel. All inspection and testing work was performed during off peak and night shut downs to maintain the RTA normal train service schedule.

Firm employed by WSP USA Inc.				
Name	Kevin Walsh, PE, NTIS		Years of relevant experience with this employer	17
Title	Electrical Engineer		Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization			BS / 2007 / Electrical Engineering	
Active registration number / state / expiration date			PE #0044049 / LA / 2024; FHWA-NHI #1300110 Tunnel Safety Inspection	
Year registered	2019	Discipline	Professional Engineer: Electrical	
Contract role(s) / brief description of responsibilities			Kevin is an experienced electrical engineer that has worked on a diverse range of projects including tunnels, highways, bridges (fixed and movable), intelligent transportation systems (ITS), transit stations, air traffic control centers, commercial/mixed use facilities, warehouse buildings, and industrial maintenance facilities. He has been responsible for the electrical design of lighting systems, ITS power systems, industrial control systems for movable bridges, low voltage power distribution, lighting, small power, lightning protection, fire alarm, telecommunications, security, standby and emergency power systems. Kevin has also been responsible for the development of electrical load, equipment sizing, and voltage drop calculations, as well as lighting photometric analysis, short circuit, selective coordination, and arc flash risk assessment studies using various software applications. Mr. Walsh's role for this IDIQ is Lead Inspection Team Leader, Electrical Inspection Team Leader, National Certified Tunnel Inspector, and Professional Engineer: Electrical.	
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).			
2021 – Present	LADOTD, Statewide Tunnel Inspection On-Call, Statewide, LA: Lead Electrical engineer. WSP is providing mechanical, electrical, and geotechnical services on the statewide on-call tunnel inspection services for the Louisiana Department of Transportation and Development. This project is in partnership with Mott MacDonald.			
06/20 – Present	LADOTD, Harvey Tunnel Electrical Inspection and Rehabilitation, Belle Chase, LA: Electrical engineer/task manager for this project which consists of replacing the main power distribution system to support a full upgrade of the tunnel ventilation and drainage systems as well as ancillary systems such as SCADA, fire alarm and gas monitoring systems.			
11/19 – Present	FDOT, North Bridge Replacement Design, Broward County, FL: Lead Electrical Engineer. WSP is providing design services for the replacement of the existing bascule bridge over the intercostal waterway with a high elevation fixed bridge. The project also includes mill and resurfacing of Federal Highway from Sunny Lane to north of Juanita Avenue, mill and resurface of County Road 605 (Old Dixie Highway) from Sunny Lane to north of Juanita Avenue and constructing new roadways for the extension of Sunny Lane and Juanita Avenue between Federal Highway and Old Dixie Highway. The existing signalized intersection of State Road A1A and Old Dixie Highway will be removed. A new signalized intersection at Federal Highway and Juanita Avenue will be added.			
07/18 – 12/22	FDOT, Pensacola Bay Bridge Replacement Design-Build, Pensacola, FL: Electrical engineer for the ITS electrical design bridge, maintenance lighting design, and assisted in the design of the roadway and aesthetic lighting power distribution			

	<p>system. WSP is providing design services to replace the 3.7-mile existing bridge with twin structures featuring wishbone-tied arch main spans and lowered 10-foot-wide shared-use paths. Detailed piers, color-changing light-emitting diode lighting, decorative railings, and surface finishes will further enhance the architectural theme of the bridges. The project is replacing the signalized interchange at U.S. 98 and 17th Avenue with a direct connection from U.S. 98 to the Pensacola Bay Front Parkway and Interstate 110. Improvements are also being made to the Gulf Breeze Wayside Park.</p>
09/15 – Present	<p>WSDOT, Statewide On-Call Services for Movable and Floating Bridges, Special Structures, and Tunnel Engineering: Electrical engineer of record for this on-call services contract. Kevin performed the visual inspection and operational testing of the electrical and control systems and prepared reports outlining observations, deficiencies, recommendations, and cost estimates. Kevin assisted with management of scope, schedule, and budget. Specific bridges are listed below. A Performed Arc Flash Risk Assessment studies for 1 movable bridge, 1 fixed bridge, and two tunnels. He performed on-site data collection of the bridge electrical systems, created electrical system models, performed short circuit fault current analysis, selective coordination analysis, and arc flash risk assessments. He prepared reports outlining these analyses and produced arc flash warning labels for the client to install on the electrical system equipment. Specific bridges and tunnels include Snake River Vertical Lift Bridge, Tacoma Narrows Bridges, Washington State Convention Center Tunnel, and Bremerton Tunnel.</p>
04/14 – Present	<p>MDTA, Annual Facilities Inspection Services, Baltimore, MD: Electrical engineer of record for this on-call services contract. Kevin performed the visual inspection and operational testing of the electrical and control systems and prepared reports outlining observations, deficiencies, recommendations, and cost estimates. WSP, in joint venture, is conducting annual physical on-site condition inspection of Maryland Transportation Authority (MDTA) facilities. The firm provided Environmental Permit Program and project management services. Authority facilities include John F. Kennedy Memorial Highway, Thomas J. Hatem Memorial Bridge, the Inter-County Connector, Harry W. Nice Bridge, William P. Lane Bridge, Baltimore Harbor Throughway, Francis Scott Key Bridge, and Fort McHenry Tunnel.</p>
10/14 – Present	<p>FDOT, New Pass Bascule Bridge, SR 789 over Sarasota Bay, Sarasota, FL: Electrical engineer responsible for performing several QA/QC reviews for the electrical and control system rehabilitation design. Under this district wide task-based on-call bridge engineering services contract, WSP was responsible for work program support; structural, geotechnical, survey, corrosion, electrical and mechanical engineering design; maintenance of traffic plans; bridge inspection; design studies; load ratings; and scour analysis. Client: Florida Department of Transportation (FDOT) District One.</p>
03/14 – 07/16	<p>MDOT, On-Call Services, MD: Lead electrical engineer and assistant electrical engineer for the inspection of several movable bridges. He performed the visual inspection and operational testing of the electrical and control systems, and prepared reports outlining observations, deficiencies, recommendations, and cost estimates. Specific bridges include: Ocean City Bridge; Stoney Creek Bridge; Miles River Bridge; Kent Narrows Bridge; Snow Hill Bridge; Spa Creek Bridge; Chester River Bridge; Snow Hill Bridge; Knapps Narrows Bridge; Weems Creek Bridge.</p>
06/17 – 06/20	<p>FDOT, State Road 60 Intelligent Transportation System and Lighting Design-Build, Hillsborough County, FL: Engineer-of-Record responsible for the lighting and ITS electrical design within the Hillsborough County portion of the project. WSP served as the lead design firm for the design and construction of intelligent transportation systems, signalizations, and lighting facilities on the State Road 60 (Courtney Campbell Causeway) corridor from McMullen Booth Road to west of Bayport Drive. Project work includes installation of luminaires, closed-circuit television, microwave vehicle detection sensor, and an arterial dynamic message sign subsystems. The project requires extensive stakeholder coordination between local agencies, utility agency owners, and adjacent ongoing Florida Department of Transportation projects.</p>

Firm employed by WSP USA Inc.				
Name	Gerald Luttmann, PE		Years of relevant experience with this employer	24
Title	Vice President; Structural Engineer		Years of relevant experience with other employer(s)	9
Degree(s) / Years / Specialization			MS / 1997 / Structural Engineering; BS / 1990 / Civil Engineering (Structural Concentration)	
Active registration number / state / expiration date			PE #6201042077 / MI; PE #20183 / KS; Safety Inspection of In-Service Bridges, NHI, 1998; Safety Inspection of In-Service Bridges Refresher, NHI, 2006, 2014; Tunnel Safety Inspection, NHI, 2014; Fracture Critical Inspection Techniques for Steel Bridges, NHI, 2018	
Year registered	MI: 1996; KS: 2008	Discipline	Professional Engineer: Structural	
Contract role(s) / brief description of responsibilities			Gerald (Jerry) Luttmann is a senior supervising engineer with over three decades of experience in the areas of design, construction, rehabilitation, and inspection of structures. Jerry has worked on a variety of tunnel, bridge, and public works projects, and has provided services associated with inspection, design, detailing, specifications, cost estimates, contract documents, and reports. Jerry has a working knowledge of Michigan Department of Transportation, American Railway Engineering and Maintenance-of-Way Association, American Association of State Highway and Transportation Officials, ACI, and AISC standards and codes. Mr. Luttmann's role for this IDIQ is Civil/Structural Tunnel Inspector, National Certified Tunnel Inspector, and Professional Engineer: Structural.	
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).			
03/14 – Present	Michigan DOT, I-75 Modernization Project, Eight Mile Road to South of M-59, Oakland County, MI: Tunnel design and construction task lead for a four-mile-long, 14-foot-diameter soft-ground stormwater drainage tunnel from 8 Mile Road to 12 Mile Road, including mining, retrieval and intermediate construction shafts, drop shafts, and large diameter pump station. Task includes preparation of a Basis of Design Report for MDOT, including geotechnical investigation and data report, proposed alignment, construction and drop shafts, tunnel lining, construction cost estimates, utility conflicts, and coordination with Oakland Co. Water Resource Commissioner for connection alternatives to the county drainage system. Project was completed using a P3/Design-Build-Finance-Maintain contract method. WSP was the Owner's Representative throughout the contract, preparing final contractor documents and providing construction oversight and verification.			
03/15 – 10/19	Detroit-Windsor Tunnel, Ceiling Slab Replacement, Detroit, MI -Windsor, Ontario, Canada: Structural project engineer responsible for the ceiling replacement study, which selected the most efficient system for the new slab, and design of the new ceiling slab in the shield and immersed tube tunnel sections. The project includes the replacement of 4,000-ft of the original 1929 reinforced concrete ceiling slab over the roadway which also forms the tunnel exhaust duct, and will require coordination with ventilation, electrical, communication, security and lighting system disciplines, as well as tunnel operations. The initial			

	<p>phase of the project included the detailed inspection of the cast-in-place concrete tunnel lining crown, which identified types and quantities of defects for the entire 4,000-ft length of the project in the tunnel exhaust duct. The inspection also included a report to provide a summary of the inspection results and repair and rehabilitation methods. The project also included design services during construction of the new slab.</p>
06/07 – 11/09	<p>Johnson County Unified Wastewater District, Blue River Sewer Tunnel Design Services, Wichita, KS: Project engineer responsible for tunnel and shaft design, plans and specifications, and construction assistance for this 60-inch-diameter rock tunnel. The tunnel allows the extension of a new sanitary sewer under the environmentally sensitive 300-acre park, nature preserve and botanical gardens. WSP provided the Johnson County Unified Wastewater District with hydraulics, geotechnical services, and tunnel design and construction evaluation for a 3300-foot long, 72-inch carrier pipe sewer tunnel under an Arboretum.</p>
04/17 – 02/18	<p>City of St. Louis, Board of Public Service, Lindbergh Tunnel, St. Louis, MO: Provided QC review for the 2015 tunnel inspection scope and report following the new FHWA National Tunnel Inspection Standards including the Tunnel Operations Maintenance Inspection and Evaluation (TOMIE) Manual, on the Lindbergh Tunnel, a four-lane state highway tunnel, constructed by cut-and-cover methods in 2006 to allow runway expansion over State Route 67.</p>
01/07 – 10/16	<p>Detroit Water and Sewer Dept., Modified Detroit River Outfall No. 2 Design Services, Detroit, MI: Project engineer responsible for structural design, specifications and design coordination for the new 21.5-foot-diameter, 6,300-foot-long, deep rock outfall tunnel from the Detroit Water and Sewerage Department’s Wastewater Treatment Plant (WWTP) to the Detroit River. This new outfall tunnel would have worked “in-common” with the existing Detroit Outfall Tunnel No. 1 and provide additional secondary treatment outfall capacity for the WWTP. WSP is providing design support services to the Detroit Water and Sewerage Department for the development of Detroit’s wastewater treatment system. WSP is responsible for providing the proposed design of a second outfall for discharge of effluent from the treatment plant to the Detroit River.</p>
04/15 – 12/16	<p>St. Louis Sewer District, Lower Meramec Tunnel, St. Louis, MO: Tunnel Engineer responsible for concept level design of four construction shafts and carrier pipe final tunnel lining alternatives, preparing technical memorandums outlining initial design requirements and concepts. The Lower Meramec Tunnel, located in southern St. Louis County near the Meramec River, is anticipated to be approximately 36,448 feet in length with an 8-foot ID carrier pipe. The tunnel will be constructed in hard rock with an invert elevation of 255.1 feet where it connects with the Baumgartner Tunnel and will provide dry weather flow conveyance from Fenton WWTF to the Baumgartner Tunnel and eventually flows to the Lower Meramec WWTF where it will be pumped and treated, prior to discharge to the Mississippi River.</p>
08/13 – 12/15	<p>Citizens Energy Group, Lower Pogue Run Tunnel, Advanced Facility Planning (AFP) Report Update/30% Design and Near-Surface Final Design Services, Indianapolis, IN: Responsibilities included QC review of the inspection report of the existing PRC for the design and construction of the connection to the 10-foot by 6-foot jacked box; and design, plans and specifications for the jacked box and its connection to the PRC; QC review of plans and specifications for the near surface collection structures. The project includes an 18-foot finished diameter, 9,000-foot, combined sewer storage and conveyance tunnel. The AFP Update serves as the basis of design report for this deep rock tunnel and associated near-surface facilities. Final design services included the collection consolidation sewers (CCS), diversion structures, junction chambers, screen and gate chambers and approach channels. The CCS included 84-inch and 96-in inside diameter pipe jacking, and a 10-foot by 6-foot inside dimensions jacked box to be installed below and connected to the existing Pogue’s Run Box Culvert (PRC).</p>

Firm employed by WSP USA Inc.				
Name	Greg Ayvas, PE		Years of relevant experience with this employer	24
Title	Assistant Vice President; Structural Engineer		Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization			MS / 2005 / Civil Engineering; BS / 1997 / Civil Engineering	
Active registration number / state / expiration date			PE #084879 / NY / 2024	
Year registered	2007	Discipline	Professional Engineer: Structural	
Contract role(s) / brief description of responsibilities			With over 25 years of experience, Greg is skilled in providing technical services for transportation facilities, including rail, roadway, and subway tunnel projects. He has designed underground structures for rail tunnels, rail caverns and ventilation structures. He has performed survey/appraisal of existing conditions, identified potential impact upon, and necessary mitigation procedures for, close-in blasting immediately adjacent to existing structures, evaluation of rail alignments along with problem identification and preparation of drawings of conceptual and final tunnel configurations. His duties have also included performance of quantity take-offs on elevated and underground railway structures and new highway construction projects. Mr. Ayvas' role for this IDIQ is Civil/Structural Tunnel Inspector, Professional Engineer: Structural.	
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).			
2020 – 2021	New York City Transit Authority, Rutgers Tunnel, New York, NY: Structural Design Lead. As structural lead for the design-build team he was directly involved with the work at all phases. During the inspection phase of the work, he led the inspection team in varied locations including concrete encased cast-iron tubes, concrete and steel emergency exit structures within ventilation shafts, and at the multi-level steel bent underground East Broadway station. The focus of this fast-paced work was to quickly identify structural deficiencies including concrete (spalls & cracks) and steel (including determination of extent of corrosion/section loss), as well as determining locations of potential and definite water ingress. On the design side he led the development of site-specific steel and concrete repairs, remediation measures for water infiltration, design of new stairs at the East Broadway Station, and a new permanent lifting system at existing mid-river pump facilities within the 90-year-old tubes.			
2014 – 2020	New York City Transit Authority, Canarsie Tunnel, New York, NY: Lead Structural Engineer/Interdisciplinary package manager for in tunnel work: Part of the “Sandy” repair work ongoing in NYCT East river tunnels. He led the structural inspection team in identifying structural defects and areas of water ingress during initial structural assessment of the 90+ year old Canarsie tunnels including cut and cover concrete box sections, concrete encased cast iron sections, cast in place concrete sections, and ancillary structures. Major contributor to the writing and production of the final structural assessment report. Designed new underground structures to be built adjacent to, and to interface with, the existing station box and cut & cover tunnel along heavily trafficked 14th street in Manhattan. Developed new duct-bank designs with special emphasis on maximizing the number of ducts available within the narrow concrete encased cast-iron tubes. Also conceived and designed a concept for rerouting electrical and communications cables around and through new structures at locations where existing			

	ductbanks are to be completely and permanently removed. Developed structural design for new, flood proof, Circuit Break remaining structural capacity of the 90+ year old facility. Developed site specific structural repair details Developed leak remediation plan for both concrete encased cast-iron and cast-in place concrete, tunnel liners.
2018 – 2020	South Jersey Transportation Authority (SJTA), Atlantic City-Brigantine Connector Tunnel NTIS Inspection, Atlantic City, NJ: Lead Structural Engineer/Inspection Team Leader for the baseline NTIS tunnel inspection for this 2,000' long 4-lane cut and cover tunnel. Coordinated all aspects of the inspection with SJTA. Oversaw the full interdisciplinary team in the field and provided hands on structural inspection services.
2014 – 2018	PANYNJ Holland Tunnel, New York City, New York & Jersey City, NJ: Lead Structural Engineer responsible for latent damages repair and rehabilitation projects. Team leader in the inspection and reporting effort to establish damage and latent damage to concrete walkways, walkway walls, handrails, steel curbs, and steel bent (cut and cover exhaust plenums) in the tunnel due to multi-day submersion in the brackish flood waters of hurricane Sandy. Determination of latent damages required a qualitative analysis of damages which, although not yet detectable, can be reasonably expected to become evident in the future, and therefore can be attributed to the Sandy flood waters. Authored final Stage-I reports detailing findings and recommending remediation.
2017	New York City Department of Environmental Protection, Third Water Tunnel New York, NY: Structural Engineer. Performed inspection during final construction phase prior to commissioning the 13.5-mile Roosevelt Island to Red Hook Brooklyn segment of the tunnel. Inspections included verification of contractors reported progress quantities and detection of existing structural defects and defects due to construction activities.
2013 – 2018	New York City Transit Authority, Clark Street Tunnel, New York, NY: Senior Structural Engineer part of the “Sandy” repair work ongoing in NYCT east river tunnels. Led structural inspection team during initial structural assessment of the Clark Street tunnel including concrete encased cast iron sections, cast in place concrete sections, cut and cover box sections, and ancillary structures. Major contributor to the writing and production of the final structural assessment report. Developed water remedy concept including spall and crack repair procedures.
2013 – 2014	New York City Transit Authority, Montague Tunnel, New York, NY: Senior Structural Engineer for part of the “Sandy” repair work ongoing in NYCT east river tunnels, and winner of New York ACEC Diamond Award for 2014. Lead structural inspection team during initial structural assessment of the Montague tunnels including concrete encased cast iron sections, cast in place concrete sections and caverns, and ancillary structures.

