LADOTD

IDIQ Contract for Weigh Station Assessment, Rehabilitation and Plan Development (Statewide)

CONTRACT NO.
4400023812

DATE
April 12, 2022

HNTB

HNTB Corporation
The HNTB Companies
Infrastructure Solutions

10000 Perkins Rowe, Suite 640
Baton Rouge, LA 70810

Phone: 225.368.2800
Fax: 225.368.2801

April 12, 2022

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

RE: Contract No. 4400023812 – IDIQ Contract for Weigh Station Assessment, Rehabilitation and Plan Development Statewide

Dear members of the selection committee:

The State of Louisiana is entering a new era of commercial vehicle size and weight enforcement. Recent legislation has transferred the operation and maintenance of stationary weight enforcement scale locations from the Department of Public Safety and Corrections to the Louisiana Department of Transportation and Development (LADOTD). This presents an opportunity to increase safety and enhance mobility which will further economic competitiveness through the efficient movement of goods by commercial motor vehicles.

HNTB Corporation is pleased to submit our team's statement of qualifications to LADOTD for support of the Weigh Station Assessment, Rehabilitation and Plan Development Statewide program. We understand that LADOTD desires a team that can support the full program requirements, from traditional planning, design, construction and traffic operations to policy and procedural elements. To meet these expectations, the HNTB team was assembled to draw on national best practices and industry relationships to drive development and deliver a successful program. We know that a successful size and weight enforcement program provides a return on investment through the reduction in impacts on the state's most costly assets: bridges, pavement and increased safety of all roadway users.

The HNTB team brings three key benefits to this weigh station program:

- **Full-Service Support:** The HNTB team is led by subject matter experts with a strong local core group that has a 56-year working relationship with the LADOTD. This team has the skill sets to accomplish the full scope – from feasibility to performance monitoring of improvements – and deliver a comprehensive program. Our experience in evaluating and designing weigh stations and managing enforcement staff provides hands-on knowledge of the intricacies associated with an effective size and weight program. This includes updating enforcement, permit and other manuals; standard operating procedures; and innovative technology to efficiently operate and maintain the program.
- **Focus on Implementable Solutions:** The HNTB team will focus on solutions that drive success, leveraging our experience and industry partner relationships. During the early phases of the project, we will focus on activities that yield quick results while keeping the long-range vision of the program top of mind. With recent and relevant experience on feasibility studies and program planning activities, our team will leverage proven best practices to maximize existing available infrastructure while providing safe and efficient enforcement activities.
- **Industry Leaders in Emerging Technologies:** The HNTB team is driving the development, implementation and integration of technologies and data sharing opportunities to future-proof your system. With our experience in intelligent transportation system (ITS) infrastructure and adoption of connected and automated vehicles (CAV), the HNTB team is equipped to provide solutions to minimize cost while increasing customer service and attracting industry. Innovations may include the use of in-cab messaging for mainline weigh in motion (WIM) sort decisions, eliminating the need for roadside dynamic message signs (DMS) and supporting freight-related use cases, such as active work zone management.

We have organized the HNTB team with **Craig Toth, PE** as project manager and **Rick Hathaway, CCM** who will serve as the local deputy project manager, combining national weigh station design and rehabilitation experience with local design and construction process and procedure knowledge. Our team is committed to delivering multiple concurrent assignments, with our 4for4 promise of quality work, on time, within budget and to your satisfaction.

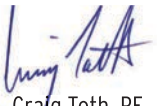
Craig and his leadership team will employ their knowledge to tap into a collaborative and focused group of experts in planning, design, asset management, policy, training and technology deployment. HNTB is joined by **Cambridge Systematics, Inc.** with whom we are working with to deliver weigh station, freight mobility and safety projects for departments of transportation (DOTs) around the country. They will support planning and performance measures and we will leverage our partnership on the **Louisiana Statewide Transportation Plan** and **Statewide Travel Demand Model** for commercial vehicle traffic forecasts and planning consistency during the evaluation and planning phase of this program. We assembled this team with a focus on local knowledge and expertise within each discipline area. **Arcadis U.S., Inc.** will provide roadway, drainage and ITS support services and **Manning, APC (DBE)** will support the building evaluation and upgrades, including HVAC, staff ergonomics and safety considerations. **APS Engineering and Testing, LLC (DBE)** will provide geotechnical investigations, design and post design support with **ELOS Environmental, LLC** supporting environmental evaluations. **Forte and Tablada, Inc.** and **GOTECH, Inc. (DBE)** will provide survey and right of way (ROW) mapping activities.

HNTB is pleased to include local DBE firms for 14% of the contract, exceeding the minimum 4% requirement, to provide specialized services, and illustrates our commitment to partnering for the benefit of LADOTD and the growth of these DBE firms.

Our top priority is supporting LADOTD in the successful transition to efficient operations and maintenance of the weigh stations and staffing the Weights and Standards Stationary Scales Police Force. We are pleased to continue our long-standing partnership during this transformative process. The HNTB team is ready to begin work, and we look forward to delivering outstanding service.

Respectfully submitted,
HNTB Corporation

Bryan Jones
Gulf Coast District Office Leader
(225) 368-2803
bryanjones@hntb.com



Craig Toth, PE
Project Manager
(813) 373-9939
ctoth@hntb.com

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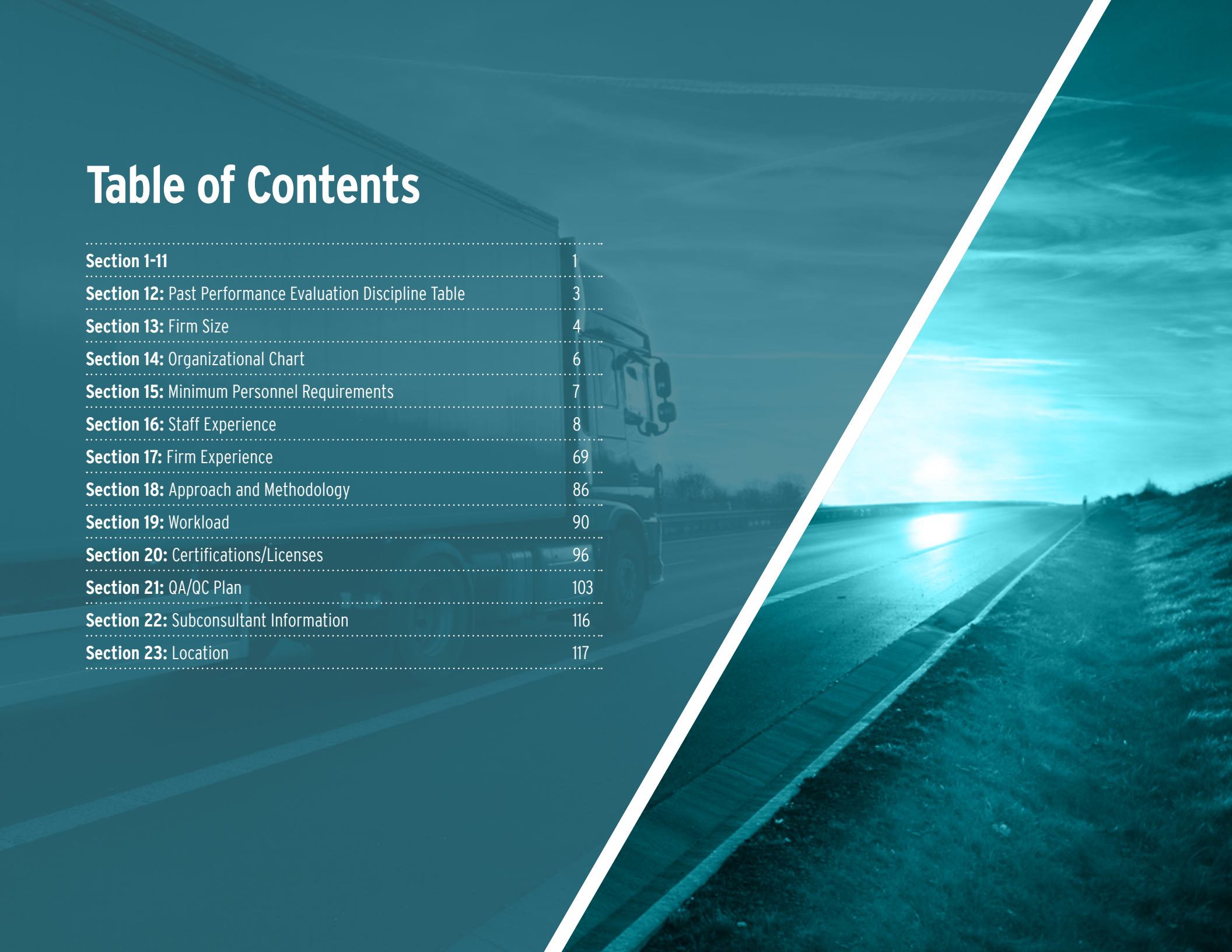


Section 1-11

DOTD FORM: 24-102

PROPOSAL TO PROVIDE CONSULTANT SERVICES

(Revised March 1, 2022)

Prime consultant should fill in the DOTD Form 24-102 provided without altering the text provided in the form; however, the instruction and/or guidance for Sections 12 through 24 can be removed but do not remove Section title and number.

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

1. Contract title as shown in the advertisement	IDIQ Contract for Weigh Station Assessment, Rehabilitation and Plan Development, Statewide
2. Contract number(s) as shown in the advertisement	4400023812
3. State Project Number(s), if shown in the advertisement	N/A
4. Prime consultant name (as registered with the Louisiana Secretary of State where such registration is required by law)	HNTB Corporation
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.0001775
6. Prime consultant mailing address	10000 Perkins Rowe, Suite 640, Baton Rouge, LA 70810
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	10000 Perkins Rowe, Suite 640, Baton Rouge, LA 70810
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Bryan Jones, Gulf Coast District Office Leader Phone: (225) 368-2803 | Email: bryanjones@hntb.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Bryan Jones, Gulf Coast District Office Leader Phone: (225) 368-2803 | Email: bryanjones@hntb.com

10. This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.	Signature (shall be the same person as #9):  _____ Date: April 12, 2022
11. If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal and each firm(s)' percentage.	Firm(s): — Firm(s) %: APS Engineering and Testing, LLC — 5% GOTECH, Inc. — 5% Manning, APC — 4% Total: 14%

Section 12:

Past Performance Evaluation Discipline Table

12. Past Performance Evaluation Discipline Table

Evaluation Discipline(s)	% of Overall Contract	HNTB Corporation (Prime)	APS Engineering and Testing, LLC (DBE)	Arcadis U.S., Inc.	Cambridge Systematics, Inc.	ELOS Environmental, LLC	Forte and Tablada, Inc.	GOTECH, Inc. (DBE)	Manning, APC (DBE)	Each Discipline must total to 100%
Road	10%	90%		10%						100%
Bridge	1%	100%								100%
Traffic	5%	50%		50%						100%
CE&I/OV	3%	75%		15%				10%		100%
Geotech	5%	5%	95%							100%
Survey	5%						50%	50%		100%
Environmental	5%	15%				85%				100%
Data Collection	5%	60%		10%	30%					100%
Planning	10%	50%		10%	40%					100%
Right-of-Way	4%						50%	50%		100%
CPM	2%	100%								100%
ITS	5%	70%		30%						100%
Other	40%	80%		10%					10%	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%	61%	5%	11%	5%	4%	5%	5%	4%	

Section 13:
Firm Size

13. Firm Size			
Firm name	**DOTD Job Classification**	**Number of personnel committed to this contract**	**Total number of personnel available in this DOTD Job Classification (if needed)**
HNTB Corporation (Prime)	Computer Analyst	5	104
	Economist	1	61
	Engineer - LA PE	7	49
	Engineer - Other	14	970
	Environmental Professional	1	19
	GIS Analyst	1	25
	Graphics	2	44
	Inspector	1	229
	Planner	4	225
	Principal	1	74
	Senior Technician	4	10
	Other	3	1563
APS Engineering and Testing, LLC	Engineer	2	5
	Driller	3	3
	Technician	2	12
Arcadis U.S., Inc.	Biologist/ Wetlands	5	8
	Engineer	3	9
	Planner	2	4
	Principal	2	4
	Environmental Professional	3	3
	Supervisor Engineer	4	8
	Supervisor Engineer-Other	2	3
	Engineer – Other	1	1
	Engineering Aide	1	2

13. Firm Size			
Firm name	**DOTD Job Classification**	**Number of personnel committed to this contract**	**Total number of personnel available in this DOTD Job Classification (if needed)**
Cambridge Systematics, Inc.	Principal	1	51
	Planner	1	62
	Engineer - Other	1	3
ELOS Environmental, LLC	Environmental Professional	1	2
	Environmental Manager	1	5
	Technician	1	10
GOTECH, Inc.	Engineer	1	7
	Surveyor	1	2
	Party Chief	2	2
Manning, APC	Architect	2	3

Section 14:
Organizational Chart

14. Organizational Chart

Legend

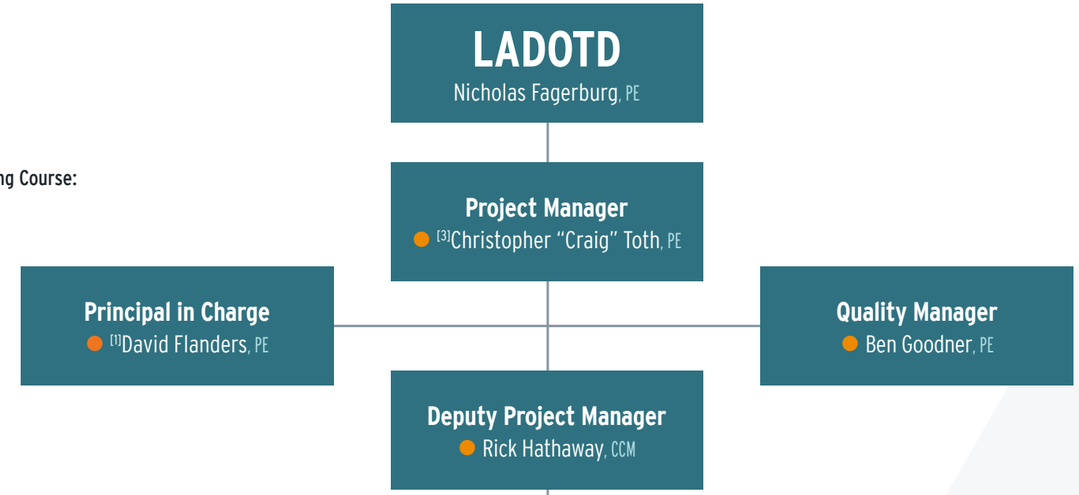
- HNTB Corporation
- APS Engineering and Testing, LLC (DBE)
- Arcadis U.S., Inc.
- Cambridge Systematics, Inc.
- ELOS Environmental, LLC
- Forte and Tablada, Inc.
- GOTECH, Inc.(DBE)
- Manning, APC (DBE)

Minimum Personnel Requirements

[1] David Flanders, PE
[2] Kate Prejean, PE
[3] Christopher "Craig" Toth, PE

Licenses and Certifications

Traffic Engineering Process and Report Training Course:
Joseph "Joe" Blasi, PE, PTOE
Traffic Control Supervisor:
Rick Hathaway, CCM
Kyle LeBlanc
Flagger:
Rick Hathaway, CCM
Kyle LeBlanc



Planning
Kip Strauss, AICP

Feasibility Studies
Jessica Dean, PE
Dharmin Kukadia, PE

Program Planning
Jeremy Upchurch
Adam Danczyk, PE, PTOE

Project Prioritization
Jeremy Upchurch

Master Plan/Schedule/Cost
Jessica Dean, PE
Gala Rosborough, CCP
Pradeep Rao, PE
Gui Leao

Traffic
Joseph "Joe" Blasi, PE, PTOE
Akhil Chauhan, PE, PTOE, PTP, PMP

Grant/Funding Opportunities
Chad Thompson, PE
Michael DeMent, APR
Paula Dowell, PhD

Environmental
Lynn Maloney-Mujica, AICP
Stehle Harris

Design
[2]Kate Prejean, PE

Roadway Design
Randal Bonura, PE

Lighting, Signing & Pavement Markings
Rick Hathaway, CCM
Randal Bonura, PE

Architecture
Tighe Kirkland, Assoc. AIA
Craig King

Water/Wastewater/Utility
Mira Para, PE
Collins Landry

Construction Support
Rick Hathaway, CCM
Kyle LeBlanc

Survey/ROW
Ross Wilson, PLS
Robert Price, PLS
Bruce Dyson, PE, PLS

Geotechnical
Brian Powell, PE
Sergio Aviles, PE

Asset Management/ Performance Monitoring
Jonathan Liby

Initial Inventory & Conditions Assessment
Kyle LeBlanc
Bradley Holleman, PLS, EI

Needs Assessments
Rakesh Sharma, PE, PTOE
Dharmin Kukadia, PE

Asset Management
Laura Wagner-Bartz, PE
John Benda

Performance Measures
Mike Williamson

Contract Solutions/ Alternative Delivery
Todd "Dusty" Bastion, PE
Brad Guilmino

Inspector Daily Logs
Tim Howerton

Policy
Derek Barrs

Emerging Technologies
Beth Kigel
Greg Krueger
Jimmy McDonald

Enforcement Manuals
Derek Barrs

Standard Operating Procedures
Steve Bahler, PE
Victor Blue, PE, PhD

Systems Engineering
Jess Baker, SEP
Victor Blue

FMCSA Program Plan/ Top Level Design
Rakesh Sharma

State Enforcement Plans
Derek Barrs

Content Development
Derek Barrs

Graphic Design
Jennifer Schultz
Laura Pichard-Murphy

Partnership Groups
Derek Barrs
Lynn Maloney-Mujica, AICP

ITS/Technology
Charles Farnham, PE

Technology Program Management
Alex Kavanagh, PMP, PMI-ACP

ITS/Networking
Charles Koonce, PE
Charles "Chuck" Miller, PE, PTOE, PhD
Paul Hsu, PE
Luis Alvergue, PE

Weigh In Motion
Malcolm Tomatani, PE
Pradeep Rao, PE
Fabian Kalapach, PE

Ancillary Devices
Pradeep Rao, PE
Fabian Kalapach, PE

Data Management/Exchange
Mark Dunthorn
Clay Packard, PE

Dashboard/Reporting
Janelle Versnick, GISP

Section 15:
Minimum Personnel Requirements

15. Minimum Personnel Requirements					
MPR No.	**Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)**	**Firm employed by**	**Type of license / certification required**	**State of license**	**License / certification expiration date**
1	David Flanders, PE	HNTB Corporation	Professional Civil Engineer / #35264	LA	#35264 / 09-30-2022
2	Kate Prejean, PE	HNTB Corporation	Professional Civil Engineer / #35036	LA	#35036 / 3-31-2024
3	Christopher Craig Toth, PE	HNTB Corporation	Professional Engineer / #58197	FL	#58197 / 02-28-2023

Section 16:
Staff Experience

16. Staff Experience			
Firm employed by: HNTB			
Name	[3]Christopher "Craig" Toth, PE	**Years of relevant experience with this employer**	17
Title	Project Manager, Vice President	**Years of relevant experience with other employer(s)**	7
Degree(s) / Years / Specialization	MS / 1998 / Civil Engineering BS / 1996 / Civil Engineering		
Active registration number / state / expiration date	#58197 / Florida / 2-28-2023		
Year registered	2002	**Discipline**	Professional Engineering
Contract role(s) / brief description of responsibilities	Project Manager **Minimum Personnel Requirement #3**		

Craig has 24 years of experience in transportation planning, design and management, encompassing projects for multiple departments of transportation and toll agencies as well as many municipal clients. He has managed multiple general engineering consultant (GEC) contracts, from traditional design to commercial vehicle operations (CVO), traffic incident management (TIM) and emerging technologies. He brings a holistic view enabling multiple stakeholders needs to be addressed in a collaborative environment. Craig brings recent, relevant experience with project management of weigh station asset management, feasibility analysis, design, technology integration and program support. His recent experience includes clients in Florida, Texas, North Carolina, Georgia and New York. **In Florida, he oversaw the programming for design and construction of over $150 million in weigh station rehabilitation and technology deployment**. Craig's Louisiana PE license is pending.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
02/15-Ongoing	**Florida Department of Transportation (FDOT) Chief Engineer Support Services, Statewide, Florida** Project manager for overall program management duties for all task work order-based assignments. Served as the project manager in a system management role for the overall delivery of the truck parking availability system (TPAS). TPAS was provided for all public sites for the length of the interstates within Florida, including **10 weigh station locations along I-10, I-75, I-95 and I-4**. The project includes coordination with multiple districts and agencies in an accelerated environment to meet the Federal AID and FASTLANE grant requirements. The program was delivered as a series of design-build projects and required extensive coordination with Districts 1, 2, 3, 4, 5 and 7 staff and multiple departments, including ITS, maintenance, environmental, ROW, construction and utilities. As part of the TPAS program development, research into available technology, including performance evaluation, was provided through a research project with a local university. Developmental specifications were prepared for the technology based on the results of the research. Standard operating guidelines were developed for Regional Transportation Management Center (RTMC) staff for verifying information obtained through TPAS sensors, including updating to data dissemination platforms. **Stations included the US-17 (SR 20/SR 100) Virtual Weigh-in-Motion (VWIM) Station** in Palatka, Florida, as well as **stations in Pensacola, Sneads, Madison, White Springs, Wildwood, Punta Gorda, Yulee, Flagler, Martin and Seffner, Florida**. This provided a solution to screen commercial vehicles prior to the static scale facility located in the median of the arterial roadway. Due to bypass corridors around the weigh station, a VWIM was also installed for mobile enforcement effort. Rehabilitation for the US 1 Plantation Key weigh station was designed which included pavement reconstruction, and upgrades to lighting and signing plans. Due to the environmental sensitivity of the location in the Florida Keys, extensive coordination with regulatory agencies took place.

Craig Toth, PE (cont.)	
03/17-Ongoing	**FDOT Motor Carrier Size and Weight (MCSAW) Program Support, Tallahassee, Florida** Project manager working alongside FDOT's statewide scale operations manager supporting FDOT's MCSAW program, including planning; performance measures; outreach and training; specifications and standards; and telecommunications and networking. This contract works closely with other state agencies including the departments of Highway Safety and Motor Vehicles, Agriculture and Consumer Services and Revenue, as well as key industry partners such as the Florida Trucking Association (FTA). Specific tasks include facilitation of a strategic plan visioning session which brought together various FDOT departments, state agencies and industry stakeholders to collaborate. The session set the framework for future technology enhancements; the development and deployment of a fiber optic inter-connection plan to link all interstate weigh stations on a fiber optic network; the piloting of mainline screening technologies to allow for increased efficiency of CVO; and the development of a GIS-based asset management platform. The platform included initial inspection and rating based on FDOT maintenance rating factors and led to the prioritization of activities for **scale facility repairs** and the programming of projects into a 10-year cost feasible plan and five-year work program. In addition, this contract is leading further development of the database system which will provide increased tracking capabilities of freight movement, to ultimately include size, weight, bill of lading and permit tracking.
02/15-Ongoing	**FDOT CVO/TIM Program Consultant, Statewide, Florida** Project manager overseeing support services for these two critical areas of the State Traffic Operations Office. This contract supported the evaluation and implementation of truck parking location expansions throughout the state, including leveraging other publicly owned locations as well as incorporation of private facilities into the TPAS network. Innovative approaches, including parking **management strategies to maximize available infrastructure** are being developed to provide immediately achievable expansion. Craig also provided management oversight in the development of a feasibility study to implement a pilot project for the **use of technology to link specific vehicles to oversize/overweight permits** to streamline the operations once vehicles have been verified for compliance. This contract also updated the citation tracking tool, a critical application in the management of protested commercial vehicle citations, in support of the Review Board. HNTB provided website updates, including the advancement of features on the Road Ranger Service Patrol to enhance user support and feedback. The TIM Strategic Plan and CVO business plan were developed under the program. The TIM Strategic Plan included focus on increased safety through enhanced services such as the Road Ranger Service Patrol. The CVO Strategic Plan focused on safety and mobility though **partnership and technology deployments**.
03/20-Ongoing	**Texas Department of Transportation (TxDOT) WIM and Vehicle Classification Strategic Plan, Statewide, Texas** Work authorization manager developing a strategic plan for the statewide traffic data collection system. Through this work authorization, working group meetings were held with representation from all 25 TxDOT districts to provide guidance and feedback on the goals, objectives and strategies for the plan. A GIS-based tool was developed to support the identification and prioritization of elements for deployment for input by the District offices. **Partnership meetings were held with other public agency stakeholders** to collaborate and expand the effectiveness of the system. **A 10-year plan was developed focused on expansion, maintenance, collaboration, data use and future application** through specific implementable actions, including necessary policy and contracting modifications.
05/19-Ongoing	**Weigh Station Feasibility Study, NCDOT ITS and Signal Management Unit, Raleigh, North Carolina** Project manager for the re-evaluation of a 2004 feasibility study of the statewide weigh stations. The study was undertaken to review the prior analysis and provide updated recommendations. The original study recommended a "modified port of entry" concept where commercial motor vehicles would be weighed leaving the state with virtual weigh in motion equipment instead of fixed static scale facilities. This approach required the use of mobile enforcement personnel and roadside weight verification using portable scales. Recommendations included updates to existing static weigh station facilities, relocation of facilities to increase the efficiency and safety of operations and the addition of new facilities for emerging freight corridors. Virtual weigh in motion locations were also recommended to support known by-pass routes of fixed weigh stations as well as emerging freight corridors. Other recommendations included the **development of a program plan to prioritize and fund improvements as well as additional technology to increase efficiency**. During the study, stakeholder coordination occurred with staff within the North Carolina Department of Transportation, North Carolina Department of Public Safety as well as neighboring states DOT and enforcement agencies.

16. Staff Experience

Firm employed by: HNTB

Name	**Rick Hathaway, CCM**	**Years of relevant experience with this employer**	12
Title	Transportation Section Manager	**Years of relevant experience with other employer(s)**	29
Degree(s) / Years / Specialization	BS / 1982 / Civil Engineering		
Active registration number / state / expiration date	#5962 / National **ATTSA: Traffic Control Supervisor; Flagger**		
Year registered	2015	**Discipline**	Certified Construction Manager
Contract role(s) / brief description of responsibilities	Deputy Project Manager; Lighting, Signing & Pavement Markings; Construction Support		

Throughout his career, Rick has been responsible for the design and management of projects and service areas involving civil, transportation, municipal, commercial and subdivision development engineering in New Orleans, Baton Rouge and Southeast Louisiana. He previously managed the pre-construction and construction activities of the Submerged Roads and Paths To Progress programs of Southeast Louisiana with over a $200-million program budget consisting of 33 projects, 123 roadway segments and 104 miles of roadway. He currently serves as transportation section manager and senior project manager supervising and guiding staff, managing roadway design and construction projects, for the DOTD and local government.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
09/18-Ongoing	**East Baton Rouge Parish MOVEBR Infrastructure Program, Baton Rouge, Louisiana** Construction manager for the $800-million roadway capacity improvement program and is responsible to manage construction activities, provided guidance on 5% design reports of proposed roadway alignments and utility relocations, prepared **construction cost estimates and construction duration estimates**. As projects near design, completion is responsible for bid packaging, inspection supervision to close-out.
12/15-Ongoing	**City of Kenner Capital Improvement Program, LA 49/Williams Boulevard Improvements, Kenner, Louisiana** QA/QC project manager for the $10-million roadway reconstruction project and is responsible for the **review of project plans and specifications**. Tasks include preliminary and final submittals for accuracy and compliance with the LADOTD General Specifications and Standard Plans, Roadway Design Guide and general construction practices. Coordinates with City of Kenner and Jefferson Parish staff for non-standard accessible ramp design and utility related issues.
10/16-Ongoing	**LADOTD I-10 Calcasieu River Bridge, Lake Charles, Louisiana** QA/QC transportation manager for the $800 million bridge roadway reconstruction project responsible for the supervision and review of the project roadway alignment. Tasks include **horizontal and vertical geometry submittals for accuracy and compliance with the LADOTD General Specifications and Standard Plans, Roadway Design Guid**e and general construction practices. Supervision of staff to provide all required deliverables for the Environmental Impact Study including plan/profile sheets, construction cost estimates, response to public input, and attendance at public meetings and presentations.
10/16-Ongoing	**LADOTD LA 1, Phase 2, Leeville to Golden Meadow, Louisiana** Roadway project manager performing supervision and quality control of design services for the $450-million bridge and roadway construction project. The scope of this project is to provide a new two-lane bridge from Leeville to Golden Meadow that includes an intersecting T-intersection bridge near Golden Meadow. The T-intersection has a stem that consist of a two-lane, two-way urban arterial roadway that connects existing LA 1 to the new LA 1/LA 3235 bridge. Supervised **development of detailed construction plans conforming to AASHTO Road Design Manual and LADOTD design guidelines and standards**. Managed additional scope of work of LADOTD contracted surveyor, reviewed recommendations on horizontal geometric alignment layouts, and coordinated with LADOTD the proposed roadway and drainage design features to meet the department's minimum design guidelines, Road Design Manual and conform to the Hydraulics Manual. Roadway design includes accommodations for pedestrians and bicyclists per the LADOTD's complete streets policy.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Ben Goodner, PE**	**Years of relevant experience with this employer**	15
Title	Structural Engineer	**Years of relevant experience with other employer(s)**	0
Degree(s) / Years / Specialization	BS / 2008 / Civil Engineering		
Active registration number / state / expiration date	#38208 / Louisiana / 03-31-2024		
Year registered	2013	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	Quality Manager		
Ben is a structural engineer with 15 years of experience in levee, floodwall, roadway, drainage design, levee inspection, bridge design, bridge inspection application of Bentley MicroStation and Inroads, and CADD/modeling in civil design.			