Firm employed by WSP USA Inc.				
Name	Stephen Mayo, NTIS		Years of relevant experience with this employer	1
Title	Structural Engineer		Years of relevant experience with other employer(s)	8
Degree(s) / Years / Specialization		BE / 2014 / Mining Engineering		
Active registration number / state / expiration date		FHWA-NHI Course #130110 Tunnel Safety Inspection, March 21-25, 2022 in Worcester, MA		
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities		Stephen is a structural engineer with more than eight years of experience in providing on-site technical engineering support to mine operations and maintenance departments. He has personally responded to several medical emergencies and a mine fire and was instrumental in developing mine re-entry plans and planned and executed all aspects of the Boy Scouts of America High Adventure Summer Program. Stephen participated in multiple mine rescue competitions and won first-, second-, and third-place trophies in first aid, technical skills, field problems, and the overall category. Mr. Mayo's role for this IDIQ is Civil/Structural Inspector and National Certified Tunnel Inspector.		
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).			
03/21 – Present	ODOT, HAM-71-1.34, Lytle Tunnel Inspection, Cincinnati, OH: Structural inspector for the NTIS inspections of the Lytle Tunnel in 2021, 2022 and 2023. The Lytle Tunnel carries I-71 NB, I-71 SB, and a SB exit to Third Street in three separate bores below Lytle Park and local streets in downtown Cincinnati, Ohio. Inspections will include visual and hands-on structural assessment of concrete tunnel liner, mechanical (ventilation, drainage), electrical (lighting, switchgear, generators), and life-safety (fire detection and suppression, emergency notification systems, etc) in order to satisfy the NTIS requirements and provide updated tunnel element quantities.			
06/22 – Present	Morton Salt Fairport/Weeks Island Inspection Services, Weeks Island, LA: Primary inspector for the condition inspection of the production headframe at the Morton Salt Mine facility in New Iberia, Louisiana. WSP USA, in an inter-office agreement with WSP Canada, is providing inspection services to Morton Salt. The objective of this visual inspection is to determine what repairs are required to keep the existing production headframe in operation until the headframe replacement at the end of the year.			
04/22 – Present	Illinois Tollway Design Management Services, Chicago, IL: Primary inspector for communication tower inspection, which includes 61 towers along the Illinois Tollway. Stephen's responsibilities included a hands-on inspection of each tower and an inventory of all the equipment mounted to the tower structure. WSP is providing bond resolution and trust Indenture, planning, construction management audit and support, and design management services for the Illinois Tollway. The scope of work included asset management, bond support, planning, environmental audits, design standards development, and review of construction documents.			
01/21 – 12/22	Metra Program Management Oversight Services for Capital Program, Various, IL: Inspector for the Metra bridge inspection which includes 446 railroad bridges in Chicago, Illinois. Stephen's responsibilities included a full safety inspection			

	<p>on the primary members of the bridge. He assisted in managing all Metra bridge assets using geographic information systems Cloud software which generates the condition reports once the inspection was complete. In addition, Stephen used inspection data to generate a sufficiency rating for each asset to aid the allocation of capital funds for asset management and replacement. WSP is providing program management oversight services for Metra's multi-billion, five-year Capital Program. WSP is managing a multi-disciplinary team to handle planning, project development oversight, design oversight services, construction oversight, National Environmental Policy Act environmental oversight, project controls, project administration, and signal engineering services.</p>
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Firm employed by WSP USA Inc.				
Name	Sandeep Tinrunagari, PE		Years of relevant experience with this employer	4
Title	Bridge Inspection Team Lead		Years of relevant experience with other employer(s)	9
Degree(s) / Years / Specialization			ME / 2009 / Civil Engineering; Bachelor of Technology / Civil Engineering (India)	
Active registration number / state / expiration date			PE #126665 / TX / 2024; PE #099570-1 / NJ / 2024; PE #24GE05375700 / NY / 2024	
Year registered	2018	Discipline	Professional Engineer: Civil/Structural	
Contract role(s) / brief description of responsibilities			<p>Sandeep is a bridge inspection team lead with more than 12 years of experience in performing condition inspections of bridges, culverts, retaining walls, sign structures, and lighting structures and experience developing and preparing inspection reports, reviewing inspection reports to ensure quality assurance / quality control standards, and performing load rating analysis (LRFR) for highway and railroad bridges. Also, participated in bridge inspection and rehabilitation projects for several agencies that have included Texas Department of Transportation (TxDOT), South Carolina Department of Transportation (SCDOT), New Jersey Transit (NJT), New Jersey Turnpike Authority (NJTA), New Jersey Department of Transportation (NJDOT), New York State Department of Transportation (NYSDOT), Port Authority of New York and New Jersey (PANYNJ), Delaware River Port Authority (DRPA), Port Authority Transit Corporation (PATCO) and Metropolitan Transportation Agency (MTA). <i>Training includes: FHWA-NHI Tunnel Safety Inspection; FHWA-NHI Safety Inspection of In-Service Bridges; FHWA-NHI Inspection and Maintenance of Ancillary Highway Structures; FHWA-NHI Fracture Critical Inspection Techniques for Steel Bridges; FHWA-NHI Bridge Inspection Refresher; OSHA 10-Hour Construction Safety.</i> Mr. Tinrunagari's role for this IDIQ is Civil/Structural Tunnel Inspector and Professional Engineer: Structural.</p>	
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).			
03/21 – Present	ODOT, HAM-71-1.34, Lytle Tunnel Inspection, Cincinnati, OH: Structural inspector for the NTIS inspections of the Lytle Tunnel in 2021, 2022 and 2023. The Lytle Tunnel carries I-71 NB, I-71 SB, and a SB exit to Third Street in three separate bores below Lytle Park and local streets in downtown Cincinnati, Ohio. Inspections will include visual and hands-on structural assessment of concrete tunnel liner, mechanical (ventilation, drainage), electrical (lighting, switchgear, generators), and life-safety (fire detection and suppression, emergency notification systems, etc) in order to satisfy the NTIS requirements and provide updated tunnel element quantities.			
02/19 – Present	TxDOT, Routine Tunnel Inspections, TX: Structural inspector for on- and off-system routine safety tunnel inspections, including the Washburn Tunnel. Inspections included visual and hands-on structural assessment of concrete tunnel liner; mechanical (ventilation, drainage, pumps); electrical (lighting, switchgear, generators, CCTV); and life-safety systems (fire detection and suppression, emergency notification systems).			

2017 – 2019	New York Dept. of Parks and Recreation, Freedom Tunnel Inspection, NY: Team leader and structural engineer for the 2017 inspection of New York City Department of Parks and Recreation tunnels, including Freedom Tunnel. The inspection included hands-on inspection and structural assessment of concrete retaining walls, steel stringers, floor beams, and girders, mechanical (ventilation), and electrical (lighting systems) throughout the tunnel.
06/18 – 09/18	MTA Bridges & Tunnels, 2018 Biennial Inspection of Robert F. Kennedy Bridge - Group B (PSC 13-2944B), MD: Responsible for the inspection at the Robert F. Kennedy Bridge. The elements inspected included top of deck, wearing surface, deck joints, deck structural, structural framing consisting of riveted plate girders, welded plate girders, floorbeams, and stringers, concrete and steel pier caps and columns, bracing systems, light poles, underdeck lighting, drainage system, signage, fenders, dolphins, retaining walls, abutments, Fracture Critical Members, and all approach structures and appurtenances. The thoroughness of the inspection was reflected in the number of flags and the level of detail in the flag reports. Detailed data, such as measurements, sketches, and photos, were collected for ratings which were calculated for elements that were red flagged for poor structural conditions.
02/20 – Present	TxDOT, On-Call Fracture-Critical Bridge Inspections, TX: Bridge inspection team leader for fracture-critical bridges, planning projects including traffic control planning, equipment mobilization, team coordination and mobilization, and bridge inspection. The inspection includes the fracture-critical elements, box caps, tub girders, plate caps, plate girders, and bracing systems. The project includes writing bridge inspection reports for the structures inspected and performing quality control for the written reports with repair recommendations and submission to the TxDOT. Priority repair recommendations were submitted to the TxDOT as warranted. WSP is providing inspection services for tunnels and fracture-critical bridges across Texas. The bridges range from off-system low average daily traffic structures to signature bridges, requiring the use of technical climbing and rope access techniques.
02/19 – Present	TxDOT, 2019 On-Call Routine Bridge Inspection Services, TX: Bridge inspection team leader responsible for equipment mobilization, team mobilization, and bridge inspections. The inspections include bridge approaches, decks, superstructures, substructures, highway safety features, bridge channels, substructure scour, fatigue details, fracture-critical members, channel measurements, and vertical and horizontal clearances. The project includes writing and updating inspection reports with recommendations in Assetwise. All critical and urgent repair recommendations have been written and submitted to TxDOT within 24 hours of the inspection.
10/19 – 02/20	SCDOT, Bridge Load Rating Quality Control, SC: Lead engineer responsible for quality control of bridge load ratings for the SCDOT. The project includes performing load ratings using AASHTOWare BrR and hand calculations for the dead load of various bridge members using Microsoft Excel and Mathcad. All of the existing conditions were updated in the load ratings as inspected, and load posting recommendations were given as warranted. WSP is providing bridge load rating evaluations, safety inspections, and other related duties for bridges and culverts to assist the SDOT with load rating for all state-owned, county-owned, and government-owned bridges.
05/19 – 08/19	2019 Biennial Bridge Inspection & Design of Miscellaneous Structural Repairs at the Throgs Neck Bridge Contract No. GFM-529A / PSC-18-3017A), New York, NY: Team Leader responsible for the inspection at the Throgs Neck Bridge. The elements inspected included top of deck, wearing surface, deck joints, structural framing consisting of riveted plate girders, welded plate girders, floorbeams, and stringers, concrete and steel pier caps and columns, bracing systems, light poles, underdeck lighting, drainage system, signage, fenders, dolphins, retaining walls, abutments, Fracture Critical members, towers, and all approach structures and appurtenances.

Firm employed by WSP USA Inc.				
Name	Ian Chaney, PE		Years of relevant experience with this employer	21
Title	National Director – Geotechnical and Tunneling		Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization			MS / 2002 / Geotechnical Engineering; BS / 2001 / Mining Engineering	
Active registration number / state / expiration date			PE #0042288 / LA / 2024	
Year registered	2018	Discipline	Professional Engineer: Civil	
Contract role(s) / brief description of responsibilities			Ian is the National Director for Geotechnical and Tunneling for WSP. He brings over 20 years of experience on multi-disciplinary project management and leading geotechnical project efforts. His technical experience includes providing detailed and concept designs for marine facilities, tunnels, bridges, and buildings that consider site-specific geotechnical and environmental conditions, as well as the spectrum of multi-disciplinary concerns inherent with large infrastructure construction activities. As WSP’s lead designer on the Mid-Barataria Sediment Diversion project, Ian understands the unique geotechnical conditions of Louisiana. He brings experience working with the Mott MacDonald team on the Hampton Roads Tunnel project. Mr. Chaney’s role for this IDIQ is Geotechnical Tunnel Inspector and Professional Engineer: Geotechnical/Civil.	
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).			
01/17 – 09/19	LADOTD, Mid-Barataria Sediment Diversion Project – New Orleans, LA: As part of this CMAR project to design an intake structure and 2-mile long conveyance channel from the Mississippi River, Ian is the Lead designer and WSP Project Manager providing designs for floating U-structures and immersed tube tunnels, over which a RR bridge and the LA 23 bridge will be constructed. Ian is responsible for the design of the U-structure to support both the highway bridge and the RR bridge. Conceptual plans have been developed for both standard through girder designs and for a flood-proof design that could potentially lower the profile and reduce the overall bridge length by several thousand feet. At completion, the project will accommodate a diverted flow of more than 75,000 cfs of sediment-laden water that will ultimately be deposited and dispersed into the Barataria Bay, enabling marsh creating for future decades.			
09/09 – 12/17	VDOT, Midtown/Elizabeth River Tunnel Project, Norfolk and Portsmouth, VA: On this long-term, \$2.1B Mega-Project, Ian’s duties started as the geotechnical design manager and finished with being the on-site Project Manager during construction. As the on-site Design Manager During Construction, Ian was responsible for daily management of design services during construction, claim mitigation and negotiation, and financial decisions regarding design work. As geotechnical design manager for this immersed tunnel project that parallels an existing immersed tunnel, Ian was responsible for the management of all geotechnical, underground, and marine aspects of the design and the coordination of the these works between the civil, geotechnical and structural disciplines. Work consisted of dredging and foundation preparation for the immersed tubes, immersed tube design, island reclamation, buoyancy and transportation, as well as the design of the support-of-excavation system that included over 4,000 lf of in-water sheet piling, some of which utilized			

	tiebacks and underwater struts, and that included two 50-foot-deep dewatered excavations for the tunnel approaches. The scope also required the remediation of the Portsmouth Marine Terminal, which the tunnel passes through. The port facility was returned with a 750-psf live-load allowance, with no reduction in service due to the newly constructed tunnel. to significant environmental degradation from ongoing coastal land loss, subsidence, and sea level rise.
2019 – Present	VDOT, Hampton Roads Bridge-Tunnel Expansion, Norfolk, VA: Engineering Manager for this \$4B marine bridge and tunnel expansion project that consists of two new bored tunnels under the Hampton Roads shipping channel, artificial island expansion, access dredging, four (4) miles of new bridge trestles and four (4) miles of highway widening on land. On behalf of the owner, VDOT, Ian is responsible for all marine design and construction for this project that encompasses tunnels, island expansion, scour protection, Navy coordination and permitting. The project also includes two major excavations at the man-made islands – each over 50’ deep and underwater, that are to be dewatered for launching and receiving the Tunnel Boring Machine. This project is in partnership with Mott MacDonald.
2022 – Present	Sound Transit, West Seattle to Ballard Link Extension, Seattle, WA: Deputy task manager. The Ballard Link Extension (BLE) will provide fast, reliable light rail connections to dense residential and job centers in the Chinatown-International District, downtown, Interbay, and Ballard neighborhoods. In addition, a new downtown Seattle light rail tunnel will provide capacity for the entire regional system to operate efficiently. The project will add 7.7 miles of light rail and nine (9) new stations from Chinatown-International District to Ballard. This project is in partnership with Mott MacDonald.
2020 – Present	VTA, BART to Silicon Valley Extension, Santa Clara, CA: Deputy task manager. WSP is serving as the owner’s engineer on this \$12B transit project that extends BART to Silicon Valley via single bore transit tunnel. This project is in partnership with Mott MacDonald.
06/12 – 09/15	DC Water, First Street Tunnel Project, Washington, DC: During this project providing tunnel engineering design to the District of Columbia Water and Sewer Authority towards a 2,700-ft (820m) long stormwater storage facility to alleviate flooding during storm events for the Bloomingdale community, Ian was responsible for designing all Near Surface Structures and their Support of Excavations, the development of Instrumentation and Monitoring plans, and preparing Construction Impact Assessment Reports, which evaluated the existing structures and facilities due to the effects of tunneling, construction and excavation. Ian was also responsible for identifying where the team’s construction activities could vary from those expected as interpreted from the Geotechnical Baseline Report.
02/05 – 08/09	MTA, East Side Access Project, New York City, NY: Deputy task manager for the instrumentation of the Manhattan bored Tunnels and caverns beneath Grand Central Station. Responsible for the evaluation of instrumentation data and the review and acceptance of contractor submittals during construction. Ian was also responsible for determining the validity of the instrumentation readings and analyzing the data against the expected behavior of the tunnels and excavations, as well as for interpretation of the Geotechnical Baseline Report and its application to the received instrumentation data in defense of contractor DSC claims.
02/06 – 11/07	FDOT, Port of Miami Tunnel, Miami, FL: Ian was the geotechnical engineer responsible for the security assessment and blast analysis of this proposed cut-and-cover and bored tunnel traversing beneath the Biscayne Bay in Miami, Florida. The results of the blast analysis and security assessment were developed into the preliminary engineering specifications and drawings. For this project, Ian developed a detailed three-dimensional model of the tunnel incorporating the geo-material surrounding the tunnel, tunnel lining, interior features, and the connection details.

Firm employed by WSP USA Inc.				
Name	Jude Bonsu, PE, NCTI		Years of relevant experience with this employer	16.5
Title	Assistant Vice President, Mechanical Engineer		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			BE / 2005 / Mechanical Engineering	
Active registration number / state / expiration date			PE #0044561 / LA / 2024; FHWA-NHI Course #130110 Tunnel Safety Inspection (February 8-22, 2019; Middletown, NY)	
Year registered	2020	Discipline	Professional Engineer: Mechanical	
Contract role(s) / brief description of responsibilities			Jude is an experienced mechanical engineer with WSP. He is experienced in the design, inspection and provision of construction inspection and support services for tunnels, buildings, subway stations, movable bridges, and other miscellaneous structures. Relevant Training: FHWA-NHI Course #130110 Tunnel Safety Inspection. Mr. Bonsu's role for this IDIQ is Mechanical Inspection Team Leader, National Certified Tunnel Inspector, and Professional Engineer: Mechanical.	
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).			
2021 – Present	LADOTD, Statewide Tunnel Inspection On-Call, Statewide, LA: Mechanical engineer. WSP is providing mechanical, electrical, and geotechnical services on the statewide on-call tunnel inspection services for the Louisiana Department of Transportation and Development. This project is in partnership with Mott MacDonald.			
02/21 – 05/21	LADOTD, Belle Chasse and Harvey Tunnels Inspection, LA: Mechanical Team leader for the 2021 routine inspection of the tunnel mechanical elements – including but not limited to the tunnel ventilation, drainage, HVAC, fire protection systems. Prepared inspection report documenting inspection findings.			
10/13 – 03/17	MTA, Second Avenue Subway Project 72nd Street Station, New York, NY: MEP Lead Inspector for providing construction management and inspection services for the newly opened 72nd Street Station as part of the Second Avenue Project. Tasks included but not limited to inspection of the installation of the new Tunnel Ventilation, HVAC, Fire Protection, Drainage, Sump and Ejector Pumps and all associated components, control, and monitoring systems. Integration and interfacing of all Tunnel Ventilation, HVAC, Control SCADA systems. Reviewed pump performance test data for conformance to the project specifications prior to onsite delivery. Attended all factory acceptance testing for SCADA System, Tunnel and Station Smoke Management supervisory control cabinet, track drainage supervisory system, transformers, and switch gear. Also served as the Testing and commissioning Coordinator for all local field and system integrating testing for the mechanical and electrical components/systems, oversaw and reviewed Contractors developed O&M and training manuals.			
06/07 – 10/08	PANYNJ, Lincoln Tunnel Buildings and Miscellaneous Structures Facility Condition Surveys Call-In, New York and NJ: Inspector involved with the inspection of ventilation buildings, portal structures, administration and toll booth buildings, emergency garages, retaining walls and other miscellaneous structures pertinent to the Lincoln Tunnel. All structural components, including structural slabs, framing, suspended ceilings, stairwells, roofing components, building façades, retaining wall stone façades, utility support systems and exhaust stacks (via rigging and vertical drops) were inspected and assessed.			

10/19 – Present	Triboro Bridge & Tunnel Authority, Queens Midtown Tunnel, New York, NY: Resident Engineer providing construction management and inspection services for the replacement of drainage and stripper pumps and development of HMI screens for remote monitoring drainage pumping and hydrocarbon systems in the various pump rooms for this vehicular, two tube, 6400 feet tunnel under the east river connecting the Boroughs of Manhattan and Queens. Responsible for managing all construction activities and performing all office documentation and related work for the project. The drainage and stripper pumps are in the pump rooms at the tunnel portals, mid tunnel, and ventilation buildings. The work also includes installation of new hydrocarbon sensors in the pump room and sump pit and integration of the system for remote monitoring.
08/08 – Present	New York City School Construction Authority (SCA), Building Condition Assessment Survey, New York, NY: Part of a team of engineers as the mechanical inspector to provide annual building condition assessment survey for all school facilities throughout the city for the NYC Department of Education’s Division of School Facilities (DOE/DSF). The NYC school system is made up of approximately 1,500 buildings, including school buildings, administrative buildings, leased facilities, annexes, mini-schools, and temporary buildings. As the mechanical inspector for the team, interviewed custodian/fireman, inspected, and produced a mechanical inspection report to reflect the conditions of the mechanical components (including but limited to the drainage, HVAC, heating plant, Climate control systems) identified and inspected for each asset per inspection methodology. Determined the status of previously cited violations vis-à-vis current deficiencies and issued priority (hazardous) conditions report identified during the inspection per the inspection methodology.
07/21 – 12/21	PANYNJ, George Washington Bridge (GWB) Lower-Level Tunnel NJ Approach, NJ: Mechanical Team leader for the 2021 routine inspection of the tunnel mechanical elements – including but not limited to the tunnel ventilation, drainage, HVAC, fire protection systems. Prepared inspection report documenting inspection findings.
03/11 – 09/11	WSDOT, Statewide On-Call Services for Tunnel, Movable and Floating Bridges, and Special Structures Engineering: Mechanical engineer for this on-call services contract. WSP provided on-call mechanical and electrical inspection of special structures and tunnels. Project scope included technical reports with recommendations for maintenance and rehabilitation repairs.
11/08 – 09/09	LA Metro Rail, Regional Connector Transit Corridor, Metropolitan Transportation Authority (MTA), Los Angeles County: Performed the preliminary design using the Subway Environment Simulation (SES) program to model, analyze and size tunnel fans needed for ventilation in the event of an emergency fire in the tunnel.
03/19 – 04/20	Chicago DOT, Webster Avenue Bascule Bridge, Cook County, IL: Performed rehabilitation and replacement design for selective mechanical components for these movable bridges which include but not limited to development of PS&E for new sump pump, associated supports, lifting cables, piping and associated valves, automatic water level and alarm controls associated wiring and control panels, local pump control panel. Provisions were made in the contract documents for dewatering and complete cleaning of the sump pit prior to installation of new pump and associated components. Reviewed pump performance test data and approved shop drawings.