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
05/13-06/17	**LADOTD LA 1 Phase 2, Leeville to Golden Meadow, Louisiana** Lead engineer responsible for **developing design and plans** for the nine-mile stretch of bridge and a 300-foot concrete T-Wall. His responsibilities included preliminary superstructure design of LG girders, deck design, substructure design, preliminary and final plan development, checking plans and design calculations, T-Wall site layout, plan and specification development. This $450-million project will provide a new two-lane bridge from Leeville to Golden Meadow that includes an intersecting T-intersection bridge near Golden Meadow. The T-intersection has a stem that consist of a two-lane, two-way urban arterial roadway that connects existing LA 1 to the new LA 1/LA 3235 bridge. Performed field investigations, developed detailed plans conforming to LADOTD design guidelines and standards. Coordinated with LADOTD the proposed roadway and drainage design features to meet the department's minimum design guidelines, Road Design Manual, EDSM publications, and conform to the Hydraulics Manual. Roadway design includes accommodations for pedestrians and bicyclists per the LADOTD's complete streets policy.
06/17-09/17	**LADOTD US 90 Atchafalaya River Bridge Repairs, Morgan City, Louisiana** Lead engineer responsible for **developing rehabilitation plans** for the US 90 Atchafalaya River Bridge based on the inspection report. Repair items consisted of lower chord splice plate repairs, connection angle and plate retrofits and replacements, replacing missing or severely corroded bolts and rivets, retro fit of a new safety cable system, and gusset plate stiffening.
2012-2013	**LADOTD I-20 Ouachita River Bridge, Ouachita Parish, Louisiana** Checked the bearing **design for this bridge rehabilitation** as well as assisted in developing plans for this project work, which includes: cleaning and painting of steel girders, structural concrete repairs, girder bearing replacement, finger joint replacement, joint seal installation, barrier rail modifications, epoxy deck overlay, approach slab replacement, and guardrail installation.
2011-2014	**LADOTD Temporary WIM Truck Study and Louisiana Design Truck Analysis, Louisiana** Coordinated with members of the LADOTD and IRD, helped select three sites for temporary **WIM stations**, and helped monitor installation of equipment. He assisted collecting data to be used in the analysis and redesign of the Louisiana design truck and the reliability analysis.
2011-2017	**LADOTD I-20 Bossier City Bridge Inspection and Design, Bossier City, Louisiana** Inspected five bridges along I-20 in Bossier City, analyzed the structures, and diagnosed the deficiencies. He was a key member in the team **designing new bearings** for each bridge and addressing deficiencies.

16. Staff Experience			
Firm employed by: HNTB			
Name	[1]David Flanders, PE	**Years of relevant experience with this employer**	14
Title	Project Director, Vice President	**Years of relevant experience with other employer(s)**	24
Degree(s) / Years / Specialization	MBA / 1991 BS / 1983 / Civil Engineering		
Active registration number / state / expiration date	#35264 / Louisiana / 09-30-2022; 17666 / Georgia / 12-31-2022		
Year registered	2010 (LA); 1989 (GA)	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	Principal-in-Charge **Minimum Personnel Requirement #1**		

David is an HNTB **principal** who been responsible for design, project management, and office operations management across the southeast United States and has served in management roles on major program management assignments including the Georgia Department of Transportation's (GDOT) Office of Innovative Delivery (OID) Program Management contract, Louisiana's Submerged Roads Program and the City of Biloxi, Mississippi's Infrastructure Repair Program. He has also served as a project manager and principal for numerous major infrastructure projects in Louisiana, Georgia and Mississippi.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/16-Ongoing	**GDOT OID Program Management Contract, Atlanta, Georgia** Program quality manager for the program including preparation of the quality chapter of the strategic program plan. He also provided **oversight of the quality management system** and introductory training to the team. He has also served as mega project manager for the I-75 commercial vehicle lanes (CVL) project as one of the 11 major mobility improvement projects delivered through alternative delivery procurements. The I-75 CVL project consists of nearly 40 miles of two-lane, barrier separated, non-tolled, for commercial vehicles only, along I-75 between Macon and McDonough, Georgia.
01/09-01/16	**City of Biloxi Infrastructure Repair Program, Biloxi, Mississippi** Project engineer on this project, reconciling FEMA project worksheets, coordination with design engineering consultants, design plan phase submittals review and project controls efforts. The program included close coordination with the Federal Emergency Management Agency (FEMA), local utility providers and MSDOT. HNTB worked with the City of Biloxi, FEMA, Mississippi Emergency Management Agency (MEMA) and the Mississippi DOT (MSDOT) as the program manager for infrastructure improvements to sewer, water and drainage facilities damaged because of Hurricane Katrina.
2007-2012	**LADOTD Submerged Roads Program, New Orleans, Louisiana** Principal-in-charge and project advisor responsible for delivery of HNTB's program management services within the boundaries of the contracted scope and fee for this $120-million street repair program. His responsibilities included staffing, **project quality reviews**, consultant contracting and resource allocations. He was also involved in agency coordination and public outreach initiatives. Public outreach initiatives included ribbon-cutting and ground-breaking events.
2012-2016	**LADOTD Paths to Progress Program, New Orleans, Louisiana** Program administrator for this continuation of the Submerged Roads Program through 2016. His responsibilities included staffing, **project quality reviews**, consultant contracting, resource allocations, agency coordination and public outreach initiatives.
2013-2016	**LADOTD LA 1, Phase 2, Leeville to Golden Meadow, Louisiana** Project manager for the design of approximately nine miles of elevated roadway and approaches to replace the flood-prone LA 1. The alignment connects to and continues the Phase 1 structure from Leeville to Golden Meadow. Phase 2 design includes spanning of multiple pipelines and a levee crossing as well as connection to LA 3235. The design also includes the construction of a 300-foot T-Wall at the levee crossing which required the development of a design documentation report (DDR) and coordination with the United States Army Corps of Engineers (USACE), New Orleans District. Assisted with obtaining 408 and 404 permits from the USACE for construction of the T-Wall, levee improvements and bridge foundation improvements within 300 feet of the levee while collaborating with the LADOTD environmental consultant. The design includes intelligent transportation systems (ITS) and future tolling considerations as well.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Kip Strauss, AICP**	**Years of relevant experience with this employer**	17
Title	Transportation Planning Department Leader, Associate Vice President	**Years of relevant experience with other employer(s)**	2
Degree(s) / Years / Specialization	MBA / 2007 MS / 1993 / Transportation Engineering MS / 1993 / City Planning BS / 1989 / Liberal Arts		
Active registration number / state / expiration date	AICP #012543/ National / N/A		
Year registered	1997	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Planning Lead		

Kip is an associate vice president and manager of the transportation planning department with extensive experience working on and managing transportation planning and traffic engineering projects, including multimodal transportation studies, highway and arterial corridor studies, freight studies, travel demand modeling studies, toll traffic and revenue studies and transportation master plans. Kip is a leader in planning for emerging technology solutions for clients. He is currently serving as an Overland Park, Kansas planning commissioner.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/20-Ongoing	**Missouri Department of Transportation (MoDOT) State Freight and Rail Plan, Statewide, Missouri** Project manager for this next-generation integrated freight and rail plan in 2020 and 2021 focused on **actionable strategies and investments**. The plan will be fueled by data-driven, performance-based decision-making tools along with stakeholder and partner input, resulting in a comprehensive plan that enables MoDOT to target investments that sustains the competitive advantage of the state, recognizes the public and private benefits and costs of freight investments to facilitate cost-sharing and aligns with MoDOT's broader Long-Range Transportation Plan (LRTP) and economic development goals and being part of and enhancing the Citizen's Guide. HNTB is responsible for the rail, aviation and public engagement aspects of the project.
2020-Ongoing	**Kansas Department of Transportation (KDOT) US 69 Modernization and Expansion Project, Johnson County, Kansas** Traffic and safety lead for this major corridor project known as 69 Express. Led a team to develop a break-in-access for KDOT and FHWA for the express tolling option for expansion for the US 69 corridor in southern Johnson County. It is the first time express toll lanes were being considered for the area. He worked closely with all project discipline leads and the traffic and safety team in the exploration and evaluation of express toll lanes.
01/19-12/20	**FDOT Addressing Automated, Connected, Electric and Shared-Use Vehicle Impacts in Planning Documents, Tallahassee, Florida** Task lead responsible for the Shared-Use Vehicle impacts in planning documents. Metropolitan areas across the nation and around the world are facing a technology revolution that could fundamentally change how people and goods move from place to place. This report supports state and local planning agencies, such as metropolitan planning organizations (MPOs), by providing language and ideas that they may incorporate in their policies, projects or other planning documents to meet current state transportation planning requirements regarding automated, connected, electric and shared-use vehicles.
2020-2021	**KDOT Connected and Automated Vehicle (CAV) Implementation Plan, Statewide, Kansas** Project manager for KDOT and Kansas Turnpike Authority's Statewide CAV Implementation Plan. The implementation plan followed the Kansas Statewide Vision Plan with the purpose of developing three pilot projects to be implemented in the state. The three pilot project concepts included rural work zone safety, urban connected corridors and **freight connectivity**.
2011-2013	**KDOT LRTP, Statewide, Kansas** Task lead on a number of initiatives including emerging technologies, economic impact of proposed projects and trends analysis. HNTB supported the KDOT on development of a performance-based, scenario-driven, federally-compliant 2045 LRTP that addresses the Kansas Joint Legislative Transportation Vision Task Force's recommendations and input from outreach efforts. The final plan establishes an updated transportation vision for Kansas and provides the KDOT with a guide for refining its programs, processes, procedures, and organizational structure.

16. Staff Experience			
Firm employed by: HNTB			
Name	[2]Kate Prejean, PE	**Years of relevant experience with this employer**	22
Title	Associate Vice President, Project Manager	**Years of relevant experience with other employer(s)**	0
Degree(s) / Years / Specialization	BS / 2000 / Civil Engineering		
Active registration number / state / expiration date	#35036 / Louisiana / 3-31-2024; #19264 / Mississippi / 12-31-2022; #63000 / Florida / 02-28-2023		
Year registered	2009 (LA, MS); 2005 (FL)	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	Design Lead **Minimum Personnel Requirement #2**		

Kate serves as an associate vice president and project manager within HNTB's Baton Rouge transportation group. In this role, she serves as a **responsible member of the firm**. Since joining HNTB in 2000, she has been responsible for highway design on numerous roadway projects, for planning studies including National Environmental Policy Act (NEPA) process studies, public involvement activities, corridor studies and bicycle-pedestrian feasibility studies.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
10/10-07/16	**LADOTD Submerged Roads Program/Paths To Progress Program, New Orleans, Louisiana** Project engineer for this $120 million hurricane relief program. She has been responsible for **scope and fee development for CDCs, cost estimates and financial tracking during pre-construction and completed construction proposal bid packages** utilizing the LaDOTD's LaDotNet and Trnsport. HNTB worked with the LaDOTD, FHWA and other stakeholders as the program manager for street repairs due to damage related to Hurricane Katrina
05/17-06/21	**LADOTD Orleans Parish Urban Systems Program, Marconi Drive, MLK Boulevard, Morrison Road I and II, Orleans Parish Rehabilitation Projects, New Orleans, Louisiana** Project engineer for the $20-million roadway reconstruction projects and was responsible for the **development of project plans and specifications** including preliminary and final.
07/19-Ongoing	**East Baton Rouge Parish MOVEBR Infrastructure Program, Baton Rouge, Louisiana** Director of preconstruction for the $1.2-billion program of projects that was separated into a list of capacity and enhancement projects. HNTB is responsible for $800 million in capacity infrastructure projects on 40 roadways throughout the parish of East Baton Rouge. As director of preconstruction, Kate is responsible for ensuring delivery of the projects from conceptual development, selection of design consultants, **completion of design study and final design plans, permitting, cost estimating**, ROW acquisition, budget tracking, quality assurance and control, coordination with city staff and other stakeholders. The activities include services provided by design consultants and specialty service consultants. She also monitors and coordinates schedule activities, burn rates, invoice review and approvals among other project control activities.
07/17-11/21	**MDOT I-20 Eastbound over I-55, Jackson, Mississippi** Engineer of record and **technical roadway lead for the final design of the roadway approaches** for a 15 span prestressed concrete beam bridge. Duties performed include project coordination with the client, coordinating with disciplines and leading the roadway technical decisions and roadway design of the project
09/14-07/18	**I-55 Widening over I-220, Jackson, Mississippi** Project engineer and technical roadway lead for the **design project for the complex bridge system and approaches and roadway modifications necessary**. The client has been told by other consultants that the bridge structure could not be widened. The existing box girder structure has 9.4 percent cross slope and a low vertical clearance. HNTB designed a way to widen the structure with multiple shallow steel plate girders to carry the load and meet the vertical clearances required. Additional work for construction services including RFI reviews, shop drawing reviews, and additional contractors submittal reviews.

16. Staff Experience

Firm employed by: HNTB

Name	**Jonathan Liby**	**Years of relevant experience with this employer**	1
Title	Senior Project Manager - Program Management	**Years of relevant experience with other employer(s)**	22
Degree(s) / Years / Specialization	MSOL / 2016 / Organizational Leadership MBS / 2005 / Business Administration BS / 2003 / Marketing and Management Administration		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Asset Management/Performance Monitoring Lead		

Jonathan brings more than 20 years of senior project management experience and provides leadership and management of teams in support of the project's profitable operations. He is responsible for proactively managing the projects technical budget (direct labor and expenses including technical sub-consultants), schedule, technical requirements, contractual obligations/communications and delivering HNTB's 4for4 performance of consistent delivery of quality work, on time, on budget and to the client's satisfaction on every project. Jonathan is an experienced and innovative senior project manager and brings years of continuous advancement and a proven history of delivering results and surpassing expectations

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
05/20-Ongoing	**FDOT MCSAW Program Support, Tallahassee, Florida** Asset management lead on this contract where HNTB works closely with other state agencies, including the Departments of Highway Safety and Motor Vehicles, Agriculture and Consumer Services and Revenue, as well as key industry partners, such as the FTA. Specific tasks performed under this contract include the facilitation of strategic plan visioning sessions which brought together various FDOT departments, state agencies and key industry stakeholders to collaborate. The session set the framework for future technology enhancements; the development and deployment of a fiber optic inter-connection plan to link all interstate weigh stations together on a fiber optic network; the piloting of mainline screening technologies to allow for increased efficiency of CVO and the **development of a geographic information system-based asset management platform**. The platform included initial inspection and rating based on FDOT maintenance rating factors and led to the prioritization of activities for scale facility repairs and the programming of projects into a 10-year cost feasible plan and five-year work program.
05/21-Ongoing	**TxDOT WIM/Vehicle Classification Program Support, Statewide, Texas** Supported TxDOT WIM/vehicle classification deployment, **assembling a life-cycle cost modeling tool** capturing user-input to calculate acquisition, operations and maintenance costs over the defined life. Developed baseline asset useful-life and early-failure-rate expectations to conservatively model anticipated life-cycle costs. Simple graphic output helps the audience understand the full life-cycle cost details yet captures the overarching strategy. Through this work authorization, working group meetings were held with all 25 TxDOT districts to provide guidance and feedback on the goals, objectives and strategies. A GIS-based tool was developed to support the identification and prioritization of elements for deployment for input by the District offices. Partnership meetings were held with other public agency stakeholders to collaborate and expand the effectiveness of the system. A 10-year plan was developed focused on expansion, maintenance, collaboration, data use and future application through specific implementable actions, including necessary policy and contracting modifications.
2019-2020	**CSX Intermodal Terminals, CSX, Jacksonville, Florida** Director of fleet management who focused on the safety, continuous improvement and service reliability, and managed an asset budget of $100M+ managing two thirds of the railcars on the CSX railroad. Contributions included savings of $4 million in car-hire costs through strategic reduction and storage initiatives through improved utilization and speed, operated with over 20% fewer cars while improving service reliability. Developed a data-model to better size fleet needs based on changing cycle-times and other key metrics to shape the fleet in real-time, adjusting to customer behavior changes and operating conditions. Developed, implemented and successfully executed a process with private-railcar owners evaluating cycle-times and business needs to reduce their fleet size, save money and reduce railroad congestion.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Derek Barrs**	**Years of relevant experience with this employer**	2
Title	Senior Program Manager	**Years of relevant experience with other employer(s)**	28
Degree(s) / Years / Specialization	BS / 2012 / Public Administration AS / 1997 / Criminal Justice		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Policy Lead; Enforcement Manuals; State Enforcement Plans; Content Development; Partnership Groups		

Derek brings 30 years of CVO experience in law enforcement, traffic safety, commercial vehicle enforcement and operations, educational outreach, management, leading and participating in national committees on emerging technologies related to traffic and commercial vehicle safety, and emergency management operations. Derek has worked directly with commercial vehicle safety and mobility aspects and led the Commercial Vehicle Safety Alliance Enforcement (CVSA) and Industry Modernization Committee, where he was involved with the impacts associated with technologies such as CAV. This experience allows him to build and maintain relationships with citizens, law enforcement, emergency management, government officials and personnel.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/20-Ongoing	**FDOT MCSAW Program Support, Tallahassee, Florida** Senior program manager on this contract where HNTB works closely with other state agencies, including the departments of Highway Safety and Motor Vehicles, Agriculture and Consumer Services and Revenue, as well as key industry partners, such as the FTA. Specific tasks performed under this contract include the facilitation of **strategic plan visioning sessions** which brought together FDOT departments, state agencies and key industry stakeholders to collaborate. The session set the framework for future technology enhancements; the development and deployment of a fiber optic inter-connection plan to link all interstate weigh stations together on a fiber optic network; the piloting of mainline screening technologies to allow for increased efficiency of CVO and the development of a geographic information system-based asset management platform. The platform included initial inspection and rating based on FDOT maintenance rating factors and led to the prioritization of activities for scale facility repairs and the programming of projects into a 10-year cost feasible plan and five-year work program.
01/20-02/22	**TxDOT WIM/Vehicle Classification Program Support, Statewide, Texas** Supported deployment, assembling a life-cycle cost modeling tool capturing user-input to calculate acquisition, operations and maintenance costs over the defined life. Developed baseline asset useful-life and early-failure rate expectations to conservatively model anticipated life-cycle costs. Simple graphic output helps the audience understand the life-cycle cost details yet captures the overarching strategy. Through this work authorization, working group meetings were held with 25 TxDOT districts to provide guidance and feedback on the goals, objectives and strategies. A GIS-based tool was developed to support the identification and prioritization of elements for deployment for input by the District offices. Partnership meetings were held with other public agency stakeholders to collaborate and expand the effectiveness of the system. A 10-year plan was developed focused on expansion, maintenance, collaboration, data use and future application through specific implementable actions, including necessary policy and contracting modifications.
07/11-01/20	**FLHSMV Division of the Florida Highway Patrol (FHP), Tallahassee, Florida** Law enforcement chief of the FHP/office of Commercial Vehicle Enforcement (CVE) who **managed and directed the overall operations of the office of CVE**, to include overall commercial vehicle training and post-crash investigations. Managed and directed the CVE office operations. Managed federal funds from the Motor Carrier Safety Assistance grant from the Federal Motor Carrier Safety Administration. Coordinated implementation of CVE programs, provided recommendations and assistance on operational issues within the FHP/FLHSMV. Served as staff commander for operations such as natural disasters, security functions, criminal task force operations, etc. Maintained working relationships with law enforcement, criminal justice, emergency management, governmental officials and personnel. Assisted and analyzed proposed legislation. Ensured compliance to departmental policies, procedures and accreditation practices. Confirmed public outreach with law enforcement partners, trucking industry and other similar disciplines related to commercial vehicle safety.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Charles "Charlie" Farnham, PE**	**Years of relevant experience with this employer**	7
Title	Senior Program Manager - ITS	**Years of relevant experience with other employer(s)**	26
Degree(s) / Years / Specialization	BS / 1989 / Civil Engineering AAS / 1984 / Welding AS / 1982 / Agricultural Engineering		
Active registration number / state / expiration date	#28096 / Louisiana / 9-30-2022		
Year registered	1988	**Discipline**	Electrical Engineering
Contract role(s) / brief description of responsibilities	ITS/Technology Lead		

Charlie has over 35 years of information technology and ITS experience. Serving as ITS branch manager for TxDOT's Traffic Operations Division and senior ITS project manager with HNTB provided him with extensive knowledge of all facets of ITS planning, development, design, construction and maintenance for small and large systems. He represented TxDOT on national committees and actively participated in local and national ITS conferences.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
11/19-Ongoing	**GDOT Statewide Intelligent Transportation System Maintenance Implementation, Statewide, Georgia** Providing technical oversight on tasks related to the implementation of an **ITS Asset Management System** (IAMS) to be used to track GDOT's ITS assets, manage maintenance activities, track maintenance performance, and process asset problem tickets from creation to resolution. He is responsible for performing technical reviews of vendor developed documentation related to the planning, deployment, testing and training of the IAMS software. He is an active participant in project meetings and discussions related to the development of GDOT's IAMS.
07/19-Ongoing	**GDOT Advanced Transportation Management System (ATMS) Development and Deployment, Statewide, Georgia** Providing technical oversight on tasks related to the development and deployment of the Georgia DOT's Next Generation ATMS. He is responsible for performing **technical reviews of vendor developed documentation** related to the development of the Georgia DOT's Next Generation ATMS. He is performing technical reviews of the requirements solution documents and planning documents required as part of the development and deployment of the ATMS. He is an active participant in project meetings and discussions related to the development of GDOT's new ATMS.
11/15-04/17	**Commercial Vehicle Information Systems and Networks (CVISN), Austin, Texas** Project manager for the **planning and development of the Texas CVISN program**. He led the development of the Texas Commercial Vehicle Information Exchange Window (TxCVIEW) system, which connects to various state and federal systems to exchange CVO information in a seamless and secure method among these agencies.
08/17-Ongoing	**GDOT Statewide Traffic Signal Management Program Concept of Operations Development, Statewide, Georgia** Technical lead for the tasks related to the development of the Concept of Operations for the Georgia DOT Statewide Signal program. Following the system's engineering process, he led the engagement to capture input and needs of various internal and external stakeholders These tasks involved working closely with the stakeholders of GDOT's Metro and rural signal system programs (Regional Traffic Operations Program (RTOP) and Rural Traffic Signal Operations (RTSO)). His work included preparing for and conducting stakeholder interviews; researching and gathering information from other state's signal deployments and performance measures.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Jessica Dean, PE**	**Years of relevant experience with this employer**	<1
Title	Planning Department Manager	**Years of relevant experience with other employer(s)**	15
Degree(s) / Years / Specialization	BS / 2006 / Civil Engineering		
Active registration number / state / expiration date	#72975 / Florida / 02-28-2023		
Year registered	2011	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	Feasibility Studies; Master Plan/Schedule/Cost		

Jessica is a department manager in the planning group and brings 15 years of experience in the field. She has extensive experience as a contract, project manager and task lead. Jessica has performed as a contract and project manager in numerous projects that required the management of multi-disciplinary and multi-office project teams, contracting, scoping, project reviews, contract and scope negotiations, staff presentations and invoicing to include clients such as FDOT Districts 1, 5 and 6, Florida's Turnpike Enterprise (FTE) and SunRail.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/20-Ongoing	**FDOT SR Expressway Extension, Orlando, Florida** Deputy project manager responsible for client **coordination support, team coordination, project scheduling, budget management and public involvement** support for identifying viable alternatives for the addition of elevated toll lanes down the existing SR 414 corridor from US 441 to SR 434. These alternatives close a regional gap providing limited east/west connectivity between SR 429 and I-4 in Central Florida.
03/19-04/20	**FDOT/FTE Colonial Parkway SR 504, Orlando, Florida** Project planner/engineer responsible for **project development and environmental, public involvement support and environmental document quality control reviews**. The project involves identify viable alternatives for the addition of toll lanes down the existing SR 50 corridor from Woodbury Rd to SR 520. Jessica also provided public involvement support and quality control reviews.
11/17-09/19	**FDOT Continuing Project Development and Environmental Services, Ocoee, Florida** Senior project manager and contract manager responsible for managing the consultant teams for two continuing project development and environmental services contracts. These contracts involve providing miscellaneous support to FTE such as Efficient Transportation Decision Making (ETDM) screenings, **feasibility studies, PD&E document reviews, public involvement support, and environmental surveys**.
11/17-09/18	**FDOT/FTE SR 417 Extension Feasibility Study, Northeast Central Florida** Project manager responsible as extension of Department staff to manage the continuing services consultant and **coordinate the feasibility study**. This project involved conducting a pre-project development and environmental study to evaluate different alternatives for the extension of SR 417 from its existing alignment to I-95 as directed under a federal earmark.
02/18-06/19	**FDOT/FTE Coastal Connector Alternative Corridor Evaluation, Citrus and Marion Counties, Florida** Assistant project manager responsible as extension of Department staff to manage the consultant and coordinate the alternative corridor evaluation study for the assigned project manager, as needed. This project involved **conducting an Alternative Corridor Evaluation (ACE)**, high-level planning study, for a potential new corridor in Citrus and Marion Counties.
03/18-02/19	**FDOT/FTE US 27 Feasibility Study, Polk County, Florida** Project manager responsible as extension of Department staff to manage the continuing services consultant and coordinate the **feasibility study**. This project involved assessing the feasibility to add toll lanes on US 27 from SR 60 to US 192.
06/06-11/17	**FDOT General Planning Contract, Deland, Florida** Transportation planner/engineer responsible for assisting the contract/project manager on miscellaneous planning tasks assigned by FDOT. The contract included task work orders such as writing TIGER and FASTLANE grants, organizing and holding public meetings/workshops/forums, SIS support, and other assignments as requested by FDOT.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Dharmin Kukadia, PE**	**Years of relevant experience with this employer**	<1
Title	Project Engineer	**Years of relevant experience with other employer(s)**	4
Degree(s) / Years / Specialization	MS / 2018 / Civil Engineering BS / 2016 / Civil Engineering		
Active registration number / state / expiration date	#92514 / Florida / 02-28-2023		
Year registered	2021	**Discipline**	Professional Engineer
Contract role(s) / brief description of responsibilities	Feasibility Studies; Needs Assessments		

Dharmin is a traffic engineer with four years of experience in the field. Prior to joining HNTB, he performed analytical tasks, traffic impact analysis, traffic calming and speed limit studies as well as prepared presentations, scheduled and coordinated data collection analysis and safety studies for FDOT Districts 4 and 6, the City of Hollywood, Pembroke Pines and Port St. Lucie. His expertise includes working closely with project managers to perform research development calculation designs and delivery to support the project execution using current drawings, technical tool programs and software to include geographic information systems (GIS), Vissim, Synchro, HCS, Sidra, MicroStation and Google Earth Pro.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
02/22-Ongoing	**Hollywood Community Redevelopment Agency (CRA) Tyler Street Two-Way Conversion Traffic Analysis, Hollywood, Florida** This contract involves **operational traffic analysis** for the proposed two way street conversion of Tyler Street, located in the City of Hollywood, Florida. Tyler Street currently operates as a one way street with three lanes and on street parallel parking on both sides from N. 21st Avenue to Young Circle. The project will convert this segment to a two lane, two way traffic pattern while maintaining on street parking. Served as Traffic Engineer responsible for performing SimTraffic simulation.
02/22-Ongoing	**City of South Miami Traffic Calming Study, Miami, Florida** Traffic analyst who conducted a traffic calming study to reduce or eliminate speeding/cut through Southwest 65th place, Southwest 75th Terrace and Southwest 84th Street roadway segments. The evaluation includes field observation, peak hour traffic counts and collision diagrams by collecting crash data from the Florida Department of Transportation (FDOT) Signal Four Analytics and project report writing.
02/22-Ongoing	**FDOT District 4 GEC, Palmetto Bay, Florida** Traffic analyst who conducted various studies to include the conversion of seven traffic signalized intersections on Old Cutler Road from Southwest 184th Street to Southwest 136th Street into roundabouts. Also, converting existing circles at Southwest 168th Street at Southwest 87th Avenue and Southwest 82nd Avenue from a single lane to possibly two lanes roundabouts and second eastbound lane. This project includes a collection of traffic data, synchro analysis, the study of alternate options, recommendations and conceptual designs as well as currently working on two traffic calming studies to determine the motorist's possibilities not to cut through the neighborhoods.
02/22-Ongoing	**City of Miami Beach 17th Street Protected Bike Lanes and Busway, Miami Beach, Florida** Traffic analyst responsible for conducting **traffic simulations** on this feasibility study for 17th Street from West Avenue to Beachwalk in Miami Beach, consistent with the City's Transportation Master Plan.
02/22-Ongoing	**Hollywood CRA Young Circle Re-Design Project Phase II, Hollywood, Florida** Traffic engineer who performed **traffic simulations** in Vissim and Synchro for the City of Hollywood CRA to provide traffic analysis for phase II. This project aims to re-design Young Circle to improve traffic congestion, traffic flow, improve pedestrian and bicycle activity and safety, and make the Young Circle more inviting as a community and tourism centerpiece.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Jeremy Upchurch**	**Years of relevant experience with this employer**	2
Title	Planner	**Years of relevant experience with other employer(s)**	7
Degree(s) / Years / Specialization	BBA / 2013 / Transportation and Logistics		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Program Planning; Project Prioritization		

Jeremy serves in HNTB's Urban Planning Group with nine years in the industry supervising and supporting the systems planning, logistics, supply chain and the transportation field for FDOT Districts 4 and 5. As a planner, he oversees staff, coordinates with subconsultants and in-house personnel to direct tasks, finalize production of environmental documents, transportation plans and reports.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
02/20-Ongoing	**FDOT CVO/TIM Program Consultant, Statewide, Florida** HNTB is providing support services for these two critical areas of the State Traffic Operations Office. This contract supported the evaluation and implementation of truck parking location expansions throughout the state, including leveraging other publicly owned locations as well as incorporation of private facilities into the TPAS network. Innovative approaches, including parking management strategies to maximize available infrastructure are being developed to provide immediately achievable expansion. Jeremy was part of the team who provided management oversight in the **development of a feasibility study** to implement a pilot project for the use of technology to link specific vehicles to oversize/overweight permits to streamline the operations once vehicles have been verified for compliance. This contract also updated the citation tracking tool, a critical application in the management of protested commercial vehicle citations, in support of the Review Board. HNTB provided website updates, including the advancement of features on the Road Ranger Service Patrol to enhance user support and feedback. The TIM Strategic Plan and CVO business plan were developed under the program. The TIM Strategic Plan included focus on increased safety through enhanced services such as the Road Ranger Service Patrol. The CVO Strategic Plan focused on safety and mobility though partnership and technology deployments.
03/20-Ongoing	**TxDOT WIM and Vehicle Classification Strategic Plan, Statewide, Texas** HNTB is developing a strategic plan for the statewide traffic data collection system. Through this work authorization, Jeremy led the working group meetings with representation from all 25 TxDOT districts to provide guidance and feedback on the goals, objectives and strategies for the plan. A GIS-based tool was developed to support the **identification and prioritization of elements for deployment** for input by the District offices. Partnership meetings were held with other public agency stakeholders to collaborate and expand the effectiveness of the system. A 10-year plan was developed focused on expansion, maintenance, collaboration, data use and future application through specific implementable actions, including necessary policy and contracting modifications.
06/19-02/20	**FDOT District 5 Systems Planning, DeLand, Florida** Planning supervisor who provided technical assistance to the systems planning staff to include the areas of strategic intermodal systems (SIS), context classification, growth management, RCI, RJT and travel demand modeling. **Directed staff in the analysis and evaluation of plans, programs and needs**. Served as the primary contact for D5 in coordinating SIS with other governmental organizations and the private sector in addition to coordinating the district SIS planning activities such as SIS first and second five work program, cost feasible and unfunded needs plans. Acted as FDOT project manager on various planning studies and activities as needed.

16. Staff Experience			
Firm employed by: CAMBRIDGE SYSTEMATICS			
Name	**Adam Danczyk, PE, PTOE**	**Years of relevant experience with this employer**	3
Title	Senior Associate	**Years of relevant experience with other employer(s)**	13
Degree(s) / Years / Specialization	MS / 2008 / Civil Engineering BS / 2006 / Civil Engineering		
Active registration number / state / expiration date	PE: #138965 / Texas / 06-30-2022; #062065013 / Illinios / 11-30-2023; #11700506 / Indiana / 07-31-2023; #6201067487 / Michigan /06-19-2023; #2017032004 / Missouri / 12-31-2023; #027981 / Nevada / 12-31-2022; #079443 / Pennsylvania / 09-30-2023 PTOE: #3375 / National / N/A		
Year registered	2020 (TX); 2012 (IL); 2017 (IN); 2017 (MI); 2017 (MO); 2020 (NV); 2012 (PA)	**Discipline**	Civil Engineer
Contract role(s) / brief description of responsibilities	Program Planning		

Adam is a senior associate at Cambridge Systematics 16 years of experience specializing in traffic operations, ITS, CAV and emerging technologies. He has planned, designed, and deployed many multi-million dollar ITS programs that range in various tiers of readiness and innovation. With Cambridge Systematics, he is involved in several CAV planning and deployment projects, which span from readiness assessments to detailed deployments of autonomous vehicle transit shuttles in a C-V2X (cellular-vehicle-to-everything) communications environment. He just completed an extensive freight technology planning effort in Texas that looked to employ freight signal priority, enhanced traveler information, and other services to truckers. His professional engineering experience involves high-profile ITS and TSM&O projects across the United States.

Experience dates (mm/yy–mm/yy)	**Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
11/19-Ongoing	**TxDOT WIM and Vehicle Classification Strategic Plan, Statewide, Texas** Examined **strategies to inform weigh-in-motion and vehicle classification sites** to help strategic planning in Texas. This strategic plan aims to deploy WIM/VC sites across the state of Texas to maximize the data collection capabilities of the program, which is used to help forecast pavement replacement and other asset preservation programs based on the traffic volumes and percentages of trucks. Adam is assisting with the development of screening criteria for identifying needs, as well as providing technical guidance on the feasibility of implementing WIM/VC sites at certain locations relative to other operational improvements, which could include enforcement and real-time operations.
06/19-01/21	**TxDOT Freight Network Technology and Operations Plan, Statewide, Texas** TxDOT undertook one of most advanced technology-focused freight improvement projects in the country at that time. This plan evaluated opportunities to improve freight mobility in the state through use of advanced technology and facilitation of Texas's growing automated freight vehicle industry. Through close collaboration with stakeholders, this project developed an extensive list of user needs that informed a wide range of **technological and operational strategies for improving freight movement**. Six of these strategies were advanced into the development of a Concept of Operations document, with clear traceability to the user needs defined earlier. The purpose and need for each of these strategies utilized a data-driven approach that justified the value offered to the Texas Multimodal Freight Network. Adam served as the Deputy PM for this plan and led tasks for identifying user needs, developing strategies, and wrote six FHWA-compliant Concept of Operations documents to support various strategies. He was responsible for presenting these strategies to various public and private stakeholders, and through the Texas Freight Advisory Committee.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Gala Rosborough, CCP**	**Years of relevant experience with this employer**	16
Title	Senior Project Controls	**Years of relevant experience with other employer(s)**	17
Degree(s) / Years / Specialization	BIE / 1989 / Industrial Engineering		
Active registration number / state / expiration date	Certified Cost Professional / National		
Year registered	1994	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Master Plan/Schedule/Cost		

Gala brings 33 years of experience in project controls having held key project positions for several major programs. As a senior project control manager, Gala provides project control services during all phases of projects including project startup for design or construction and ongoing projects as needed. This multi-faceted position requires familiarity with all industry process standards for project management, integrated scheduling, cost control, construction claims and earned value management. Gala has 29 years' experience working with Primavera software and major project management software solutions for earned value management.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/17-12/21	**FDOT District 7 Owner's Representative, Tampa Bay Next (TB Next), Hillsborough, Polk, and Pinellas Counties, Florida** Project scheduler for this project which consists of more than $3-billion system of express lanes that are being planned for the Tampa Bay area. Activities included **creating and maintaining a Program Master Schedule** for all sections of the program throughout all life-cycle phases of projects from NEPA through Construction.
05/16-Ongoing	**FDOT District 3 GEC, Districtwide, Florida** Production management scheduler who updated and maintained all PD&E production schedules throughout the district. Working with the project development and environmental department and program management, assisted in revising templates to follow new original equipment manufacturer requirements. Assisted in **updating projectsuite enterprise edition system status notes for all design and project development and environmental active projects** throughout the district following the design and project development and environmental production meetings.
06/12-12/14	**FDOT District 1 GEC, Bartow, Florida** Production management scheduler who **updated and maintained over 700 schedules** throughout the district. Working with all district Project Managers and Program Management, created new templates with standardized work breakdown structure, linked open broadcaster software, standard A/E codes, updated codes and streamlined number of activities. Implemented updated scheduling procedures to streamline the processes along with training new schedulers.
01/08-06/10	**Hilllsborough County Transportation Task Force Program Management Consultant (PMC) Program, Tampa, Florida** Project control lead for a $500-million program of improvements, including roadway widening, intersections, new signals and ATMS during planning, design and construction phases. Responsibilities included **creating the program master schedule and implementation plan** in Primavera P6. Tasked with creating and updating monthly a resource loaded Primavera integrated cost and schedule tracking and earned value reporting system for 160 projects, working with Technology Group in developing the Budget Control Manager database which integrated with Primavera P6, managed the contract budgets and captured all the actual costs from all program entities, including GEC, general/civil designers, geotechnical consultants, surveyors, lab test vendors, equipment vendors and contractors. Maintained county Primavera schedules to feed into their funding and budgeting process. Worked with Technology Group to setup the SharePoint DashPort system which included modules for project status and reports and the document control system.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Pradeep Rao, PE**	**Years of relevant experience with this employer**	15
Title	Senior ITS Engineer	**Years of relevant experience with other employer(s)**	3
Degree(s) / Years / Specialization	MS / 2006 / Transportation Engineering BS / 2002 / Civil Engineering Graduate / 1998 / Civil Engineering		
Active registration number / state / expiration date	#57448 / Arizona / 06-30-2023		
Year registered	2014	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	Master Plan/Schedule/Cost; Weigh in Motion; Ancillary Devices		

Pradeep has 18 years of experience in ITS and traffic engineering. He is specialized in ITS design including virtual weigh-in-motion (VWIM) systems, ITS concept of operation, cost estimate, civil construction and engineering services, review of ITS plans and testing procedures and review of development of regional impact. He has performed ITS design for traffic signal network optimization projects using Synchro and has prepared and reviewed ITS concept of operations, software requirements and scope of services documents for ITS systems; rendered construction, engineering and inspection (CE&I) services to FDOT for installation and testing of ITS systems and transportation management center; designed ATMS including fiber optic communication system, closed-circuit television (CCTV) and dynamic message signs (DMS) systems along with Sensys in-ground sensors and video image vehicle detection system. He is proficient in the use of software applications, such as ArcGIS, AGI and Synchro and has working knowledge of Vissim, Guidesign, Inroads and HCS software applications.

Experience dates (mm/yy–mm/yy)	**Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
02/15-Ongoing	**FDOT Chief Engineer Support Services, Statewide, Florida** **ITS designer for the Palatka VWIM systems**, included several ITS cameras and weigh detection system, fiber and cellular communication system. Developed VWIM device and communication technical special provisions for the project. The Central Office will be deploying a statewide project called the TPAS. The project will monitor the truck parking spaces at both the rest areas and weigh stations. This information will be displayed on a numerical display sign boards preceding the facilities. The intent of the project is to direct the truckers to another facility downstream if the current rest area is full. Pradeep is an ITS project engineer developing a design-build request for proposal (RFP) for the deployment of this system. A set of 50% plans, specifications, and estimates will be part of the RFP. Coordination with FDOT's maintenance agencies for power and communications is ongoing. Pradeep's responsibilities include field work with each of the FDOT District representatives to investigate the placement of the TPAS signs as well as its connection to the local ITS cabinets. He has alsoperformed research and deployment of a new parking monitoring technology into the FDOT ITS system. The project included deployment of an established FDOT technology in a new and innovative application.
09/17-Ongoing	**FDOT MCSAW Program Support, Tallahassee, Florida** FDOT's MCSAW program includes planning; performance measures; outreach and training; specifications and standards; and telecommunications and networking. This contract works closely with other state agencies including the departments of Highway Safety and Motor Vehicles, Agriculture and Consumer Services and Revenue, as well as key industry partners such as the FTA. Specific tasks include facilitation of a strategic plan visioning session which brought together various FDOT departments, state agencies and industry stakeholders to collaborate. The session set the framework for future technology enhancements; the development and deployment of a fiber optic inter-connection plan to link all interstate weigh stations on a fiber optic network; the piloting of **mainline screening technologies** to allow for increased efficiency of CVO; and the development of a GIS-based asset management platform. The platform included initial inspection and rating based on FDOT maintenance rating factors and led to the prioritization of activities for scale facility repairs and the programming of projects into a 10-year cost feasible plan and five-year work program. In addition, this contract is leading further development of the database system which will provide increased tracking capabilities of freight movement, to ultimately include size, weight, bill of lading and permit tracking.

16. Staff Experience			
Firm employed by: CAMBRIDGE SYSTEMATICS			
Name	**Gui Leao**	**Years of relevant experience with this employer**	2
Title	Transportation Analyst	**Years of relevant experience with other employer(s)**	0
Degree(s) / Years / Specialization	BA / 2019 / Urban Studies		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Master Plan/Schedule/Cost		

Gui is a transportation analyst at Cambridge Systematics. He has supported many USDOT, FHWA, and dtate DOT tasks in the areas of emerging technology, freight, and transportation systems management and operations. He has a background in urban planning and since joining Cambridge Systematics, he has worked on various freight and ITS projects. These include initiatives in Texas, such as the freight network technology and operations plan, WIM/vehicle classification strategic plan, and freight infrastructure design considerations project. Gui supports several TSM&O projects, which currently include the development of the TDOT's TSM&O program plan and Utah's TSM&O business case.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
11/19-Ongoing	**TxDOT WIM and Vehicle Classification Strategic Plan, Statewide, Texas** Gui supported the TxDOT WIM and vehicle classification strategic plan development, which will strategically place WIM/vehicle classification across key freight corridors in Texas to maximize data collection capabilities. Gui **developed the statewide criteria** for the needs analysis (including asset conditions and energy sector activity) to inform the locations of future WIM/VC sites.
06/21-Ongoing	**TxDOT Texas Delivers 2050 Texas Freight Mobility Plan** Cambridge Systematics is leading the development of the federally-mandated 2023 Texas Freight Mobility Plan, rebranded to Texas Delivers 2050. Unlike traditional freight planning efforts, TxDOT aims to focus more closely on the role of the Texas Multimodal Freight Network in supporting critical industry supply chains in Texas, given the disruptions that occurred in 2020 and beyond due to the COVID-19 pandemic. This study aims to understand the role of a given modal link not just for supporting commodity flow volumes, but also the role that link plays for Texas-based supply chains. This study examines the **lifecycle of ten critical supply chain areas** from raw materials to production to warehousing/distribution to retail to recycling/reuse. Gui has been involved in the project supply chain work, including a petroleum supply chain analysis, and the model profiles, specifically the statewide pipeline modal profile.
04/21-Ongoing	**TDOT Tennessee Innovative Technology Deployment (ITD), Statewide, Tennessee** Cambridge Systematics currently supports the state of Tennessee's ITD program, which focuses on improving safety and productivity of motor carriers, improving efficiency and effectiveness of commercial vehicle safety programs, and **expanding commercial vehicle data sharing between states and FMCSA**. Within the state, this involves several state agencies, aimed at expanding the geographic scope of commercial vehicle enforcement efforts. CS helps ensure that the program is in compliance with Federal standards and architectures, and provides routine program management and system architecture services. Gui has provided support to TN by monitoring and processing daily data logs that interface between the state's data repository (CVIEW) and the Federal SAFER system, as well as attending monthly Federal ITD meetings.
06/21-Ongoing	**TxDOT Freight Design Needs Criteria Development, Statewide, Texas** TxDOT is examining application of enhanced design criteria to help improve safety and mobility on the Texas Highway Freight Network. Cambridge Systematics assisted a team that led the development of potential design criteria enhancements–including enhanced bridge vertical clearance, acceleration/deceleration lanes, and others–that could be adopted by the TxDOT Design Division. Gui was an analyst in the effort to **identify and prioritize segments of the Texas Highway Freight Network that could be improved, in relation to the design criteria identified**.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Joseph "Joe" Blasi, PE, PTOE**	**Years of relevant experience with this employer**	17
Title	Transportation Planning Engineer, Project Manager	**Years of relevant experience with other employer(s)**	1
Degree(s) / Years / Specialization	MS / 2004 / Civil (Transportation) Engineering BS / 2004 / Civil Engineering		
Active registration number / state / expiration date	#45149 / Louisiana / 03-31-2023; #129234 / Texas / 12-31-2022; #17285 / Arkansas / 12-31-2023; #2009018690 / Missouri / 12-31-2023; #P22765 / Iowa / 12-31-2022		
Year registered	2020 (LA); 2018 (TX); 2016 (AR); 2009 (MO); 2015 (IA)	**Discipline**	
Contract role(s) / brief description of responsibilities	Traffic **LADOTD Traffic Engineering Process and Report Training Course**		

Joe currently serves as a transportation planning engineer and a project manager for the Kansas City office. He founded and leads the HNTB-wide transportation planning modelers user group, which connects nearly 200 HNTB modelers to discuss best practices and lessons learned for planning models from travel demand models to meso- and micro-simulation, transit, noise, air-quality and safety models. He assists offices around the country as a firmwide expert in Vissim simulation software, having presented at seven Vissim user group conferences. Joe's qualifications include micro- and mesoscopic simulation modeling and travel demand modeling using the latest versions of TransModeler, Synchro, SimTraffic, HCS, Sidra, TransCAD, VISUM, Vissim and Dynameq, as well as ESRI GIS software. He has also completed more than a dozen Interchange Access Justification Requests in 10 years. He has experience with transit studies, signal timing, managed lanes, and the Highway Safety Manual (HSM) as well as design-build and program management projects.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
05/19-Ongoing	**LADOTD I-10 Calcasieu River Bridge Environmental Impact Statement (EIS), Lake Charles, Louisiana** Technical advisor for the bridge replacement study, which was a corridor study of approximately nine miles and included many complex issues in an urban setting such as the navigable Calcasieu River, numerous petro-chemical plants, a high-volume railroad and numerous businesses immediately adjacent to the corridor. A **Vissim model was used to analyze various future alternatives**.
2016-2019	**Ascension Parish GEC Transportation Master Plan Development and Implementation, Ascension Parish, Louisiana** Planning engineer for the Transportation Master Plan task of the GEC. The required services included numerous facets of transportation planning, development and implementation including but not limited to: land use planning, corridor preservation, **planning, traffic demand modeling, traffic operations analysis, feasibility evaluation, environmental processes and permitting, conceptual design**, including bridges, roadways, and drainage structures, financing management, coordination, and liaison, and public engagement.
07/17-09/19	**East Baton Rouge Parish MOVEBR Infrastructure Program, Baton Rouge, Louisiana** Task lead for the project prioritization effort in which 40 projects will be prioritized over the 10-year, $800-million program. Other tasks include developing an overall program strategy, developing a program schedule and budget, **traffic modeling, corridor planning**, program monitoring and control, public involvement, environmental coordination, and program financial management. HNTB is responsible for $800 million in capacity infrastructure projects on 40 roadways throughout the parish of East Baton Rouge.
12/19-05/20	**MoDOT Traffic Impact Analysis (TIA) Guidance Development, Missouri** Project manager who led the effort to **develop TIA guidance** for MoDOT to utilize when a TIA is performed both internally by MoDOT staff and by external partners. Coordinated all efforts among the Consultant team (many located in North Carolina) and the project team (including the Client), including more than ten meetings to discuss expectations for each of the sections in the guidance, and later to review and discuss comments on each of the sections. Provided technical quality control for the traffic modeling sections of the guidance and interdisciplinary reviews of the remaining sections.

16. Staff Experience			
Firm employed by: ARCADIS			
Name	**Akhil Chauhan, PE, PTOE, PTP, PMP**	**Years of relevant experience with this employer**	14
Title	Principal Engineer	**Years of relevant experience with other employer(s)**	6
Degree(s) / Years / Specialization	MS / 2003 / Transportation Engineering BS / 2001 / Civil Engineering		
Active registration number / state / expiration date	#033703 / LA / 09/2022; PTOE #2544 / USA / 11/2023 PTP #246 / USA / 12/2024; PMP #1444676 / PA / 08/2023		
Year registered	2008	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	Traffic		

Akhil is a principal traffic engineer with 20 years of applied research and industry experience in the fields of traffic engineering, traffic modeling and simulation, transportation planning, demand modeling/forecasting, intersection/corridor analysis, safety studies, and access management. Akhil has successfully led, managed, and mentored numerous projects and personnel related to transportation modeling, simulation, and planning for public agency clients located across the nation including several state Departments of Transportation. He is proficient in the use of many macro-, meso-, and microscopic traffic simulation software programs such as HCS, Vistro, Synchro, SIDRA, Vissim, MITSIM, Dynameq, DynaMIT, TransCAD, Visum, and OREMS.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
04/13-10/20	**LADOTD US 11 Railroad Bridge Replacement and Corridor Improvements Environmental Assessment (EA), St. Tammany Parish, Louisiana** Principal engineer responsible for **crash analysis, operating speed tabulations, intersection and corridor analysis, line and grade**, and public outreach for the proposed widening of US 11 between US 190 (Gause Boulevard) and I-12 in Slidell. Proposed improvements include the replacement of a bridge crossing the Norfolk Southern Railroad. Critically, this project includes analysis of several innovative alternatives for the proposed corridor, including "superstreets" and J-turn concepts.
07/12-11/14	**LADOTD Chef Menteur Bridge and Approaches EA, Orleans Parish, Louisiana** Principal traffic engineer responsible for the high-priority bridge replacement EA and Line and Grade Study, responsible for coordinating **traffic impact study**. Traffic impact study coordination included reviewing available data with DOTD traffic engineer to identify gaps and propose additional data needs, investigating planned transportation improvement projects and traffic generators with DOTD and New Orleans RPC, reviewing design hour volumes (DHVs), average daily traffic (ADTs), and peak hour, and 24-hour truck percentages, and reviewing intersection and road segment capacity analyses.
11/20-Ongoing	**LADOTD I-10 CMAR, East Baton Rouge Parish, Louisiana** Principal engineer responsible for technical advisory and QAQC of all traffic engineering tasks including **development of permanent signing plans, Interchange Modification Reports, and Transportation Management Plans** for the widening of I-10 from LA 415 to Essen Lane and improvements to interchanges along this segment. One critical component of the project is maintaining traffic during the construction of new bridge structures. Multiple scenarios are being evaluated using a calibrated mesoscopic model to determine the impacts during construction and mitigations that will be necessary to minimize delay.
08/18-12/19	**LADOTD I-10 Widening Mesoscopic Model and Transportation Management Plan, East Baton Rouge Parish, Louisiana** Principal engineer responsible for supervising development of mesoscopic traffic model used for this project. The object of the study was to **develop an existing conditions model**. Responsibilities included defining study area, assessing data needs, developing data collection plan, preparing calibration documentation, and preparing model documentation.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Chad Thompson, PE**	**Years of relevant experience with this employer**	<1
Title	Project Manager - Engineering	**Years of relevant experience with other employer(s)**	22
Degree(s) / Years / Specialization	MS / 2001 / Civil Engineering BS / 1998 / Civil Engineering		
Active registration number / state / expiration date	#92470 / Florida / 02-28-2023; #0402040667 / Virginia / 06-30-2023		
Year registered	2021 (FL); 2005 (VA)	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	Grant/Funding Opportunities		

Chad is a project manager that brings over 22 years of progressive, diversified experience as a highway engineer in all phases of transportation including planning, design, environment, ROW acquisition, access management, construction, operations and emergency relief. He is a national expert on the Federal-Aid Highway Program (FAHP) and its associated regulations and requirements and has been thoroughly involved with design and construction advancements within the Florida over the last decade. During this time, he has also developed considerable knowledge and experience in procurement practices, alternative contracting and innovative financing.

Experience dates (mm/yy–mm/yy)	**Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
01/22-Ongoing	**FDOT CVO/TIM Program Consultant, Statewide, Florida** Consultant project manager overseeing statewide activities to increase the number of available truck parking spaces along Florida's interstate system. This project includes four key approaches: maximizing use of available parking at theweigh stations, engaging in opportunities to include private stakeholders in providing additional parking, quick and long-term expansion of the rest areas and innovative uses of existing ROW to provide additional parking. Through this effort, it has been identified that amenities and signage for the weigh stations can enhance the use of existing parking. The team is **developing policy memorandums** and initial processes for integration of private parking into the TPAS as well as re-striping to provide additional parallel parking and expanded pavement concept plans for all rest areas that did not have planned improvement projects. Innovative concepts, including low-impact previous pavement, were developed to provide additional capacity within the limited access ROW, including interchange in-field as well as median locations accessible through local roads.
02/22-Ongoing	**FDOT Office of Policy Planning, Statewide National Electric Vehicle Infrastructure (NEVI) Plan Development, Statewide, Florida** Consultant project manager who is overseeing the **development of the plan for expanded electric vehicle charging infrastructure** in response to the Infrastructure Investment and Jobs Act (IIJA). This includes coordination with multiple stakeholders to meet the equity and rural requirements of the grant. Chad is also overseeing the analysis of existing conditions and deployment that outlines how FDOT will invest the nearly $200 million in available funding. He also coordinates activities with the Alternative Fuels Corridor nomination.
04/08-10/21	**FHWA and FDOT Multiple FAHP Grants Management, Statewide, Florida** Program operations team leader and acting director who supervised a team of 12 engineers responsible for the stewardship and oversight of a $2-billion annual FAHP within the State of Florida. Engaged in all aspects of **project development including planning, environment, design, construction, contract administration and maintenance/operations**. As part of the Florida Division management team, developed annual office work plan through risk management and program assessments.
2008-2009	**FDOT District 5, Multiple Federal-Aid Highway Programs, Orlando, Florida** Transportation engineer responsible for the FAHP within District 5 of the FDOT including all aspects of **environmental, design, finance and construction issues**.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Michael DeMent, APR**	**Years of relevant experience with this employer**	16
Title	Associate Vice President, Government Relations Manager	**Years of relevant experience with other employer(s)**	25
Degree(s) / Years / Specialization	BA / 1981 / Administration of Justice		
Active registration number / state / expiration date	Accreditation in Public Relations / National		
Year registered	1998	**Discipline**	Public Relations
Contract role(s) / brief description of responsibilities	Grant/Funding Opportunities		

Michael is an associate vice president and government relations manager for HNTB's Kansas City Metro Office. He is a public involvement lead for the office, which oversees projects in a four-state region. He has more than 30 years of award-winning experience in stakeholder engagement, issues management, strategic communication planning, media relations and governmental affairs. He is nationally trained, certificated or accredited in public involvement, public relations and related areas of communications practice.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
05/21-07/21	**Baton Rouge Recreation Commission Scotlandville Parkway Mobility Network, Baton Rouge, Louisiana** Served as **federal grant manager** for this initiative to secure federal funding for transforming the Baton Rouge Scotlandville Parkway greenway system into a key seven-mile hub for the Baton Rouge metropolitan transit and bike/pedestrian networks. Funding will renovate a historic greenway in ways that turn it into an intermodal, active transportation network and hub for users of all ages, abilities, and economic status.
02/21-03/21	**City of Baton Rouge-Parish of East Baton Rouge, North Baton Rouge Opportunity Access Program of Projects, Baton Rouge, Louisiana** Served as the **grant writing manager** for this initiative to secure USDOT INFRA grant funding to fix barriers to racial equity and opportunity in an area suffering from disinvestment and marginalization. The program's two projects - Airline Highway North and Florida Boulevard – will provide local environmental justice populations with greatly improved personal mobility choices for accessing good-paying jobs in the Project Area, adjacent opportunity zones and new nearby development. This application resulted in the project being designated one of USDOT's first-ever INFRA extra awardees, making it eligible for potential federal credit assistance for up to 49% of project costs.
12/19-02/20	**LADOTD LA 1, Phase 2, Leeville to Golden Meadow, Lafourche Parish, Louisiana** Served as the **grant writing manager** for this initiative to secure USDOT INFRA grant funding to construct the remaining eight miles of elevated roadway to ensure uninterrupted access to Port Fourchon, America's premier oil production and distribution center. Approximately 20% of US domestic energy production relies on this corridor, which is increasingly threatened by severe weather events and rising sea levels. Tasks included stakeholder and agency coordination, securing numerous letters of support, development of the benefit-cost methodology and analysis and drafting of the application. This application received $135 million, the largest award of the 2020 INFRA Grant program, approximately 15 percent of the program's funds.
01/19-Ongoing	**KDOT Kansas Statewide Autonomous Vehicle Vision and Implementation Plans (Phases 1 & 2)** Michael is serving as the **policy task lead** for the development of the Kansas Statewide Autonomous Vehicle Vision Plan. The plan is intended to provide a vision blueprint on what state agencies need to be doing to prepare for CAV. Phase 1 of the project is to develop an autonomous vehicle vision for Kansas state agencies, and Phase 2 is to develop an autonomous vehicle strategic plan for KDOT that includes identifying pilot projects for the DOT to undertake. The project will be presented at the 2021 Transportation Research Board national conference. It has received the 2020 Excellence in Transportation Award from the Kansas City Chapter of the Institute of Transportation Engineers, as well as awards from the Missouri Valley Section of ITE and ITS Heartland.