Firm employed by WSP USA Inc.				
Name	Brian Kissee, PE		Years of relevant experience with this employer	6
Title	Bridge Inspection Team Leader		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			BS / 2017 / Civil Engineering	
Active registration number / state / expiration date			PE #29557 /KS / 2024; PE #2022002322 / MO / 2024	
Year registered	KS: 2023; MO: 2022	Discipline	Professional Engineer: Structural/Civil	
Contract role(s) / brief description of responsibilities			<p>Brian is a structural engineer with over six years of experience in rail and highway bridge inspections and load ratings. He is experienced in serving as the checking engineer for highway and rail bridge load ratings. Brian has performed over 1000 bridge inspections in Kansas, Missouri, Arkansas, and Texas. He has worked on construction engineering repair projects and designed steel plate girder superstructures. Brian is also experienced in railroad bridge construction and rehabilitation. Training: OSHA 10-Hour Construction; National Highway Institute (NHI) Course No. 130055, Safety Inspection of In-Service Bridges; AREMA Bridge Inspection Training – Complete Package – Modules 1 – 6; National Highway Institute (NHI) Course No. 130078, Fracture Critical Inspection Techniques for Steel Bridges; 2023 Bureau of Local Projects Bridge Inspection Team Leader Training – KDOT; National Highway Institute (NHI) Course No. 130053C, Bridge Inspection Refresher Training. Mr. Kissee’s role for this IDIQ is Structural Tunnel Inspector and Professional Engineer: Structural.</p>	
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).			
08/23 – Present	TxDOT Statewide Routine Bridge Inspections, TX: Assistant Team Leader. Assisted with over 200 on and off-system routine bridge inspections. Created bridge inspection reports summarizing findings. Entered applicable data into the AssetWise database, and generated reports.			
03/20 – 07/23	Kansas City Southern Railroad, Fracture Critical Bridge Inspections, US: Team Lead over 40 fracture critical bridge inspections for through/deck plate girders, through/deck trusses and steel box girders. A complex through truss vertical lift bridge was also inspected. Classified and recorded steel fatigue prone details. Created inspection reports summarizing findings and checked superstructure load ratings using Excel in accordance with AREMA Chapter 15 for steel through plate girder and trusses.			
05/22 – 09/22	KDOT, Emergency Barrier and NBIS QA Bridge Inspections, KS: Team Lead. Over 50 bridge inspections focusing on defective barriers above/over roadway traffic. Investigated deterioration and documented findings. Served as an independent NBIS QA inspector on various on-system bridges.			
06/21 – 09/21	ArDOT, I40 Over the Mississippi River Emergency Inspection, Alabama. Team Leader. Served as a team leader for an emergency inspection on the Hernando de Soto Bridge (I-40 over the Mississippi River – Steel Tied Architecture). The			

	inspection included all steel members below the concrete deck. Classified and documented fatigue prone details. Measured and reported section loss throughout.
08/18 – 07/19	TxDOT Statewide Fracture Critical Bridge Inspection Contract, TX: Assisted Team Leader with fracture critical inspections over railroad right-of-way (ROW). Completed over 45 spans of inspections for through/deck trusses, plate girders, and steel tub girders, fracture critical straddle bents over railroad ROW. The fracture critical bridge inspection for the Rainbow Bridge in Port Arthur, Texas was also included in this project.

Firm employed by ECM Consultants, Inc.				
Name	Ujjal DasGupta, PE		Years of relevant experience with this employer	28
Title	President		Years of relevant experience with other employer(s)	25
Degree(s) / Years / Specialization		BS / 1968 / Civil Engineering; ATSSA Work Zone Traffic Control Flagger, Technician & Supervisor and LPA Core Training Module		
Active registration number / state / expiration date		#0019849 / LA / 2025		
Year registered	1982	Discipline	Professional Engineer: Civil	
Contract role(s) / brief description of responsibilities		Mr. DasGupta's vast experience in managing inspections of several LADOTD tunnels, complex Movable bridges, fixed bridges and major roadway improvements will be an asset for this contract. He has over 53 years of experience in project management, civil and structural inspections and engineering design, construction management, and construction engineering & inspection (CE&I) services. Mr. DasGupta's role for this IDIQ will be the Civil Tunnel Inspector and Professional Engineer: Civil.		
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).			
05/10 – 08/12	S.P. No. 700-38-0110 Belle Chasse Tunnel Rehabilitation, LADOTD, Plaquemines Parish, LA: Mr. Dasgupta served as Project Principal/POC for this \$2.1 tunnel rehabilitation project and was responsible for overall performance, QA/QC and contract management. ECM provided field inspection, design support and construction administration for rehabilitation of the tunnel. ECM's scope of services included, Field inspection for physical condition assessment of the elements of the tunnel included in the scope ; Assist in preparation of report and cost estimates for approved rehabilitation items; Assist in preparation of bid documents; Attend the pre-construction meeting; Provide Construction Administration including Managing RFIs and Change Requests from contractor; Keeping clear and concise records of the contractual operations; Managing RFIs and Change Requests from contractor and Attending substantial and final completion inspections.			
03/14 – 03/16	S.P. No. 4400004383, Harvey Tunnel Inspection, LADOTD, Jefferson Parish, LA: Served as Project Manager for ECM for this project. ECM provided visual inspection, documentation and report preparation support services for the Harvey Tunnel in accordance with the National Tunnel Inspection Standards (NTIS). The scope for visual inspection of the project included structural elements; drainage system; electrical systems including tunnel lighting, traffic control, CCTV, fire/incident detection, Power Distribution, Supervisory Control and Data Acquisition systems and mechanical system including pumps, ventilation and standpipe. ECM's scope of services included, but not limited to: Field inspection with the project team; Inspection of tunnel and approach pavements, tunnel walls, drainage, portal buildings; Report preparation support and reviews and Cost estimating.			
02/20 – 05/20	Belle Chasse Tunnel Inspection for DBi, Plaquemines Parish, LA: As Principal, Mr. Dasgupta performed visual inspections with the inspection team that included structural, electrical, mechanical engineers and inspectors. The purpose of this tunnel inspection was to assess existing condition of the tunnel as per DOTD requirements and preparing inspection report for submission to DOTD, summarizing findings and provide recommendations based on engineering judgement for potential maintenance and repair needs during the construction of the proposed new Belle Chasse bridge. Inspection of tunnel included structural, mechanical and electrical elements. This included tunnel walls, joints, leak repair joints, liners, approach			

	<p>pavements, general deterioration for Liner walls, Crown Liner; Walkway Floor & Wall; Air Duct; Air Flues and Niches; Fence; Portals; Tile Finish and Tunnel Roadway, Ventilation System; Carbon Monoxide Detection System, Plumbing and Sewage Disposal; HVAC and Space Heating; Tunnel Drainage; Fire Protection; Compressed Air System. Tunnel lighting; Power Distribution System; Gretna Side Pump Room; Mid Channel Pump Room; Belle Chasse Side Pump Room; The Belle Chasse side fan room; Pump starter control panels; Emergency Power System; Fire Alarm System; CO detection system; Tunnel Traffic Control system and CCTV etc.</p>
03/14 – 04/16	<p>Belle Chasse Tunnel Inspection, LADOTD, Plaquemines Parish, LA: Mr. Dasgupta served as Principal and Project Manager for ECM for this project. This included visual inspections for structural, electrical, mechanical engineers and inspectors. The purpose of this tunnel inspection was to assess existing condition of the tunnel as per DOTD requirements and assist prime for preparing of inspection report for submission to DOTD. Report included a summary of findings and provide recommendations based on engineering judgement for potential maintenance and repair needs. Inspection of the Belle Chasse Tunnel included structural, mechanical and electrical elements of the Tunnel in accordance with the National Tunnel Inspection Standards (NTIS). He walked with the inspection team and observed visual inspection of structural elements and civil items such as tunnel roadway pavement, tunnel approach roadways, drainage, waste disposal system etc. Structural inspection included that mostly included tunnel walls, joints, leak repair joints, liners, general deterioration for Liner walls, Crown Liner; Walkway Floor & Wall; Fence; Portals; Tile Finish Plumbing and Sewage Disposal; Tunnel Drainage and Gretna Side; Mid Channel and Belle Chasse Side Pump Room etc.</p>
01/09 – 12/13	<p>S.P. No. 064-05-0085 (CE&I), Bayou Lafourche Vertical Lift Bridge at Larose, LADOTD, Lafourche Parish, LA: Mr. Dasgupta served as Principal and Contract Manager for the CE&I services for this \$32 million vertical lift movable bridge. This new bridge replaced the former LA 310 bridge at LA 657 extension to LA 308. This is the largest span lift bridge in the state of Louisiana. The scope of work included marine pile driving, concrete piers, concrete towers, installation of structural steel members for the movable bridge, sheaves, cables, barriers, guard rails, field painting, and concrete approaches. This project is the 3rd largest ARAA funded transportation project in the State. His responsibilities included overall management and to ensure that all contractual requirements are met.</p>
01/21 – Present	<p>S.P. No. H.004791 (CQCM), Belle Chase Bridge and Tunnel Replacement, P3, Design-Build Project, Plaquemines Parish, LA: Mr. Dasgupta is serving as Technical Advisor for the Construction Quality Control Management (CQCM) services provided by ECM for this \$182 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 will include the demolition of the existing Perez Bridge and Tunnel. The new bridge is being constructed to 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.</p>

Firm employed by ECM Consultants, Inc.			
Name	Zachary Collier, PE	Years of relevant experience with this employer	4
Title	Project Engineer/Inspection Coordinator	Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization		BS / 2014 / Civil Engineering; ATSSA Work Zone Traffic Control Flagger Technician	
Active registration number / state / expiration date		#42957 / LA / 2025	
Year registered	2018	Discipline	Professional Engineer: Civil
Contract role(s) / brief description of responsibilities		Mr. Collier has about 9 years of experience working on construction engineering and Inspection projects. He worked for LADOTD for 4 years In District 61 Project Engineer's Office. His projects included roadway and bridge construction, roadway rehabilitation, drainage repair and enhancements, utilities relocations, and pedestrian facility improvements. His duties and responsibilities included administering state construction contracts, plan review, staffing construction projects with certified inspectors, change order reviews and approvals. Mr. Collier's role for this IDIQ will be the Civil Tunnel Inspector and Professional Engineer: Civil.	
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).		
10/21 – Present	S.P. No. H.004791, Belle Chasse Bridge and Tunnel Replacement, P3, Design-Build Project, Plaquemines Parish, LA: ECM is serving as the Construction Quality Control Firm (CQCF) for this \$182 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 the Belle Chasse Tunnel. The new bridge is being constructed to 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. Mr. Collier is serving as the Project Engineer for this project.		
04/19 – 05/22	S.P. No. H.013579, Pecue Lane/I-10 Interchange Phase II Bridges Over I-10, LADOTD, East Baton Rouge Parish, LA: Mr. Collier served as the Project Engineer for this \$14.6 million overpass construction project includes two new multi-lane bridges over I-10 in Baton Rouge which will form the center of one of the state's first diverging diamond interchanges. He provided supervision of inspection services, contract administration services that included project coordination, attending progress meetings, document management, data entry in Site Manager, manage RFIs and submittals, review plan change requests, review monthly pay estimates, prepare plan changes, keep concise record of all documents in chronological order so that project closeout documentation for final acceptance, including the 2059 will be arranged and completed properly on time.		
07/20 – 11/22	Severn Avenue Reconstruction: Veterans to W. Esplanade, Jefferson Parish, LA: Mr. Collier served as the Project Engineer for this \$14 million complete street construction project. This project included PCC paving, major drainage improvements, ADA facilities, the addition of dedicated bike lanes, addition of turn lanes, traffic and pedestrian signals, street		

	lighting and landscaping etc. He provided CE&I services that included project coordination, managing inspection services, data entry in Site Manager, manage RFIs and submittals, review monthly pay estimates, and keep concise record of all documents in chronological order so that project closeout documentation will be completed timely for final acceptance. He is also coordinating with DOTD, Parish and utility entities.
04/19 – 06/20	S.P. No. H.006546 Intersection Upgrade N. Canal & 7th St, Lafourche Parish, LA: Work on this project included installation of new turn lanes, traffic signals, sidewalks, and handicapped curb ramps. The project also included installation of new drainage pipes and structures and milling and overlaying the existing 4 lane divided highway. Mr. Collier served as the Project Engineer on this project which is part of LA DOTD’s Safe Routes to Public Places Program (SRTPPP).
04/19 – 11/19	S.P. No. H.012479 – Audubon Avenue and Ardoyne Drive, Mini-Roundabout, Lafourche Parish, LA: Mr. Collier served as Project Engineer and provided CE&I services for this roundabout project which is part LA DOTD Safe Routes to School Program. This project included milling and overlaying the existing intersection, installing new curb and gutters in a roundabout configuration and installing ADA compliant pedestrian facilities. Mr. Collier served as the project Engineer on this project.
02/18 – 05/18	I-110 Ramps at Convention and Florida LADOTD East Baton Rouge Parish, LA: As DOTD Asst. Project Engineer, Mr. Collier was responsible for the construction administration of this project that involved widening and rehabilitating the I-110 northbound exit ramp at Convention Street and the I-110 southbound entrance ramp at Florida Street.
10/17 – 10/18	S.P. No. H.010560 – Essen Lane Widening, East Baton Rouge Parish, LA: Mr. Collier served on the Project Engineering team for this \$8 million widening project. Work included adding an additional travel lane on northbound Essen Lane, milling and overlaying the existing 4 lane roadway, new signalized intersections, new ADA ramps at all driveways and intersections, and additional drainage capacity. He provided contract administration support that included project coordination, managing inspection services, data entry in Site Manager, manage RFIs and submittals, review monthly pay estimates, and keep concise record of all documents in chronological order.
10/17 – 10/18	S.P. No. H.010560 – Essen Lane Widening, East Baton Rouge Parish, LA: Mr. Collier served on the Project Engineering team for this \$8 million widening project. Work included adding an additional travel lane on northbound Essen Lane, milling and overlaying the existing 4 lane roadway, new signalized intersections, new ADA ramps at all driveways and intersections, and additional drainage capacity. He provided contract administration support that included project coordination, managing inspection services, data entry in Site Manager, manage RFIs and submittals, review monthly pay estimates, and keep concise record of all documents in chronological order.
10/17 – 08/18	S.P. No. H.010560 – Essen Lane Widening, East Baton Rouge Parish, LA: Mr. Collier served on the Project Engineering team for this \$8 million widening project. Work included adding an additional travel lane on northbound Essen Lane, milling and overlaying the existing 4 lane roadway, new signalized intersections, new ADA ramps at all driveways and intersections, and additional drainage capacity. He provided contract administration support that included project coordination, managing inspection services, data entry in Site Manager, manage RFIs and submittals, review monthly pay estimates, and keep concise record of all documents in chronological order.

Firm employed by ECM Consultants, Inc.				
Name	Benjamin Dow		Years of relevant experience with this employer	15
Title	Senior Inspector		Years of relevant experience with other employer(s)	17
Degree(s) / Years / Specialization			High School Diploma	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Mr. Dow has over 32 years of experience in performing inspection for projects such as: tunnels, roads and bridges, dams, levees, and coastal restoration projects. Mr. Dow's role for this IDIQ will be Civil Tunnel Inspector.	
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).			
02/20 – 04/20	Belle Chasse Tunnel Inspection for DBi, Plaquemines Parish, LA: As Inspector, Mr. Dow performed visual inspections with the inspection team that included structural, electrical, mechanical engineers and inspectors. The purpose of this tunnel inspection was to assess existing condition of the tunnel as per DOTD requirements and preparing inspection report for submission to DOTD, summarizing findings and provide recommendations based on engineering judgement for potential maintenance and repair needs during the construction of the proposed new Belle Chasse bridge. Inspection of tunnel included structural, mechanical and electrical elements. He performed structural and civil inspections that mostly included tunnel walls, joints, leak repair joints, liners, approach pavements, general deterioration for Liner walls, Crown Liner; Walkway Floor & Wall; Fence; Portals; Tile Finish and Tunnel Roadway, Plumbing and Sewage Disposal; Tunnel Drainage and Gretna Side; Mid Channel and Belle Chasse Side Pump Room etc.			
03/14 – 03/16	S.P. No. 4400004383, Harvey Tunnel Inspection, LADOTD, Jefferson Parish, LA: Served as Senior Inspector and provided visual inspection, documentation and support for report preparation for the Harvey Tunnel in accordance with the National Tunnel Inspection Standards (NTIS). The scope of the project included visual inspection of the structural elements; drainage system; electrical systems, tunnel lighting, traffic control, CCTV, fire/incident detection, Power Distribution, Supervisory Control and Data Acquisition systems and mechanical system including pumps, ventilation and standpipe. Mr. Dow performed visual inspection for the condition of the pavement system including Tunnel roadway, approach roadways, barriers, sidewalks, walls, hatches, adits, manways, wall niches, and passage doors and the portal buildings. Structural Inspection for evidence of settlements and distresses, signs of cracking, convergence, shifting, or general deterioration for portal approaches and buildings; floors, walls, ceiling, and support members; ceiling slabs, supports and finishes; Joints in locations of tunnel leakage etc.			
04/22 – Present	S.P. No. 713-38-0001, Belle Chasse Bridge, A P3 Design-Build Project, LADOTD (Developer: Plenary Infrastructure Belle Chasse LLC): Mr. Dow is providing construction inspection services as one of the inspectors for this \$182 million new Mid-Level fixed span bridge that will span the Intracoastal Waterway on Louisiana Highway 23. This project will include the demolition of the existing Perez Movable Bridge and the Belle Chasse Tunnel. This work includes pile driving, installing steel girders, installing prestressed concrete girders, on grade roadway including earthwork, subbase and base, drainage, utilities relocation, PCC pavement, Asphaltic Concrete pavement, concrete barrier railing etc.			

01/09 – 12/13	S.P. No. 064-05-0085, Bayou Lafourche Bridge at Larose, LADOTD, Lafourche Parish, LA: Mr. Dow served as construction inspector for this \$32 million vertical lift bridge. This 122' x84' movable section is the largest span lift bridge in the state. The work included driving concrete piles, steel sheet pile TRS, concrete piers, 96' high concrete towers, installation of structural steel members of the bridge, sheaves, cables welding, bolted connections, anchor bolts, and concrete approaches.
09/21 – 03/22	S.P. No. H.011752, Severn Avenue Corridor Improvement, LADOTD/Jefferson parish-DPW, Jefferson, LA: Mr. Dow served as one of the Construction Inspector on the project. Scope of project include removal and replacement of existing PCC pavement with new PCC pavement, sidewalks with 8' wide brick paver sidewalks, ADA compliant ramps, striping, crosswalks at intersections, driveway aprons, corridor improvements to facilitate new bike lane, addition of Turn Lane at 17th street and West Esplanade, replacement and upgrade of subsurface drainage system, streetscaping, new bike path., new decorative street lighting, pedestrian lighting and pedestrian signals.
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.
06/21 – 04/22	JPPW No. 2013-010-RB, Lapalco Blvd. Bridge over Bayou Segnette, Jefferson Parish DPW, Jefferson Parish, LA: Mr. Dow provided construction inspection for rehabilitation of this 3,000' long bridge in Jefferson Parish. He performed inspections for the replacement of all bearing pads for the girders that required lifting of each span individually, replace all damaged and bent anchor bolts and angle clits, replace all deck expansion joint systems, remove and replace the bridge's concrete curtain walls, installing new expansion joint materials on the deck and installation of a heavy steel structure to support the concrete girders in the event the movement of the span continues beyond the bent cap.
05/14 – 12/16	S.P. No. 4400003534 Retainer Contract for Underwater Bridge Inspection Services, LADOTD; Statewide, LA: Mr. Dow provided inspection services for approximately 100 bridges under this five-year retainer contract. Scope of work included detailed reports involving elements and conditions rating and documentation of any significant deviations from as-built conditions for each inspection, recommendations for rehabilitation/repair, as well as other pertinent data.