16. Staff Experience			
Firm employed by: CAMBRIDGE SYSTEMATICS			
Name	**Paula Dowell, PhD**	**Years of relevant experience with this employer**	9
Title	Principal, National Freight and Economics Practice Leader	**Years of relevant experience with other employer(s)**	14
Degree(s) / Years / Specialization	PhD / 2000 / Economics MA / 1998 / Economics BBA / 1994 / Economics		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Grant/Funding Opportunities		

Paula has 23 years of experience focused on transportation economics, policy and planning and currently leads Cambridge Systematics' national freight and economics practice. She specializes in translating complex transportation planning and policy concepts and technical analysis into tools and communication materials accessible to a broad audience of stakeholders. Previously, she served as a post doctorate research associate for the Center of Business and Economic Research at the University of Tennessee, Knoxville. She has worked with more than 35 states and throughout the Southeast and in Mississippi her entire career.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
06/21-Ongoing	**TxDOT WIM and Vehicle Classification Strategic Plan, Statewide, Texas** Paula supported the TxDOT **WIM and vehicle classification strategic plan development**, which will strategically place WIM/vehicle classification across key freight corridors in Texas to maximize data collection capabilities. Cambridge developed the statewide criteria for the needs analysis (including asset conditions and energy sector activity) to inform the locations of future WIM/VC sites.
11/19-Ongoing	**TxDOT Texas Delivers 2050 Texas Freight Mobility Plan** Cambridge Systematics is leading the development of the federally-mandated 2023 Texas Freight Mobility Plan, rebranded to Texas Delivers 2050. Unlike traditional freight planning efforts, TxDOT aims to focus more closely on the role of the Texas Multimodal Freight Network in supporting critical industry supply chains in Texas, given the disruptions that occurred in 2020 and beyond due to the COVID-19 pandemic. This study aims to understand the role of a given modal link not just for supporting commodity flow volumes, but also the role that link plays for Texas-based supply chains. This study examines the lifecycle of ten critical supply chain areas from raw materials to production to warehousing/distribution to retail to recycling/reuse. Paula has been involved in the project supply chain work, including a petroleum supply chain analysis, and the model profiles, specifically the statewide pipeline modal profile.
06/19-01/21	**Texas Freight Mobility Plan Implementation, Statewide, Texas** Paula managed a five-year contract to update and implement the Texas Statewide Freight Mobility Plan. The first task was to develop a FAST Act-compliant State Freight Plan which has included conducting two rounds of stakeholder workshops, developing a **GIS based freight analysis system** for Texas, compiling a five-year financially constrained Freight investment Plan and a longer term Unconstrained Freight Investment Plan.
06/19-01/21	**MSDOT Mississippi Long-Range Plan Transportation Plan, Statewide, Mississippi** Paula managed the update of the 2045 and 2040 MULTIPLAN, the State's LRTP. The2040 plan was Mississippi's first performance-based plan and it included conducting visioning meetings with MDOT management and key business stakeholders, **developing revenue forecasts, setting performance targets, conducting tradeoff analysis and estimating the economic tradeoffs** of worsening state of repair arising from expected funding and improved state of repair from adequate funding to meet minimum performance targets. The economic analysis focused on the change in transportation costs arising from changing pavement conditions and congestion levels. The 2045 MULTIPLAN included all of the elements of the 2040 plan plus the development of the Transportation Asset management Plan (TAMP) and the State Rail Plan.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Lynn Maloney-Mujica, AICP**	**Years of relevant experience with this employer**	4
Title	Senior Planner/Senior Environmental Scientist	**Years of relevant experience with other employer(s)**	30
Degree(s) / Years / Specialization	MS / 2008 / Environmental Science BS / 1976 / Liberal Arts		
Active registration number / state / expiration date	American Institute of Certified Planners / #20555 / National		
Year registered	2006	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Environmental; Partnership Groups		

Lynn is a certified planner whose most recent experience has focused on infrastructure projects. She began her career as a bilingual consultant in Puerto Rico and then later returned to her native Louisiana in 1998 to work as an economic/environmental planner for the Baton Rouge Planning Commission. Her master's thesis, "Comprehensive Planning in Louisiana," won the Martinez Award for outstanding thesis research in the Department of Environmental Sciences at LSU. As a consultant in the private sector for the last 20 years, she has worked for a wide range of city, parish, state, and federal agencies. Her expertise in NEPA analyses and documentation is broadly interdisciplinary and includes public outreach and stakeholder engagement as required for these projects. Recent projects involve experience in transportation and community planning. In 2019, she developed the first virtual public meeting for LADOTD, who won a Transportation Award for the effort.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
05/21-06/21	**Baton Rouge Recreation Department RAISE Grant, North Baton Rouge, Louisiana** Member of team preparing a RAISE grant for rehabilitation and connection of a bike-ped and trails network. Responsible for network design, local support, and **stakeholder coordination**.
03/21-04/21	**East Baton Rouge Parish Florida Boulevard and Airline Highway INFRA Grant, Baton Rouge, Louisiana** Senior planner/environmental task lead for the environmental review, which in anticipation of federal funding, will adhere to LADOTD NEPA requirements for a Programmatic Categorical Exclusion. In addition to environmental and public outreach, responsibilities will include oversight of Complete Streets implementation through incorporation of appropriate transit, pedestrian, and bicycle facilities in the redesign of the four-mile corridor.
06/18-Ongoing	**LADOTD I-10 Calcasieu River Bridge Improvements Environmental Impact Statement (EIS), Lake Charles, Louisiana** Project manager responsible for EIS documentation, alternatives scoping and screening, technical team oversight, preparation and/or review of technical documents, **public involvement, interagency coordination**, and all other tasks related to completing the NEPA review. To date, she has designed, managed, and conducted one stakeholder meeting, two alternatives analysis workshops, one agency/local official briefing, and one large-scale in person public meeting. In 2021, she coordinated an online virtual public meeting, public officials briefing and Context Sensitive Solutions and Design workshop using the latest technologies for public outreach and comment capture.
10/19-02/20	**LADOTD LA 1, Phase 2, Leeville to Golden Meadow, Louisiana** Member of team that prepared an INFRA Grant application for funding to complete the elevation of eight miles of roadway to protect America's premier oil production and distribution center against severe weather event disruptions. About 20 percent of the U.S. domestic energy production relies on this corridor. This application received $135 million – the largest such award to date, and about 15 percent of 2020's INFRA Grant funds. Responsible for team coordination, editorial review, and **obtaining 50 customized letters of support from local, regional, and national stakeholders**.
09/19-11/19	**LADOTD College Drive Flyover Ramp, Baton Rouge, Louisiana** Responsible for **coordinating the open house public meeting** to provide information and collect comments on a flyover ramp designed to improve traffic flow within the I-10/I-12 westbound interchange. Responsible for developing exhibits, looping presentation, and other meeting materials, addressing comments, and producing the meeting transcript.

16. Staff Experience

Firm employed by: ELOS environmental

Name	**Stehle Harris**	**Years of relevant experience with this employer**	1
Title	Environmental Scientist, Project Manager	**Years of relevant experience with other employer(s)**	18
Degree(s) / Years / Specialization	BS / 1994 / Environmental Science		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Environmental		

Stehle has managed environmental projects including all levels of environmental compliance and operations. He is experienced with projects involving site investigation, mitigation, planning, auditing, permitting, compliance, information technology, geographic information systems, and environmental operations such as hazardous waste management and pollution prevention. In addition, Stehle has been the project manager on several large federal projects involving the USACE Tulsa District, USACE Mobile District, and various installations in the Southeast United States. Stehle has coordinated with multiple state and local agencies on a variety of environmental programs and has excellent working relationships with the federal, state, and local governments.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
05/21-Ongoing	**MOVEBR Lee Drive Phase I ESA, Baton Rouge, Louisiana** **Conducted research in support of a Phase I ESA** according to the American Society of Testing and Materials (ASTM) E1527-13 Standard Practice of Environmental Site Assessment: Phase I ESA Process to satisfy the All-Appropriate Inquiries rule. Conducted a review of environmental databases and historical documents including maps, aerials, city directories, and data provided by the client to determine if any current or past uses indicate the potential for a past or current recognized environmental conditions. Conducted a site visit to investigate the Subject Property for evidence of past or current RECs. Documented any known RECs and provided documentation to client.
06/21	**New Orleans Regional Transit Authority Industrial Sewer Line Replacement, Baton Rouge, Louisiana** Coordinated with government agencies, developed sampling methods, collected and analyzed three samples for Louisiana Risk Evaluation and Corrective Action Program (RECAP) industrial soil standards, collected and analyzed two Toxicity Characteristic Leaching Procedure waste soil samples, developed a report summarizing RECAP analytical data, coordinated with waste disposal company, and prepared a waste profile and shipping manifest. Provided professional consulting on an as-needed basis for waste disposal.
01/98-01/99	**Chevron Pascagoula Facility Wide Phase II RCRA Facility Investigation (RFI) and Monitored Natural Attenuation (MNA), Jackson County, Mississippi** Worked with an interdisciplinary team to **collect, analyze and report data** required for the site-wide Phase II RFI at the refinery and surrounding properties. Served as field team leader on multiple investigations and prepared many reports. This project included monitoring well installation, soil, and water sample collection, survey and drilling crew supervision, preparation of reports based on analytical data for presentation to the client and regulatory agencies. Also prepared the Health and Safety Plan, Laboratory Quality Assurance Plan, and MNA Plans. The purpose of a RFI is to determine the nature and extent of releases of hazardous wastes or hazardous constituents from regulated units, solid waste management units, and other source areas at the facility, and to gather all necessary data to support the environmental indicator determinations and a Corrective Measures Study. The RFI includes the collection of site-specific data to evaluate any human health and/or ecological impacts of contamination from the site.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Randal Bonura, PE**	**Years of relevant experience with this employer**	3
Title	Project Engineer, Gulf Coast District Office Quality Manager	**Years of relevant experience with other employer(s)**	9
Degree(s) / Years / Specialization	BSCE / 2010 / Civil Engineering		
Active registration number / state / expiration date	#39861 / Louisiana / 09-30-2023; #123865 / Texas / 03-31-2023; #82055 / Florida / 02-28-2023; #28294 / Mississippi / 12-31-2022; #37626-E / Alabama / 12-31-2023		
Year registered	2015 (LA); 2016 (TX); 2016 (FL); 2017 (MS); 2018 (AL)	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	Roadway Design; Lighting, Signing & Pavement Markings		

Randal has 12 years of consulting engineering experience. As project engineer, he performs roadway design, cost estimating, and construction administration services for projects in the Baton Rouge and New Orleans office's transportation, civil works, and construction sections.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
02/21-Ongoing	**LADOTD LA 1, Phase 2, Leeville to Golden Meadow, Louisiana** Project engineer performing design services for the $450-million bridge and roadway construction project. The scope of this project is to provide a new two-lane bridge from Leeville to Golden Meadow that includes an intersecting T-intersection bridge near Golden Meadow. The T-intersection has a stem that consist of a two-lane, two-way urban arterial roadway that connects existing LA 1 to the new LA 1/LA 3235 bridge. Performed field investigations, **developed detailed construction plans conforming to LADOTD design guidelines and standards**. Prepared scope of work for surveyor, provided recommendations on horizontal geometric alignment layouts, and coordinated with LADOTD the proposed roadway and drainage design features to meet the department's minimum design guidelines, Road Design Manual and conform to the Hydraulics Manual. Roadway design includes accommodations for pedestrians and bicyclists per the LADOTD's complete streets policy.
02/17-05/19	**Jefferson Parish Transit Improvement Plan, Jefferson Parish, Louisiana** Project engineer for the review and evaluation of 604 transit stops within Council Districts 3, 4, and 5 in order to develop a Transit Stop Improvement Plan for Jefferson Parish. The scope of work included review of available reports and public records and to conduct field investigations for assessing existing conditions in the immediate area of each stop, including applicable infrastructure, intersections, ADA compliant access, crosswalks and connectivity and access analysis. A **list of improvements was identified for each stop**. Improvements included enhancements for accessibility, safety and features for elements needed to achieve compliance with ADA and other system standards. This included analysis of required sidewalks, ADA ramps, crosswalks, signage, signals, striping and connectivity. Responsible for coordination with subconsultants and stakeholders to gather input for ranking stops for priority improvements.
05/19-Ongoing	**Ascension Parish GEC Master Transportation Plan Development and Implementation, Ascension Parish, Louisiana** Project engineer for the "Move Ascension" transportation initiative. Ascension Parish Program Management. This is a project management consultant assignment under a multi-year general engineering services retainer contract. The program consists of the administration, **planning, control, design oversight, environmental permitting, ROW acquisition, utility relocation, construction, inspection**, and public for capital improvement projects under this unprecedented and bonded transportation investment in the parish's infrastructure improvement efforts. Efforts included consultant design reviews. This program is a critical step towards long-term sustainability of the parish's transportation infrastructure to facilitate the continued economic growth and vitality of Ascension Parish.

16. Staff Experience			
Firm employed by: MANNING Architecture Interiors Planning			
Name	**Tighe Kirkland, Assoc. AIA**	**Years of relevant experience with this employer**	12
Title	Principal	**Years of relevant experience with other employer(s)**	5
Degree(s) / Years / Specialization	B.Arch. / 2005 / Architecture BFA / 2005 / Fine Arts		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Architecture		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
07/19-Ongoing	**East Baton Rouge Parish MoveBR Program Management, Baton Rouge, Louisiana** Principal in charge responsible for the program management team tasked with community enhancements along 22 designated corridors. The **Complete Streets corridor improvements** increase safety and comfort for pedestrians, bikers, transit riders and drivers. The guidelines developed will inform all future corridor improvements.
04/15-12/20	**Earnest N. Morial Convention Center Upriver Development, Linear Park** Principal in charge responsible for the design of a new park repurposing 7.5 acres of roadway into a lushly landscaped, continuous pedestrian promenade along Convention Center Boulevard for the length of the Convention Center.
09/16-08/17	**City of Baton Rouge/East Baton Rouge Parish TramLinkBR Phase I, Baton Rouge, Louisiana** Project coordinator responsible for the coordination of the project which included the vision for a three-mile streetcar line from the north gates of LSU to Downtown Baton Rouge, linking multiple neighborhoods to a modern, high-capacity transit system. **Designs included five pairs of tram stops** for the Downtown alignment and six pairs along the Nicholson Drive corridor, including alternative configurations.
02/09-05/12	**Dallas Area Rapid Transit (DART) Orange Line Light Rail Expansion, Dallas, Texas** Designer responsible for **designing six passenger stations** for DART's Orange Line extension, coordinating public art and neighborhood components into the designs. The extension addressed the needs of a growing residential and commercial population of Irving, Texas and connects them with a network of light rail service, as well as a connection from downtown to the Dallas/Fort Worth International Airport. The new extension serves 12,500 riders daily, contributing to a system-wide total increased daily ridership of 33,000 people.
06/13-08/14	**Louis Armstrong International Airport Long Term Development Plan, New Orleans, Louisiana** Designer responsible for providing an authentic New Orleans experience in the **design of the new world-class terminal at Louis Armstrong New Orleans International Airport**. Designs created a continuous link between the traveler's experience within the airport and in the city beyond.

16. Staff Experience			
Firm employed by: MANNING Architecture Interiors Planning			
Name	**Craig King**	**Years of relevant experience with this employer**	13
Title	Senior Associate	**Years of relevant experience with other employer(s)**	24
Degree(s) / Years / Specialization	B.Arch / 1985 / Architecture M.Arch / 1988 / Architecture		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Architecture		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/16-12/16	**Bi-State Metrolink – Light Rail Central West End Station & Cortex Station Extension, St. Louis, Missouri** Designer and architectural project manager responsible for **station design** and management of the architectural team for the project involving the extension of the Central West End Station platform and complete design of the infill Cortex Station.
06/08-12/10	**Dallas Area Rapid Transit (DART) Orange Line Light Rail Expansion, Dallas, Texas** Designer responsible for **station design of all six passenger stations** for DART's Orange Line extension, coordinating public art and neighborhood components into the designs. The extension addressed the needs of a growing residential and commercial population of Irving, Texas and connects them with a network of light rail service, as well as a connection from downtown to the Dallas/Fort Worth International Airport. The new extension serves 12,500 riders daily, contributing to a system-wide total increased daily ridership of 33,000 people.
01/02-12/06	**DART Green Line Light Rail Expansion, Dallas, Texas** Project manager responsible for management of DART's art and design program. Managed Line Section NW3, approximately 4-5 miles of double light rail, including a three-mile bridge.
03/18-08/18	**New Orleans Regional Planning Commission (NORPC) Baton Rouge to New Orleans Rail Study, New Orleans, Louisiana** Designer responsible for the **conceptual design for two commuter rail stations** and surrounding transit oriented development as part of the strategic business plan for the implementation of intercity passenger rail service between Baton Rouge and New Orleans.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Mira Para, PE**	**Years of relevant experience with this employer**	3
Title	Senior Project Manager - Engineering	**Years of relevant experience with other employer(s)**	27
Degree(s) / Years / Specialization	BS / 1992 / Civil Engineering		
Active registration number / state / expiration date	#34990 / Louisiana / 03-31-2023; #2002024483 / Missouri / 12-31-2022; #14417 / Kansas / 4-30-2023		
Year registered	2009 (LA); 2002 (MO); 1997 (KS)	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	Water/Wastewater/Utility		

Mira is a project manager with over 29 years of experience in water, wastewater and storm drainage analysis and design, project management, and construction administration. He brings extensive experience in project management, storm drainage design, drainage pump stations, flood control structures, detention basin design, ponds and lakes design, dams and levees design, erosion control design, stream bank stabilization, wastewater collection, wastewater lift stations, wastewater treatment, water distribution systems, residential development, and commercial development.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/20-Ongoing	**East Baton Rouge Parish Stormwater Masterplan, Baton Rouge, Louisiana** Task lead responsible for the development and documentation of the design criteria and methodology for the parish-wide stormwater management plan (SMP). The SMP combines l**ocal drainage and floodplain management into an overall comprehensive plan**. The purpose of the SMP is to better manage the risk of floods, protect people and property, maintain and enhance natural floodplains, facilitate the effective use of water and related land resources, and provide clear guidance of development within the floodplain. The project includes data collection, the development of a GIS database, preliminary ordinance review, HEC-RAS 1D/2D and PCSWMM modeling for 11 watersheds, a public engagement program, and the identification, development, and prioritization of potential projects.
12/19-Ongoing	**LADOTD I-10/Loyola Boulevard Interchange Improvement, New Orleans, Louisiana** Engineer responsible for independent technical review of the **drainage design** on this alternative delivery project. This Design-Build project is providing a new interchange to allow direct access from I-10 to the new airport terminal (LANOIA) located near Loyola Boulevard. A Design-Build team was selected in mid-2019 and construction began in early 2020.
01/20-04/21	**MSDOT Stream Bank Stabilization and Countermeasures for US 61 over Buffalo River, Wilkinson County, Mississippi** Engineer responsible for quality control review of final design plans. **Design included longitudinal fill stone toe protection** (LFSTP) to protect the riverbank. A site visit identified an area of scour concern along Sandy Creek, a tributary to Buffalo River at the Highway 61 crossing. Channelization and stabilization measures were designed to address the area of concern. Bentley's GeoPak and MicroStation programs were utilized in producing the 3D model needed to facilitate quantity calculations and plan production. The project includes Sandy Creek channelization and LFSTP installation along the south bank of Buffalo River.
05/20-03/21	**East Baton Rouge Parish Louisiana Watershed Initiative (LWI) Grant Applications, Baton Rouge, Louisiana** Project manager/engineer responsible for providing grant application technical support services to the City of Baton Rouge/East Baton Rouge Parish for five projects: Ward Creek floodplain acquisition, Bayou Duplantier floodplain acquisition, Jones Creek detention basin, Dawson Creek Detention and Drainage Improvements, and EBR bridges. Each project received pre-application approval under Round 1 of Louisiana's Community Development Block Grant Mitigation funds (CDBG-MIT) for the LWI. Round one of this program made available $100 million for eligible projects statewide to provide citizens with immediate relief from intense and frequent storms and floods. **HNTB performed hydrologic and hydraulic analyses** from models previously developed; prepared maps and exhibits; **developed feasibility level project designs, schedules and cost estimates**; performed cost versus benefit analyses using FEMA benefit-cost analysis tool; performed project effectiveness calculations; and performed an environmental and urban planning analyses.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Collins Landry**	**Years of relevant experience with this employer**	1
Title	Senior Field Representative	**Years of relevant experience with other employer(s)**	34
Degree(s) / Years / Specialization	High School Diploma / 1983		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Water/Wastewater/Utility		
Collins has joined HNTB's Baton Rouge office as a senior field representative with more than 34 years of experience in utility and permit services in Louisiana.			

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/21-Ongoing	**East Baton Rouge Parish MoveBR, Baton Rouge, Louisiana** The MOVEBR Program is a $1.2-billion program of projects that was separated in to a list of capacity and enhancement projects. As a sub, HNTB is responsible for $800 million in capacity infrastructure projects on 40 roadways throughout the parish of East Baton Rouge. As the utility relocation manager, Collins is responsible for **coordination with all utility companies** to determine whether relocation will be required based on the design plans, working through decisions relative to utility space allocation in the corridor and developing and coordinating agreements with Utility companies. During construction, he is responsible for coordination of the physical relocation, confirming the utilities have relocated per the plans and identification and resolution of conflicts that may be found during construction.
08/16-07/19	**L & R Permit & Utility Consultants, LLC** Co-owner of this business which **aided utility companies acquire ROW and lane closure permits** to place assets in state and local ROW.
08/99-7/17	**LADOTD Utility and Permit Specialist, Statewide, Louisiana** As a utility and permit specialist, he **coordinated with utilities companies to relocate their assets** so as to remove conflicts for new state construction projects. He worked with ITS projects and roadway projects amongst others utilizing his network of contacts to identify opportunities to save millions of dollars for the State of Louisiana.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Kyle LeBlanc**	**Years of relevant experience with this employer**	39
Title	Senior Field Representative	**Years of relevant experience with other employer(s)**	2
Degree(s) / Years / Specialization	N/A		
Active registration number / state / expiration date	OSHA 10 Hour (Construction) **ATTSA: Traffic Control Supervisor; Flagger**		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Construction Support; Initial Inventory & Conditions Assessment		

Kyle brings 41 years of experience to HNTB serving as a senior field representative in the Gulf Coast field (Lousiana) office. He has worked on projects as a technician specialist, CADD operator, senior construction inspector, senior field representative, and construction office engineer.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
2020	**LADOTD I-10 Widening (LA 347 to Atchafalaya Floodway Bridge), Henderson, Louisiana** Senior field representative/construction office engineer for this project. His duties include **tracking quantities** to ensure timely and accurate payment to the contractors, maintain pay records and tracking logs for use in project closeout, review daily work reports for inspectors, create change orders, and monthly pay estimates for contractors.
2018	**LADOTD LA Hwy 318 Over US Hwy 90, Various Locations, Louisiana** Senior field representative/QA specialist for this project. His duties include review and data entry for material samples in Sharepoint as the Owners Representative for approval or rejection for products to be used on project, **ensuring conformance to DOTD specifications**.
05/16-06/16	**I-10 Bridge Over Mississippi River Inspection, Baton Rouge, Louisiana** Team member involved in the in depth inspection of I-10 bridge over the Mississippi River in Baton Rouge. Inspection included visual inspection of main span and approach concrete piers, pier caps, roadway deck, steel superstructure, steel substructure, and epoxy surfaced roadway deck.
2012-2016	**LADOTD Paths To Progress Progam, New Orleans, Louisiana** Senior field representative/QA specialist responsible for the supervision of inspection staff on four projects involving simultaneous construction activities on 16 streets, training and mentoring less experienced staff members in proper inspection and documentation procedures, **reviewing contractor's submittals for approval** or rejection for products to be used on project, **ensuring conformance to LADOTD specifications**, supervising the final walk-through process and punch list inspections, reviewing traffic control plans, assisting resident engineer with responses to RFIs from contractors, supervising field tests and ensuring compliance to sampling plans. Additionally, development and implementation of quality assurance procedures for tracking quantities to ensure timely and accurate payment to the contractors, maintain pay records and tracking logs for use in developing as-built plans, review daily work reports for inspectors, create change orders, and review monthly pay estimates, and project closeouts.
2011-2012	**LADOTD Submerged Roads Program, New Orleans, Louisiana** Senior field representative responsible for the supervision of inspection staff, training and mentoring less experienced staff members in proper inspection and documentation procedures. He was also the liaison between contractor and inspection staff to **ensure adherence to plans and specifications for work items being performed**. Preparation of change orders, review of monthly pay estimates to contractors, and project closeouts.

16. Staff Experience			
Firm employed by: FORTE & TABLADA			
Name	**Ross Wilson, PLS**	**Years of relevant experience with this employer**	10
Title	Surveyor	**Years of relevant experience with other employer(s)**	2
Degree(s) / Years / Specialization	BS / 2010 / Geomatics		
Active registration number / state / expiration date	#5148 / Louisiana / 03-31-2024		
Year registered	2015	**Discipline**	Land Surveying
Contract role(s) / brief description of responsibilities	Survey/ROW		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
04/21-06/21	**LADOTD LA 397: Turn Lanes at Rice Mill, Calcasieu Parish, Louisiana** Surveyor responsible for topographic surveying at the intersection of LA 397 and Joe Spears Road in Calcasieu Parish.
8/19-1/20	**LADOTD I-10/Loyola Interchange Improvements- Kenner, Louisiana** Project manager **providing topographic survey, ROW survey, and drainage survey**. The project stretches from the levee in Kenner to the Williams Boulevard off ramp, as well as Loyola Avenue and portions of Veterans Boulevard.
6/20-Ongoing	**LADOTD Rural Bridge Replacement Initiative, Statewide, Louisiana** Surveyor for **topographic and property surveying** of 22 bridges in Louisiana.
1/20-10/20	**I-10: Atchafalaya Basin Bridge-West, Baton Rouge, Louisiana** Project manager for **complete topographic survey**, approximately 18.3 miles, from the East end of the Atchafalaya Bridge to the West end of the I-10/LA 415 Interchange. This included bridges P/L, I-10: Iberville P/L-W End Miss Br, I-10: W End of Br 290-W End of LA 415- West Baton Rouge and Iberville Parishes.
11/19-12/20	**LADOTD I-10 Calcasieu River Bridge Investigation, Calcasieu Parish, Louisiana** Surveyor to provide **laser scanning services** for the I-10/Lake Calcasieu bridge in Lake Charles. Terrestrial scans were done underneath the bridge for 10 spans on the east and west side, on top the deck to capture the superstructure, as well as from the water below to capture the sub structure. In addition to the terrestrial scans, mobile Lidar was done for future planning.
11/18-04/19	**LADOTD LA 327 Spur Staring Lane Extenstion. Route LA 327-S- East Baton Rouge Parish, Louisiana** Project manager for a **topographic survey** for this project which is located in East Baton Rouge Parish, in between the intersections of LA 42 (Burbank Dr.) and Staring Ln. and LA 327 (Gardere Lane) and LA 30. A complete Topographic survey including all utilities with depths and all drainage was required, along with finish floor elevations of all buildings that fall within the survey limits.
05/17-10/18	**LADOTD Belle Chasse Bridge and Tunnel Replacement Hydrographic Survey, Plaquemines Parish, Louisiana** Surveyor for comprehensive topographic surveying services for the Belle Chase Bridge and Tunnel Replacement project for LADOTD. Included in this work was a **survey performed utilizing traditional methods, terrestrial laser scanning of roadway surfaces, and multi-beam 3D hydrographic surveying**.

16. Staff Experience			
Firm employed by: GOTECH, INC. Consulting Engineers			
Name	**Robert Price, PLS**	**Years of relevant experience with this employer**	4
Title	Chief Engineer	**Years of relevant experience with other employer(s)**	20
Degree(s) / Years / Specialization	MS / 2009 / Engineering and Technology Management BS / 1997 / Surveying and Mapping BS / 1993 / Industrial Technology and Building Construction		
Active registration number / state / expiration date	PLS: #4889 / Louisiana / 03-31-2024		
Year registered	1992	**Discipline**	Land Surveying
Contract role(s) / brief description of responsibilities	Survey/ROW		

Robert is a licensed professional land surveyor with more than 20 years of experience in land surveying and mapping; project management and personnel management. He has provided surveying and utility location designation support for pipeline, road improvement, LNG facilities, oil and gas well locations, and private development projects.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
04/15-Ongoing	**LADOTD Acadian Road Roundabout, Route LA 20 (Canal Boulevard) & Local Routes (Back Street, Jackson Street, Thompson Place), Thibodaux, Louisiana** Robert was the professional land surveyor providing professional supervision and project management oversight for the ROW mapping services to support parcel acquisition required for design of a new road roundabout in Thibodeaux, Louisiana. Project included **field property surveys** performed to LADOTD survey standards and parcel title work reviews of affected properties. Final ROW map and parcel description deliverables, along with MicroStation parcel mapping files, were reviewed and submitted in accordance with established LADOTD location and survey delivery requirements.
10/17-Ongoing	**Ascension Parish Move Ascension Henry Road Safety Widening (LA 73 Tillotson Road/Akins Road) Ascension Parish, Louisiana** Robert is the project manager providing the **topographic surveying and mapping services** to support the design and ROW acquisition for the Move Ascension - Henry Road widening project. Project surveys were in support of new design to widen approximately eight miles of roadway in Ascension Parish.
04/18-06/18	**LADOTD Local Road Safety Program / Safe Routes to School Peltier Park Sidewalks** Robert was the Survey Project Manager managing the topographic survey to support design for various sidewalk, driveway and handicapped curbed ramp improvements along the perimeter of Peltier Park in Thibodeaux, Louisiana. Project field activities included a 2,400-linear foot **existing conditions and utility survey** utilizing LADOTD electronic data collection standards. The final deliverables for the project consisted of detailed plan/profile sheets drawn for the project alignment.
05/17-07/17	**LADOTD I-55 at LA 22 Interchange Lighting, Tangipahoa Parish, Louisiana** As survey project manager, Robert professionally managed the **topographic and utility location survey services** in support of design plans and specifications for the I-55 at LA 22 interchange lighting in Tangipahoa Parish. Survey crews conducted a complete topographic, elevation and utility survey within the entire limits of the I-55 interchange with LA 22. The topographic survey included data collected on the highway crossing exit/entrance ramps and elevated overpasses in addition to the location of both above ground and subsurface utilities required to facilitate design of lighting structures. All final deliverables were certified and submitted in strict accordance with LADOTD location and survey standards.