Firm employed by ECM Consultants, Inc.				
Name	Emilio Rodriguez		Years of relevant experience with this employer	13
Title	Senior Inspector		Years of relevant experience with other employer(s)	20
Degree(s) / Years / Specialization			High School Diploma	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Mr. Rodriguez has over 33 years of experience as an inspector. He has provided inspections for tunnels, fixed and movable bridges, coatings and painting, dam safety, inspections, periodic inspection of levees, earthen and rock dikes construction, erosion protection, in-service bridge inspection, underwater bridge inspections and coastal restoration projects. Mr. Rodriguez's role for this IDIQ will be Structural Tunnel Inspector.	
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).			
03/14 – 03/16	S.P. No. 4400004383, Harvey Tunnel Inspection, LADOTD, Jefferson Parish, LA: Mr. Rodriguez performed visual inspection, documentation and report preparation support services for the Harvey Tunnel in accordance with the National Tunnel Inspection Standards (NTIS). Scope included structural elements drainage system, electrical systems including tunnel lighting, traffic control, CCTV, fire/incident detection, power distribution, supervisory Control and data acquisition systems, mechanical system including pumps, ventilation and standpipe. A visual inspection and documentation the condition of the pavement system included Tunnel roadway, approach roadways, barriers, sidewalks, walls, hatches, adits, manways, wall niches, and passage doors and the portal buildings. Structural Inspection for evidence of settlements and distresses, signs of cracking, convergence, shifting, or general deterioration for portal approaches and buildings; floors, walls, ceiling, and support members; ceiling slabs, supports and finishes; Joints in locations of tunnel leakage etc.			
05/10 – 08/12	S.P. No. 700-38-0110 Belle Chasse Tunnel Rehabilitation, LADOTD, Plaquemines Parish, LA: Mr. Dasgupta served as Project Principal/POC for this \$2.1 tunnel rehabilitation project and was responsible for overall performance, QA/QC and contract management. ECM provided field inspection, design support and construction administration for rehabilitation of the tunnel. ECM's scope of services included, Field inspection for physical condition assessment of the elements of the tunnel included in the scope ; Assist in preparation of report and cost estimates for approved rehabilitation items; Assist in preparation of bid documents; Attend the pre-construction meeting; Provide Construction Administration including Managing RFIs and Change Requests from contractor; Keeping clear and concise records of the contractual operations; Managing RFIs and Change Requests from contractor and Attending substantial and final completion inspections.			
02/23 – Present	S.P. No. 713-38-0001, Belle Chasse Bridge and Tunnel Replacement, A P3 Design-Build Project, LADOTD (Developer: Plenary Infrastructure Belle Chasse LLC): Mr. Rodriguez is providing construction inspection services as one of the inspectors for this \$182 million new Mid-Level fixed span bridge that will span the Intracoastal Waterway on Louisiana Highway 23. This project will include the demolition of the existing Perez Movable Bridge and the Belle Chasse Tunnel. This work includes pile driving, installing steel girders, installing prestressed concrete girders, on grade roadway including			

	earthwork, subbase and base, drainage, utilities relocation, PCC pavement, Asphaltic Concrete pavement, concrete barrier railing etc.
02/09 – 04/11	S.P. No. 064-05-0085, Bayou Lafourche Bridge at Larose, LADOTD, Lafourche Parish, LA: Mr. Rodriguez served as construction and coating inspector for this \$32 million vertical lift bridge. This 122' x84' movable section is the largest span lift bridge in the state. The work included driving concrete piles, steel sheet pile TRS, concrete piers, 96' high concrete towers, installation of structural steel members of the bridge, sheaves, cables welding, bolted connections, anchor bolts, and concrete approaches. Project also included inspection of surface preparation and field painting/protective coating of main deck span, lift heads, mechanical components, electrical and control systems.
06/13 – 03/14	S.P. No. 064-05-0085, Bayou Lafourche Bridge at Larose, LADOTD, Lafourche Parish, LA: Mr. Rodriguez served as construction and coating inspector for this \$32 million vertical lift bridge. This 122' x84' movable section is the largest span lift bridge in the state. The work included driving concrete piles, steel sheet pile TRS, concrete piers, 96' high concrete towers, installation of structural steel members of the bridge, sheaves, cables welding, bolted connections, anchor bolts, and concrete approaches. Project also included inspection of surface preparation and field painting/protective coating of main deck span, lift heads, mechanical components, electrical and control systems.
05/11 – 05/13	I-10 Calcasieu River Bridge Repairs LADOTD Calcasieu Parish, LA: Construction Inspector: Mr. Rodriguez provided construction inspection services for this \$7.8 million project involving 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. He also provided inspection of surface preparation and application of protective coating for all structural steel components. This also involved monitoring ambient conditions, coating mixing, wet and dry film thickness and final coating cure, cleaning. Work included removal of lead-based paint under strict requirements of Coast Guard prior to repainting.
07/13 – 02/14 and 06/21 – 04/22	Lapalco Bridge Over Bayou Segnette, Jefferson Parish, LA: Mr. Rodriguez performed comprehensive bridge inspection as one of the FHWA-NBIS certified inspectors, conforming to National Bridge Inspection Standard (NBIS). This involved complete physical inspection of all the structural elements of the bridge for documenting deficiencies, damages and non-standard elements for the Lapalco Blvd. Bridge over Bayou Segnette. Work included structural inspections of girders, bents, risers, anchor bolts, bearing pads, deck, expansion joints, railings, curtain walls and approaches. as well as underwater inspections of the piers and foundation and scour depths, and inspection of coating (LBP) of the steel girders. Mr. Rodriguez also provided construction inspection for the project from 06/21-04/22 that included replacing all bearing pads for the girders which required lifting of each span individually, replace all damaged and bent anchor bolts and angle clits, replace all deck expansion joint systems, remove and replace the bridge's concrete curtain walls, installing new expansion joint materials on the deck and a heavy steel structure to support the concrete girders in the event the movement of the span continues beyond the bent cap.
08/14 – 12/16	Contract No. 4400003534, Retainer Contract for Underwater Bridge Inspections, LADOTD; Statewide, LA: Mr. Rodriguez provided bridge inspection for performing about 400 underwater bridge inspections for this five-year retainer contract. Of the 400 bridges, 42 of them are movable bridges. A report is generated for each inspection that would include the results of the inspection and other pertinent data.

Firm employed by ECM Consultants, Inc.				
Name	Bob Tate		Years of relevant experience with this employer	18
Title	Senior Inspector		Years of relevant experience with other employer(s)	20
Degree(s) / Years / Specialization			High School Diploma	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Mr. Tate has over 38 years of experience in performing inspection of tunnels, roads and bridges, drainage and utility projects. Mr. Tate's role for this IDIQ will be Structural Tunnel Inspector.	
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).			
01/14 – 03/16	S.P. No. 4400004383, Harvey Tunnel Inspection, LADOTD, Jefferson Parish, LA: Served as Senior Inspector and provided visual inspection, documentation and support for report preparation for the Harvey Tunnel in accordance with the National Tunnel Inspection Standards (NTIS). The scope of the project included visual inspection of the structural elements; drainage system; electrical systems, tunnel lighting, traffic control, CCTV, fire/incident detection, Power Distribution, Supervisory Control and Data Acquisition systems and mechanical system including pumps, ventilation and standpipe. Mr. Tate performed visual inspection for the condition of the pavement system including Tunnel roadway, approach roadways, barriers, sidewalks, walls, hatches, adits, manways, wall niches, and passage doors and the portal buildings. Structural Inspection for evidence of settlements and distresses, signs of cracking, convergence, shifting, or general deterioration for portal approaches and buildings; floors, walls, ceiling, and support members; ceiling slabs, supports and finishes; Joints in locations of tunnel leakage etc.			
02/14 – 03/16	Belle Chasse Tunnel Inspection, LADOTD, Plaquemines Parish, LA: As Inspector, Mr. Tate performed visual inspections with the inspection team that included structural, electrical, mechanical engineers and inspectors. The purpose of this tunnel inspection was to assess existing condition of the tunnel as per DOTD requirements and assist prime for preparing of inspection report for submission to DOTD. Report included a summary of findings and provide recommendations based on engineering judgement for potential maintenance and repair needs. Inspection of the Belle Chasse Tunnel included structural, mechanical and electrical elements in Tunnel in accordance with the National Tunnel Inspection Standards (NTIS). He performed structural and civil inspections that mostly included tunnel walls, joints, leak repair joints, liners, approach pavements, general deterioration for Liner walls, Crown Liner; Walkway Floor & Wall; Fence; Portals; Tile Finish and Tunnel Roadway, Plumbing and Sewage Disposal; Tunnel Drainage and Gretna Side; Mid Channel and Belle Chasse Side Pump Room etc.			
04/09 – 10/16	Bayou Lafourche Bridge at Larose, LADOTD; Lafourche Parish, LA: Mr. Tate served as construction inspector for this \$32 million Bayou Lafourche Vertical Lift Bridge project. He provided inspection of various items of construction works as directed by the lead inspector. Scope of work involved construction inspection for driving concrete piles, concrete pier construction, concrete bridge towers, installation of the 122’ span and 84’ wide steel movable section, bridge railings, painting steel structure, approach roadways and roadway modifications.			

02/18 – 07/19	N. Flannery/Firewood and Cloverland Bridges, East Baton Rouge Parish, LA SP No. H.010661.6: Mr. Tate is providing construction inspection for this project that involves the complete replacement of the N. Flannery, Firewood and Cloverland bridges. The project includes the removal of existing bridge structures, construction of new bridge substructure & superstructure components, adjacent embankments & roadway. Also included are quality control aspects such as monitoring contractor operations, preparing samples for QA testing and documentation as well as monitoring contractors for compliance with plans and specifications.
06/17 – 02/18	S.P. No. 009250, I-10: Highland to LA 73 Design-Build Project, LADOTD, East Baton Rouge/Ascension Parish, LA: Mr. Tate served as Structural Concrete Inspector for this \$72 million design-build project to widen I-10 from four to six lanes in both east and westbound directions, bridge modifications including replacing I-10 bridge over Highland Road, widening and rehabilitating I-10 bridge over Bayou Manchac, and rehabilitating LA 928 over I-10, and replacing I-10 over LA 73.
09/11 – 08/12	S.P. No. H.003203.6, (CE&I): I-10 Calcasieu River Bridge Repairs, LA DOTD, Calcasieu Parish, LA: Mr. Tate provided construction inspection for this bridge repair project that involved repairs to the approach trestle bents and stringers, repairs to the connections of the main deck truss and steel cantilever truss members, replacement of many damaged bridge railing in kind, cleaning and removal of lead based paint, painting of truss connections, anchor bolt repairs, and associated repairs to the approach roadway expansion joints.
08/16 – 11/18	S.P. No. H.007259: Fleur De Lis Drive Reconstruction (30th-Old Hammond Hwy), LADOTD; Orleans Parish, LA: Mr. Tate provided construction inspection services for this \$12 million reconstruction of Fleur de Lis Drive, a main artery in a residential corridor. The project includes grading, drainage, drainage structures and utilities, class II base course, superpave asphaltic concrete pavement, Portland cement concrete pavement, as well as ADA accessible ramps, sidewalks, curb and gutter, driveways and removal/replacement of sewer force mains and water mains. Mr. Tate monitored contractors' operations, prepared daily reports, records change orders, and assisted in coordinating testing/sampling.
06/08 – 08/13	S.P. No. H.007259: Fleur De Lis Drive Reconstruction (30th-Old Hammond Hwy), LADOTD; Orleans Parish, LA: Mr. Tate provided construction inspection services for this \$12 million reconstruction of Fleur de Lis Drive, a main artery in a residential corridor. The project includes grading, drainage, drainage structures and utilities, class II base course, superpave asphaltic concrete pavement, Portland cement concrete pavement, as well as ADA accessible ramps, sidewalks, curb and gutter, driveways and removal/replacement of sewer force mains and water mains. Mr. Tate monitored contractors' operations, prepared daily reports, records change orders, and assisted in coordinating testing/sampling.
01/09 – 02/12	S.P. No. 742-36-0123: Woodland Drive Rehabilitation; Orleans Parish, LA: Mr. Tate provided construction inspection for this project which involved grading, drainage structures, class II base course, PCC pavement, sidewalks, driveways, sewer system, water system, placing pavement markings, and related work on a section of Woodland Drive between General DeGaulle Drive and Tullis Drive in Orleans Parish. He prepared daily reports, reviewed pay estimates, monitored contractor activities and coordinated with the Project Engineer. Construction Cost was \$3.4M.

Firm employed by ECM Consultants, Inc.				
Name	Robert Brown		Years of relevant experience with this employer	8
Title	Lead Certified Inspector		Years of relevant experience with other employer(s)	19
Degree(s) / Years / Specialization			High School Diploma	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Mr. Brown has over 27 years of experience, including 12 years in inspection that includes Highways, major bridges, Asphalt and PCC roadways construction, inspection of structural concrete work, utilities relocations and new Drainage, Sewer and Water systems installations. Mr. Brown's role for this IDIQ will be Civil Tunnel Inspector.	
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).			
04/21 – Present	S.P. No. H.004791, Belle Chasse Bridge and Tunnel Replacement, P3, Design-Build Project, Plaquemines Parish, LA: ECM is serving as the Construction Quality Control Firm (CQCF) for this \$182 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 will include the demolition of the existing Perez Movable Bridge and the Belle Chasse Tunnel. The new bridge is being constructed to 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. Mr. Robert is serving as Lead certified inspector for this project.			
10/20 – 04/21	Pecue Lane/I-10 Interchange Phase II: Bridges Over I-10, East Baton Rouge Parish, LA: Mr. Brown served as the Certified Inspector for this \$14.6 million overpass construction project which includes two new multi-lane bridges over I-10 in Baton Rouge which will form the center of one of the state's first diverging diamond interchanges. He provided inspection services that included daily monitoring construction activities for compliance with plans and specifications, preparing daily diary, keeping track of daily work item quantities, attending progress meetings, maintaining all construction field records, review plan change requests, review monthly pay estimates.			
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.			
10/10 – 08/12	Construction of Levees, LPV 20.2: Mr. Brown served as Construction Inspector for the extension of levee berm foreshore at Reach 3 along Lake Pontchartrain. The project was over 14,000 feet in length with shoreline extension of about 150 feet. Geotextile separator fabric was placed underwater for stability, a graded stone berm was constructed, and the area between the berm and existing shoreline was filled in with sand and uncompacted fill. 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 inspecting construction materials before installation.
11/10 – 08/12	Quality Assurance Representative for USACE Civil Construction Projects: Mr. Brown provided quality assurance inspection services for LPV 20.2 reaches 3 and 4 extended levee berm foreshores. The project was over 14,000 feet in length along Lake Pontchartrain in Metairie. Materials comprised of R2200 graded stone, geotextile separator fabric, sand, and uncompacted fill. All materials and equipment were brought in by barge. The shoreline was extended out 150 feet. Geotextile separator fabric was placed underwater for stability and a graded stone berm was constructed. The area between this berm and the existing shoreline was filled in with sand and uncompacted fill. The quantity of the R2200 graded stone was over 317,000 tons.
02/09 – 08/10	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 was 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 between three main area superintendents and multiple field superintendents.
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 \$72 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.

Firm employed by ECM Consultants, Inc.				
Name	Kim Martinez		Years of relevant experience with this employer	9
Title	Lead DOTD Certified Inspector		Years of relevant experience with other employer(s)	30
Degree(s) / Years / Specialization		High School Diploma; LADOTD Asphalt and PCC Paving Inspector; Embankment and Base Course Inspector, ATSSA Work Zone Traffic Control Flagger, Technician & Supervisor, Nighttime Traffic Control, OSHA-10		
Active registration number / state / expiration date		N/A		
Year registered	N/A		Discipline	N/A
Contract role(s) / brief description of responsibilities		Ms. Martinez has 39 years of experience in performing construction inspection of roads, movable bridges, fixed bridges, drainage and utilities construction projects and documenting daily activities in Site Manager and Headlights. Ms. Martinez's role for this IDIQ will be Civil Tunnel Inspector.		
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).			
11/21 – Present	S.P. No. H.004791, Belle Chasse Bridge and Tunnel Replacement, P3, Design-Build Project, Plaquemines Parish, LA: ECM is serving as the Construction Quality Control Firm (CQCF) for this \$182 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 the Belle Chasse Tunnel. The new bridge is being constructed to 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. Ms. Martinez is serving as one of the certified inspector for this project.			
04/09 – 10/15	S.P. No. 064-05-0085, Bayou Lafourche Movable Bridge at Larose, LADOTD (CE&I) Lafourche Parish, LA: Ms. Martinez provided construction inspection for this \$32 million Bayou Lafourche Vertical Lift Bridge project to replace the existing LA 310 bridge at LA 657 extension to LA 308. Project included marine pile driving, piers construction, concrete tower columns; the installation of structural steel girder framed movable sections including sheaves, cables, etc.; operator's building; welding; bolted connections; anchor bolts; concrete approaches; and roadway reconstruction, etc. Work also included electrical and mechanical works, and surface preparation and field painting/protective coating of main deck span, lift heads, & mechanical components. Her responsibilities included daily QA inspection, maintaining all construction field records; making daily entries in Site Manager; coordinating with the U.S. Coast Guard, LADOTD Coordinator and Parish Engineer/Representative, coordination for all relocations/adjustments of utility facilities within the construction of the site; inspecting the contractor's construction operations and work for compliance with contract documents, preparing final estimate packages; and “As-Built” plans.			
06/08 – 08/13	S.P. No. 713-38-0001, Doullut Canal Movable Bridge, (CE&I), Plaquemines Parish, LA: Ms. Martinez served as Certified Inspector for this \$12 million project involving the construction of a movable steel girder bridge over Doullut Canal to replace			

	an existing bridge. This 150- foot unequal arm steel swing span is operated by dual hydraulic motors. Project included driving piles, concrete piers, steel girder bridge, operator's house, field painting of all girders for the swing bridge and PCC bridge approaches.
02/18 – 10/18	S.P. No. 009250 I-10: Highland to LA 73 Design-Build Project, LADOTD, East Baton Rouge/Ascension Parish, LA: Ms. Martinez served as Construction Inspector for this \$72 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.
11/16 – 05/19	S.P. No. H.007259: Fleur De Lis Drive Reconstruction (30th-Old Hammond Hwy), (CE&I) LADOTD; Orleans Parish, LA: Ms. Martinez is providing construction inspection services as Lead Inspector for this \$12 million roadway reconstruction of Fleur de Lis Drive, a main artery in a residential corridor. The project includes grading, drainage, drainage structures and utilities, class II base course, superpave asphaltic concrete pavement, Portland cement concrete pavement, as well as ADA accessible ramps, sidewalks, curb and gutter, driveways and removal/replacement of sewer force mains and water mains. Ms. Martinez provides oversight of contractors' operations, provides daily documentation in Site Manager, prepares field changes and records change orders, and assists in coordinating testing/sampling.
06/16 – 11/17	DPW No. 2000-B01: Gravier St. (S. Galvez to Broad St) City of New Orleans-DPW, LA: Ms. Martinez provided inspection services for this \$5.8 million roadway reconstruction project involving roadway removal, new subsurface drainage, 20" waterline, sewer lines, PCC roadways pavement, concrete sidewalks and driveways. She served as the primary construction inspector on site, monitored, prepared daily reports, computed quantities of work items, reviews monthly pay estimates and coordinates with Project Engineer and contractor.
02/11 – 07/13	S.P. No. H.003203.6, I-10 Calcasieu River Bridge Repairs, LADOTD, (CE&I), Calcasieu Parish, LA: Ms. Martinez provided construction inspection services for this \$7.8 million repair work at I-10 Calcasieu River Bridge, involving main truss connection repairs, saddle bearing repairs, cleaning and removal of lead based paint, painting of truss connections, pin plate connection repairs, anchor bolt repairs, trestle bent connection repairs, deck joint repairs, bridge handrail repairs, and roadway pavement joint repairs. She was responsible for maintaining construction field records, inspecting contractor's construction operations, daily inspection of traffic control signs and barricades, daily work reports, and coordination with project engineers.
05/20 – 10/21	S.P. No. H.011752, Severn Avenue Corridor Improvement, LADOTD/Jefferson parish-DPW, Jefferson, LA: Ms. Martinez is serving as the Lead Construction Inspector on the \$14 million project. Scope of project include removal and replacement of existing PCC pavement with new PCC pavement, sidewalks with 8' wide brick paver sidewalks, ADA compliant ramps, striping, crosswalks at intersections, driveway aprons, corridor improvements to facilitate new bike lane, addition of Turn Lane at 17th street and West Esplanade, replacement and upgrade of subsurface drainage system, streetscaping, new bike path., new decorative street lighting, pedestrian lighting and pedestrian signals.