16. Staff Experience

Firm employed by: GOTECH, INC. Consulting Engineers

Name	**Bruce Dyson, PE, PLS**	**Years of relevant experience with this employer**	25
Title	General Manager/Survey	**Years of relevant experience with other employer(s)**	16
Degree(s) / Years / Specialization	BS / 1978 / Civil Engineering		
Active registration number / state / expiration date	PE: #20162 / Louisiana / 03-31-2024 PLS: #4670 / Louisiana / 03-31-2024		
Year registered	1982 (PE, PLS)	**Discipline**	Civil Engineering/Land Surveying
Contract role(s) / brief description of responsibilities	Survey/ROW		

Bruce has been involved in a variety of survey projects. He is experienced in the areas of civil engineering, project management, construction administration and management, and cost estimating. Specific areas of expertise include drainage improvements, land surveying and flood control. Bruce has supervised up to five survey crews at GOTECH working on a variety of public and private contracts such as contracts with LADOTD, USACE, Federal Aviation Administration, Parish governments, and New Orleans Sewerage & Water Board.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
04/15-Ongoing	**LADOTD Acadian Rd Roundabout, Route LA 20 (Canal Boulevard) & Local Routes (Back Street, Jackson Street, Thompson Place), Thibodaux, Louisiana** Bruce was the Engineering/Survey Manager providing professional supervision and project management oversight for the **ROW mapping services** to support parcel acquisition required for design of a new road roundabout in Thibodeaux, Louisiana. Project included field property surveys performed to DOTD survey standards and parcel title work reviews of affected properties. Final ROW map and parcel description deliverables, along with MicroStation parcel mapping files, were reviewed and submitted in accordance with established LADOTD Location and Survey delivery requirements.
10/17-03/18	**LADOTD I-10 at Morrison Road Interstate Lighting, Orleans Parish, Louisiana** Bruce provided project oversight as Engineering / Surveyor Manager with supervision and project management of **topographic surveys** to support various interstate lighting design projects. The projects included static GPS control surveys and topographic field surveys performed to LADOTD survey standards within the full limits of the highway interchange. The survey field information gathered included roadway surface features, drainage structures, designated subsurface utility locations, and structure data on elevated portions of the interstate bridge overpass. Final deliverables, and MicroStation mapping files, were certified and submitted in accordance with established LADOTD Location and Survey delivery requirements.
02/14-11/16	**LADOTD LA Hwy 431 at LA Hwy 934 Intersection Improvements, Ascension Parish, Louisiana** Bruce was the quality control reviewer for the Hwy 431/934 Intersection Improvements project. GOTECH provided **topographic surveying and mapping services** for the project. The work was located in Ascension Parish on what are currently two-lane highways with narrow shoulders and adjacent open ditch drainage. GOTECH field crews obtained field data in a format that was used to in MicroStation CADD drawings with Inroad's software. GOTECH also mapped the data in an AutoCAD version for the designers to use. The topographic map showed existing features as pavement, ditches, culverts, lighting, signs, utility poles, traffic controls, driveways, and other utilities. GOTECH also developed an existing drainage map for the project. The watershed covered approximately 25 acres of contributing drainage area.
10/12-12/14	**LADOTD I-10 (LA 30 to LA 22), Ascension Parish, Louisiana** Bruce was the quality control reviewer for the I-10 project in Ascension Parish. The project included a segment of the Interstate from LA Hwy 30 to LA Hwy 22. Cross Sections were taken from ROW line to ROW line to provide data for the Interstate widening design. Overpass details were obtained to show bridge details, bent locations, piling spacing and clearance dimensions.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Brian Powell, PE**	**Years of relevant experience with this employer**	19
Title	Sr. Geotechnical Engineer/Squad Leader	**Years of relevant experience with other employer(s)**	1
Degree(s) / Years / Specialization	MS / 2007 / Civil Engineering (Geotechnical) BS / 2002 / Civil Engineering		
Active registration number / state / expiration date	#41551 / LA / 09-30-2023; #29116 / MS / 12-31-2023		
Year registered	2017 (LA); 2018 (MS)	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	Geotechnical		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
08/15-Ongoing	**LADOTD LA 1 Leeville to Golden Meadow Phase 2, Leeville, Louisiana** **Geotechnical task lead** for the Phase II floodwall design at the Larose to Golden Meadow levee system that required a 408-permit review with the USACE. The project included the construction of nine miles of bridge from Leeville to Golden Meadow. Geotechnical tasks included T-wall-type floodwall design and foundation support, seepage cutoff, and global stability analyses according to USACE Hurricane Storm Damage and Risk Reduction System (HSDRRS) design guidelines with a 3D settlement analysis to estimate floodwall subsidence. Oversaw pile production driving and dynamic testing documentation for Phase 2E.
01/19-Ongoing	**LADOTD I-10-Loyola Interchange Design-Build Owner Verification, Jefferson Parish, Louisiana** **Senior geotechnical contributor** for the design-build Owner's Verifier CEI support services contract. Responsibilities include review of design reports, design criteria, adherence to the performance-based specifications and constructability of Design-Builder's progress submittals of this critical interchange connecting I-10 and Loyola Ave through the local urban communities and downtown New Orleans to the Louis Armstrong New Orleans International Airport terminal expansion.
01/18-06/19	**LADOTD LA 23 Belle Chasse Bridge and Tunnel Replacement Public-Private Partnership (P3), Belle Chasse, Louisiana** **Geotechnical technical procurement team member** on this alternative delivery bridge and tunnel replacement project, tasked with the development of technical procurement documents. This P3 project, the first of its kind in Louisiana, will replace two obsolete highway facilities with one new fixed-span bridge.
12/17-08/21	**MDOT I-20 Eastbound Flyover at I-55 Bridge Replacement, Hinds County, Mississippi** Geotechnical task lead for the design and development plans and specifications for the approximate 1,800-foot proposed bridge with a span over the ICRR corridor. He was responsible for the **geotechnical subsurface exploration drilling plan, management and findings, estimated geotechnical design soil parameters, deep foundation shaft analyses and recommendations** including bi-directional load test plans, settlement analysis at proposed embankment fill locations, slope stability analyses of existing fill slopes requiring H-pile reinforcement, permanent cantilevered sheet pile retaining wall analysis, temporary shoring, and construction recommendations. He is also providing engineering support during advertisement and construction.
12/17-08/21	**MDOT I-55 Northbound Widening over I-220 Ramp, Madison County, Mississippi** Geotechnical task lead responsible for the **geotechnical exploration report, development of geotechnical design parameters, deep foundation shaft analyses and recommendations including bi-directional load test plans and temporary shoring design and slope stability analyses**. He is also provided engineering support during advertisement and construction. HNTB was scoped by MDOT to design and develop plans and specifications for the widening. The bridge abutment widening was designed to be founded on existing 14-inch cast-in-place piles and newly cast 30-inch drilled shafts for the anticipated loading.

16. Staff Experience			
Firm employed by: APS Engineering and Testing			
Name	**Sergio Aviles, PE**	**Years of relevant experience with this employer**	9
Title	President	**Years of relevant experience with other employer(s)**	10
Degree(s) / Years / Specialization	BS / 2001 / Civil Engineering - Geotechnical		
Active registration number / state / expiration date	#33571 / LA / 03-31-2024		
Year registered	2007	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	Geotechnical		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
09/19-06/20	**LADOTD I-10 Widening LA 415 to Essen Lane, Louisiana** Project manager to the **geotechnical investigations** for APS' LADOTD geotechnical retainer to drill and sample a total of 52 deep borings starting at the Washington Exit and ending at the LSU lakes. Along with this drilling and sampling APS also tested for strength and engineering characteristics of the soils with. A total of eight over the water borings and 44 land borings with approximate 1000 triaxial compression, unconsolidated drained or undrained and atterberg limits.
08/16-10/19	**LADOTD I-10/I-110 Interchange Modification at Terrace Avenue, Louisiana** Project manager to the **geotechnical investigations** for the LADOTD geotechnical retainer to drill and sample a total of six deep borings for the design of the Terrace Avenue exit. APS tested for strength and engineering characteristics of the soils with approximate 100 triaxial compression, unconsolidated drained or undrained and atterberg limits by APS Laboratory.
11/17-2/18	**LADOTD US 61 Thompson Creek Bridge Replacement, Louisiana** Project manager to the **geotechnical investigations** for the LADOTD geotechnical retainer and sample a total of eight deep borings for the replacement bridge at US 61. APS tested for strength and engineering characteristics of the soils.
11/17-2/18	**LADOTD Comite River Diversion Bridge at LA 67, LA 19 and LA 19 Railroad Bridge LA 67 and LA 19, Louisiana** Project manager to the **geotechnical investigations** for the LADOTD geotechnical retainer and sample a total of 12 deep borings for the new and replacement bridges at Hwy 19, 67, and 964. APS tested for strength and engineering characteristics of the soils.
03/19-05/19	**LADOTD US 190 over Bogue Falaya River, Louisiana** Design team project manager for the **geotechnical investigation and design** of the proposed new bridge. A total of 19 deep borings were drilled and tested for the foundation recommendation.
12/19-3/20	**LADOTD US 90 Railroad Overpass SE of LA 85, Louisiana** Design team project manager for the project design team. A total of 6 deep borings were drilled and tested for **geotechnical recommendation**.
02/17-10/17	**LADOTD Earhart Expressway/Causeway Boulevard, Louisiana** Design team project manager for the and analysis assigned to help calculating the resistance factors. APS was tasked with developing the LRFD factors for both existing structures and the new elevated sections to connect to Causeway Boulevard. Per the task order APS **drilled and tested 85 borings** to 120 feet near the proposed and existing structures. APS engineering staff provided designer with pile tip elevations for five elevated ramps to connect Earhart to Causeway Boulevard and provided boring logs, information on site conditions, site preparation recommendations, and load-length curves.

16. Staff Experience

Firm employed by: FORTE & TABLADA

Name	**Bradley Holleman, PLS, EI**	**Years of relevant experience with this employer**	1
Title	Senior Vice President, Survey/Advanced Measurements and Modeling	**Years of relevant experience with other employer(s)**	15
Degree(s) / Years / Specialization	BS / 2009 / Civil Engineering and Land Surveying		
Active registration number / state / expiration date	PLS: #5082 / Louisiana / 09-30-2022		
Year registered	2012	**Discipline**	Land Surveying
Contract role(s) / brief description of responsibilities	Initial Inventory & Conditions Assessment		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
04/12-09/12	**LADOTD LA 3188 Drainage Improvements, St. John the Baptist Parish, Louisiana** Surveyor-in-charge for the **topographic survey and existing drainage map**. This project was for drainage improvements to resolve localized roadway flooding along LA 3188. The work consisted of completing a topographic survey, according to the LADOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
05/18-04/19	**LADOTD I-10 Paris Road Lake Pontchartrain, New Orleans, Louisiana** Surveyor-in-charge for the **topographic survey, 3D Mobile laser scanning and existing drainage map**. This project was for the design of I-10 improvements of an eight-mile stretch in New Orleans East. The work consisted of completing a topographic survey, according to the LADOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
04/19-08/19	**LADOTD LA 1/LA 415 Connector, West Baton Rouge Parish, Louisiana** Surveyor-in-charge for the **topographic survey, 3D laser scanning and existing drainage map**. This project was for the design of a new route connecting LA 1 to LA 415, over the Intercoastal Waterway in West Baton Rouge Parish. The work consisted of completing a topographic survey, according to the LADOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
01/18-04/20	**LADOTD I-10: LA 415 to Essen Lane, East Baton Rouge Parish, Louisiana** Surveyor-in-charge for the **topographic survey and 3D mobile laser scanning**. This project was for the widening design of I-10 from LA 415 to Essen Lane in East Baton Rouge Parish. The work consisted of completing a topographic survey, according to the LADOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
03/21-06/21	**LADOTD LA 397: Turn Lanes at Rice Mill, Calcasieu Parish, Louisiana** Supervising professional for the **topographic survey**. This project was for the construction of turn lanes on LA 397 in Calcasieu Parish. The work consisted of completing a topographic survey, according to the LADOTD Location and Survey Manual, including all utilities, drainage and topographic features within the survey limits.
05/21-01/22	**LADOTD LA 151: Creek and Relief Bridges, Union and Lincoln Parishes, Louisiana** Surveyor in charge for the **property survey and ROW map**. This project was for three bridge replacements along LA 151 in Union and Lincoln Parishes. The work consisted of conducting field and office analysis to determine the existing ROW and produce a set of ROW maps, according to LADOTD specifications, for acquisition of parcels required for construction.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Rakesh Sharma, PE, PTOE**	**Years of relevant experience with this employer**	14
Title	Senior ITS and Traffic Operations Engineer	**Years of relevant experience with other employer(s)**	5
Degree(s) / Years / Specialization	ITS Project Management CITE / 2011 MS / 2005 / Civil Engineering BS / 2001 / Civil Engineering		
Active registration number / state / expiration date	#70902 / Florida / 02-28-2023; #72324 / Ohio / 12-31-2023 Professional Traffic Operations Engineer		
Year registered	PE: 2010 (FL); 2007 (OH) PTOE: 2009	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	Needs Assessment; FMCSA Program Plan/Top Level Design		

Rakesh has 19 years of experience combined working in the public and private sectors. Rakesh specializes in connected and automated vehicles (CAV) concept to operation, ITS design to maintenance, automated traffic signal performance measures (ATSPM) and transportation systems management and operations (TSM&O), traffic safety and transportation planning projects. His portfolio of work includes emerging technology systems deployment such as CAV planning and implementation, TPAS planning and implementation, virtual weigh-in-motion planning and implementation, ITS design, ITS integration and deployment, systems engineering, RTMC operations and management, systems management, managed lanes operation and management, emergency management and traffic incident management. Rakesh is instrumental in developing CAV program in the State of Florida and planned and developed several deployment projects. He also worked with FTE and helped manage and operate the Central and West Florida region toll roads for traffic engineering and safety issues.

Experience dates (mm/yy–mm/yy)	**Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
02/15-Ongoing	**FDOT Chief Engineer Support Services, Statewide, Florida** Task manager to develop **highway safety lane departure and intersection safety plan** for the state to deploy on the on- and off-system roadways. Developed crash tree diagram, program funding plan for the next five years and methodology to prioritize the locations for deployment. Provided safety lead support to the data integration Space and defining various performance measures and reporting formats with the State Safety Office and supporting the secretary's vital few initiatives and the goal of driving down fatalities. The project includes coordination with multiple districts and agencies in an accelerated environment to meet the Federal AID and FASTLANE grant requirements.The program was delivered as a series of design-build projects and required extensive coordination with Districts 1, 2, 3, 4, 5 and 7 staff and multiple departments, including ITS, maintenance, environmental, ROW, construction and utilities.
02/15-Ongoing	**FDOT MCSAW White Springs WIM, White Springs, Florida** **Engineer of record** supporting FDOT's MCSAW program, including planning; performance measures; outreach and training; specifications and standards; and telecommunications and networking. This contract works closely with other state agencies including the departments of Highway Safety and Motor Vehicles, Agriculture and Consumer Services and Revenue, as well as key industry partners such as the Florida Trucking Association (FTA). Specific tasks include facilitation of a strategic plan visioning session which brought together various FDOT departments, state agencies and industry stakeholders to collaborate. The session set the framework for future technology enhancements; the development and deployment of a fiber optic inter-connection plan to link all interstate weigh stations on a fiber optic network; the piloting of **mainline screening technologies** to allow for increased efficiency of CVO; and the development of a GIS-based asset management platform. The platform included initial inspection and rating based on FDOT maintenance rating factors and led to the prioritization of activities for scale facility repairs and the programming of projects into a 10-year cost feasible plan and five-year work program. In addition, this contract is leading further development of the database system which will provide increased tracking capabilities of freight movement, to ultimately include size, weight, bill of lading and permit tracking.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Laura Wagner-Bartz, PE**	**Years of relevant experience with this employer**	13
Title	Technology Project Manager	**Years of relevant experience with other employer(s)**	7
Degree(s) / Years / Specialization	MCE / 2009 / Civil Engineering BS / 2002 / Geological Engineering		
Active registration number / state / expiration date	#2007002851 / Missouri / 12-31-2023; #24GE05374000 / New Jersey / 04-30-2022; #29921 / Oklahoma / 04-30-2023; #84855 / Florida / 02-28-2023		
Year registered	2007 (MO); 2017 (NJ, OK); 2018 (FL); 2021 (MI)	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	Asset Management		

Laura is a civil engineer specializing in asset management solutions. She has 20 years of experience preparing geotechnical engineering reports for private and government agencies. The past six years she has focused on infrastructure management and inventory projects. She has prepared multiple types of documentation of findings from dashboard applications, training documentation, slide decks, manuals, reports, white papers, tech memorandums, and plan sheets. Laura is experienced in lifecycle analyses, engineering design, and report preparation related to pavement, bridge foundation and retention systems, and other infrastructure.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
2020-Ongoing	**Macomb County Asset Management Planning and Implementation, Macomb County, Michigan** Data development task lead developing an integration information technology department to allow the various existing databases to connect to each other to create a single user interface system. Deliverables such as a data dictionary, gap analysis, and data set evaluation, and asset management dashboards were key to **developing a comprehensive asset management program**. The dashboards allow the client to select, prioritize, and plan project expenditures more accountably, transparently, and efficiently. HNTB is providing asset management planning and implementation to the Macomb County Department of Roads.
01/20-12/20	**FDOT Rest Areas and Welcome Centers Asset Management Inventory and Condition Assessment, Statewide, Florida** Task lead and lead pavement engineer for an **asset management system developed for FDOT** to set procedures for collecting, analyzing, maintaining and reporting at rest areas. Concrete and asphalt pavement condition for on/off ramps and interior pavement was collected to determine the existing condition, future life span, and an optimum pavement design for new pavement.
01/17-12/17	**FDOT MCSAW Pavement Asset Management, FDOT, Florida** Task lead and lead pavement engineer for an **asset management system developed** for the MCSAW program to set procedures for collecting, analyzing, maintaining and reporting at weigh stations. Concrete pavement condition for on and off ramps was collected to determine the existing condition, future life span, and an optimum pavement design for new pavement. Pavement was also analyzed to determine if larger motor vehicle weights would be acceptable on existing pavement.
01/20-Ongoing	**Michigan DOT Ancillary Structures PMC, Statewide, Michigan** Deputy project manager leading program development. Lead on development of rating schema, data dictionary, inspection procedures, training for 16 types of ancillary structures. Laura participated in multiple client workshops on risk, inventory and inspection requirements. The goal is to develop and maintain an ancillary structures database framework and to **develop a new asset management program for ancillary structures**.
2016-Ongoing	**New Jersey Turnpike Authority (NJTA) Enhanced Pavement Management System Implementation, Statewide, New Jersey** Laura determined sensitivities to multiple variables, including air content, binder content, sieve variations, and historic asphalt types. She **created a new pavement rating system** tailored to NJTA's historic data. The system allowed NJTA personnel to make decisions regarding maintenance timing and activities such as crack filling, milling, and depth of mill.

16. Staff Experience			
Firm employed by: HNTB			
Name	**John Benda**	**Years of relevant experience with this employer**	7
Title	Senior Technology Project Manager	**Years of relevant experience with other employer(s)**	40
Degree(s) / Years / Specialization	BA / 1974 / Political Science		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Asset Management		

John has more than 45 years of industry experience, including 32 years as General Manager of Maintenance & Traffic Operations for the Illinois Tollway. He managed and directed the full scope of maintenance and traffic operations on the Illinois Tollway's four interstate routes that carry interstate and intra urban traffic in Northeastern Illinois and serve more than 1.4 million customers daily. John was responsible for Roadway and Fleet Maintenance, Central Dispatch, Traffic Operations, including the Traffic Operations Center, Incident Management, and Permits and Utilities Units. John managed a decentralized workforce of more than 540 employees and an operating budget of $70 million. John worked for the City of Naperville for eight years before joining the Tollway.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
10/19-Ongoing	**FDOT Rest Areas and Welcome Centers Asset Management Inventory and Condition Assessment, Statewide, Florida** Project manager for the development and implementation of a paperless, **geospatial asset management-based inventory and condition assessment** of FDOT's 56 safety rest areas and four welcome centers. The resulting priority condition assessments will be the basis to develop a multi-year Capital Improvement Program and will guide upgrade and modernization efforts at these facilities. Tablet based "smart forms" were also developed to support FDOT staff inspections of the asset management contractor's performance maintaining the rest areas and welcome centers.
04/15-Ongoing	**NJTA Enhanced Pavement Management System Implementation, Statewide, New Jersey** Project manager for an Enhanced Pavement Management System Implementation Program for NJTA's statewide roadway facilities. This assignment includes the integration of automated pavement condition ratings, as well as **advanced assessment collection methods**, implementation of a Virtual Drive feature, and the application of AASHTO software to analyze and predict pavement performance. HNTB will be providing pavement management services on an annual basis and has developed a Pavement Condition Viewer application that enables Authority Staff to compare conditions and rating trends, and to interact with the lifecycle performance forecasts to select and evaluate resurfacing and other maintenance options and assist NJTA in making informed decisions regarding the annual pavement maintenance and repair programs.
10/18-Ongoing	**FDOT MCSAW Program Support, Tallahassee, Florida** Task lead to develop and implement Phases 1 and 2 of a three-phase program to automate the current manual Citation Protest Tracking and Scheduling process that supports the monthly protest hearings. Phase 2 has shifted the entire Citation Protest Tracking and Hearing to a paperless system. Phase 3 will implement a website to facilitate electronic communication, protest filings and efficient and open communication to support the Citation Protest Hearing process.
04/15-Ongoing	**NJTA Enterprise Asset Management (EAM) System Implementation, Statewide, New Jersey** Maintenance management analyst for the multi-year implementation of EAM approach to rolling out a comprehensive system approach supporting all agency departments in both **strategic and operational asset management**. This assignment includes an industry review of major EAM vendors in the industry and helping to identify the "best of breed" solutions for the Authority. This includes tools for critical infrastructure management (bridges, pavement) as well as a replacement of a legacy maintenance management system. HNTB is providing overall program management as well as configuration, technical support and change management services.

16. Staff Experience			
Firm employed by: CAMBRIDGE SYSTEMATICS			
Name	**Mike Williamson**	**Years of relevant experience with this employer**	29
Title	Principal	**Years of relevant experience with other employer(s)**	0
Degree(s) / Years / Specialization	BS / 1993 / Business Administration		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Performance Measures		

Mike has experience in freight and intermodal planning, port and waterway planning, CVO, ITS and transportation planning. He has helped state departments of transportation (DOT) and metropolitan planning organizations (MPO) develop and implement freight programs, and has led national research designed to document best practices and provide guidelines for establishing successful freight programs. Over the last decade, Mike has led or supported freight studies for Florida's largest MPOs, many of the smaller MPOs, and for the Florida DOT (FDOT). He led FDOT's first statewide Seaport System Plan, updated its Waterway System Plan, and led and supported freight programs for FDOT Districts 1, 4, 5, and 6. He also managed the Florida Chamber Foundation's Trade and Logistics Study. In addition, Mike led the USDOT's South Florida Freight Advanced Traveler Information System Small Scale Deployment Pilot.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
04/19-1/21	**Texas Freight Network Technology and Operations Plan (FNTOP), Statewide, Texas** Supporting development of the FNTOP, which will **guide technology and operations related investments** in Texas in support of the Texas Freight Mobility Plan and its underlying Texas Multimodal Freight Network. This effort will include a review of current and future freight transportation challenges and opportunities, freight technology and operations strategy assessments and user needs gathered through focused public and private sector stakeholder engagement efforts.
05/21-Ongoing	**Texas Freight Mobility Plan Implementation, Statewide, Texas** QA/QC officer responsible for reviewing all client deliverables, ensuring content and quality are in-line with the scope and client expectations. This has included **review of work authorizations on truck parking, truck design, regional freight plans**, and more. Mike is supporting a 5-year contract to update and implement the TFMP.
09/04-Ongoing	**Florida Seaport and Waterway System Plans and Program Development, Statewide, Florida** Managed development of the first ever statewide seaport system plan. This plan **defined current operations, needs, and funding opportunities** as well as established a process for evaluating and prioritizing ongoing state investments in Florida's seaports. Mike has provided ongoing support for the last decade, including input to the intermodal logistics center grant program and evaluation of annual seaport project applications, input to the Cruise Industry Study, and development of seaport performance measures. Currently he is working with FDOT to update the Seaport System Plan.
06/07-Ongoing	**Florida DOT District 4 Freight Program Development, FDOT District 4, Florida** For more than a decade, Mike has led or supported several initiatives designed to assist the district in the development of a district-wide freight program. As part of this work, he supported ILC market assessments, rail corridor **feasibility studies**, truck trip generation estimates, a freight corridor analysis framework, a truck parking demand study, and a truck safety analysis.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Todd "Dusty" Bastion, PE**	**Years of relevant experience with this employer**	9
Title	Project Manager	**Years of relevant experience with other employer(s)**	7
Degree(s) / Years / Specialization	BS / 2007 / Civil Engineering		
Active registration number / state / expiration date	#36719 / Louisiana / 03-31-2024; #21004 / Mississippi / 12-31-2022		
Year registered	2011 (LA); 2012 (MS)	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	Contract Solutions/Alternative Delivery		

Dusty has experience in various types of alternative delivery experience. He has participated in development of procurement documents for design-build as well as public private partnership projects ranging from bridge replacements on state highways to interstate interchange replacements. His efforts have included development of technical procurement documents, review of legal contract documents, participation in confidential meetings, development of construction cost estimates, development of construction duration schedules, and other procurement support activities. He has written performance specifications and technical provisions ranging across various engineering disciplines and has also participated in owner verification design reviews.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
08/19-Ongoing	**LADOTD I-10/Loyola Interchange Owner Verification (OV) Services, Jefferson Parish, Louisiana** Technical procurement team lead managing all technical review assignments for this design-build OV project. He is responsible for making technical review assignments based on the contents of each submittal, and ensuring comments are compiled in Form DRs and returned within the agreed-upon two-week timeframe. Specific responsibilities include managing review requests for information (RFI), design calculations, design criteria, and plan submittals. In addition to these management responsibilities, Dusty is also a lead reviewer on bridge and structural related submittals because of his detailed knowledge of the project as well as LADOTD bridge policy and procedure. Additionally, adherence to the performance-based specifications and constructability of design-builder's progress submittals is verified for this critical interchange connecting I-10 and Loyola Avenue through the local urban communities and downtown New Orleans to the Louis Armstrong New Orleans International Airport terminal expansion. Dusty also developed the FHWA mandated Financial Plan on behalf of LADOTD.
09/19-03/20	**LADOTD I-10 and I-12 College Drive Flyover Ramp Project, East Baton Rouge Parish, Louisiana** Technical procurement team lead for this traffic congestion relief and safety enhancement design-build project. This project will construct one bridge overpass over I-12 as well as controlled access ramps to eliminate the dangerous weaving movements required for westbound traveling traffic to exit at College Drive. Dusty's roles included the **development of performance specification documents**, response to design-builder questions, participation in public meetings, oversight for the development of permit drawings and conceptual renderings, construction cost estimating and schedule development, utility and stakeholder involvement, request for qualifications evaluation participation, and very close coordination with LADOTD leadership to ensure this project is a leading example of what alternative delivery can do for the State of Louisiana. The documents Dusty helped develop as part of this design-build procurement will become part of the design-build contract which will govern this OV project.
01/18-06/19	**LADOTD LA 23 Belle Chasse Bridge and Tunnel Replacement Public-Private Partnership (P3), Belle Chasse, Louisiana** **Technical procurement team lead** for this alternative delivery bridge and tunnel replacement project. This P3 project, the first-of-its-kind in Louisiana, will replace two obsolete highway facilities with one new, fixed span bridge. His roles included the development of technical procurement documents, response to developer questions, attendance in confidential meetings with contractors, utility and stakeholder involvement, proposal evaluation participation, and close coordination with LADOTD leadership.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Brad Guilmino**	**Years of relevant experience with this employer**	12
Title	Advisory Services Consultant	**Years of relevant experience with other employer(s)**	10
Degree(s) / Years / Specialization	BS / 2000 / Finance		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Contract Solutions/Alternative Delivery		

Brad has over 20 years of project management, funding, finance, policy and tolling experience. His unique blend of municipal investment banking and P3 experience allows him to provide specialized funding and financial expertise in the development of feasibility studies, long-range plans, financial plans, cash flow analysis and value-for-money studies to assist clients in implementing and funding capital projects.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
04/18-12/19	**LADOTD Belle Chasse Bridge Toll Replacement P3, Baton Rouge, Louisiana** P3 specialist **providing technical and financial procurement services** for LADOTD's first tolled P3 project, which reached financial close in December 2019. He provided specialized advisory services around commercial terms, tolling strategies, developer meetings, revenue forecasts and contractual documents. He utilized his unique financial background, P3, tolling and policy expertise to perform a technical liaison role between the P3 advisory team consultants.
09/18-12/19	**Utah DOT (UDOT) Statewide Innovative Funding and Financing Report, Salt Lake City, Utah** Project manager responsible for assessing Utah's ability to effectively **deliver alternative funding**, tolling and P3s. Analysis includes a legislative needs assessment of statutes/rules, identification of alternate funding sources, and programmatic policy and implementation approaches for tolling and P3. Additionally, HNTB updated UDOT business rules to more effectively manage P3 delivery.
07/17-02/19	**LADOTD Baton Rouge Urban Mobility Plan "BUMP" Project, Baton Rouge, Louisiana** Deputy project manager responsible for the tolling and financial components of a P3 feasibility assessment of managed lanes alignments in Baton Rouge. HNTB conducted a feasibility assessment of an unsolicited P3 proposal to **evaluate the technical engineering aspects, toll revenue potential, and financial feasibility** of the Baton Rouge BUMP Project. The P3 analysis led LADOTD to retain HNTB to analyze seven alternate scenarios and evaluate managed lanes alignments to relieve traffic along I-10 and I-12 through Greater Baton Rouge.
02/12-12/12	**LADOTD LA 1 Toll Financial Advisory, Baton Rouge, Louisiana** Financial consultant responsible for advising LADOTD on debt restructuring opportunities. Primary responsibilities include analyzing toll rate strategies to comply with **bond indenture covenants and evaluate potential debt restructuring options** for the existing senior lien bonds and federal TIFIA loan. He assisted LADOTD's effort to renegotiate the TIFIA loan with FHWA, the first effort of a renegotiation that FHWA has undertaken.
09/19-06/20	**San Diego Association of Governments (SANDAG) Regional Plan Update, San Diego, California** Subject matter expert for regional pricing and public private partnership strategies. Responsible for developing a comprehensive pricing report and **revenue analysis identifying approaches to improve mobility and reduce congestion** with express lanes, multi-modal projects and technology solutions. Also led a P3 evaluation of various project types for the "5 Big Moves" program to identify opportunities and policy considerations for greater private participation.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Tim Howerton**	**Years of relevant experience with this employer**	14
Title	Senior Software Engineer	**Years of relevant experience with other employer(s)**	6
Degree(s) / Years / Specialization	MA / 2002 / Geography BA / 1999 / Geography BA / 1999 / History		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Inspector Daily Logs		

Tim is a senior software engineer in HNTB's Technology Solutions Center, a group of technology professionals who develop innovative solutions for the firm's design, engineering and traffic operations practices. In this role, Tim utilizes his programming and database skills to create innovative business and geospatial solutions for both web and desktop environments in high-tempo operational settings. Tim's development specialty is in effective implementations of Cloud solutions for efficient implementations.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
08/14-Ongoing	**Michigan Department of Transportation (MDOT) Statewide Asset Management, Michigan** Hosting and **support lead for this statewide asset management project**. HNTB is providing long-term hosting, maintenance and enhancement support to the HNTB-designed and developed statewide ITS asset management system. The system has been collaboratively designed and developed in several phases and has been established as a crucial element to MDOT's ongoing asset management strategy. The asset management system provides for web-based viewing and reporting which allows remote access to statewide ITS data. Users can query ITS assets and view results in tabular formats or in a graphical format on a map, integrated with MDOT's statewide GIS. This flexibility allows MDOT development, operations and maintenance personnel to view and report on assets anywhere they work. A cost management module assists MDOT in projecting capital and operational costs year over year.
10/17-06/21	**FDOT MCSAW Weight Inspector Reporting Application, Tallahassee, Florida** Role for the development and deployment of a fiber optic inter-connection plan to link all interstate weigh stations on a fiber optic network; the piloting of mainline screening technologies to allow for increased efficiency of CVO; and the development of a GIS-based asset management platform. The platform included initial inspection and rating based on FDOT maintenance rating factors and led to the prioritization of activities for scale facility repairs and the programming of projects into a 10-year cost feasible plan and five-year work program. In addition, this contract is leading further **development of the database system which will provide increased tracking capabilities of freight movement**, to ultimately include size, weight, bill of lading and permit tracking.
11/18-01/20	**FDOT CVO/TIM Program Consultant, Statewide, Florida** This contract supported the **development of an updated the citation tracking** tool, a critical application in the management of protested commercial vehicle citations, in support of the Review Board. HNTB provided website updates, including the advancement of features on the Road Ranger Service Patrol to enhance user support and feedback. The TIM Strategic Plan and CVO business plan were developed under the program. The TIM Strategic Plan included focus on increased safety through enhanced services such as the Road Ranger Service Patrol. The CVO Strategic Plan focused on safety and mobility though partnership and technology deployments.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Beth Kigel**	**Years of relevant experience with this employer**	3
Title	ITS National Practice Consultant, Vice President	**Years of relevant experience with other employer(s)**	29
Degree(s) / Years / Specialization	MBA / 1993 BSBA / 1990 / Finance		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Emerging Technologies		

Beth brings 31 years of experience in new mobility and smart city ecosystems and is responsible for assisting transportation agencies, cities and regions in developing smart and connected infrastructure solutions. Prior to joining HNTB, Beth served as president and CEO of the Palm Beach North Chamber of Commerce, covering a 10 municipality region with 850 member organizations. Under her leadership, the Chamber took on key strategic initiatives and programs, contributing to improved economic prosperity in the region. As a thought-leader in smart city solutions, she delivers frequent presentations to audiences ranging from the ITS World Congress, automated vehicle symposiums and chambers of commerce to real estate and insurance organizations.