Firm employed by ECM Consultants, Inc.				
Name	Jules Saunee		Years of relevant experience with this employer	2
Title	Certified Lead Inspector		Years of relevant experience with other employer(s)	14
Degree(s) / Years / Specialization			Bachelor of Science Construction Engineering Technology, LADOTD	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Mr. Saunee has over 16 years of experience in construction inspection of Highways, major bridges, Asphalt and PCC road construction, Structural concrete, utilities relocations and new Drainage, Sewer and Water systems installations. Mr. Saunee's role for this IDIQ will be Civil Tunnel Inspector.	
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).			
10/21 – Present	<p>S.P. No. H.004791, Belle Chasse Bridge and Tunnel Replacement, P3, Design-Build Project, Plaquemines Parish, LA: Mr. Saunee is serving as one of the certified inspectors for the \$182 Million construction of a new 4 lane bridge over the Intracoastal Waterways. ECM is serving as the Construction Quality Control Firm (CQCF) for this 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 the Belle Chasse Tunnel. The new bridge is being constructed to 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. Mr. Saunee is involved in inspection of all aspects of the project including but not limited to pile driving inspection, rebar inspection of structures, inspection of structural concrete pours, and monitoring contractor's quality control.</p>			
12/10 – 05/12	<p>Huey P Long Bridge Widening: Mr. Saunee served as one of the Inspector for the \$1.2 Billion widening of the Huey P Long Bridge in Metairie, LA. Project included erecting new railroad support structures, constructing a 3-lane bridge on both sides by widening the existing bridge. Work also included construction of major elevated bridge approaches and PCC roadway on both east and west banks. The asphaltic concrete Jefferson Highway on the East Bank was repaved, and a new PCC U S 90 Highway was constructed on Westbank. Mr. Saunee served as the lead Inspector for concrete, PCC roadway, asphaltic concrete paving and infrastructure installation.</p>			
04/17 – 04/20	<p>I-10 Widening Breaux Bridge to Lafayette: Mr. Saunee served as one of the inspectors for this \$100 Million Widening of I-10 for seven (7) miles between Breaux Bridge and Lafayette. The project included the construction of a 2-lane asphaltic concrete interstate, widening 5 existing bridges, replacing 1 bridge, and the removal/replacement of the existing 2-lane asphaltic concrete interstate in each direction. Mr. Saunee served as the lead Inspector on Asphalt work on the job involving approximately 300,00 tons of asphalt and all Electrical items. He also assisted Office and Project Engineers with monthly estimates and coordinated all SiteManger reports and final submittal package.</p>			

04/20 – 10/20	I-10 Loyola Interchange: Mr. Saunee served as one of the inspectors for \$125 Million Interstate Overpass Exit/Entrance to the Louis Armstrong International Airport. The Project entails construction 2 new overpasses exiting and entering I-10 at Loyola Avenue in Kenner, LA. and the reconstruction of Loyola Avenue under the I-10. Mr. Saunee performed inspection of Prestressed Precast Concrete piles Driving operation as well as frequently performed nighttime traffic safety inspections.
07/21 – 08/21	Lesan Dr UST Removal: Mr. Saunee served as the Lead Inspector for the \$60,000 removal of 2 underground fuel tanks. Project entailed the removal of the 2 500 gallons fuel tanks, backfilling the hole left by the removal and replacing the concrete parking lot that was disturbed by the removal as well as any other miscellaneous details that the SFLPAE added. Mr. Saunee oversaw all aspects of the project and ensures all activities were done within SFLPAE standards.
10/20 – 06/21	Causeway Bridge Rail Rehabilitation: Mr. Saunee served as one of the inspectors for the \$40 Million rehabilitation of the Causeway Bridge side rails. The project consisted of installing new rails on the entire southbound side of the bridge as well as installing several new side bound signs and removal of call boxes. Mr. Saunee oversaw several crews doing the installation of the new rails and compiled the data from crews and other inspectors for office use.
04/16 – 04/17	Ormond Blvd Repair/Mill/Overlay: Mr. Saunee served as the Lead Asphalt Inspector for the asphalt mill/overlay of Ormond Blvd in St. Charles Parish at a cost of \$1 Million. He also assisted in the PCCP inspection of Ormond Blvd. Compiled monthly estimates for Project Engineer's review.
02/16 – 08/16	Our Lady of The Lake Medical Complex: Mr. Saunee served as the lead inspector for the street/pedestrian ramp repair around the Our Lady of the Lake Medical Complex at a cost of \$800,000. Mr. Saunee inspected the removal and replacement of cracked panels, the removal of existing pedestrian ramps and the replacement of said ramps with ADA compliant ramps, and the sealing of the minor cracks in concrete panels. Compiled monthly estimates for Project Engineer's review.
06/11 – 08/11	Our Lady of The Lake Medical Complex: Mr. Saunee served as the lead inspector for the street/pedestrian ramp repair around the Our Lady of the Lake Medical Complex at a cost of \$800,000. Mr. Saunee inspected the removal and replacement of cracked panels, the removal of existing pedestrian ramps and the replacement of said ramps with ADA compliant ramps, and the sealing of the minor cracks in concrete panels. Compiled monthly estimates for Project Engineer's review.

Firm employed by Dufrene Surveying & Engineering Inc				
Name	Tildon J. Dufrene Jr., PE, PLS		Years of relevant experience with this employer	40
Title	Principal Land Surveyor		Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization			MEng / 1979 / Civil Engineering; BS / 1976 / Civil Engineering	
Active registration number / state / expiration date			PLS: #04563 / LA; PE: #018887 / LA / 2025	
Year registered	1980; 1986	Discipline	Professional Land Surveyor; Professional Engineer – Civil	
Contract role(s) / brief description of responsibilities			Tildon Dufrene is the Principal Surveyor and Civil Engineering for Dufrene Surveying & Engineering Inc. He has experience in providing and coordinating boundary surveys and topographic surveys of various size projects. These have included small and large residential lots, commercial properties, public roads, and levee systems. He has provided Civil Engineering design for drainage, sewer, water, and roadway projects in Louisiana. For Project, the role will be the primary contact for surveying services. Mr. Dufrene's role for this IDIQ is Surveyor.	
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).			
02/17 – 02/17	Belle Chasse Tunnel Rehab: Provided survey control for the scanning of the Belle Chasse Tunnel.			
02/19 – 02/19	Harvey Tunnel Rehab: Provided survey control for the scanning of the Harvey Tunnel.			
07/21 – 07-21	Harvey Tunnel Lighting: Provided survey control for the Lighting rehab of the Harvey Tunnel.			
08/22 – 12/22	Hope Haven Concert Meadows, Marrero, Jefferson Parish: Provided boundary and topographic survey of a 16 acres site.			
11/19 – 12/22	Waters at Manhattan Apartments, Harvey, LA: Boundary and topographic survey of the 16 acre site. Responsible for the civil engineering plans for the site plan, and sewer, water, drainage, and paving plans.			

Firm employed by Dufrene Surveying & Engineering Inc				
Name	Jonathan Dufrene Jr., PLS		Years of relevant experience with this employer	13
Title	Land Surveyor		Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization			BS / 2007 / Land Surveying	
Active registration number / state / expiration date			#05158/LA/2024	
Year registered	2016	Discipline	Land Surveyor	
Contract role(s) / brief description of responsibilities			Jonathan Dufrene has provided surveys of various types, including Boundary Surveys, Topographic Surveys, ALTA Surveys, Right of way Plans, Legal Descriptions, elevation Certificates, and construction layout. Projects vary in size from small residential lots to hundred-acre tracts. For this project Jonathan Dufrene will coordinate survey survey crew's task, provide necessary calculations, and review work. Mr. Dufrene's role for this IDIQ is Surveyor.	
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).			
02/17 – 02/17	Belle Chasse Tunnel Rehab: Provided survey control for the scanning of the Belle Chasse Tunnel.			
02/19 – 02/19	Harvey Tunnel Rehab: Provided survey control for the scanning of the Harvey Tunnel.			
09/14 – 04/22	Plaquemines Parish Levee System: Provide right-of-way surveys for various reaches of the Mississippi River levee and for the Back levee system.			
05/22	West Closure Complex, Harvey, LA: Scanning of the gates at the West Closure Complex for gate rehab.			
12/23 – Present	US Hwy 90 Lighting Layout, Lapalco to Railroad Bridge, Avondale, LA: Provide calculations and coordinate survey crew for layout of street lights on US Hwy 90 at Avondale.			

Firm employed by Urban Systems, Inc.				
Name	Nicole Stewart, PE, PTOE		Years of relevant experience with this employer	18
Title	Vice President/Transportation Engineer		Years of relevant experience with other employer(s)	1.5
Degree(s) / Years / Specialization			BS / 1997 / Civil Engineering	
Active registration number / state / expiration date			#34750/LA/2025; #2923/LA/2024	
Year registered	2009; 2012	Discipline	Professional Engineer: Civil; Professional Traffic Operations Engineering	
Contract role(s) / brief description of responsibilities			Ms. Stewart has 18 years of experience in Traffic and Transportation Engineering and is a certified Traffic Control Design Specialist. Ms. Stewart has extensive experience in preparing Transportation Management Plans and site-specific traffic control devices plans for every possible environment. This includes closing downtown streets with bike lanes and sidewalks, suburban road closures on multilane highways, and rural road closures requiring extensive detours as well as ramp and interstate closures, both intermittent and long term. She has experience in signal design and timing of coordinated systems for LADOTD which included developing a system engineering analysis for a new fiber optic communication network. She has experience using Highway Capacity Software (HCS), Synchro, and SIDRA. While her role in this contract will be Traffic Engineering, her experience preparing road widening and full reconstruction plans for LADOTD project will allow seamless integration with the prime's road design plans. Ms. Stewart's role for this IDIQ is Traffic Engineering.	
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).			
10/15 – 09/18	MacArthur Interchange Completion Phase II TMP: The design team was led by Ms. Stewart for the preliminary traffic signal design and the Traffic Management Plan (TMP) for proposed interchange modifications on US 90 (Westbank Expressway). Tasks for this work include conducting capacity analysis, safety analysis, detour analysis and developing proposed mitigations where applicable. Ms. Stewart was responsible for the QA/QC for this stage of the project. Final design for this project began in September 2019.			
05/09 – 05/10	City of New Orleans Streets Capital Improvements Redwood / Sandalwood Streets Capital Improvements: Ms. Stewart was project engineer for the construction administration for this complete roadway reconstruction. Ms. Stewart met with the contractor, resident inspector, and City Project Manager on a weekly basis to discuss progress, concerns and upcoming works. Ms. Stewart responded to all requests for information and reviewed all contractor pay requests. At the end of construction, Ms. Stewart lead the final walk through and provided a punch list of items that required attention before the project could be closed out.			
02/15 – 06/16	Bridge Preventative Maintenance District 61: Ms. Stewart was the principal in charge for Traffic Management Plans (TMP) for bridge replacement and repairs for various locations in Louisiana. This included developing various levels of TMP's based on LADOTD EDSM guidelines. Tasks included conducting capacity analysis, safety analysis, detour analysis and developing proposed mitigations where applicable. For the reconstruction of the LA 1 bridge over the Intracoastal Waterway, a detailed			

	Level 3 TMP was prepared. For this TMP, detailed work zone impact management strategies were developed to help minimize the project's impact on mobility.
03/12 – 11/13	MacArthur Interchange Signal Modification/ Signage & Striping / Traffic Control Devices Plans: The traffic study to evaluate the existing and projected operating conditions of the lower Westbank Expressway was prepared by Ms. Stewart. In the second phase, Ms. Stewart designed the new traffic signals for the interchange and neighboring intersections. She prepared the striping and signage plans to accommodate the ramp changes and prepared Traffic Control Devices Plans for the various stages of construction.
12/16 – 04/21	France Road - North Widening: Over time, France Rd between Gentilly Blvd and Hayne Blvd had deteriorated pavement and was in need of widening and drainage repairs. Adjacent to the west side of the roadway was a concrete floodwall that limited Right Of Way and the ability to maintain two-way traffic throughout construction. Ms. Stewart developed site specific traffic control plans implementing a one-way system and detouring traffic that would normally traverse in the opposite direction of the allowed movement. The plans were designed in accordance with the latest version of the MUTCD and the City of New Orleans traffic control standards.
02/18 – 03/20	Severn Ave: Veterans to W. Esplanade: Ms. Stewart was the traffic engineering project manager of this Jefferson Parish roadway reconstruction project. Severn Ave is a heavily travelled multi-lane boulevard requiring complex construction sequencing. Design plans were developed for temporary signals during construction and the permanent signal configurations with pedestrian accommodations. Signal plans were developed using the latest LADOTD TSI format. Ms. Stewart also managed the temporary traffic control plan development for multiple phases of construction, and she performed QA-QC. Another element of this project was coordination with Jefferson Parish and LADOTD to obtain approval of the Parish's equipment and specifications for use in the LADOTD bidding process.
03/10 – 01/14	Houma-Thibodaux to I-10 Connection North-South Corridor Environmental Impact Statement: Ms. Stewart evaluated new alignments to connect US 90 to LA 3127 to establish a new north-south corridor to link the existing interstate system to the future I-49 South and provide an alternate route during hurricane evacuations. Ms. Stewart conducted an analysis to evaluate traffic operations for the various alternatives and to recommend lane configurations for the terminal intersections. At the completion of the study Ms. Stewart performed the QA/QC for the Level 2 Transportation Management Plan that was prepared for the final corridor alignment.

Firm employed by Urban Systems, Inc.				
Name	Christine Darrah, PE		Years of relevant experience with this employer	9
Title	Transportation Engineer		Years of relevant experience with other employer(s)	20
Degree(s) / Years / Specialization			BS / 1997 / Civil Engineering	
Active registration number / state / expiration date			#25828/LA/2025	
Year registered	1999	Discipline	Professional Engineer: Civil	
Contract role(s) / brief description of responsibilities			Mrs. Darrah has experience in Transportation/Civil Engineering including maintenance of traffic, roadway design plans and specifications, construction management and quality control. She is proficient in the use of AutoCAD, Adobe Illustrator, and Highway Capacity Software (HCS). She also has experience using MicroStation and TransCAD. She has experience developing temporary striping and signage plans for various conditions including lane closures, road closures, flagging operations and full detour plans. Ms. Darrah also has experience in preparing traffic signal design plans in LADOTD format. This has included timing/phasing analysis, wiring diagrams, interconnect layouts, construction quantities, specifications and cost estimates. Her many years and wide variety of experiences are valuable during studies, design development and especially QA/QC. Mrs. Darrah's role for this IDIQ is Traffic Engineering.	
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).			
03/13 – Present	FEMA Recovery Roads Program: Ms. Darrah assisted with the design plans for the initial phase of roadway plans for the Seventh Ward, Bayou St John and Fairgrounds neighborhoods that were damaged by events related to Hurricane Katrina. Plans were prepared for partial and full concrete and asphalt pavement replacement and asphalt mill and overlay. Incidental paving included sidewalk and driveway replacement and ADA ramp installation at all intersections. She assisted with estimating quantities and construction costs. For the second phase of design services, the plans were for the full re-construction of several streets including waterline replacement Construction Administration services included overseeing inspectors and constriction operations, invoice reviews, preparation of field changes, plan changes for scope modifications, and close out documents.			
11/20 – 02/23	US 190 at Northshore and Camp Villere Roundabouts: As project engineer, Ms. Darrah oversaw the design of permanent striping & signage plans per LADOTD standards and specifications. She also managed the design of temporary traffic signals that will be required during the multiple phases of roundabout construction. A level 2 Traffic Management Plan (TMP) was also prepared. Ms. Darrah coordinated with the prime-consultant, St Tammany Parish, and LADOTD as needed.			
08/19 – 01/20	Citrus Boulevard Turn Lane: Ms. Darrah was the lead engineer and project manager for the new turn lane on Citrus Boulevard for the Amazon Distribution Facility in Harahan, Louisiana. The purpose of the project was to provide an eastbound left turn lane and reduce the existing median opening at the facility main entrance. Plans and specifications included typical sections, geometric layout, grading, and required signage and striping. Tasks included design, Auto-turn analysis, construction administration, and coordination with Jefferson Parish, utility companies, surveyors, and geotechnical engineer.			

09/15 – Present	Picardy-Perkins Traffic Signal: Ms. Darrah was the design engineer for two (2) traffic signals for the Picardy-Perkins Connector Project. In this role she worked closely with the prime consultant, LADOTD, and East Baton Rouge Parish to design the traffic signal operation and identify locations for signal equipment. Signal requirements included video detection, pedestrian accommodations, and advanced warning due to limited sight distance at the railroad underpass. The plan preparation required coordination with both East Baton Rouge City-Parish and LADOTD.
09/14 – 12/14	SELA 26 Widening of Florida Ave. Canal Phase II and III: Ms. Darrah designed Traffic Control Devices Plans to meet US Army Corps of Engineers, LADOTD and MUTCD standards. The plans and specifications included, but were not limited to, the proper placement of temporary Traffic Control Devices (signs, barricades, drums, roadway markings, etc.) to facilitate traffic safely and efficiently through the traffic control zone. Haul routes were designated when necessary.
06/22 – 10/22	Kansas City Southern, KCS Acadian Thruway: This project included lane closures and full closure of Acadian Thruway at the KCS bridge near the I-10 interchange in East Baton Rouge Parish. Ms. Darrah prepared the Traffic Control Devices Plans applying MUTCD and LADOTD standards for proper placement of traffic control devices. Additional project efforts included designing lane closures on an I-10 onramp for laydown access and police-controlled haul routes.
05/21 – Present	Complete Streets Group C- Bicycle Boulevard: The striping, signage, and wayfinding plan preparation for new Bicycle Boulevards on 15 corridors in Uptown and Downtown areas of New Orleans were prepared by Ms. Darrah. She oversaw data collection for 48-hour vehicular counts, pedestrian and cyclist counts, and radar speed studies. Ms. Darrah worked closely with the project team and City of New Orleans DPW to evaluate data collected and develop potential improvements to prioritize cyclists on the existing road network. Her striping and signage designs focused on providing clear, concise direction for cyclists, pedestrians, and motorists. The project is on hold while the City evaluates their priorities for the Complete Streets projects.

17. **Firm Experience:**

Firm name	Mott MacDonald		Past Performance Evaluation Discipline(s)*	Other: Multi-Discipline Tunnel Inspection
Project name	2021 FHWA Belle Chasse, Harvey, and Houma Tunnel Inspections		Firm responsibility	Prime
Project number	H.011006.5	Owner's name	LADOTD	
Project location	Plaquemines, Terrebonne, and Jefferson Parish		Owner's Project Manager	Haylye Brown, PE
Owner's address, phone, email	1212 E. Highway Dr., Baton Rouge, LA 70802, 255.379.1500, Haylye.brown@la.gov			
Services commenced by this firm (mm/yy)	03/21	Total consultant contract cost (\$1,000's)		\$421
Services completed by this firm (mm/yy)	10/21	Cost of consultant services provided by this firm (\$1,000's)		\$421

The LADOT owns, maintains, and operates three tunnels in the state of Louisiana, Harvey Tunnel, Houma Tunnel and Belle Chasse Tunnel. The LADOTD is responsible for holding bi-annual safety inspections, load rating evaluations and maintaining asset and condition rating records of all public roadway tunnels in Louisiana, in accordance with the Federal Highway Administration (FHWA).