Experience dates (mm/yy–mm/yy)	**Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
06/21-Ongoing	**FDOT Multi-Use Corridors of Regional Economic Significance (M-CORES) Southwest-Central Corridor (SWCF), Collier County to Polk County, Florida** Program lead for the task force process, public engagement and smart infrastructure for the M-CORES Southwest Central Florida Corridor. As owner's representative, HNTB in partnership with Cambridge Systematics assisted FDOT District 1 with the development of the M-CORES Program in the SWCF study area. Phase 1 of the SWCF study consisted of pre-planning work to lead and facilitate a Task Force consisting of 47 local elected officials, environmental, community and transportation experts. Subject matter experts provided input from environmental preservation and protection, economic development, agriculture, technology, connected and autonomous vehicles, electric vehicles, resilience and emergency evacuation. HNTB also conducted a **preliminary needs assessment and identified high-level planning purpose and need statements** for the SWCF Corridor. The draft preliminary needs assessment leveraged the needs assessment, other previous studies, existing projects and the final Task Force Report to identify specific next steps for project development.
06/21-Ongoing	**Ohio DOT Advance Air Mobility (AAM) Plan - DriveOhio, Columbus, Ohio** Advisor and Consultant to ODOT and Lead for industry outreach. HNTB has been contracted by ODOT to lead and develop the statewide plan for AAM. This includes providing context on the status and momentum of AAM at the state level and nationally, establishing a statewide steering committee, and **developing policy, considerations, and implementation guidelines** for both the state and localities.
2021-Ongoing	**FDOT Chief Engineer Support Services, Statewide, Florida** Served as the subject matter expert for the TPAS. TPAS was provided for all public sites for the length of the interstates within Florida, including I-10, I-75, I-95 and I-4. The project includes **coordination with multiple districts and agencies in an accelerated environment to meet the Federal AID and FASTLANE grant requirements**. The program was delivered as a series of design-build projects and required extensive coordination with Districts 1, 2, 3, 4, 5 and 7 staff and multiple departments, including ITS, maintenance, environmental, ROW, construction and utilities. As part of the TPAS program development, research into available technology, including performance evaluation, was provided through a research project with a local university. **Developmental specifications were prepared for the technology based on the results of the research**. Standard operating guidelines were developed for RTMC staff for verifying information obtained through TPAS sensors, including updating to data dissemination platforms.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Greg Krueger**	**Years of relevant experience with this employer**	7
Title	ITS National Practice Consultant, Vice President	**Years of relevant experience with other employer(s)**	20
Degree(s) / Years / Specialization	MS / 1995 / Civil Engineering BS / 1993 / Civil Engineering		
Active registration number / state / expiration date	#6201047061 / Michigan / 10-27-2024; #133640 / Texas / 12-31-2022		
Year registered	2000 (MI); 2019 (TX)	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	Emerging Technologies		

Greg Krueger is an internationally recognized leader in the Connected Vehicle program (CVP) specializing in emerging technologies in transportation. With more than 20 years of experience, Greg supports the firm's ITS programs and clients nationwide. He works with both public and private sector clients to facilitate the deployment of connected and automated vehicles (CAV) on the nation's roadways. Previously, Greg was manager of the United States Department of Transportation (USDOT) Southeast Michigan Connected Vehicle (CV) Test Bed where he oversaw the day-to-day operations and technology enhancements for the original proof of concept facility. He also served as the Michigan Department of Transportation's (Michigan DOT) program manager for its statewide ITS program, overseeing all development, deployment, operations and maintenance of ITS throughout the state of Michigan.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
2021-Ongoing	**San Bernardino County Transportation Authority (SBCTA) Technology Tunnel, San Bernardino, California** Task lead for the **technology elements associated with automated transit service** between the Rancho Cucamonga transit center and Ontario airport in southern California. HNTB is the program manager supporting the design, construction and implementation of a tunnel connecting the two sites and automated vehicle operations within the tunnel to provide service. Greg is leading the development of the design of all of the technology elements associated with the program including developing requirements for the vehicle, infrastructure elements, station technology, central management system and other components including integrating those components into the overall tunnel management system and is leading the development of a Systems Engineering Management Plan, Concept of Operations, technology assessment and other documents that will be part of the procurement of the tunnel operations. Greg is supporting the procurement, implementation and testing technology components of the project.
03/20-Ongoing	**O'Hare International Airport (ORD) Automated Vehicle Concept, Chicago, Illinois** The Chicago Department of Aviation has embarked on a major world class expansion and modernization program to position ORD to meet the needs of the 21st Century. Like the work at Orlando International Airport, Greg **developed an analysis including a background of the state of the industry, viable technologies and providers of automated transport** for relative use cases, and concepts for the use of these technologies as an alternative to an Automated People Mover system. The evaluation included tunnel cross-sections and a geometric analysis of the AV corridor needed to connect the terminals.
10/20-Ongoing	**CoMotion LAB Miami (C-LAB) Curb and Smart Infrastructure (CSI) Task Force Member, Miami, Florida** CoMotion C-LAB is a collaboration of CoMotion, Miami-Dade County, the City of Miami, and other public/private sector partners. C-LAB is charged with developing recommendations for Miami-Dade County in the areas of policy, roles and responsibilities of various stakeholders, public acceptance, and short- and long-term implementation strategies. It is also responsible for launching pilot projects. The CSI Task Force is focused on a key public asset, the curb, and its efficient use and management asset as demand grows for pickup and drop-off of both people and goods. Greg is supporting **system design constructs for data and curb management** in support of both Miami-Dade County and the City of Miami as they develop policies to allow access to various transportation modes accommodating both current and emerging technologies.

16. Staff Experience			
Firm employed by: HNTB			
Name	**James "Jimmy" McDonald**	**Years of relevant experience with this employer**	<1
Title	Senior Planner	**Years of relevant experience with other employer(s)**	21
Degree(s) / Years / Specialization	MS / 2018 / Business Supply Chain Management BS / 2000 / Political Science AA / 1998 / Political Science		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Emerging Technologies		

Jimmy is a Senior Transportation Planner with 21 years of freight and multi-modal transportation experience including statewide system planning, regional freight plans, onsite freight terminal development projects, strategic master plans and robust knowledge supply chain logistics. Jimmy has unique project experience working with the private sector, federal, state, local and international clients during the course of his career. Jimmy was the deputy project manager on a major statewide Riverports, Highway and Rail Freight Study for the Kentucky Transportation Cabinet (KYTC). In recent years, he provided FDOT seven years as on-site project manager working for both the Freight and Seaport offices on the FDOT Freight Plan and managing the Seaport and Waterways System Plans. He provided critical leadership supporting a $150-million bond program. Throughout his involvement with several state departments of transportation, he coordinated with leadership including secretaries and deputy secretaries providing support on critical issues, planning for future scenarios, creating workable strategies and real solutions.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
2021	**Atlanta Region Commission Freight Cluster Plans, Atlanta, Georgia** Led the development of the Best Practices Report for the mobile switching center identification Freight Cluster Plan which includes an **assessment of ITS applications, freight and logistics trends, motor carrier and fleet electrification** and innovative land use practices for industrial development.
2020-2021	**KYTC Riverports, Highway, and Rail Freight Study, Statewide, Kentucky** Provided maritime and freight expertise to the KYTC, the seven operating riverports, and four developing riverports in the state. The **study consists of future best uses, economic scenarios and prioritization of investment strategies** for the current and future year developments. Oversaw funding opportunities, future needs analysis and led three virtual summits with more than 60 attendees discussing freight movements and economic viability for expanding Kentucky's riverports.
2012-2020	**FDOT Freight Logistics and Passenger Operations Services, Tallahassee, Florida** Project manager for the production of 15 critical projects during both 2019 and 2020 fiscal years. Examples include a freight data compilation with 30 years of statewide performance metrics for key freight and passenger analytics providing innovative trend analysis for FDOT's continual use on future studies and funding decisions. The primary assignment was a 2018 to 2020 Study of Ultra Large Vessels in a Post Panama Era at Florida Ports an expansion of the 2018 study presented at the 2019 Transportation Research Board (TRB) Annual Conference in Washington DC. This includes port berthing log data on vessel sizes between 2016 and 2019, and international trade with IHS Piers data to look at container trade with Pacific Rim region countries and Mediterranean Suez Canal region countries with Florida's major container ports. Assisted with **work program process on the Strategic Port Investment Initiative and the Seaport Investment programs which together represent more than $90 million in annual funding**. In addition, led the development of seaport office maps and report layouts and organized graphic presentations for executive FDOT staff members, prepared publications and performed public speaking at FDOT and national events.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Steve Bahler, PE**	**Years of relevant experience with this employer**	16
Title	ITS Department Manager	**Years of relevant experience with other employer(s)**	37
Degree(s) / Years / Specialization	Graduate Courses / 1977 BS / 1969 / Civil Engineering		
Active registration number / state / expiration date	#64575 / Florida / 02-28-2023		
Year registered	2006	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	Standard Operating Procedures		

Steve is an ITS department manager and a senior ITS project manager with HNTB. His 47 years of experience encompasses a broad range of transportation program and project management, including ITS planning, highway, environmental studies, urban freeway design, construction oversight, architecture and systems engineering for RTMCs, freeways, arterials and transit and traveler information. In the past 10 years, he has worked on RTMC projects for the Florida, Minnesota and Kansas Departments of Transportation, as well as for local agencies and authorities.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
02/16-11/19	**FDOT TSM&O GEC, Statewide, Florida** Project manager for the statewide TSM&O contract. Major work efforts include support for SunGuide® software, traffic control device specifications and testing, Florida's advanced traveler information system, ITS, managed express lanes, traffic signal systems, **statewide RTMC standard operations guidelines development, federal grant project concept development and applications, training program development**, TSM&O mainstreaming and reports, connected vehicles, and information systems.
06/14-01/16	**FDOT District ITS/ATMS and Traffic Engineering Services, Chipley, Florida** Senior project manager for the District 3 TSM&O contract. Roles include development of task work order (TWO) scopes and fees, overseeing home office staff and subconsultants providing services ranging from traffic signal timing and trouble-shooting, to TSM&O **strategic plan development**, to development of a TIM strategic plan, TIM team support and training and development of a signal retiming program, including performance measure and criteria for retiming priority.
06/13-01/16	**FDOT TIM/CVO Support Services, Tallahassee, Florida** Senior project manager supporting the FDOT TIM program, TIM training, TIM and CVO program outreach, pilot projects, road ranger service patrol support, and **commercial vehicle information system network programs** and projects. Assists FDOT with development of task work orders (TWOs) and management of TWOs including work accomplished by home office staff and four subconsultants, provides weekly and monthly progress reports, and performs quality reviews of TWO deliverables.
06/10-06/11	**FDOT I-75 Hybrid ITS Design, Tampa, Florida** Senior ITS engineer and engineer-of-record for preliminary, final and post design for the ITS from Bloomingdale to Gibsonton in Hillsborough County, and at interchanges at CR 672 and SR 674 in Hillsborough County and CR 683 in Manatee County. **ITS elements include fiber and wireless communication, CCTV and microwave vehicle detection systems (MVDS)**. Work included development of CCTV view and wireless "line of sight" verification.
06/10-06/14	**FDOT District 7 ITS Services, FDOT District 7, Tampa, Florida** Senior ITS engineer and engineer-of-record who **developed technical special provision** for wireless radio network included in I-75 ITS plans and specifications. Wrote the RTMC configuration management retrofit plan that will guide system expansion and changes to the RTMC ITS subsystems. Oversaw RTMC standard operating procedures and quick reference guide development.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Victor Blue, PE, PhD**	**Years of relevant experience with this employer**	7
Title	Senior ITS Project Engineer	**Years of relevant experience with other employer(s)**	30
Degree(s) / Years / Specialization	Ph.D / 1996 / Transportation Engineering MS / 1973 / Transportation Planning BS / 1969 / Electrical Engineering		
Active registration number / state / expiration date	#79517 / Florida / 02-28-2023		
Year registered	2015	**Discipline**	Professional Engineer, Electrical & Computer
Contract role(s) / brief description of responsibilities	Standard Operating Procedures; Systems Engineering		

Victor is a senior ITS project engineer in the HNTB West Florida TSM&O group with 37 years of experience in project planning, engineering, and research and over six years at HNTB. Dr. Blue's core expertise and experience include TSM&O/ITS/CAV development, systems engineering, transportation engineering, and simulation. Other key subject areas include data privacy, human research protections and safety management. He has contributed expertise on several advanced federal projects: the Tampa Connected Vehicle Pilot, Smart Columbus and Pinellas Connected Communities (ATCMTD grant). He has promoted systems engineering for FDOT by producing templates for TSM&O documents. In ITS, he has contributed systems engineering to the Statewide Express Lanes Software (SELS), Truck Parking Availability Systems, MCSAW, Mainline Bypass Truck WIM and the Freight Operation Exchange software system for statewide truck data.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
05/18-10/19	**USDOT Smart Columbus Program, Columbus, Ohio** Coauthor of the **Data Privacy Plan and Safety Management Plan** which includes eight projects: CAV, multimodal trip planning application, a common payment system, parking management, among others and also connected vehicle environment research protocol for Institutional Review Board (IRB) human-use oversight.
09/15-Ongoing	**USDOT Tampa Hillsborough Expressway Authority Connected Vehicle Pilot Deployment, Tampa, Florida** Coauthor of Phase I ConOps, Safety Plan, **Performance Measures, System Requirements, Comprehensive Development Plan and Phase II Project Management Plan and Data Privacy Plan**. Task Leader on Human Use Approval, Phases I-IV: developed Human Use Research Protocol and Informed Consent Documents, liaison with IRB, Human Use Summary report to USDOT.
03/15-07/15	**FDOT TIM/CVO Support Services, Tallahassee, Florida** Senior ITS project engineer supporting the FDOT TIM program, TIM training, TIM and CVO program outreach, pilot projects, road ranger service patrol support, and commercial vehicle information system network programs and projects. Assists FDOT with development of TWOs and management of TWOs including work accomplished by home office staff and four subconsultants, provides weekly and monthly progress reports, and performs quality reviews of TWO deliverables.
03/21-07/21	**FDOT MCSAW Program Support, Tallahassee, Florida** Systems engineer supporting FDOT's MCSAW program, including planning; **performance measures; specifications and standards; and telecommunications and networking**. This contract works closely with other state agencies including the departments of Highway Safety and Motor Vehicles, Agriculture and Consumer Services and Revenue, as well as key industry partners such as the FTA. Specific tasks include facilitation of a strategic plan visioning session which brought together various FDOT departments, state agencies and industry stakeholders to collaborate. The session set the framework for future technology enhancements; the development and deployment of a fiber optic inter-connection plan to link all interstate weigh stations on a fiber optic network; the piloting of mainline screening technologies to allow for increased efficiency of CVO; and the development of a GIS-based asset management platform.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Jess Baker, SEP**	**Years of relevant experience with this employer**	6
Title	Technology Senior Project Manager	**Years of relevant experience with other employer(s)**	17
Degree(s) / Years / Specialization	BS / 2019 / Computer Engineering AA / 2012 / Engineering		
Active registration number / state / expiration date	Systems Engineering Professional / National		
Year registered	2013	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Systems Engineering		

Jess is a national practice consultant and a certified systems engineer with 24 years of experience planning, designing, implementing and managing emerging technology systems and solutions for the public and private sector. Recent projects include autonomous driving system (ADS) safe navigation in work zone research, Smart Cities, corridor innovations with connected and automated vehicles, electric and smart roadside infrastructure, utilization of the 5.9GHz safety spectrum, fiber and network security, cloud and edge ecosystems, back-office software and apps, data and information exchange portals and more. Systems management experience includes operations and maintaining quality of service, administering and monitoring, developing and upgrading the system software, hardware and data interfaces for out-of-the-box and custom software system of systems, such as Tolls back office systems, SunGuide, PTZ video systems, ITS detectors, commercial freight and container systems, Azure cloud hosting, asset and change management systems, firewall and network systems, datacenter and virtualization systems, data and analytics systems, and many others.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
06/06-07/21	**Central Florida Expressway (CFX) Systems Management and Operational Support for ITS, IT and Tolling GEC, Statewide, Florida** Senior technology project manager for the improvement of the Information System ecosystem at CFX for IT and tolling, also providing support for ITS systems as requested. Initiatives resulted in nearly two-dozen distinct projects and six full-time in-house staff augmentation personnel for boots on the ground system support. **Designed and deployed custom tolling software**, GIS, Azure Cloud services, Microsoft Business Intelligence for data analytics, Oracle and SQL Enterprise database systems, Cherwell change and configuration management, architecture and code reviews, Tolling analyst, application program interface (API) development for interagency system of systems with FDOT, the Greater Orlando Aviation Authority, and ITSWAN, section 508, Americans with Disabilities Act (ADA) and WCAG 2.0 (AA) web standards compliance as well as the development and administration of network and security systems.
06/16-06/17	**FDOT CVO, Tallahassee, Florida** Technology project manager on various contracts, **provided technical support for Freight Container Number Database (FCNDB)**, a component of the Commercial Vehicle Information System and Network. The FCNDB collects, monitors, and tracks information on the movement of freight and containers. The software determines if there are any overdue citations, validates PRISM target list, detects stolen vehicle and sends notifications to subscribing Troopers within the FHP. Detected vulnerability in system that exposed software files to the Internet. Carried out immediate incident response plan to secure files and close internet exposure.
02/20-02/21	**FDOT CAV Data Management Technical Series, Tallahassee, Florida** Technical lead for the four-part technical volumes that were an important part of advancing the FDOT CAV Business Plan to develop sustainable data management practices for the deployment of CAV projects. The memorandums focused on **identifying current and future projects and phases, technology deployments, respective CAV data types, uses and users**. Best practices with data architecture, data formats and storage, edge and fog computing as well as technology were developed. A model corridor was analyzed and used to calculate sample storage requirements for CAV data to assist with planning. A set of policies and recommendations were made for the acquisition of a V2X platform, which was advanced by FDOT through an invitation to negotiate.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Jennifer Schultz**	**Years of relevant experience with this employer**	8
Title	Public Involvement Director	**Years of relevant experience with other employer(s)**	8
Degree(s) / Years / Specialization	BA / 2008 / Corporate Communications		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Graphic Design		

Jennifer leads the Atlanta office's communications group with 16 years of experience in communications strategy, media relations, client service and advertising. She has developed and managed multi-faceted marketing campaigns as well as regional education initiatives for private sector employers, federal and state agencies, non-profit organizations, and major transit providers. Her campaigns are effective at generating interest and informing stakeholders, commuters, and strategic partners. As an accomplished graphic designer and writer, she has produced infographics, newsletters, press releases, scripts, and collateral materials on a variety of transportation topics.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/17-Ongoing	**GDOT OID PMC, Atlanta, Georgia** Communications lead providing programmatic communications to Georgia DOT for the Office of Innovative Delivery's $11-billion Major Mobility Investment Program, Design-Build Bridge program, and legacy design-build-finance projects. Responsibilities include **leading the delivery of a comprehensive communications strategic plan** to educate and build stakeholder, community, and media support through video, digital, and traditional media strategies, garner positive media coverage, provide oversight for developer and GEC communications work, and oversee the communications program schedule and budget.
07/17-Ongoing	**Metro Atlanta Regional Transit Authority (MARTA) General Planning IDIQ Atlanta, Georgia** Communications lead providing communications marketing support to the Office of Planning at MARTA for corridor/facility/joint development planning support services, general transit planning support services, and transit-oriented development and real estate support services. Responsibilities include **developing communications materials, providing strategic support, and developing and executing the strategic external affairs and communications plan**.
04/16-04/17	**FDOT TSM&O GEC, Statewide, Florida** **Delivered communications approaches for the integrated program** optimizing performance of existing multimodal infrastructure. Responsibilities included writing, layout, strategy, and branding for the bi-monthly newsletter, annual report, grant proposals, and overall program communications.
07/14-04/17	**GDOT Georgia Commute Options, Atlanta, Georgia** Communications specialist for this transportation planning project providing assistance for areas designated as nonattainment for National Ambient Air Quality Standards. Responsibilities include using Transportation Demand Management (TDM) to provide services to private sector, non-profit, federal and state agencies, and commuters on strategies to reduce traffic congestion and improve air quality in the Metro Atlanta region. **Create and develop messaging strategies, communication calendars, and collateral materials**. Manage regional promotions and generate modern marketing campaigns. Develop web, media, speech/script, and press release copy.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Laura Pichard-Murphy**	**Years of relevant experience with this employer**	4
Title	Graphic Designer, Writer, Photographer	**Years of relevant experience with other employer(s)**	30
Degree(s) / Years / Specialization	MS / 1993 / Art Administration BS / 1988 / Visual Communication		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Graphic Design		

Laura has worked in the graphic design field nearly 30 years and brings a wide range of design and production experience to the table. Her creativity includes design and production work on newsletters, booklets, directories, posters, event programs, date savers, ads, brochures, banners, displays, conference promotions, registration materials, specialty items, logo development, workbooks, manuals, annual reports as well as custom photography.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
06/18-Ongoing	**FDOT TSM&O GEC, Statewide, Florida** Delivered communications approaches for the integrated program optimizing performance of existing multimodal infrastructure. Responsibilities included **writing, layout, strategy, and branding for the bi-monthly newsletter, annual report, grant proposals, and overall program communications**. The project included FL511 annual reports, FAV summit presentation, TSM&O disseminator newsletter, wrong way driver tip card, wrong way driver presentation assets and refinement, managed lanes maps, managed lanes reference book, Pensacola Bay bridge detour maps, PSTA sustainability plan diagrams, emergency vehicle panel card, RTMC map updates, TERL mrochure, RTMC operations support audit presentation, warranty presentation and a TSM&O presentation template.
3/17-Ongoing	**FDOT Motor Carrier Size an Weight (MCSAW), FDOT Central Office, Statewide, Florida** Communications and graphics lead for the statewide weigh station program. In this role, provided support for the **development of training materials including presentation and coursework for inspection staff**. Supported working group "vision sessions" to align stakeholder needs and interests. Developed presentations for state and national seminars and events.
02/15-Ongoing	**FDOT CVO/Traffic Incident Management, FDOT Central Office, Florida** Communications and graphics lead for the statewide CVO/TIM program. In this role, provided support for the **development of the business and strategic plans for each program**. Developed TIM Responder bi-monthly newsletters which provides information on statewide incident management activities. Supported the quarterly Partnership Meetings for the ITD group meetings, which included representatives from Commercial Vehicle Enforcement, Department of Revenue and Department of Motor Vehicles. Provided presentation support for updates to FDOT leadership, state and national seminars and conferences.
2/15-Ongoing	**Florida Department of Transportation (FDOT) Chief Engineer Support Services, Statewide, Florida** Lead graphics designer in support of multiple statewide initiatives. In this role, supported the development of the Data Integrations Space, a platform which provided analytics for statewide crash records. Provided support for the TPAS, including **grant development, public information, reporting and presentation material**.