Opportunity

This project served as an opportunity for the Louisiana DOTD comply with FHWA requirements and standards. It also provided a means through which DOTD can monitor the status of its tunnels to ensure necessary maintenance and repairs are being done to ensure the safe passage of pedestrians and motorists through the tunnel. These inspections also allow DOTD to better plan their tunnel rehabilitation efforts aimed at bringing the tunnels up to code and modernize them.

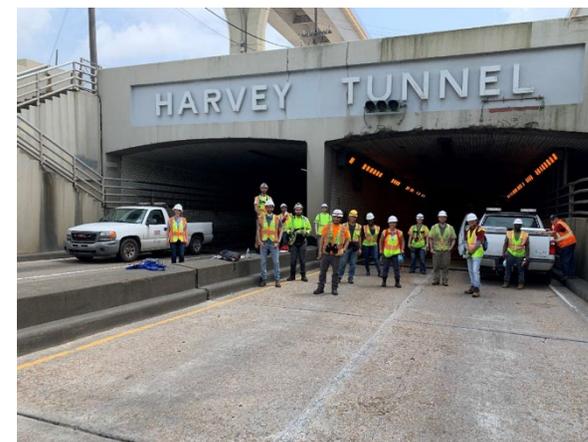
Solution

Mott MacDonald inspectors performed the 2021 FHWA Bi-Annual Routine Tunnel Inspections of both the Harvey, Houma, and Belle Chasse tunnels. Mott MacDonald fielded an experience team of inspectors and engineers, meeting all FHWA personnel requirements and inspected each of the tunnels, currently in use for vehicular traffic. The inspection included non-destructive testing of structural and civil elements throughout the tunnel as well as visual and operational testing of all tunnel systems. Systems included tunnel ventilation, drainage, lighting, fire/life safety, security and communications, power distribution and control systems supporting each tunnel. The team produced full inspection reports detailing the inspection methods used, all findings and deficiencies, element condition state tables and assessments, and more, with supporting photos and documentation. Lastly, Mott MacDonald formalized each inspection by updating the DOTD AssetWise management system used for FHWA reporting.

Outcome

LADOTD met FHWA requirements for inspection and record keeping of the Harvey and Houma tunnels. Said reports permitted DOTD to better understand the condition of its assets and plan the required interim maintenance and long-term rehabilitations needed to provide a safer roadway tunnel environment. The Harvey Tunnel is presently under construction for a full rehabilitation while the Belle Chasse Tunnel is scheduled to be demolished.

Key staff involved on the project: Antonio Gonzalez Jr, PE, NCTI; Kevin Walsh, PE, NCTI; Jude Bonsu, PE, NCTI; Keith Gaspar, PE, NCTI; Kristi Latimer, NCTI; Austin Kittok, PE



Firm name	Mott MacDonald		Past Performance Evaluation Discipline(s)*	Other: Multi-Discipline Tunnel Inspection
Project name	2023 FHWA Harvey and Houma Tunnel Inspections		Firm responsibility	Prime
Project number	H.011006.5	Owner's name	LADOTD	
Project location	Terrebonne and Jefferson Parish		Owner's Project Manager	Bradley Mistich, PE
Owner's address, phone, email	1212 E. Highway Dr., Baton Rouge, LA 70802, 255.379.1544, bradley.mistich@la.gov			
Services commenced by this firm (mm/yy)	01/23	Total consultant contract cost (\$1,000's)		\$591
Services completed by this firm (mm/yy)	10/23	Cost of consultant services provided by this firm (\$1,000's)		\$591

The LADOTD owns, maintains, and operates three tunnels in the state of Louisiana, Harvey Tunnel, Houma Tunnel and Belle Chasse Tunnel. The LADOTD is responsible for holding bi-annual safety inspections, load rating evaluations and maintaining asset and condition rating records of all public roadway tunnels in Louisiana, in accordance with the Federal Highway Administration (FHWA).

Opportunity

This project served as an opportunity for the Louisiana DOTD comply with FHWA requirements and standards. It also provided a means through which DOTD can monitor the status of its tunnels to ensure necessary maintenance and repairs are being done to ensure the safe passage of pedestrians and motorists through the tunnel. These inspections also allow DOTD to better plan their tunnel rehabilitation efforts aimed at bringing the tunnels up to code and modernize them.

Solution

Mott MacDonald inspectors performed the 2023 FHWA Bi-Annual Routine Tunnel Inspections of both the Harvey and Houma tunnels. Mott MacDonald fielded an experience team of inspectors and engineers, meeting all FHWA personnel requirements and inspected each of the tunnels, currently in use for vehicular traffic. The inspection included non-destructive testing of structural and civil elements throughout the tunnel as well as visual and operational testing of all tunnel systems. Systems included tunnel ventilation, drainage, lighting, fire/life safety, security and communications, power distribution and control systems supporting each tunnel. The team produced full inspection reports detailing the inspection methods used, all findings and deficiencies, element condition state tables and assessments, and more, with supporting photos and documentation. Lastly, Mott MacDonald formalized each inspection by updating the DOTD AssetWise management system used for FHWA reporting.

Outcome

LADOTD has consistently met FHWA requirements for inspection and record keeping of the Harvey and Houma tunnels. Said reports permitted DOTD to better understand the condition of its assets and plan the required interim maintenance and long-term rehabilitations needed to provide a safer roadway tunnel environment. The Harvey Tunnel is presently under construction for a full rehabilitation and DOTD intends to fully rehabilitate the Houma tunnel. The Belle Chasse is scheduled for demolition.

Key staff involved on the project: Antonio Gonzalez Jr, PE, NCTI; Christopher Lau, PE, NCTI; Sukru Birkok, PE, NCTI; Norris Harvey, PE; Jeffrey Long, PE, NCTI; Kristi Latimer, NCTI; Austin Kittok, PE



Firm name	Mott MacDonald	Past Performance Evaluation Discipline(s)*	Other: Multi-Discipline Tunnel Design and Construction Administration Support
Project name	Harvey Tunnel Full Rehabilitation Plan Preparation and Construction Administration	Firm responsibility	Prime
Project number	H.010673.5-1 & 2	Owner's name	LADOTD
Project location	Jefferson Parish, LA	Owner's Project Manager	Haylye Brown, PE
Owner's address, phone, email	1212 E. Highway Dr., Baton Rouge, LA 70802, 255.379.1500, Haylye.brown@la.gov		
Services commenced by this firm (mm/yy)	12/18	Total consultant contract cost (\$1,000's)	\$2,477 / \$1,365
Services completed by this firm (mm/yy)	Present	Cost of consultant services provided by this firm (\$1,000's)	\$2,477 / \$1,365

The LADOTD owns, maintains, and operates the Harvey Tunnel in Louisiana, located in Jefferson Parish, approximately one mile south of the Mississippi River. The Harvey Tunnel is an approx. 1,080-ft long, twin tube, bi-directional, dual-lane vehicular and pedestrian tunnel beneath the Harvey Canal. The tunnel was opened to traffic in 1957, predating current standards and codes and is deficient in that regards. Aside from general code deficiency, the tunnel structure has deteriorated, and most installed ancillary systems are non-operational.

Opportunity

This project served as an opportunity for the Louisiana DOTD to bring the tunnel up to present code both structurally and operationally, to improve pedestrian and motorist safety, and to modernize the tunnel sub-systems.

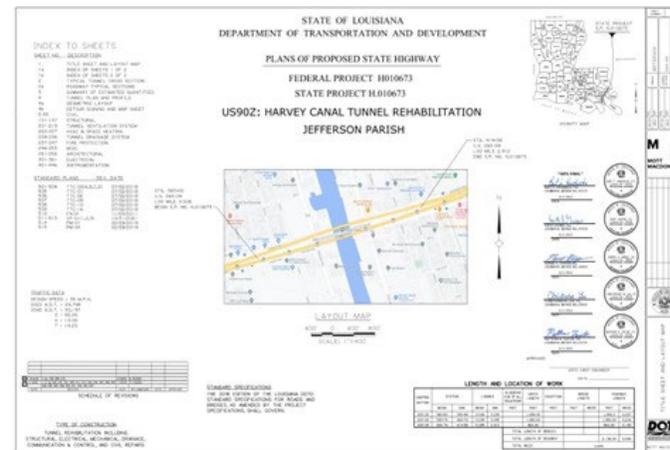
Solution

Mott MacDonald provided civil, structural, electrical, mechanical and controls design services to produce construction documents (drawings, specifications, and calculations) for the full rehabilitation (excluding roadway lighting) of the tunnel. Our multidisciplinary team designed plans and details for concrete repair, leak remediation, joint repair, etc., as well as new tunnel systems including tunnel ventilation, HVAC, drainage, lighting, fire/life safety, security, and communications as well as the overall power distribution and control systems supporting each. Pre-design tasks included laser scanning of the existing facilities; computational fluid dynamics analysis; non-destructive and destructive testing to evaluate the condition of the existing elements.

Outcome

LADOTD successfully advertised the project for construction in April 2023. Construction is ongoing and scheduled for completion in 2025, with Mott MacDonald providing Construction Administration services in coordination with a project dedicated CEI. Mott MacDonald continues to provide RFI and Submittal review and response and is in the process of completing the required pre-construction surveys.

Key staff involved on the project: Keith Gaspar, PE, NCTI; Matthew Taylor, PE; Norris Harvey, PE; Antonio Gonzalez Jr., PE, NCTI; Christopher Lau, PE, NCTI; Ryan Lange, PE; David Watson, PE, NCTI



Firm name	Mott MacDonald		Past Performance Evaluation Discipline(s)*	Other: Multi-Discipline Tunnel Design and Construction Administration Support
Project name	Harvey Tunnel Lighting Replacement Plan Preparation and Construction Administration		Firm responsibility	Prime
Project number	H.013706.5-1 & 2	Owner's name	LADOTD	
Project location	Jefferson Parish, LA		Owner's Project Manager	Haylye Brown, PE
Owner's address, phone, email	1212 E. Highway Dr., Baton Rouge, LA 70802, 255.379.1500, Haylye.brown@la.gov			
Services commenced by this firm (mm/yy)	12/18	Total consultant contract cost (\$1,000's)		\$790 / \$338
Services completed by this firm (mm/yy)	Present	Cost of consultant services provided by this firm (\$1,000's)		\$790 / \$338

The LADOTD owns, maintains, and operates the Harvey Tunnel in Louisiana, located in Jefferson Parish, approximately one mile south of the Mississippi River. The Harvey Tunnel is an approx. 1,080-ft long, twin tube, bi-directional, dual-lane vehicular and pedestrian tunnel beneath the Harvey Canal. The tunnel roadway and pedestrian lighting system was found to be largely non-operational during FHWA Bi-annual tunnel inspections and deemed insufficient to support safe pedestrian and motorist traffic through the tunnel. Many roadway lighting fixtures showed signs of vehicular collision damage while many walkway fixtures were vandalized. Lighting controls were also found to be non-operational.

Opportunity

This project served as an opportunity for the Louisiana DOTD to replace the tunnel lighting system and bring it up to present code to improve pedestrian and motorist safety and modernize the system with energy efficient LED fixtures.

Solution

Mott MacDonald provided electrical, controls, mechanical and structural design services to produce construction documents (drawings, specifications, and calculations) for the installation of a new, fully automated, LED based tunnel lighting system with all the power distribution and controls equipment required to support it. Our multidisciplinary team designed plans and details to install slimmer fixtures strategically installed on the tunnel wall to avoid future collision damage. Plans also included structurally detailed repairs required for the light fixture structural supports. The system included an automated SCADA based control system and an uninterruptible power supply system.

Outcome

LADOTD successfully advertised the project for construction in April 2020. Construction is ongoing and scheduled for completion in Q1 2024, with Mott MacDonald providing Construction Administration services. Mott MacDonald completed its final inspection and witness testing now in December 2023 and anticipates significant completion within the coming weeks.

Key staff involved on the project: Ryan Lange, PE; Christopher Lau, PE, NCTI; Lionel Lutley, PE, NCTI; Antonio Gonzalez Jr., PE, NCTI; Norris Harvey, PE; David Watson, PE, NCTI; Brent Rawson, PE



Firm name	Mott MacDonald	Past Performance Evaluation Discipline(s)*	Other: Multi-Discipline Tunnel Inspection
Project name	Tunnel Inspection Policies and Procedures	Firm responsibility	Prime
Project number	H.011006.5	Owner's name	LADOTD
Project location	N/A	Owner's Project Manager	Haylye Brown, PE
Owner's address, phone, email	1212 E. Highway Dr., Baton Rouge, LA 70802, 255.379.1500, Haylye.brown@la.gov		
Services commenced by this firm (mm/yy)	11/18	Total consultant contract cost (\$1,000's)	\$79
Services completed by this firm (mm/yy)	10/21	Cost of consultant services provided by this firm (\$1,000's)	\$79

The LADOTD owns, maintains, and operates three tunnels in the state of Louisiana, Harvey Tunnel, Houma Tunnel and Belle Chasse Tunnel. All three tunnels were constructed via similar construction methods and opened to traffic in the late 1950's. The LADOTD is responsible for implementing bi-annual safety inspections, load rating evaluations and maintaining asset and condition rating records of all public roadway tunnels in Louisiana, in accordance with the Federal Highway Administration (FHWA) and its standards.

Opportunity

This project served as an opportunity for the Louisiana DOTD to create standard policies and procedures for the inspection and documentation of its existing roadway tunnels in compliance with the FHWA and its standards.

Solution

Mott MacDonald developed Tunnel Inspection Policies and Procedures for the LADOTD formally establishing written standards for the inspection and record keeping of their three tunnels, ensuring compliance with the Federal Highway Administration: Tunnel Operations, Maintenance, Inspection, and Evaluation Manual, (FHWA TOMIE). The TOMIE defines the applicable inspection standards, frequencies, team personnel qualifications and roles, inventory and element identification procedures, lists required equipment for tunnel inspection, and identifies access points and general procedures for tunnel inspection for tunnels in the state of Louisiana.

Outcome

LADOTD officially adopted the new Tunnel Inspection Policies and Procedures in 2021. Said policies and procedures have been successfully implemented in the LADOTD's bi-annual FHWA inspections of each of their three tunnels. These policies and procedures have helped streamline the inspection and record keeping process for the DOTD and ensure compliance with FHWA requirements.

Key staff involved on the project: Keith Gaspar, PE, NCTI; Norris Harvey, PE; Lionel Lutley, PE, NCTI; David Watson, PE, NCTI



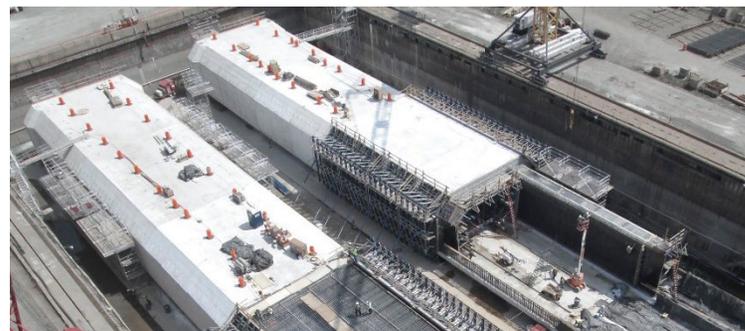
Firm name	WSP USA Inc.		Past Performance Evaluation Discipline(s)*	Road, Geotech, Survey, Environmental, Other (Tunnel)
Project name	Midtown Tunnel/Elizabeth River Tunnels Project		Firm responsibility	Sub
Project number	173189	Owner's name	Virginia Department of Transportation	
Project location	Portsmouth, VA	Owner's Project Manager	Brad Weidenhammer, PE	
Owner's address, phone, email	1401 E. Broad St., Richmond, VA 23219, 757.396.6581, bradley.weidenhammer@vdot.virginia.gov			
Services commenced by this firm (mm/yy)	05/12	Total consultant contract cost (\$1,000's)	\$19,000	
Services completed by this firm (mm/yy)	05/18	Cost of consultant services provided by this firm (\$1,000's)	\$11,000	

WSP was the lead designer in a construction joint-venture of Skanska-Kiewit-Weeks for the largest DB project in Virginia Department of Transportation and Hampton Roads area history. The DB team was responsible for doubling the capacity of the Midtown Tunnel crossing the Elizabeth River by building an additional two-lane tunnel adjacent to the existing one; rehabilitating the existing Midtown Tunnel and two Downtown Tunnels to conform with current national fire safety standards; extending the MLK Expressway, with an interchange at High Street; and modifying the existing interchange at Brambleton Ave./Hampton Blvd.

The chosen construction method for the new tunnel was using large float-in concrete sections, immersed into a dredge trench, and connected. The immersed tunnel option was evaluated against steel-immersed elements and bored tunnel options and was considered the most economical due to the geotechnical conditions and the geometry required within the subsurface conditions. Prior to placement of the elements in the river, trenches excavations, totaling approximately 1.5 million CY, were excavated within slopes and within support-of-excavations along the alignment. Approximately 10% of the dredge spoils were disposed in upland facilities and 90% were approved for ocean placement. At its deepest parts, the trench was nearly 100 feet deep and several hundred feet in width.

Tunnel fabrication involved the casting of 11 tunnel elements at a dry dock facility over 200 miles away. The tunnel elements were designed to be watertight and were designed with a 120-year design life. In conjunction with the excavation, coordination with the USACOE and environmental agencies was required due to the dredging and disposal, and because the project crossed and affected the federally-maintained navigation channel. Nearby sensitive oyster reefs had to be protected during the excavation activities. 408 and 404 permit applications, prepared in conjunction with the design-build contractor, were obtained through a project-wide Joint Permit Application (JPA). In addition, throughout the project, the project team worked hand-in-hand with all required agencies and third parties to amend and update the EIS due to design changes and/or construction sequencing changes. For this project, numerous EIS changes were required.

Key staff involved on the project: Ian Chaney, Jude Bonsu



Firm name	WSP USA Inc.	Past Performance Evaluation Discipline(s)*	Data Collection; Appraiser; Planning; CE&I/OV; Other (Tunnel), Other (Procurement)
Project name	Detroit-Windsor Tunnel Detailed Inspection	Firm responsibility	Prime
Project number	21728	Owner's name	Detroit Windsor Tunnel, LLC
Project location	Detroit, MI	Owner's Project Manager	Trevor Pearce
Owner's address, phone, email	100 E. Jefferson Avenue, Detroit, MI 48226, 313.567.4422, tpearce@dwtunnel.com		
Services commenced by this firm (mm/yy)	03/15	Total consultant contract cost (\$1,000's)	\$5,000
Services completed by this firm (mm/yy)	TBD	Cost of consultant services provided by this firm (\$1,000's)	\$4,000

The Detroit-Windsor Tunnel opened to traffic on November 1, 1930 after only twenty-six months of construction. The tunnel is two-lanes, 5,137 feet long from portal-to-portal and was constructed using shield-driven and cut-and-cover open approaches at either end, and nine precast tubes sunk into a trench dredged in the bottom of the Detroit River. It was the world's first—and remains the world's only—international vehicular tunnel, including ventilation buildings, toll plazas, customs and immigration facilities on both sides.

Since the early 1970s, WSP has provided continuing advisory services, including: consultations on tunnel safety, consultation on rehabilitation of tunnel finishes and paving, evaluation of the Detroit-side toll plaza renovation, appraisal of tunnel operations and maintenance costs through the year 2020, inspection and loading rating of Exhaust Ceiling Slab, inspection and loading rating of the Roadway Floor Beams, inspection and repair of the Detroit portal bent section center reinforce concrete columns, and repair of Detroit Portal exterior tunnel waterproofing in the Detroit Plaza.

In 2015, WSP began the River Section Ceiling Slab Replacement Study, which selected the most efficient system for the new slab, and design of the new ceiling slab in the shield and immersed tube tunnel sections. The project includes the replacement of 4,000-ft of the original 1929 reinforced concrete ceiling slab over the roadway which also forms the tunnel exhaust duct, and requires coordination with ventilation, electrical, communication, security and lighting system disciplines, as well as tunnel operations. The initial phase of the project included the detailed inspection of the cast-in-place concrete tunnel lining crown, which identified types and quantities of defects for the entire 4,000-ft length of the project in the tunnel river section exhaust duct. The inspection also provided a summary of the inspection results and repair and rehabilitation methods. WSP is also providing detailed design documents, procurement assistance, construction administration, engineering, inspection and shop drawing and RFI reviews for the new slab.