16. Staff Experience

Firm employed by: HNTB

Name	**Alex Kavanagh, PMP, PMI-ACP**	**Years of relevant experience with this employer**	17
Title	Technology Section Manager/Senior Technology Project Manager	**Years of relevant experience with other employer(s)**	7
Degree(s) / Years / Specialization	MA / 2001 / Urban Information Systems BA / 1994 / English		
Active registration number / state / expiration date	Project Management Professional: #2243800 PMI Agile Certified Practitioner: #2597644		
Year registered	PMP: 2018 PMI-ACP: 2019	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Technology Program Management		

Alex has a wide variety of experience in the design, development, and implementation of web-based information systems related to transportation, infrastructure, and asset management. He has a diverse skill set which includes project management, web programming, data visualization and analysis, requirements gathering, and systems engineering documentation. Alex has experience in various programming languages and web-based application frameworks. He is currently leading teams building modern web applications using frameworks and tools such as Angular, TypeScript, Webpack, and Material Design, as well as supporting applications built on Microsoft's .NET stack, including ASP.NET MVC and Web API.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
12/19-Ongoing	**TxDOT Houston ConnectSmart, Texas** Systems engineering lead responsible for **design and development of a data hub and public portal** for a model technology deployment to provide multimodal mobility options to travelers to better utilize corridor/system capacities. The ConnectSmart Data Hub provides a single source of truth for TxDOT Houston ConnectSmart data, where real-time data is ingested, cataloged, transformed into common formats, and analyzed via dashboards and query and visualization tools.
12/18-Ongoing	**New Jersey Turnpike Authority (NJTA), Pavement Conditions Viewer, New Jersey** Development lead of a web-based application to analyze pavement conditions data to **support decisions regarding roadway maintenance and resurfacing, planning, and contract programming**. This application provides users with interactive graphs showing predicted pavement performance and remaining service life on both the Turnpike and Parkway. Users have access to view segment level cost estimates and the ability to build what-if scenarios using pavement conditions data. The application uses the Esri ArcGIS JavaScript API along with Angular and AWS S3.
2018-2019	**NJTA, Traffic Count Application, New Jersey** **Development lead of a web-based application used to visualize and manage traffic count data**, consisting of Automatic Traffic Recorder (ATR) data, manually collected traffic counts, toll count data, real-time (Sensys) traffic detection data, as well as historical traffic count data. The application uses a JavaScript framework called D3.js to create network line diagrams on-the-fly showing all traffic volume at ramps and exits. Users run ad-hoc queries and pre-formatted reports against the entire set of data. The application replaces a legacy system developed over many years and a mathematical model that had grown too burdensome to support and maintain.
12/11-Ongoing	**Smart City Challenge – ITS Program Management and Program Initialization, Columbus, Ohio** Technical lead for the development of key deliverables to USDOT, including **ConOps, System Requirements (SyRS) and Interface Control Document (ICD) for projects** ranging from multimodal trip planning and event parking to development of a common payment system to pay for transportation related services. In his capacity as technical lead, Alex also serves as a liaison between the City of Columbus, stakeholders and the USDOT, and he is responsible for facilitating outreach among various stakeholder groups. HNTB is providing ITS program management services to the City of Columbus for the USDOT Smart City Challenge. Smart Columbus will deploy a wide spectrum of technology based components throughout multiple projects to enhance the regional transportation system, making the City of Columbus a model for other cities across the U.S.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Charles Koonce, PE**	**Years of relevant experience with this employer**	4
Title	Traffic Operations Department Manager	**Years of relevant experience with other employer(s)**	27
Degree(s) / Years / Specialization	BS / 1994 / Civil Engineering BA / 1988 / History		
Active registration number / state / expiration date	#87785 / Texas / 12-31-2022		
Year registered	2001	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	ITS/Networking		

Charles has over 31 years of experience in transportation engineering including planning, design, construction, operations and project management. His experience covers a wide range of traffic operations including ITS, traffic studies, signing schematics, striping, work zone traffic control, signal warrants, speed zoning and access management. While serving in TxDOT's Traffic Operations Division, he gained extensive experience in the development of standards and specifications for ITS and traffic engineering applications.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
08/18-Ongoing	**TxDOT ITS MIP, Austin, Texas** Task lead for the Austin District's ITS MIP Update. He is providing support on other tasks under this work authorization including **developing ITS PS&E** for FM 734, ITS asset identification structure standard and template development, ITS asset inventory process and internal HUB equipment inventory. Provide design guidance and review of PS&E.
03/20-Ongoing	**TxDOT I-10 TPAS, Statewide, Texas** ITS support for the I-10 TPAS project, the purpose of which is to **design and deploy ITS infrastructure** at public rest areas along the I-10 Corridor as identified in the Federal Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) grant awarded to the state by the FHWA.
02/20-Ongoing	**TxDOT Weigh-in-Motion and Vehicle Classification Statewide Strategic Plan, Statewide, Texas** ITS support for this project meant to support the State Transportation Planning Division by developing goals and objectives, **assessing the existing conditions of the statewide system, identifying the needs/gaps in this system**, developing a data use case/business plan and developing an incremental deployment (short-, mid-, and long-term) as well as a strategic plan to upgrade and enhance the system.
2013-2016	**TxDOT Statewide ITS Standards and Specifications, Austin, Texas** Served as TxDOT project manager for consultant contract for the development of **ITS standard detail sheets and ITS specifications**. Led the development of over 40 ITS standard detail sheets and over 10 ITS technical specifications that were issued and posted on the Department's website for statewide use (currently in use). Specifications and standard details included requirements for ITS pole, ITS cabinets, ITS conduit, ITS ground boxes, fiber optic cable, networking ITS communications cable, CCTV equipment, media converter, ITS radio equipment. Responsible for all aspects of managing the contract including technical review and approval of deliverables, scope development, negotiating fee, invoice approval, tracking expenditures, and preparing budget projections for all current and planned work authorizations.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Charles "Chuck" Miller, PE, PTOE, PhD**	**Years of relevant experience with this employer**	36
Title	Senior Project Manager	**Years of relevant experience with other employer(s)**	0
Degree(s) / Years / Specialization	PhD / 1999 / Civil Engineering MS / 1990 / Civil Engineering BS / 1985 / Civil Engineering		
Active registration number / state / expiration date	PE: #31994 / Louisiana / 03-31-2024; #137456 / Texas / 12-31-2022; #11846 / Kansas / 4-30-2023; #2002000606 / Missouri / 12-31-2022; #18604 / Iowa / 12-31-2022 PTOE: National		
Year registered	2005 (LA); 2020 (TX); 1990 (KS); 2002 (MO); 2008 (IA)	**Discipline**	Civil Engineering
Contract role(s) / brief description of responsibilities	ITS/Networking		

Charles "Chuck" Miller has served as a senior project manager and project engineer on a wide range of transportation planning and traffic engineering projects. Specific areas of expertise include traffic operations analysis, ITS, travel demand modeling and traffic signal design. From May of 1998 through June of 2001, Dr. Miller worked full-time with the Tennessee Department of Transportation on development implementation of their ITS program as a research professor at Vanderbilt University. ITS experience over the three-year period ranged from strategic planning for ITS to ITS system design and implementation.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
12/19-Ongoing	**TxDOT I-10 TPAS, Texas, New Mexico, Arizona and California** Systems engineering lead for the four-state ATCMTD funded project implementing a TPAS along the I-10 corridor in Texas, New Mexico, Arizona and California. The system will monitor truck parking availability at 37 truck parking locations and provide the availably information to truck drivers through roadside signs, traveler information systems (511) and third-party applications. For the project a **concept of operations, systems engineering management plan and high-level system requirements** are being developed.
04/19-Ongoing	**Iowa DOT I-74 Bridge ITS Construction Engineering and Inspection, Bettendorf, Iowa** Project manager for construction engineering and inspection services project overseeing installation of fiber optic cables, fiber optic cable splicing and terminations and installation of ITS devices. Services being provided includes **monitoring of contractor work, quantity tracking and collection of as-built information**. The biggest challenge on the project was coordination with the contractor's schedule given their reliance on bridge construction being completed.
11/18-07/19	**KDOT Kansas Statewide CAV Vision Plan, Statewide, Kansas** Project engineer that assisted in developing a vision plan that will allow the state of Kansas to maximize the benefits from the CAV evolution in transport. The project coordinated through workshops with state agencies and legislative leaders.
11/17-03/19	**MAASTO Regional TPIMS Kansas Deployment Design, Statewide, Kansas** Project manager and lead **ITS designer for the design of the TPIMS deployment** in along the I-70 and I-135. The project deployed cameras at 22 rest areas to monitor truck parking availability. It also deployed hybrid static/dynamic roadside signs at 19 locations across the two corridors. For the rest area and sign locations, fiber optic network connections were designed. At the rest areas, power for operation of the cameras and network gear was obtained from the existing rest areas buildings. Power service for the signs was coordinate with local electric utilities.

16. Staff Experience			
Firm employed by: ARCADIS			
Name	**Paul Hsu, PE**	**Years of relevant experience with this employer**	6
Title	Senior ITS Design Engineer	**Years of relevant experience with other employer(s)**	13
Degree(s) / Years / Specialization	BS / 2002 / Electrical and Computer Engineering		
Active registration number / state / expiration date	#35983 / Louisiana / 03-31-2023		
Year registered	2011	**Discipline**	Electrical Engineering
Contract role(s) / brief description of responsibilities	ITS/Networking		

Paul's comprehensive ITS experience comes from years of working in both the public and the private sector. He has managed and led ITS design teams for a variety of ITS projects by LADOTD, ALDOT, MDOT, TxDOT, FDOT, and GDOT. His areas of expertise in ITS include design and analysis of field devices, communication systems, video systems, electrical systems, traffic management centers, CAV, as well as performing systems engineering analysis (SEA) for over 15 complex ITS projects. He has a wealth of design experience in developing plans, specifications, special provisions, construction estimates, project schedules, traffic management plans, FAA evaluations, and LADOTD constructability/biddability reviews. In addition, his experience also includes providing construction support services such as reviewing shop drawings, as-built drawings and RFIs. Other certifications include: ATSSA TCS, TCT, Flagger.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
06/18-10/19	**LADOTD I-10 Queue Warning SEA, Baton Rouge, Louisiana** Project manager who led a comprehensive team of ITS, traffic, data, and safety engineers specialized in their respective areas to complete a highly complex and first of its kind ITS SEA involving the evaluation of a Queue Warning system for a frequently congested corridor on I-10 eastbound from LA-77 to I-110. The analysis developed short, medium, and long-term options to provide a comprehensive approach in enhancing the traveler's safety within the project area. In addition to developing the operational concept, physical architectures, and alternative analysis configuration, the Arcadis team also **provided preliminary 30% design plans** that included Queue warning design alternative analysis, communication system integration, electrical system design recommendations, opinions of probable costs, and design drawings.
04/19-02/20	**LADOTD Video Distribution Management System Replacement SEA, Statewide, Louisiana** Project manager who utilized the SEA process to evaluate various replacement options for the current video distribution management system (VDMS) in order to provide necessary system upgrades. Five different products and three different hosting solutions were evaluated to gain insight on available technology. Led the team to **develop a list of needs and system requirements** that was used to compare the different products across several categories in detail. The selected concept consisted of a hybrid-hosted system which combined the benefits from the local and cloud-hosted solutions and represented the most value for LADOTD.
10/17-Ongoing	**FDOT Wekiva Parkway Section 6 ITS Design-Build, Lake and Seminole County, Florida** ITS and electrical design engineer for this design-build project involves the **design, construction, installation, and integration of a new ITS deployment and electrical power distribution system** within the FDOT ROW to power the proposed ITS field devices within the project. A short circuit and protection coordination study was conducted for the designed power system and a power system design report was subsequently developed and submitted to FDOT. The design of electrical power system include disconnects, transformers, power meters, UPS, power distribution units, conduits, conductors and cables, pull boxes, surge protection devices, grounding systems, and lightning protection system. Paul performed electrical analysis for the implementation of each ITS devices and designing the system to ensure that every field site meets the electrical code while providing sufficient capacity for current and future demands. Other tasks of the project also include conducting voltage drop calculations, coordinating with multiple electrical utility companies, developing PS&E.

16. Staff Experience			
Firm employed by: ARCADIS			
Name	**Luis Alvergue, PE, PhD**	**Years of relevant experience with this employer**	6
Title	ITS Engineer	**Years of relevant experience with other employer(s)**	1
Degree(s) / Years / Specialization	PhD / 2013 / Electrical Engineering MS / 2008 / Electrical Engineering BS / 2004 / Engineering		
Active registration number / state / expiration date	#42598 / Louisiana / 09-30-2022		
Year registered	2018	**Discipline**	Electrical Engineering
Contract role(s) / brief description of responsibilities	ITS/Networking		

Luis is specialized in ITS design including communication systems, electrical systems, and systems engineering. In addition, he is experienced as a project engineer on various LADOTD ITS and traffic projects including queue warning systems, lane closure analyses, ITS maintenance performance measure reporting, traffic video distribution management, and web/database programming.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
05/21-Ongoing	**LADOTD I-10 CMAR Segment 01, Baton Rouge, Louisiana** ITS and electrical engineer who developed an SEA document for an **ITS deployment consisting of a utility duct bank and CCTV and DMS sites** along a three-mile section of I-10 in Baton Rouge. In addition, the SE Analysis identified and evaluated smart work zone applications to be deployed during construction. 30% design plans that included communication system integration, electrical system design, removal of existing ITS sites, and opinion of probable cost were also developed.
10/17-Ongoing	**FDOT Wekiva Parkway Section 6 ITS and Electrical Design Buil,d Lake and Seminole County, Florida** ITS and electrical engineer for this design-build project involves the design, construction, installation, and integration of a new **ITS deployment and electrical power distribution system** within the FDOT ROW to power the proposed ITS field devices within the project. A short circuit and protection coordination study was conducted for the designed power system and a power system design report was subsequently developed and submitted to FDOT. The electrical power system include disconnects, transformers, power meters, UPS, power distribution units, conduits, conductors and cables, pull boxes, surge protection devices, grounding systems, and lightning protection system. Also performed electrical analysis for the implementation of each ITS devices and designing the system to ensure that every field site meets the electrical code while providing sufficient capacity for current and future demands. Other tasks of the project also include conducting voltage drop calculations, coordinating with multiple electrical utility companies, preparing quantities and cost estimates, and preparing plans and specifications.
01/21-10/21	**GDOT SR 16 at Higgins Road, Atlanta, Georgia** Electrical engineer who **prepared lighting plans** for a roundabout on SR 16 and Higgins Road. The design addressed environmental concerns due to the roundabout being near a historic location and followed the Illuminating Engineering Society of North America (IESNA) guidelines and GDOT Standards. The lighting plans included a photometric layout, luminaire specifications, electrical design to ensure voltage drop requirements were met, and electrical details.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Malcolm Tomatani, PE**	**Years of relevant experience with this employer**	7
Title	ITS Project Engineer	**Years of relevant experience with other employer(s)**	15
Degree(s) / Years / Specialization	MS / 1997 / Civil Engineering BS / 1989 / Electrical Engineering		
Active registration number / state / expiration date	#0402049926 / Virginia / 02-29-2024; #65465 / Florida / 02-28-2023; #C60908 / California / 12-31-2022; #E16902 / California / 06-30-2023		
Year registered	2012 (VA); 2006 (FL); 2000 (CA-Civil); 2003 (CA-Electrical)	**Discipline**	Professional Engineer (VA) Civil and Electrical (FL, CA)
Contract role(s) / brief description of responsibilities	Weigh in Motion		

Malcolm is a project engineer/squad leader in the ITS group with more than 26 years' experience in transportation engineering with a focus on ITS design, electronic toll collection systems design, integration and construction engineering and inspection. He is an ITS engineer licensed in both civil and electrical engineering who has worked on many large-scale projects across the U.S. and abroad.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
02/18-Ongoing	**FDOT MCSAW White Springs Mainline VWIM Station, Tallahassee, Florida** Project engineer responsible for **project plans, specifications and estimates for the power systems of the proposed the WIM station**. This systems management approach incorporates the implementation of a mainline WIM screening station. This project was part of the FDOT MCSAW Program Support project which included initial inspection and rating based on FDOT maintenance rating factors and led to the prioritization of activities for scale facility repairs and the programming of projects into a 10-year cost feasible plan and five-year work program. In addition, this contract is leading further development of the database system which will provide increased tracking capabilities of freight movement, to ultimately include size, weight, bill of lading and permit tracking.
05/15-12/21	**FDOT TSM&O GEC Traffic Engineering Research Lab (TERL), Tallahassee, Florida** Lead product evaluator for traffic signal equipment to be posted on the FDOT Approved Products List. Initial **drafter of modifications to the FDOT Standard Specifications for Road and Bridge Construction Sections 600 and 700 and the FDOT Developmental Specifications**. Drafted and finalized Dev660TPDS for the truck parking project. Drafted the compliance matrix and testing procedures for Truck Parking wireless detection sensors for the TERL.
05/15-12/21	**FDOT Chief Engineer Support Services, Tallahassee, Florida** Task lead for TPAS was provided for all public sites for the length of the interstates within Florida, including I-10, I-75, I-95 and I-4. The project includes coordination with multiple districts and agencies in an accelerated environment to meet the Federal AID and FASTLANE grant requirements. The program was delivered as a series of design-build projects and required extensive coordination with Districts 1, 2, 3, 4, 5 and 7 staff and multiple departments, including ITS, maintenance, environmental, ROW, construction and utilities. As part of the TPAS program development, research into available technology, including performance evaluation, was provided through a research project with a local university. **Developmental specifications were prepared for the technology** based on the results of the research. Standard operating guidelines were developed for RTMC staff for verifying information obtained through TPAS sensors, including updating to data dissemination platforms. Stations included the US-17 (SR 20/SR 100) VWIM station in Palatka, Florida.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Fabian Kalapach, PE**	**Years of relevant experience with this employer**	14
Title	Senior Electrical Engineer	**Years of relevant experience with other employer(s)**	29
Degree(s) / Years / Specialization	BS / 1978 / Electrical Engineering		
Active registration number / state / expiration date	#58100 / Texas / 06-30-2022		
Year registered	1985	**Discipline**	Electrical/Computer
Contract role(s) / brief description of responsibilities	Weigh in Motion; Ancillary Devices		

Fabian has over 43 years of experience in the electrical engineering fields of communications, computer systems, control systems, data acquisition, air pollution monitoring, HVAC, power generation and distribution, and electrical safety, including over 14 years with HNTB, 12 years with TxDOT and over 17 years with Texas Air Control Board/Texas Natural Resource Conservation Commission, now called Texas Commission on Environmental Quality. In addition, Fabian also has a broad range of engineering experience with all aspects of the methods, policies, and requirements related to Intelligent Traffic Systems (ITS), illumination, electronic systems, communication systems, HVAC, large motor control, electrical safety and equipment protection systems, power generation and distribution systems, data acquisition, air pollution monitoring, PS&E preparation, construction inspection and maintenance. He has experience in SAS, Oracle, Visual C++, and Basic and assembler code for many different processors.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
11/20-10/21	**LADOTD LA 1 Phase 2, Leeville to Golden Meadow, Louisiana** **Toll, ITS and electrical power design engineer** for the new LA 1 bridge between Golden Meadow and Leeville. Provided the design of toll, ITS and electrical power conduit systems. This included the design of power for 15 miles for ITS and toll systems along the LA 1 bridge. Unique design requirements were that all elements to be designed to handle 180 mph winds. This project included design services for the $450-million bridge and roadway construction project. The scope of this project is to provide a new two-lane bridge from Leeville to Golden Meadow that includes an intersecting T-intersection bridge near Golden Meadow. The T-intersection has a stem that consist of a two-lane, two-way urban arterial roadway that connects existing LA 1 to the new LA 1/LA 3235 bridge. Performed field investigations, developed detailed construction plans conforming to LADOTD design guidelines and standards.
08/16-11/16	**FDOT TSM&O GEC, Statewide, Florida** Electrical engineer for this statewide TSM&O contract. Major work efforts include support for SunGuide® software, **traffic control device specifications and testing**, Florida's advanced traveler information system, ITS, managed express lanes, traffic signal systems, federal grant project concept development and applications, training program development, TSM&O mainstreaming and reports, connected vehicles, and information systems.
2013-2014	**Metropolitan Transit Authority of New York - Bridges and Tunnels Design Services for Project AW-X3, Structural Health Monitoring Plan and WIM System, New York, New York** Fabian **provided ITS and electrical engineering** for AW-X3. This was initiated to provide design services for the identification of elements that need monitoring, to provide recommendations for the appropriate Structural Health Monitoring and WIM systems. The project also identified and proposed integration opportunities for both systems to work with each other and existing monitoring systems at each of the Authority's nine facilities: Verrazza- no-Narrows Bridge, Robert F. Kennedy Bridge, Throgs Neck Bridge, Bronx-Whitestone Bridge, Marine Parkway Bridge, Cross-Bay Bridge, Queens-Midtown Tunnel and Hugh L. Carey Tunnel. HNTB was responsible for all WIM-related aspects of this project.
07/17-05/20	**TxDOT I-10 ITS Design, El Paso, Texas** Provided the **design of fiber duct bank, fiber layout, CCTVs and DMS'**. Resulted in reduced design costs of RVSDs by reducing number units the District expected to use and gave coverage of access roads.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Mark Dunthorn**	**Years of relevant experience with this employer**	4
Title	Software Program Manager, Associate Vice President	**Years of relevant experience with other employer(s)**	15
Degree(s) / Years / Specialization	BS / 1983 / Physics		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Data Management/Exchange		

Mark is a software engineer with 19 years of experience specializing in the design, implementation, and support of complex transportation systems. Software prophecies include development using Agile/Scrum methodologies; programming languages include C/C++, Java, Python, C#, Go. Data analytics with Python; relational databases including MySQL, Oracle, and MSSQL; NoSQL databases including MongoDB and Cassandra; Unix and Windows system administration.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/19-Ongoing	**FDOT MCSAW Program Support, Tallahassee, Florida** Technology project manager working alongside the Department's staff providing support in the **development of statewide data management and analytics**. In this role, Mark worked closely with the MCSAW staff and the software vendor responsible for the operations software in the development of a centralized data repository and reporting system. The Freight Operations eXchange (FOX) system leverages a secure statewide wide area network of fiber optic communication to share data between 20 interstate weigh stations and the Central Office in near real-time. FOX sets the groundwork for advanced analytics to support additional criteria, including the verification of hours of service based on prior vehicle records and future bypass algorithms based on prior sightings, verification status and compliance. The system is designed to support downstream use cases internal to the FDOT through secure user access. To increase the efficiency of national freight mobility and safety, an interstate data exchange platform is being developed based on FOX and currently a memorandum of understanding between Florida and Georgia is in place to share data.
04/18-Ongoing	**FDOT TSM&O GEC, Statewide, Florida** Project manager who supported FDOT in managing the software development lifecycle of the SunGuide® ATMS. Coordinated with Districts and the software contractor to develop and elaborate software requirements. Maintained software test environment at the FDOT Traffic Engineering Research Laboratory. Conducted independent verification and validation testing. Implemented monitoring of the statewide center-to-center network that connects district SunGuide deployments. Currently supporting the department's efforts around Big Data, including **managing multiple real-time data pipelines that drive dashboards** monitored by executive leadership, and exploring innovative new technologies in artificial intelligence and machine learning with the goal of improving the safety and effectiveness of the transportation network. Other current initiatives include integrating a new Statewide Express Lanes Software project into the Central Office's software test environment and extending the capabilities around SunGuide's Connected Vehicle Subsystems, especially with enhanced support for the Traveler Information Message.
2009-2015	**FDOT District 6 Software Development, Miami, Florida** **Developed a software application (OpQC) that automatically reviews SunGuide events and evaluates compliance with the District 6 Standard Operating Guidelines**. Installed and supported the application in District 6, as well as FDOT Districts 1 and 4, along with Miami-Dade Expressway Authority. Developed a software application that provides a near-real-time dashboard view of the current operational situation on district roadways. This includes events currently open, events opened and closed in the previous hour, a breakdown of Road Ranger activities, and a summary of time-based performance metrics across all roadways, as well as limited to Interstate 95 Express. Provided software engineering support for the district's Operations Task Manager application, including test, build automation, and SunGuide integration.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Clay Packard, PE**	**Years of relevant experience with this employer**	1
Title	Principal Engineer	**Years of relevant experience with other employer(s)**	16
Degree(s) / Years / Specialization	MS / 2005 / Computer Science BS / 2005 / Computer Science		
Active registration number / state / expiration date	#73014 / Florida / 02-28-2023		
Year registered	2011	**Discipline**	Electrical & Computer
Contract role(s) / brief description of responsibilities	Data Management/Exchange		

Clay is an experienced practitioner and a trusted advisor in a broad range of software and systems engineering. His expertise ranges from technology and systems development, project management and team leadership for TSM&O and ITS. Prior to joining HNTB, Clay served as a consultant TSM&O systems architect and program manager for FDOT's District 5 to help fulfill a vision of data-driven, automated traffic operations. His prior roles include the SunGuide® project manager and the on-site SunGuide® software engineer, preparing him through the practice of demonstrating servant leadership of diverse teams, sensitivity to the needs and constraints of stakeholders, and technical depth to construct solutions and integrate systems. Clay is empowered to engage in successful partnerships with client organizations to help them harness technology to fulfill their mission.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
05/21-Ongoing	**FDOT TIM/CVO GEC, Tallahassee, Florida** Full stack systems engineer container number database systems engineer who engineered, **implemented and operated the container number database system for the CVO program**, which alerts law enforcement in real-time when non-compliant commercial vehicles are detected at weigh stations. This contract also updated the citation tracking tool, a critical application in the management of protested commercial vehicle citations, in support of the Review Board. HNTB provided website updates, including the advancement of features on the Road Ranger Service Patrol to enhance user support and feedback. The TIM Strategic Plan and CVO business plan were developed under the program. The TIM Strategic Plan included focus on increased safety through enhanced services such as the Road Ranger Service Patrol. The CVO Strategic Plan focused on safety and mobility though partnership and technology deployments.
2017-2021	**FDOT Data Fusion and Application Program Interface Development, Sanford, Florida** Software engineer who **developed and maintained data extractors** for ATMS, center to center, traffic management data dictionary for traffic signal controllers, and other data sources making data available for downloading, performed analytics on the data, and engineered operational concepts for SunStore powered dashboards.
2019-2021	**FDOT TSM&O GEC, Bartow, Florida** SunGuide® and software engineering consultant who **developed and deployed systems responsible for data collection and analysis** of SunGuide® transportation information as input into the performance measures program for the District 1 TSM&O program. The D1WatchDogg programs automatically emails FDOT's partner signal maintaining agencies when detectors are detected to have a malfunction based on statistical analysis of split terminations.
2018-2019	**North Carolina DOT (NCDOT) Traffic Operations, Raleigh, North Carolina** Traffic engineer/data scientist who **designed and built an algorithm for determining the origin and total impact of congestion** from commercially available traffic probe data to support NCDOT's planning and project investment decisions. He also developed video counting software for NCDOT traffic count projects.

16. Staff Experience			
Firm employed by: HNTB			
Name	**Janelle Versnick, GISP**	**Years of relevant experience with this employer**	4
Title	Geospatial Developer/Data Scientist	**Years of relevant experience with other employer(s)**	13
Degree(s) / Years / Specialization	MS / 2016 / Geographic Information Systems BS / 2004 / Environmental Studies		
Active registration number / state / expiration date	Certified Geographic Information Systems Professional #90465 / National / N/A		
Year registered	2015	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Dashboard/Reporting		

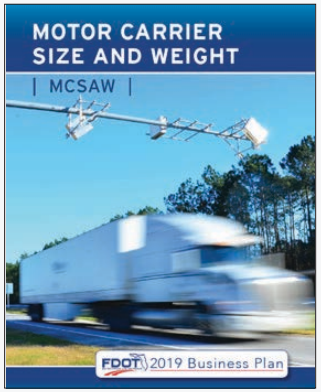
Janelle has 17 years of experience in complex geospatial data analysis and visualization. Her skill set includes data interoperability, task automation, data mining, console and web application development, spatial data analysis and modeling, cartography, and graphic design. She is proficient in Python, SQL, JavaScript, VB and ASP.NET, ArcGIS (8.x, 9.x, 10.x), ArcGIS Pro, ArcGIS Server, ArcGIS Online, SQL Server Management Studio, Visual Studio, Anaconda Navigator, Amazon EC2 including server instances, Amazon Hadoop/Elastic Map Reduce and Adobe Illustrator. Over the past 8 years, Janelle has played a major role in designing, debugging, and testing over 15 console and web applications, as well as writing code in python and R code that analyzed millions of pieces of data for a company with billions of dollars of policy and exposure.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/19-Ongoing	**FDOT Chief Engineer Support Consultant, Tallahassee, Florida** GIS analyst who **led the development of the data integration space** (DIS) views which provided insight into various safety measures. The initial views were a collaborative effort involving staff from the Safety Office, the vital few safety leads, the Traffic Engineering and Operations Office and the districts. The DIS will serve as a "one-stop shop" for analyzing various information from data sets across the department and will provide FDOT leadership insight into program and project prioritization. The initial DIS efforts include views into crash data for the emphasis areas defined by the Strategic Highway Safety Plan, as well as the results of projects funded by the Highway Safety Improvement Program (HSIP), by leveraging data from the Crash Analysis Reporting and Work Program databases.
11/18-05/19	**FDOT District 3 GEC, Chipley, Florida** Geographic Information Systems (GIS) Analyst who **created a dashboard that provided District 3 with real time intelligence of damage assessment** following Hurricanes Sally and Zeta. The metrics included totals for signal status (operational/flashing/dark) and the number and location of generators deployed.
09/18-12/21	**FDOT TSM&O GEC, Tallahassee, Florida** GIS analyst who **created a series of geographic information system (GIS) dashboards for use in traffic monitoring and analysis**. The dashboards include SunGuide® Volume, Speed and Crashes, Telemetered Traffic Monitoring Site (TTMS) Volume and Speed, and percentage of level of service for emergency shoulder use corridors. The TMA dashboards required significant data coordination, development and processing to receive real time and rolled up data from SunGuide® and TTMS sensors.
12/18-01/22	**FDOT Web Application for CAV Initiative, Tallahassee, Florida** Developed draft custom JavaScript web application for FDOT CAV project including web mapping application for the purposes of delivering project information to public. Project includes jQuery animation and responsively designed graphical elements.

Section 17:
Firm Experience

17. Firm Experience					
Firm name	HNTB		**Past Performance Evaluation Discipline(s)**	Data Collection, Environmental, ITS, Planning, Road, Traffic, Other	
Project name	**FDOT MOTOR CARRIER SIZE AND WEIGHT GENERAL CONSULTANT**		**Firm responsibility (prime or sub?)**	Prime	
Project number	C9U04	**Owner's name**	Florida Department of Transportation		
Project location	Statewide, Florida	**Owner's Project Manager**	Paul Clark		
Owner's address, phone, email	605 Suwannee Street Tallahassee, Florida / 850-410-5540 / paul.clark@dot.state.fl.us				
Services commenced by this firm (mm/yy)	03/17	**Total consultant contract cost ($1,000's)**	$5,000		
Services completed by this firm (mm/yy)	03/22	**Total consultant services provided by this firm ($1,000's)**	$4,100		

HNTB provided support to FDOT Motor Carrier Size and Weight (MCSAW) division of the Office of Maintenance through a general engineering consultant contract. Under this contract, HNTB provided full program support, including strategic planning, project development, deployment, testing, configuration, integration, and maintenance for the static, WIM and VWIM scales throughout the state.



HNTB developed the MCSAW Business Plan as a collaborative effort with FDOT offices, partner agencies including Florida Highway Safety and Motor Vehicles (FLHSMV), Florida Highway Patrol Office of CVE (FHP/CVE), Florida Department of Agriculture and Consumer Services (FDACS), and the commercial vehicle industry, as represented by the Florida Trucking Association (FTA). The Business Plan supported and provided continuity between various FDOT plans, including the Florida Transportation Plan, the Freight Mobility and Trade Plan, the Commercial Vehicle Operations Business Plan, the Motor Carrier System Plan and the Transportation Systems Management and Operations Strategic Plan.

To support the mission of increased safety and mobility of Florida's roadway system, **HNTB supported MCSAW in the design and deployment of mainline WIM to complement the static and ramp WIM at the 20 interstate locations.** The measurement devices will be supplemented with license plate recognition and USDOT cameras for additional screening against the Federal Motor Carrier Safety Administration (FMCSA) Performance and Registration Information Systems Management (PRISM) program as well as FDOT maintained permit and partner agency credential databases.

The goal of this deployment serves several strategic tactics of increasing the safety of the roadway network by reducing the number of exit and entrance movements into the weigh stations. This improves the mobility of commercial vehicles by allowing them to bypass the static scale.

HNTB created the Freight Operations Exchange (FOX) which serves as the data clearinghouse for the MCSAW network. FOX provides connectivity between the various weigh station facilities, field devices, and partner agencies. One primary functionality of FOX that improves safety and enhances mobility is the interconnection of weigh stations and the sharing of data between them through the dedicated fiber optic connections for MCSAW.