Key staff involved on the project: Gerald Luttman

Firm name	ECM Consultants, Inc.		Past Performance Evaluation Discipline(s)*	CE&I/OV
Project name	Belle Chasse Tunnel Rehabilitation		Firm responsibility	Sub to KBR
Project number	State Project No. 700-38-0110	Owner's name	LADOTD	
Project location	Plaquemines Parish, LA		Owner's Project Manager	Kevin Reed
Owner's address, phone, email	PO Box 94245, Baton Rouge, LA 70604, 225.379.1916, Kevin.reed@la.gov			
Services commenced by this firm (mm/yy)	05/10	Total consultant contract cost (\$1,000's)	\$190	
Services completed by this firm (mm/yy)	08/12	Cost of consultant services provided by this firm (\$1,000's)	\$62	

ECM provided inspection, design support and construction administration services for this \$2.1 million rehabilitation of the Belle Chasse Tunnel. Scope of the project included:

- Joints repair, including:
 - ✓ Leak sealant injection treatment, including sealing each tunnel structural joints circumference in three phases using hydrophilic urethane material
- Electrical rehabilitation, including:
 - ✓ Closed Circuit Television system (CCTV)
 - ✓ Gas sensors/transmitters
 - ✓ Fire alarm system
 - ✓ Over height vehicle detection system
 - ✓ Variable Message Sign (VMS)
 - ✓ Tunnel lighting
- Mechanical rehabilitation, including:
 - ✓ Insulated secondary contained aboveground storage tank
 - ✓ Ventilation louvers
 - ✓ Gate valves and check valves
 - ✓ Repair/refurbish suspended wet pit pumps

- Structural rehabilitation
 - ✓ Joint repair system
 - ✓ Water diversion curb plate

ECM's scope of services included, but was not limited to, the following:

- Field inspection for physical condition assessment of the elements of the tunnel
- Assist in preparation of report and preparation of cost estimates for approved rehabilitation items
- Assist in preparation of bid documents
- Attend the pre-construction meeting
- Provide construction administration, including
 - ✓ Managing RFIs and change requests from Contractor
 - ✓ Keeping clear and concise records of the contractual operations
- Attending substantial completion and final inspection and preparing "Punch List"



Key staff involved on the project: Ujjal DasGupta, PE; Emilio Rodriguez

Firm name	ECM Consultants, Inc.		Past Performance Evaluation Discipline(s)*	Other (Tunnel)
Project name	Harvey Tunnel Inspection		Firm responsibility	Sub to Mott MacDonald
Project number	State Project No. 4400004383	Owner's name	LADOTD	
Project location	Jefferson Parish, LA		Owner's Project Manager	Haylye Brown, PE
Owner's address, phone, email	PO Box 94245, Baton Rouge, LA 70604, 225.379.1500, Haylye.brown@la.gov			
Services commenced by this firm (mm/yy)	03/14	Total consultant contract cost (\$1,000's)		N/A
Services completed by this firm (mm/yy)	03/16	Cost of consultant services provided by this firm (\$1,000's)		\$101

ECM provided visual inspection, documentation and report preparation support services for the Harvey Tunnel in accordance with the National Tunnel Inspection Standards (NTIS). The scope for visual inspection of the project included structural elements; drainage system; electrical systems, including tunnel lighting, traffic control, CCTV, fire/incident detection, Power Distribution, SCADA systems; and mechanical system, including pumps, ventilation, and standpipe.

Scope of services included, but was not limited to the following:

1. **Structural inspection** for evidence of settlements and distresses, signs of cracking, convergence, shifting, or general deterioration for:
 - Portal approaches and buildings; floors, walls, ceiling, and support members; ceiling slabs, supports and finishes; joints in locations of tunnel leakage
2. **Drainage inspection**
 - Existing points of water infiltration and control features, appurtenances, the existing drainage facilities, the existing drains and piping components and the drainage gallery under the tunnel
3. **Electrical inspection:** A visual assessment of the equipment for assessment of the tunnel electrical systems included:
 - Tunnel lighting inspection for functionality and luminance output; tunnel traffic control, including signage; CCTV; fire detection systems; main incoming switchgear, transformers and Power Distribution system; panel boards and disconnect enclosures and boxes; Supervisory Control and Data Acquisition (SCADA) system; standby power supplies, UPS transfer switches and generators; and instrumentation and controls
4. **Mechanical inspection:** A visual inspection of the equipment and an assessment of the tunnel mechanical system included:
 - Tunnel ventilation system; carbon monoxide detection system; plumbing and sewage ejection; HVAC and space heating; fire protection; and compressed air system
5. **Civil inspection:** A visual inspection and documentation of the condition of the pavement system included:
 - Tunnel roadway, approach roadways, barriers, sidewalks, walls, hatches, adits, manways, wall niches, and passage doors and the portal buildings



ECM's scope of services included, but was not limited to, field inspection with the project team; inspection of tunnel and approach pavements, tunnel walls, drainage, and portal buildings; report preparation support and reviews; and cost estimating.

Key staff involved on the project: Ujjal DasGupta, PE; Emilio Rodriguez, Ben Dow, Bob Tate

Firm name	ECM Consultants, Inc.	Past Performance Evaluation Discipline(s)*	CE&I/OV
Project name	Belle Chasse Tunnel Inspection	Firm responsibility	Prime
Project number	State Project No. N/A	Owner's name	DBi Services, LLC
Project location	Plaquemines Parish, LA	Owner's Project Manager	Clarke Woods
Owner's address, phone, email	6707 Monroe Hwy, Ball, LA 71405, NA, Clarke.woods@dbiservices.com		
Services commenced by this firm (mm/yy)	02/20	Total consultant contract cost (\$1,000's)	\$75
Services completed by this firm (mm/yy)	04/20	Cost of consultant services provided by this firm (\$1,000's)	\$40

ECM Consultants, Inc. was engaged by DBi Services to perform the baseline inspection of the Belle Chasse Tunnel and the movable bridge. The purpose of the inspection is to perform visual inspections to assess present conditions, summarize findings and provide recommendations based on engineering judgement for potential maintenance and repair needs during the construction of the proposed new Belle Chasse bridge. The duration of construction is anticipated to be approximately four years. As per the contract between the LADOTD and the Developer of this P3 project, which is the first of its kind in Louisiana, the Developer will be required to operate and maintain the tunnel and the movable bridge during the construction period. The inspection involved review of the previous inspections performed by LADOTD and site visit by NHI certified engineers and NHI certified inspectors. The inspections for both the bridge and the tunnel were performed on February 29, 2020.

ECM provided visual inspection, documentation and report preparation services for the Belle Chasse Tunnel in accordance with the National Tunnel Inspection Standards (NTIS). Details of inspection services provided included the following:

1. Structural inspection for evidence of settlements and distresses, signs of cracking, convergence, shifting, or general deterioration for:
 - Liner walls, crown liner; construction joints; leak repair joints; walkway floor; walkway wall; air duct; air flues and niches; fence; portals; tile finish; and tunnel roadway
2. Mechanical inspection of:
 - Tunnel ventilation system; carbon monoxide detection system; plumbing and sewage disposal; HVAC and space heating; tunnel drainage; fire protection; and compressed air system
3. Electrical inspection of:
 - Tunnel lighting; power distribution system; Gretna side pump room; mid-channel pump room; Belle Chasse side pump room; the Belle Chasse side fan room; pump starter control panels; emergency power system; fire alarm system; CO detection system; tunnel traffic control system; and CCTV

As prime, ECM's scope of services included, but not limited to the following:

- Project coordination with LADOTD and subconsultants
- Field inspection with the project team
- Inspection of tunnel structural and civil elements including, tunnel walls, joints, leak repair joints, liners, tunnel and approach pavements
- Mechanical system inspection

Key staff involved on the project: Ujjal DasGupta, PE; Ben Dow



Firm name	Urban Systems, Inc.	Past Performance Evaluation Discipline(s)*	Traffic
Project name	WBV 06.2 Belle Chasse Highway to Hero Cutoff (Belle Chasse Tunnel)	Firm responsibility	Sub
Project number	WBV 06.2	Owner's name	LADOTD
Project location	Jefferson Parish	Owner's Project Manager	Benjamin Maxwell
Owner's address, phone, email	1910 Peters Rd. Harvey, LA 70058, 504.539.4260, ben.maxwell@apcconstruction.com		
Services commenced by this firm (mm/yy)	02/11	Total consultant contract cost (\$1,000's)	Unknown
Services completed by this firm (mm/yy)	07/11	Cost of consultant services provided by this firm (\$1,000's)	\$31,000

For WBV 06.2, Urban Systems developed the Traffic Control Devices Plans for the work associated with the drainage improvements in the Belle Chasse Tunnel. The plans included lane closures in the Tunnel for daytime work and the complete closure of the tunnel for nighttime work. The first monthly inspection for this project was conducted in October 2018 at nighttime with the tunnel closed.

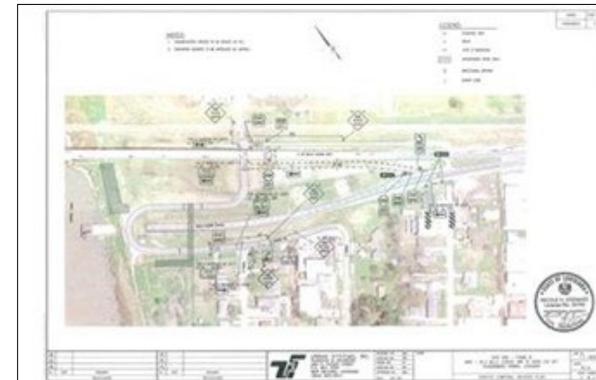
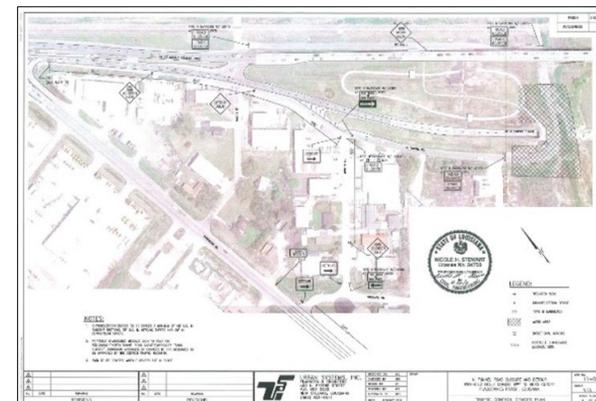
All plans were prepared in accordance with the 2009 edition of the Manual on Uniform Traffic Control Devices and latest LADOTD standard Traffic Control Details. For the complete tunnel closures, Urban Systems utilized the standard closure prepared and routinely used by LADOTD.

Additional work on Tunnel Area Performed in 2010 For Corp and Engineers

WBV 06.2 Belle Chasse Highway to Hero Cutoff

For WBV 06.2, Urban Systems developed Traffic Control Devices plans for the work associated with improving the flood wall and levee adjacent to the GIWW at LA 23 and the Belle Chasse Tunnel. The plans included the signage and devices needed for lane closures of LA 23 and South Tunnel Rd. For this project, the Belle Chasse Tunnel and S. Tunnel Road were also completely closed during construction.

Key staff involved on the project: Nicole Stewart, PE, PTOE



Firm name	Urban Systems, Inc.	Past Performance Evaluation Discipline(s)*	Traffic
Project name	MacArthur Interchange Comp. Phase II TMP	Firm responsibility	Sub
Project number	F.A.P. and S.P. No. H.011309	Owner's name	Jefferson Parish
Project location	Jefferson Parish	Owner's Project Manager	Hatem Seliem
Owner's address, phone, email	2820 Continental Drive, Baton Rouge, LA, 70808, 504.836.2455, hseliem@sdrengineering.com		
Services commenced by this firm (mm/yy)	11/12	Total consultant contract cost (\$1,000's)	Unknown
Services completed by this firm (mm/yy)	Present	Cost of consultant services provided by this firm (\$1,000's)	\$59,900

The objective was to conduct a Level 4 Transportation Management Plan (TMP) based on LADOTD EDSM VI.1.1.8 for interchange modifications for the Westbank Expressway in Jefferson Parish, Louisiana.

Seven day hourly volume counts were collected and adjusted using LADOTD seasonal and axle factors. A queue analysis was conducted, as specified in LADOTD EDSM VI.1.1.4, to determine if and when lane closures could be implemented on the elevated expressway with the least impact with the high interstate volumes.

Capacity analysis using Synchro software will be used to determine the impact on capacity at the study intersections for each phase of construction. The phases on construction include lane closures and detours.

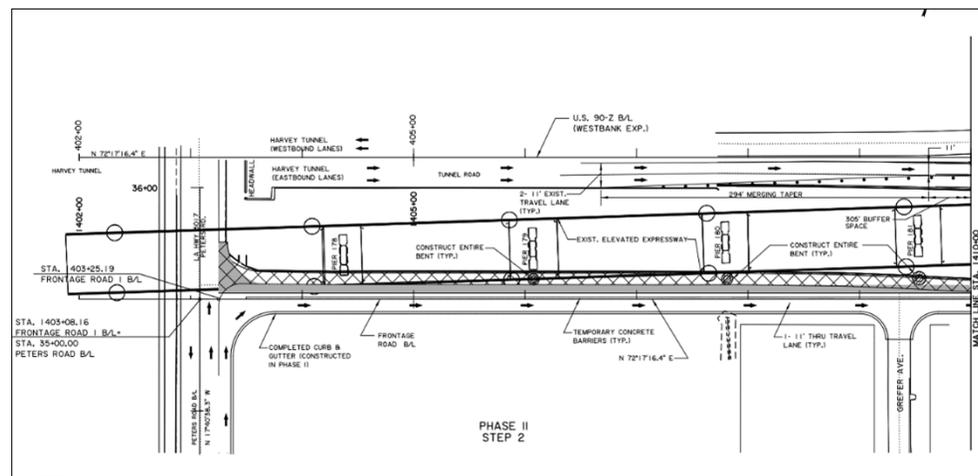
A safety analysis will be conducted based on the LADOTD's Guidelines for Crash Data Analysis, June 2014. Crash rates will be calculated for each location and compared to LADOTD's statewide averages and to LADOTD's High Potential for Safety Improvements (formerly the Abnormally High Crash) List. Charts will be developed at each location and compared to statewide averages based on various categories.

A unique aspect of this project will be to develop proposed temporary signal designs at the intersections of Maple and Brown Ave for the various phases of construction. These temporary signals will be input in to LAODTD latest TSI format.

A stakeholders meeting will be held during the TMP process to obtain input and share information for various shareholders including local officials and LADOTD.

Work zone impacts will include developing motorist information, safety, and incident management and evacuation strategies. These strategies will be developed to minimized impact on mobility during construction and in the event of unforeseen incidents. A TMP implementation cost estimate will be developed which included items such as temporary sign and barricades, striping, Dynamic Message Signs and work zone police officers.

Key staff involved on the project: Nicole Stewart, PE, PTOE



Firm name	Urban Systems, Inc.	Past Performance Evaluation Discipline(s)*	Traffic
Project name	Replace Houma Tunnel with Bridge, Stage 0 Feasibility Study and Environmental Assessment	Firm responsibility	Sub
Project number	S.P. 700-55-0118	Owner's name	LADOTD
Project location	Terrebonne Parish, LA	Owner's Project Manager	Mike Aghayan, PE
Owner's address, phone, email	1201 Capitol Access Road Baton Rouge, LA 70802, 225.379.1989, Mike.Aghayan@LA.GOV		
Services commenced by this firm (mm/yy)	04/09	Total consultant contract cost (\$1,000's)	Unknown
Services completed by this firm (mm/yy)	06/10	Cost of consultant services provided by this firm (\$1,000's)	\$48,000

Urban Systems prepared a formal traffic study analyzing the traffic impacts of replacing the existing Houma Tunnel with a bridge over the intracoastal canal. The study area included adjacent access roadways on both sides of canal.

The traffic study includes the following tasks:

- **Data Acquisition:** 24-hour, bi-directional ADT counts along nine roadway segments within the study area including vehicle classification counts; peak hour intersection turning movement counts at 11 locations.
- **Trip Generation, Traffic Assignments and Projections:** Existing traffic volumes were used to project future design year volumes using TransCAD travel demand computer modeling and professional judgment. Projections were made for project three project “build” scenarios and two “no build” scenarios for two horizon years resulting in a total of eight future scenarios.
- **Traffic Analysis:** Capacity analyses were conducted for all scenarios for three intersections and four roadway segments.
- **Traffic Study:** A formal traffic report was prepared based on the data acquisition, traffic projections, and capacity analysis.



Key staff involved on the project: Nicole Stewart, PE, PTOE

18. Approach and Methodology:

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

If the consultant has information it believes is proprietary, label it accordingly.

About Mott MacDonald

Mott MacDonald is an international consulting engineering firm with over 62 offices in North America, and staff resources of over 16,000 worldwide. Mott MacDonald has designed and managed some of the world's most prominent projects. Proud of our role in major ventures across North America, we provide comprehensive engineering services in all areas of transportation, tunnels, water, wastewater, environmental, pipeline, and utility markets. We offer public and private clients the complete range of services from planning, feasibility studies, environmental assessments, conceptual through preliminary and detailed design, to procurement, construction inspection, construction management, and full project and program management services, as well as rehabilitation, operations, and maintenance support.

Mott MacDonald's tunnel practice has been involved in all aspects of design and construction of new tunnels as well as inspection and rehabilitation of existing tunnels. Mott MacDonald adopts a risk-based approach to the condition assessment and rehabilitation design of underground infrastructure to promote "State of Good Repair" and modernization to meet applicable Codes and Standards. Our first-hand experience working with LADOTD's Tunnels allows us to have a greater understanding of LADOTD's perspectives, preferences, and overarching goals throughout a project's lifecycle.

Our experience includes both domestic and international experience on some of the world's most complex subaqueous infrastructure tunnel projects, including the Channel Tunnel linking the UK and France, Denmark's Storebealt Fixed Link, Malaysia's SMART Tunnel, Canada's Niagara Tunnel, and the SR-99 Alaska Way Viaduct Replacement in Seattle.

Project objectives

The statewide tunnel inspection includes the following main objectives for the Harvey and Houma tunnels in question, with the Belle Chasse omitted due to it being scheduled for demolition:

Mott MacDonald has successfully completed the inspection of multiple highway, rail, and other tunnel projects, including:

- Belle Chasse, Harvey and Houma Tunnels Inspection and Rehabilitation Design (LADOTD)
- Emergency Repairs to Riverfront Expressway Tunnel and Canal Street (City of New Orleans)
- Brooklyn Battery Tunnel – Inspection and Rehabilitation (TriBorough Bridge and Tunnels Authority, NY)
- Lytle Tunnel – Inspection and Rehabilitation (Ohio DOT, Cincinnati, OH)
- Allegheny Tunnel – Inspection (Pennsylvania Turnpike Commission, PA)
- Holland and Lincoln Tunnels – Inspection (Port Authority of NY & NJ)
- Heartland Corridor – Inspection & Rehabilitation of 34 Tunnels (Norfolk-Southern Railroad, Roanoke, VA)
- Washington D.C. AirRights, Mall and 9th Street Tunnels (District Department of Transportation)

- Complete a visual inspection and non-destructive testing of the tunnel facilities to:
 - ✓ Evaluate the structural condition of the tunnels, determine the sources of leakage and structural deterioration, and assess the integrity and operational conditions of the specific structural and civil elements.
 - ✓ Evaluate the condition of tunnel sub-systems including the tunnel ventilation, HVAC, drainage, lighting, fire/life safety, security, communications, electrical power distribution and control systems.
- Provide formal tunnel inspection reports detailing all findings, recommendations, and element condition assessments, as well as updating the DOTDs asset management database to ensure compliance with FHWA National Tunnel Inspection Standards (NTIS).
- Develop corrective means of rehabilitation and provide state of good repair for the structural and system deficiencies as requested by LADOTD, which may present a potential safety hazard, lead to a service disruption or a serious maintenance issue, or result in continued deterioration of the tunnel elements.
- Provide safe and efficient maintenance and protection of traffic throughout the duration of the Project.
- Monitor and adhere to project schedule and budget.

We will achieve these objectives through sound, proven project management, and following a well-planned technical approach to the inspection of the LADOTD tunnels.

Proposed management approach and staffing

Overview

In 2015 Mott MacDonald performed the initial FHWA inspections and provided rehabilitation recommendations for the Belle Chasse, Harvey, and Houma Tunnels. This involved coordination of a multidisciplinary team and consideration of many challenges in the implementation of the inspections under the constraints imposed by existing tunnel condition and configuration, access restraints, active construction and maintenance activity, as well as keeping the tunnel in service. Since then, through the experience earned by supporting the LADOTD's tunnel inspections in 2019, 2021 and 2023, Mott MacDonald has put together a project team, that carefully considers the critical issues and challenges encountered throughout previous inspections. We've identified our most qualified engineering professionals with the direct experience needed to address these issues, so we can achieve a cost effective and NTIS/FHWA compliant inspection process for these critical regional transportation facilities. The Mott MacDonald team (refer to Organization Chart) comprises experienced leadership supported by multidisciplinary engineers and inspectors with extensive tunnel inspection and LADOTD Tunnel experience. Having prepared the LADOTD's Inspection Policies and Procedures, we are familiar with the planning and execution of similar projects in accordance with FHWA and LADOTD requirements.

Our technical team includes our Senior Technical Advisor, Keith Gaspar, PE, NCTI, who has led various LADOTD tunnel inspections efforts over the last three cycles, to provide guidance on the planning and execution of the inspections, and ensure the inspections are in compliance with FHWA and LADOTD requirements. All key personnel noted on the organization chart are committed to this project and available to provide the services requested by the LADOTD.

Management team

An efficient organization requires seasoned technical capabilities and management skills to function efficiently as an integrated entity. The Mott MacDonald team will achieve this through the project and inspection management of our proposed Project Manager – Antonio Gonzalez Jr., PE, NCTI (Mott MacDonald). Mr. Gonzalez will be charged with leading the project team and serving as the primary point of contact between the LADOTD and the Mott MacDonald team, coordinating LADOTD inspection work plans, and meeting required project objectives, budgets, and schedules.

As described in the synopsis of his qualifications and experience, Mr. Gonzalez has played key management and technical roles in the previous inspections of the Belle Chasse, Harvey, and Houma Tunnels as well as in the Harvey Tunnel Lighting Replacement and Full Rehabilitation projects and is slated to serve as PM and technical lead on the pending Houma Tunnel Full Rehabilitation.

In accordance with Mott MacDonald's Business Management System (BMS), our Project Manager will be tasked with producing a Project Plan of Work upon project award detailing all work elements and performance requirements needed to produce project deliverables on schedule and within budget.

Project scope

Mott MacDonald will coordinate and perform Bi-annual FHWA Tunnel Inspections of all elements, systems and components pertaining to the Harvey and Houma Tunnels in full compliance with the FHWA/NTIS and LADOTD requirements and procedures. Maintenance records and previous inspection reports will be reviewed, and interviews conducted with LADOTD Operations and Maintenance personnel to assist in inspection preparation.

Mott MacDonald will perform the following scope:

- Visual inspection of all structural and civil components, evaluation, and documentation of encountered deficiencies.
- Non-destructive testing of all structural and civil components, evaluation, and documentation of encountered deficiencies.
- Visual inspection and operational testing of all mechanical and electrical systems and components (i.e. tunnel ventilation, switchgear, etc.), evaluation, and documentation of encountered deficiencies.
- Immediate reporting of any critical deficiencies
- Engineer support for any rehabilitation efforts taken by the DOTD to remedy said deficiencies and bring the tunnel to a "State of Good Repair."
- Formally, written tunnel inspection report documenting all findings and element condition state assessments, with supporting documentation, photographs and sketches.
- Formal submission of all reporting via LADOTD's asset management database to ensure compliance with FHWA National Tunnel Inspection Standards (NTIS).

Key components of this Project Plan of Work to include:

- LADOTD project goals and performance requirements
- Scope of Work document as mandated and approved by LADOTD
- Work breakdown structure detailing division of responsibilities between team members
- Project schedule and deliverable milestones
- Communications plan with the LADOTD engineering staff, and between the entire project team
- Project quality review schedule
- Document management and control protocols
- Project change control procedures

During inspections, Mott MacDonald, and its subconsultants will utilize Moata Inspect, a proprietary application by Mott MacDonald, available on both tablet and cellular phone, used to streamline the inspection process. Via a pre-set, project specific user interface, inspectors will be able to use a standard form of dropdown menus for to document the condition of the various elements and equipment throughout the tunnel facilities.

The application will allow inspectors to automate a form for each element/equipment, photograph as needed, and then automatically upload the relevant deficiency data to cloud based database. Said database will house all relevant information including element/equipment type, name, location, deficiency and cross-referenced photos, streamlining both the inspection and report writing processes.

Subconsultant teams

We have teamed with WSP, ECM Consultants, Dufrene S&E, and Urban Systems (DBE) to bring the highest standard of work to the Department. All our partner firms have experience and staff to perform tasks under this LADOTD assignment.

WSP USA has more than 100 years of experience in tunneling and underground engineering and is widely recognized as a world leader in this field. WSP has staff certified by the National Highway Institute for specialized tunnel inspection who are highly experienced in inspecting, documenting, and evaluating the integrity and performance of all types of tunnels and tunnel systems.

ECM Consultants, Inc. is a minority-owned, Small Business headquartered in Metairie, with branch offices in Baton Rouge and Lafayette, Louisiana. Incorporated in LA in 1995 and licensed in engineering, architecture and construction management, ECM has provided engineering design and inspection services for tunnels, bridges, and various other types of infrastructure. ECM also provides a host of other expertise, including project and construction management, contract administration, and CE&I services, having received various accolades and acknowledgements throughout Louisiana.

Urban Systems, Inc. is a licensed consulting engineering corporation in Louisiana, Mississippi, Alabama, and Texas with offices in New Orleans and Baton Rouge, Louisiana that specializes in traffic engineering and transportation planning. Urban Systems has long been recognized for its technical expertise, analytical ability, and imaginative approach to a wide range of traffic/transportation planning and engineering projects. With continuous service since 1974, their ability to bring a variety of experience to a project team has proven valuable to our clients who are involved in improving transportation infrastructure in both urban and rural environments.

Dufrene Surveying & Engineering, Inc. has provided land surveying services since 1967 and Civil Engineering services since 1983, with a team consisting of Louisiana Registered Land Surveyors, multiple survey crews, and a host of drafting and office support staff. In their 55+ years of service, they have undertaken numerous projects ranging in size from residential lots to 100+ acre tracts to several miles of roadways and levees.

Quality assurance and control

Our commitment to quality on our projects is enhanced via proven project management procedures to assure quality product delivery, on time and within budget. Mott MacDonald's rigorous approach to Project Management is exemplified by our ISO 9001 Certification, an internationally recognized benchmark in quality control. This certification has been achieved through our internal Quality, Environment, and Safety (QES) Program, which will govern all aspects of our project work under this contract. The Mott MacDonald team will be fully committed to comply with or exceed the QA/QC requirements of the LADOTD on this Project.

Work safety

Our mission statement is to provide the traveling public with a quality transportation project in a manner that emphasizes safety, economy, and timeliness of delivery. Mott MacDonald meets all requirements relative to the "Work Zone Training Requirements" and, upon selection, Mott MacDonald will immediately report to the department Project Manager any additional proposed staff to receive this training. Upon identification of this additional staff, the Team will schedule Louisiana State specific training at the earliest available date to ensure all project staff have received the appropriate training for work zone safety. Mott MacDonald is in and will maintain compliance with the LADOTD's work zone requirements.

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) ALL FIRMS MUST BE REPRESENTED IN THIS TABLE	Past Performance Evaluation Discipline(s) *	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance**
Mott MacDonald	Other (Tunnel)	4400019580 H.010673.5	IDIQ Contract for Tunnel Inspection Statewide, Task Order 2 Harvey Tunnel Rehabilitation Construction Administration	\$1,199,977
Mott MacDonald	Other (Tunnel)	4400019580 H.013706.5	IDIQ Contract for Tunnel Inspection Statewide, Task Order 2 Harvey Tunnel Lighting Replacement Construction Administration	\$46,462
Mott MacDonald	Other (Tunnel)	4400019580 H.011006.5	IDIQ Contract for Tunnel Inspection Statewide, Task Order 2 Tunnel Inspection of the Harvey and Houma Tunnels	\$92,676
ECM Consultants	Other (CQCM)	Contract # BC-PSA 05, S.P. # H.0044791	Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project	\$1,593,336
ECM Consultants	CE&I/OV	Contract # 4400019872 H. 009175.6	IDIQ CE&I for Safety Projects Statewide with Majority of Work in District 03, 07, and 08 (St. Bernard Signing and Striping Local Road Safety Program)	\$14,546
ECM Consultants	CE&I/OV	Contract# 4400019872 H.011949.6	IDIQ CE&I for Safety Projects Statewide with Majority of Work in District 03, 07, and 08 (RWD Signing Plaquemines Parish Local Road Safety Program)	\$10,500
ECM Consultants	CE&I/OV	Contract# 4400019872 H.012682.6	IDIQ CE&I for Safety Projects Statewide with Majority of Work in District 03, 07, and 08 (Pedestrian Crosswalk Enh [NO PH2])	\$10,916

ECM Consultants	CE&I/OV	Contract# 4400019872 H.013789.6	IDIQ CE&I for Safety Projects Statewide with Majority of Work in District 03, 07, and 08 (Curve Signing & Striping (Evangeline)	\$84,361
ECM Consultants	CE&I/OV	Contract# 4400019872 H.013767.6	IDIQ CE&I for Safety Projects Statewide with Majority of Work in District 03, 07, and 08 (Signs & markings St. Landry & St. Martin)	\$91,506
ECM Consultants	CE&I/OV	Contract# 4400019872 H.013770..6	IDIQ CE&I Inspection Services Statewide with Majority of Work in District 03 (LRSP Signing and Striping - Iberia)	\$82,969
ECM Consultants	CE&I/OV	Contract# 4400019872 H.009298.6	IDIQ CE&I Inspection Services Statewide with Majority of Work in District 03 (Town of Oberlin Sidewalks – Allen Parish)	\$232,794
ECM Consultants	CE&I/OV	Contract# 4400019872 H.013083.6	IDIQ CE&I Inspection Services Statewide with Majority of Work in District 03 (Jefferson Island Sidewalk - Iberia Parish)	\$128,159
ECM Consultants	CE&I/OV	Contract# 4400019951 H.012863.6	IDIQ CE&I Inspection Services Statewide with Majority of Work In District 03 (Cypress Island Pavement Preservation)	\$58,374
ECM Consultants	CE&I/OV	Contract# 4400020842 Task Order 3	IDIQ Contract for Engineering & Inspection of State Regulated Dams with Majority of work in District 03,07,6 & 62 Statewide (State Regulated Dams Eng & Inspection)	\$81,717
ECM Consultants	CE&I/OV	Contract# 4400021680 H.008145.6	DOTD LA1 Leeville to Golden Meadow	\$7,028,342
ECM Consultants	CE&I/OV	Contract# 4400026101 H.011767	DOTD Contract for Engineering & Inspection District 61 (Bayou Crab Road Bridge)	\$20,000
ECM Consultants	CE&I/OV	Contract# 4400023838 H.013751.6	IDIQ CE&I Services for Safety Projects (Downtown Greenway La Connector BR East Baton Rouge Parish)	\$102,679
ECM Consultants	CE&I/OV	Contract# 4400025845 H.013025.6	CE&I Engineering & Inspection Univ AV PH1:100' S RR-500' S I-10 EB RMP (University Avenue/Lafayette Parish)	\$1,627,584
WSP USA	Bridge	Contract No. S.P. No. H.010253.5	ELEC. & MECH. ENG. ON CALL TO9	\$110,274
WSP USA	Bridge	Contract No. S.P. No. H.004791	Belle Chasse Bridge & Tunnel	\$357,712
WSP USA	Bridge	Contract No. S.P. No. H.004791	Belle Chasse Tunnel Inspection	\$26,432

WSP USA	Planning	Contract No. S.P. No. H.003931.5	LADOTD P3 Advisory Services On-Call TO2	\$40,802
WSP USA	Planning	Contract No. S.P. No. H.003931.5	LADOTD P3 Advisory Services On-Call TO2	\$947,099
Dufrene Surveying & Engineering Inc.	N/A			
Urban Systems, Inc.	Traffic	No. 440005142 H.011309.5	Mac Arthur Final Design	\$30,700
Urban Systems, Inc.	Traffic	No. PSLC-STJ-Supp-2 H.004891	Reserve to I-10	\$1,800

20. Certifications/Licenses:

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

The table below lists the individuals from our org chart who have Professional Engineering licenses and/or NCTI certifications.

Name(s)	Role	Licensure	NCTI Certification
Mott MacDonald			
David Skipper	Principal-in-Charge	PE	
Brent Rawson	Project Director	LA PE*	
David Watson	QA/QC	LA PE*	X*
Antonio Gonzalez Jr.	Project Manager; Electrical Lead	LA PE*	X*
Keith Gaspar	Structural Lead; Geotechnical Lead	LA PE*	X*
Norris Harvey	Mechanical Lead	LA PE*	
Matthew Taylor	Civil Lead	LA PE*	
Jeffrey Long	Structural	PE	X*
Kristi Latimer	Structural		X*
Christopher Lau	Electrical	LA PE*	X*
Adrian Pasca	Electrical		X*
Lionel Lutley	Electrical	LA PE*	
Ryan Lange	Electrical	PE	
Christopher Simon	Mechanical	PE	
Sukru Birkok	Mechanical	PE	X*
Austin Kittok	Civil	LA PE*	
Yomaima Szeliga	Civil	PE	
Justin Wells	Civil		X*
Rafael Villarreal	Geotechnical	PE	
WSP USA			
Greg Ayvas	Structural	PE	
Gerald Luttmann	Structural	PE	
Sandeep Tirunagari	Structural	PE	
Kevin Walsh	Electrical	LA PE*	
Jude Bonsu	Mechanical	LA PE*	X*
Wesley Weir	Civil	LA PE*	X*
Ian Chaney	Geotechnical	LA PE*	
Stephen Mayo	Structural		X*

Brian Kisse	Structural	PE	
ECM Consultants, Inc.			
Ujjal DasGupta	Civil	LA PE*	
Zachary Collier	Civil	LA PE*	
Dufrene Surveying & Engineering Inc.			
Tildon Dufrene Jr.	Traffic/Survey Team	LA PE*	
Urban Systems			
Christine Darrah	Traffic/Survey Team	LA PE*	
Nicole Stewart	Traffic/Survey Team	LA PE*	

* Copy of the license/certification can be found on the following pages.

The following are copies of Louisiana Professional Engineering licenses for all individuals listed on our organization chart.



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

Mr. Kevin William Walsh

License/Certificate Type - Number	Expiration Date
PE.0044049	03/31/2024
Status: Active	



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(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Jude Osei Bonsu

License/Certificate Type - Number	Expiration Date
PE.0044561	09/30/2024
Status: Active	



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(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Wesley Reed Weir

License/Certificate Type - Number	Expiration Date
PE.0035035	03/31/2024
Status: Active	



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Baton Rouge, LA 70809
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Mr. Ian James Chaney

License/Certificate Type - Number	Expiration Date
PE.0042288	09/30/2024
Status: Active	



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9643 Brookline Avenue, Suite 121
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Phone (225) 925-6291
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Mr. Ujjal DasGupta

License/Certificate Type - Number	Expiration Date
PE.0019849	09/30/2025
Status: Active	



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Mr. Zachary David Collier

License/Certificate Type - Number	Expiration Date
PE.0042957	03/31/2025
Status: Active	



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Baton Rouge, LA 70809
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Mr. Tildon Joseph Dufrene Jr.

License/Certificate Type - Number	Expiration Date
PE.0018887	03/31/2025
Status: Active	



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(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mrs. Christine Mire Darrah

License/Certificate Type - Number	Expiration Date
PE.0028528	09/30/2025
Status: Active	



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(LAPELS)
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Baton Rouge, LA 70809
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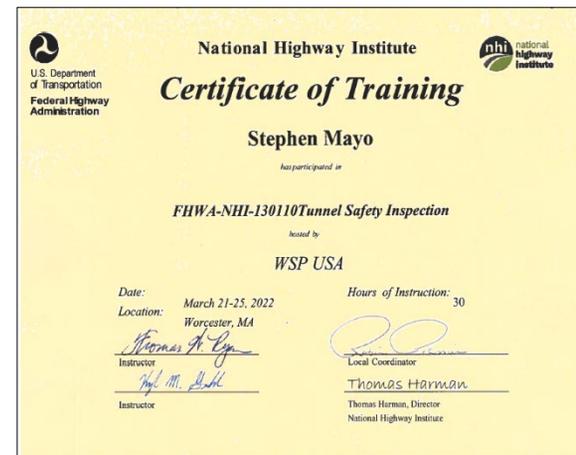
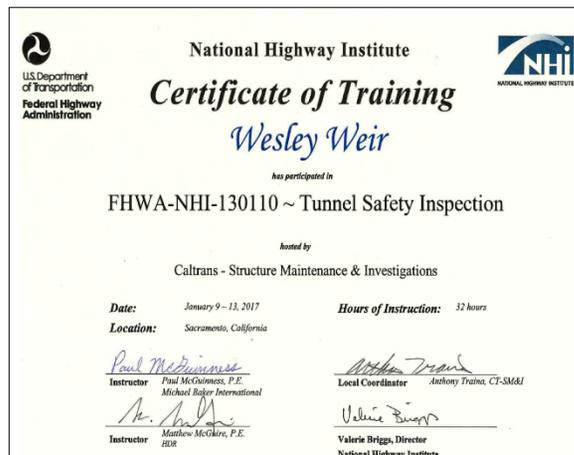
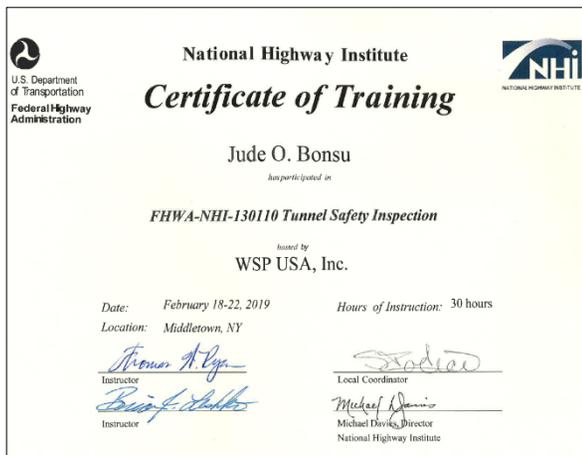
Ms. Nicole Harris Stewart

License/Certificate Type - Number	Expiration Date
PE.0034750	09/30/2025
Status: Active	

The following are copies of NCTI certifications for all individuals listed on our organization chart.



The following are copies of NCTI certifications for all individuals listed on our organization chart.



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.

The advertisement does not require submission of a QA/QC plan.

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 as registered with Louisiana's Secretary of State)	Address	Point of Contact and email address	Phone Number
WSP USA Inc.	Principal Office: One Penn Plaza, 4th Floor New York, NY 10119 Local Office(s): 1100 Poydras St., Suite 1175 New Orleans, LA 70163 ST. 3867 Plaza Tower Dr. Baton Rouge, LA 70816	Max Nassar, Max.nassar@wsp.com	225.218.3584
ECM Consultants, Inc.	1301 Clearview Parkway Suite 200 Metairie, LA 70001	Ujjal Dasgupta, PE ujjal@ecmconsultants.com	C: 504.231.7605 W: 504.885.4080
Dufrene Surveying & Engineering, Inc.	1624 Manhattan Blvd. Harvey, LA 70058	Tildon J. Dufrene Jr. jay@dufrenesurveying.com	504.368.6390
Urban Systems, Inc.	200 Tulane Avenue Suite 200 New Orleans, LA 70112	Alison Catarella Michel, PE, PTOE, PTP acmichel@urbansystems.com	504.569.3958

23. Location:

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

More information:
mottmac.com