Florida Weigh Station Design and Rehabilitation Locations by Corridor			
I-10	I-75	I-95	I-4
Pensacola (Mile 4 - Escambia County)	White Springs (Mile 450 - Hamilton County)	Yulee (Mile 376 - Nassau County)	Seffner (Mile 13 - Hillsborough County)
Sneads (Mile 155 - Jackson County)	Wildwood (Mile 339 - Marion County)	Flagler (Mile 286 - Flagler County)	
Madison (Mile 263 - Madison County)	Punta Gorda (Mile 160 - Charlotte County)	Martin (92/112 - Martin County)	

Key Staff: Craig Toth, Derek Barrs, Malcolm Tomatani, Pradeep Rao, Steve Bahler, Victor Blue, Mark Dunthorn, Mike Williamson and Rakesh Sharma

17. Firm Experience					
Firm name	HNTB		Past Performance Evaluation Discipline(s)	Data Collection, ITS, Planning, Other	
Project name	TxDOT WIM AND VEHICLE CLASSIFICATION STATEWIDE STRATEGIC PLAN		Firm responsibility (prime or sub?)	Prime	
Project number	50-8IDP5002		Owner's name	Texas Department of Transportation	
Project location	Statewide, Texas		Owner's Project Manager	David Freidenfeld	
Owner's address, phone, email	125 East 11th Street Austin, Texas 78701 / 512-486-5064 / david.freidenfeld@txdot.gov				
Services commenced by this firm (mm/yy)	3/20		Total consultant contract cost ($1,000's)	$2,500	
Services completed by this firm (mm/yy)	7/22		Total consultant services provided by this firm ($1,000's)	$1,700	

HNTB is currently leading the development of a WIM and Vehicle Classification statewide strategic plan for TxDOT's Transportation Planning and Programming (TPP) Division. TxDOT is responsible for over 80,000 miles of state-owned roadway and uses data collected from permanent WIM and vehicle classification devices for a variety of use cases including pavement design, bridge load ratings, air quality analysis, safety assessments, and freight planning. **The strategic plan will help TxDOT identify gaps in data collection technology and regional site locations; maintain and enhance critical data collection for planning, design, operations, and maintenance**; meet FHWA data collection requirements, and establish a sustainable WIM/vehicle classification data collection program that can accommodate future data and technology applications. Development of the WIM/vehicle classification strategic plan included:

- **State of the Practice Assessment -** Reviewed peer state programs and best practices in addition to a detailed review of TxDOT program practices through stakeholder interviews and research.
- **Stakeholder Coordination –** Coordinated closely with TxDOT divisions and districts throughout the state along with key partner agencies like the DPS, DMV, FMCSA, CBP, and the ITD Group to inform data needs and site selection.
- **Gap Analysis and Site Identification** – Used a data-driven gap analysis and site identification process using an interactive GIS web tool that allowed key stakeholders to identify priority sites and run custom analysis scenarios based on a variety of datasets.
- **Recommendations –** Developed detailed recommendations based on SMART Goals, Objectives, and Strategies that were identified through stakeholder input and industry best practices.
- **Implementation Plan** – Identified near, medium, and long-term implementation timelines for each strategy with detailed implementation steps including cost estimates and responsible parties.

The strategic plan will provide TxDOT a detailed program road map to guide program planning, funding allocation, system expansion, and data management. In addition to meeting the needs of the TPP division, the recommendations outlined in the Strategic Plan also allow for program expansion in coordination with other TxDOT and partner agency technology including ITS, TSM&O, CAV and enforcement applications including mainline weigh station bypass and VWIM.

Key Staff: Craig Toth, Derek Barrs, Jeremy Upchurch, Adam Danczyk, Paula Dowell, Charles Farnham, Charles Koonce, Fabian Kalapach, Clay Packard, Janelle Versnick

17. Firm Experience					
Firm name	HNTB		Past Performance Evaluation Discipline(s)	Road, Traffic, CE&I/OV, Geotech, Survey, Environmental, Data Collection, Planning, Right-of-Way, CPM, ITS, Other	
Project name	FDOT CHIEF ENGINEER GENERAL CONSULTANT		Firm responsibility (prime or sub?)	Prime	
Project number	C9I98	Owner's name	Florida Department of Transportation		
Project location	Statewide, Florida	Owner's Project Manager	Wendy Parrish		
Owner's address, phone, email	605 Suwannee Street, Tallahassee, Florida 32399 / 850-414-4581 / wendy.parrish@dot.state.fl.us				
Services commenced by this firm (mm/yy)	02/15	Total consultant contract cost ($1,000's)	8,163		
Services completed by this firm (mm/yy)	05/22 (Est.)	Total consultant services provided by this firm ($1,000's)	7,223		

HNTB provided support to FDOT through a GEC to support the Chief Engineer. Specific to this project, the following services were provided.

US 1 Plantation Key Weigh Station Rehabilitation: Provided **design for the rehabilitation of the static weigh station** located in the Florida Keys. This facility serves as the only location to enforce size and weight between the mainland of Florida and the Keys, located along US 1. The facility is a single scale serving both directions of traffic. The project included a pavement type selection report to evaluate the continued use of asphalt pavement versus concrete pavement, with life cycle cost analysis. Special design foundations for lighting upgrades were provided due to the dense and shallow bedrock associated with the area. Upgraded signing and pavement marking plans were provided. Extensive coordination was provided with utility owners as well as the environmental regulatory agencies with certification of no impacts for cultural, historical or environmental documentation. The design included plans, specifications and construction duration estimates. Post design services included review of shop drawings and final as-built plans.

US 17 (SR 20/SR 100) Palatka Weigh Station Design: This project provided **design for mainline WIM and VWIM** for the static arterial weigh station located in Putnam County, Florida. This location consists of a single static scale facility located in the median of US 17 and experiences heavy agricultural commercial vehicle. A WIM system was designed using quartz-piezo sensors to measure weight with license plate recognition (LPR) and USDOT cameras to screen vehicles against out of service and safety scores. The mainline WIM was designed to provide for bypass of compliant vehicles to increase the efficiency of the scale. To capture trucks bypassing the scale facility, a VWIM site was also designed to capture weight, LPR and overview images for mobile enforcement. The design included electrical and communications infrastructure from the weigh station building to the mainline WIM locations for communication and integration. Electric service point details were designed in coordination with the local utility owner. Static signs with embedded dynamic message signs were designed for directing of vehicles to enter or bypass the scale facility, based on the WIM. The project included full plans design, specifications, technical specifications and construction duration estimates.

Statewide TPAS Deployment: HNTB served as the systems engineer for the deployment of an ITS solution for monitoring and providing the availability of parking at all public locations along Florida's interstate system. The project included the development of preliminary engineering plans, systems engineering documents, and certifications for ROW, environmental, utility and railroad clearance. The project was awarded a FAST Lane grant to supplement the state funding. The project was deployed as a series of design-build projects let by the geographic districts. The monitoring system consists of embedded sensors at the rest areas and welcome centers to monitor space occupancy. At the weigh stations, microwave vehicle detection system (MVDS) is used to monitor the entering and exiting vehicles to calculate availability. The sensor information is transmitted over fiber optic communication to each traffic management center where it is published to roadside dynamic message signs and the Florida 511 application and website for dissemination to drivers.

Key Staff: Craig Toth, Malcolm Tomatani, Pradeep Rao, Steve Bahler, Victor Blue, Mark Dunthorn and Rakesh Sharma

17. Firm Experience					
Firm name	HNTB	**Past Performance Evaluation Discipline(s)**		Data Collection, ITS, Planning, Other	
Project name	**GDOT STATEWIDE WIM**		**Firm responsibility (prime or sub?)**	Prime	
Project number	N/A	**Owner's name**	Georgia Department of Transportation		
Project location	Statewide, Georgia	**Owner's Project Manager**	Daryl VanMeter		
Owner's address, phone, email	600 West Peachtree NW, Atlanta, Georgia 30308 / 404-631-1900 / dvanmeter@dot.ga.gov				
Services commenced by this firm (mm/yy)	01/13	**Total consultant contract cost ($1,000's)**		$25,000	
Services completed by this firm (mm/yy)	12/16	**Total consultant services provided by this firm ($1,000's)**		$25,000	

The GDOT statewide WIM project is designed to save money, reduce the amount of fuel used and reduce greenhouse gas emissions by minimizing the time that commercial vehicles have to wait at inspection stations. Time and money savings are a benefit for the trucking industry and the State of Georgia. The Georgia Motor Carrier Compliance Division benefits by using the mainline WIM scales as a primary method for prescreening vehicles, enabling them to better focus efforts at the weigh stations on inspecting trucks with potential size, weight, or safety issues

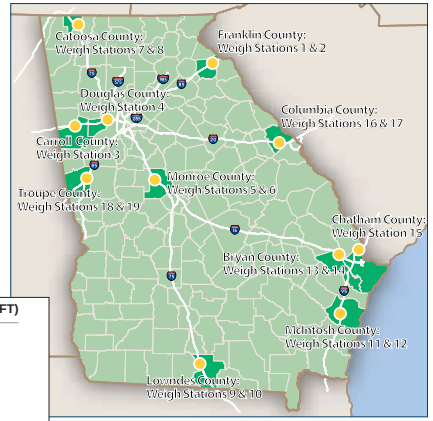
The WIM project includes the **design, development, construction, and integration of mainline WIM scales at all 19 weigh station** location within the state of Georgia. Web-based software will provide virtual weigh station functionality for each of the WIM scales. The project construction will be implemented in three phases. Once the project is operational, each mainline WIM scale will weigh every truck in its corridor, including PrePass and Drivewyze registered trucks. Should one of these trucks report over-weight or over-height or fail credential checks, the violator will be directed to exit by both the roadside signage and the in-cab transponder. All collected information will be stored in a database to be disseminated to numerous stakeholders. This data will assist GDOT with traffic monitoring, traffic volume and speed data collection, and monthly reporting to FHWA.

Project stakeholders include:

- GDOT's Office of Materials
- Office of Transportation Data
- Traffic Management Center (TMC)
- The Georgia Department of Revenue (DOR)
- The Georgia Department of Public Safety
- FHWA

Key Staff: Craig Toth, Charlie Farnham, Pradeep Rao

Weigh Station Bypass Locations



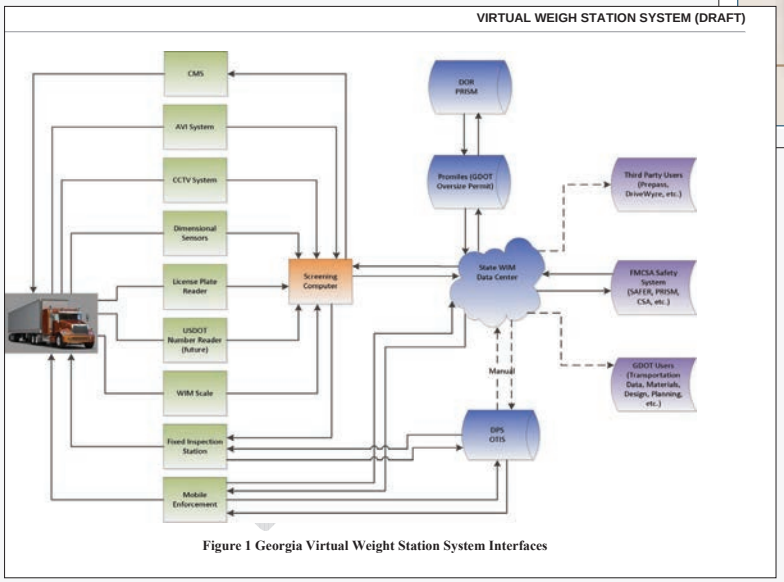


Figure 1 Georgia Virtual Weight Station System Interfaces

17. Firm Experience					
Firm name	HNTB	**Past Performance Evaluation Discipline(s)**		Road, Bridge, Data Collection, ITS	
Project name	**NY MTA DESIGN SERVICES FOR PROJECT AW-X3, STRUCTURAL HEALTH MONITORING PLAN, AND WIM SYSTEM**		**Firm responsibility (prime or sub?)**	Prime (JV Partner)	
Project number	N/A	**Owner's name**	Metropolitan Transit Authority of New York - Bridges and Tunnels (NY MTA)		
Project location	New York, New York	**Owner's Project Manager**	John Hinge		
Owner's address, phone, email	2 Broadway, 24th Floor, New York, New York 10004 / 646-252-7283 / John.Hinge@mtacd.org				
Services commenced by this firm (mm/yy)	08/09	**Total consultant contract cost ($1,000's)**	$3,100		
Services completed by this firm (mm/yy)	02/21	**Total consultant services provided by this firm ($1,000's)**	$3,100		

Project AW-X3 was initiated to provide design services for the identification of elements that need monitoring, to provide recommendations for the appropriate Structural Health Monitoring (SHM) and WIM systems. The project also identified and proposed integration opportunities for both systems to work with each other and existing monitoring systems at each of the Authority's nine facilities: Verrazza- no-Narrows Bridge, Robert F. Kennedy Bridge, Throgs Neck Bridge, Bronx-Whitestone Bridge, Marine Parkway Bridge (MPB), Cross-Bay Bridge, Queens-Midtown Tunnel and Hugh L. Carey Tunnel. HNTB was responsible for all WIM-related aspects of this project.

Each facility was provided a detailed truck traffic analysis that was performed using multiple data sources such as New York State traffic data counters, E-ZPass/Toll databases, overweight permit application databases, overweight truck violation databases, and past WIM studies. This was followed by field visits and facility interviews to better understand the condition of the existing WIM inventory and additional WIM needs for each facility. Finally, recommendations were made for new WIM installations and their suggested locations based on a detailed cost-benefit analysis. A design brief document was prepared for each facility that contains all facility-specific findings and combined SHM and WIM recommendations.

In addition to the base scope of the project, evaluation of the available documents and in-place SHM and WIM sensors at the CBB revealed uncertainties regarding the dapped end corbels that support the drop-in navigation span. This resulted in a series of task orders to better understand the condition of these members. These task orders included the reactivation of the existing WIM and SHM systems, evaluating the structural performance of the dapped end corbels in their as-built condition using basic line girder and advanced strut-and-tie models, an in-depth, technology-assisted inspection, and repeating the structural analysis based on the inspection findings to evaluate the dapped end corbels in their as-inspected condition. The in-depth, technology-assisted inspection included use of ground penetration radar (GPR), digital photogrammetry, impact echo, and spectral analysis of surface waves (SASW) techniques.

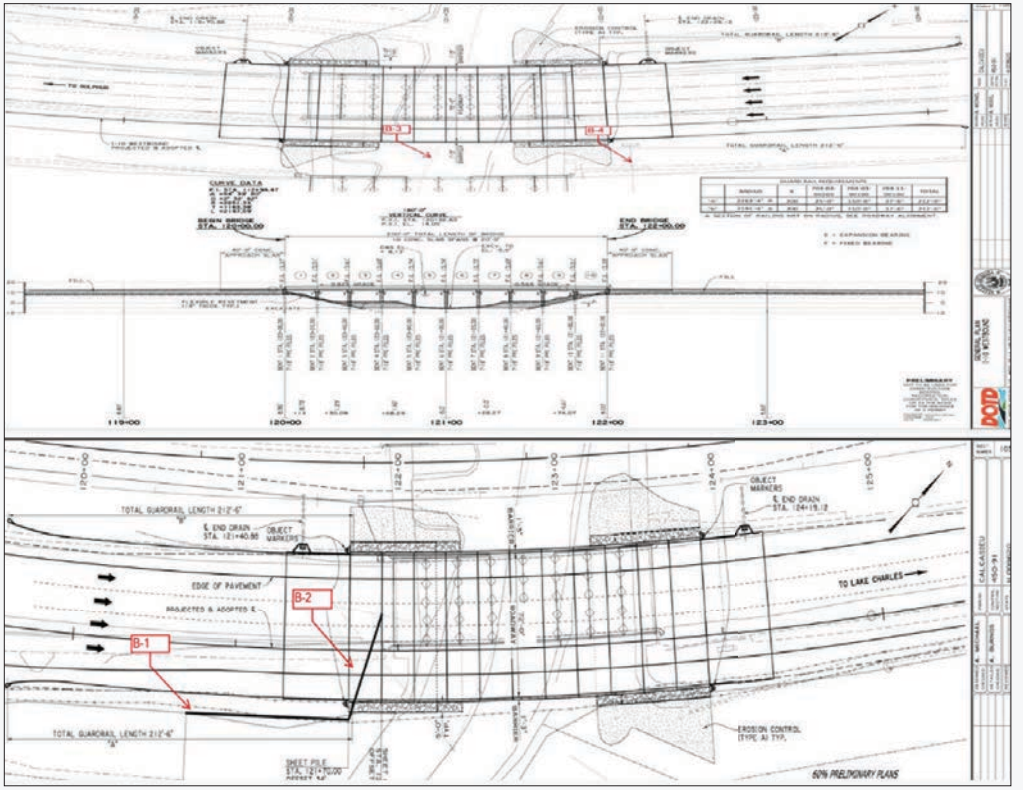
Key Staff: Craig Toth, Derek Barrs, Mark Dunthorn

17. Firm Experience					
Firm name	APS Engineering and Testing		**Past Performance Evaluation Discipline(s)**	Geotech	
Project name	**I-10 WEST OF LA 108 TO I-210 INTERCHANGE**		**Firm responsibility (prime or sub?)**	Prime	
Project number	H.009620	**Owner's name**	Louisiana Department of Transportation and Development		
Project location	Calcasieu Parish, Louisiana	**Owner's Project Manager**	Kristy Smith		
Owner's address, phone, email	1201 Capitol Access Rd., Baton Rouge, Louisiana 70802-4438 / 225-379-1016 / Kristy.Smith2@la.gov				
Services commenced by this firm (mm/yy)	12/17	**Total consultant contract cost ($1,000's)**	N/A		
Services completed by this firm (mm/yy)	02/18	**Total consultant services provided by this firm ($1,000's)**	$54		

APS provided geotechnical investigation to provide LADOTD with the necessary information for planning and design a new interchange and widening the existing road. A total of four deep borings were completed. Over 50 atterbergs, hydrometer, and UU were tested with consolidation tests.

LADOTD also asked APS to accelerate the program to meet their bidding deadline. APS was successful to meet the deadline and was under budget to help keep the project on track.

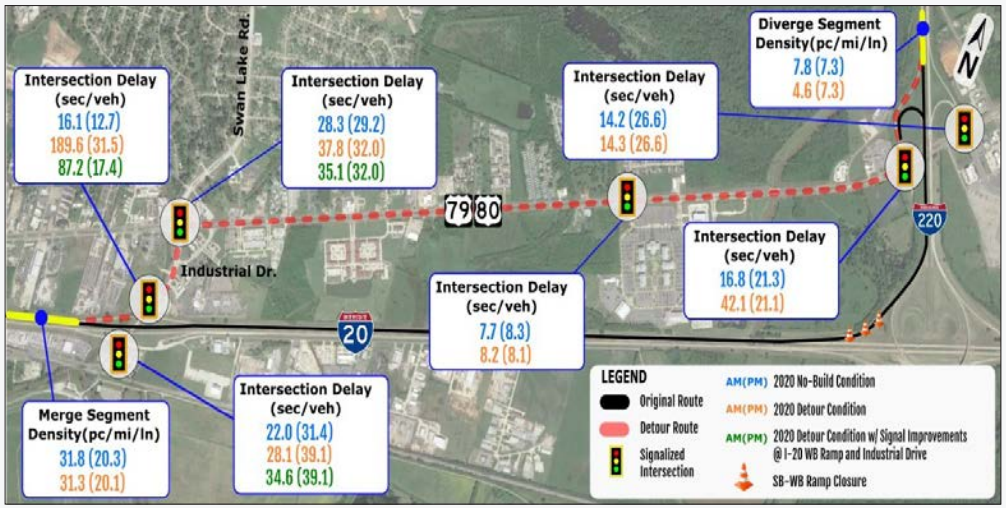
Key Staff: Sergio Avile, Sai Ddanapudi



17. Firm Experience			
Firm name	ARCADIS	Past Performance Evaluation Discipline(s)	Traffic
Project name	**LADOTD I-20/I-220 INTERCHANGE DESIGN BUILD TRANSPORTATION MANAGEMENT PLAN AND TRAFFIC ENGINEERING SERVICES**	Firm responsibility (prime or sub?)	Sub
Project number	H.003370	Owner's name	Louisiana Department of Transportation and Development
Project location	Bossier Parish, Louisiana	Owner's Project Manager	Corey Landry
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, Louisiana 70802 / 225-379-1889 / cory.landry@la.gov		
Services commenced by this firm (mm/yy)	05/19	Total consultant contract cost ($1,000's)	$526
Services completed by this firm (mm/yy)	Ongoing	Total consultant services provided by this firm ($1,000's)	$526

The purpose of the design-build project is to modify the existing interchange at I-20 and I-220 and provide additional ramps to allow direct access to the Barksdale Airforce Base (BAFB). Arcadis' responsibilities on this project are described as follows:

- **Transportation Management Plan (TMP):** Arcadis developed a Level 4 TMP which outlines work-zone strategies to minimize motorists delays without compromising safety or quality of work. The TMP included: Alternative Route Identification and Analysis, Public Information and Outreach Strategies, TMP Stakeholder Roles and Responsibilities, Allowable Lane Closure Times, Temporary Traffic Control Plans, and Work Zone Impact Management Strategies. Arcadis and the design team worked closely with LADOTD, District 04, and Bossier City to ensure that proposed strategies were feasible and context sensitive. The southbound I-220 to westbound I-20 ramp needed to be closed for several months to complete construction on the ramp and I-20 mainline. Arcadis evaluated the impacts of the proposed traffic detour along US 79/80 and developed temporary signal design and timing plans to accommodate the additional traffic.



Alternative route analysis results used to develop mitigation strategies for the temporary closure and detour of the I-220 SB to I-20 WB ramp.

- **Environmental Permitting:** Arcadis reviewed the Storm Water Pollution Prevention Plan (SWPPP) as part of the Louisiana Pollutant Discharge Elimination System (LDPES) permit application.

- **Interchange Modification Report:**- During the proposal process, the design builder provided an Alternative Technical Concept (ATC), which required modification of the previously accepted IMR. Arcadis developed an addendum to the original IMR which detailed the impacts of the ATC with respect to traffic operations and safety.

- **Permanent Signing Plans:** Arcadis developed an updated signing layout and produced permanent signing plans to accommodate the proposed interchange modifications and additional access ramps.

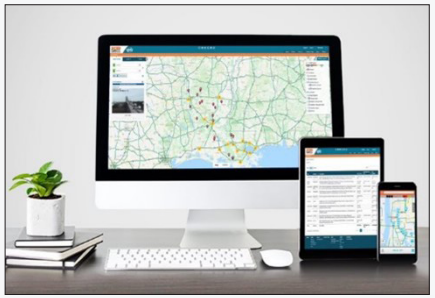
Key Staff: Akhil Chauhan

17. Firm Experience					
Firm name	ARCADIS	Past Performance Evaluation Discipline(s)		ITS, Planning	
Project name	LADOTD STATEWIDE ITS RETAINER		Firm responsibility (prime or sub?)	Prime	
Project number	4400008172	Owner's name	Louisiana Department of Transportation and Development		
Project location	Statewide, Louisiana	Owner's Project Manager	Rosalinda B. Deville		
Owner's address, phone, email	1212 E. Highway Drive, Baton Rouge, Louisiana 70802 / 225-379-2523 / Rosalinda.Deville@la.gov				
Services commenced by this firm (mm/yy)	07/16	Total consultant contract cost ($1,000's)	$2,000		
Services completed by this firm (mm/yy)	03/22	Total consultant services provided by this firm ($1,000's)	$2,000		

Through this retainer contract, Arcadis provided specialized and technically complex ITS SEA, integration and support services, independent verification and validation (IV&V) services, and developing technical specifications and cost estimates to support the LADOTD ITS program. The contract included the following task orders:

- **CAV Technology Team Support:** Arcadis provided technical support services and facilitating planning activities related to CAV integration and their impact on highway infrastructure for the department's CAV technology team. The purpose of the project is to keep LADOTD updated on industry trends while preparing Louisiana for the future of transportation. Arcadis also developed statewide CAV Strategic Plan as well as Autonomous Commercial Motor Vehicles Policy for LADOTD.
- **Advanced Traveler Information System (ATIS) Integration Support:** Arcadis assisted LADOTD to migrate from their ATIS 511 cloud-based software system that was launched in 2005 to a brand-new system with a significant number of upgrades. Arcadis provided integration expertise and technical support throughout the project implementation process, including contractor submittal reviews, RFI tracking and support, scope/design/configuration changes technical support, software deployment support, and system acceptance testing (SAT) support.
- **Video Distribution Management System (VDMS) Replacement SEA:** Arcadis conducted a SEA to replace LADOTD's existing VDMS and developed a suitable option which will enhance the management and distribution of LADOTD's traffic camera video feeds. The selected concept was a hybrid system which combined benefits from local and cloud hosting solutions and provided the most value for LADOTD.
- **ATMS Upgrade Support:** Assisted LADOTD in deploying a major upgrade to their existing ATMS. Arcadis provided technical support during project scheduling, data migration, data validation, software system integration, communication system, system testing, and redundancy failover setup.
- **Engineering Design / Integration:** Arcadis' role has been to provide systems engineering analysis and support for a variety of technically complex ITS projects. Through expert knowledge about complex ITS and attention to detail, Arcadis has contributed to the successful deployment of numerous ITS projects as well as to CAV capacity-building for LADOTD.

Key Staff: Akhil Chauhan, Paul Hsu, Luis Alvergue



LADOTD 511 ATIS User Interface

LADOTD CAV Technology Team

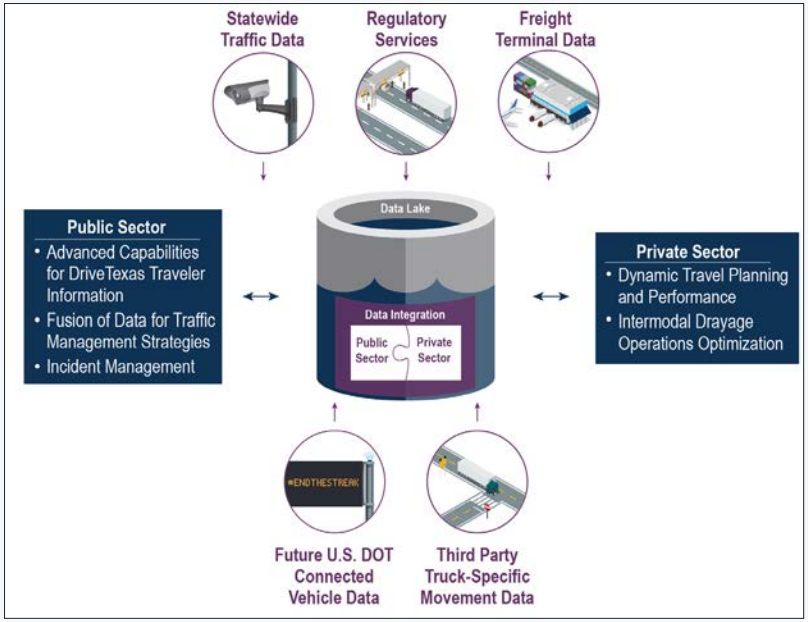
17. Firm Experience					
Firm name	CAMBRIDGE SYSTEMATICS		**Past Performance Evaluation Discipline(s)***	Planning, Data Collection, Traffic	
Project name	**TxDOT FREIGHT NETWORK TECHNOLOGY AND OPERATIONS PLAN**		**Firm responsibility (prime or sub?)**	Prime	
Project number	N/A		**Owner's name**	Texas Department of Transportation	
Project location	Statewide, Texas		**Owner's Project Manager**	Caroline Mays	
Owner's address, phone, email	PO Box 149217, Austin, Texas 78701 / 512-936-0904 / caroline.mays@txdot.gov				
Services commenced by this firm (mm/yy)	04/19		**Total consultant contract cost ($1,000's)**	$1,718	
Services completed by this firm (mm/yy)	01/21		**Total consultant services provided by this firm ($1,000's)**	$1,300	

Cambridge Systematics consulted for the Texas Department of Transportation to develop a technology and operations plan that would expand the existing Traffic Management System to focus on freight-specific user needs. Through close collaboration with stakeholders, this plan aims to develop advanced TMS strategies and Concept of Operations documents to identify opportunities for implementation.

Freight solutions included advanced traffic management solutions for arterial corridors, expanding real-time route guidance capabilities, and supporting advancements in automated truck technologies that currently operate on Texas roadways. This project aimed to identify real-world technological solutions that will help improve freight mobility in Texas and serve as a template for other states.

The plan was formally released in December 2020 and is currently being reviewed for implementation opportunities.

Key Staff: Paula Dowell, Adam Danczyk



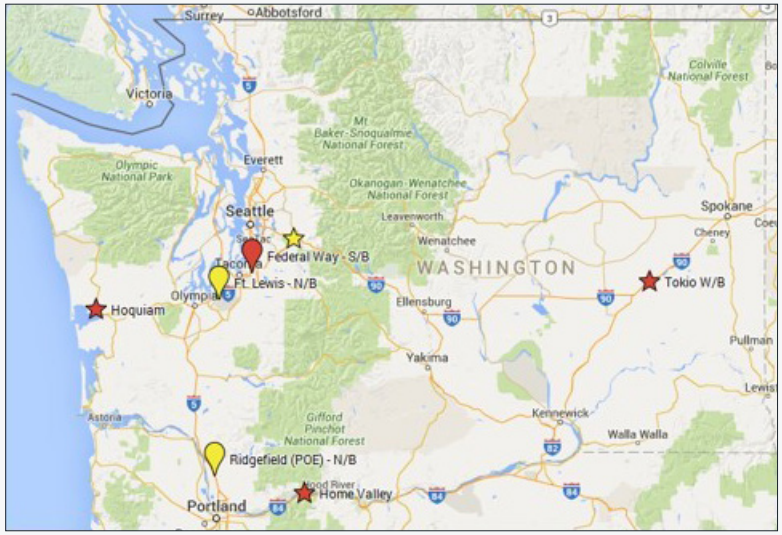
17. Firm Experience					
Firm name	CAMBRIDGE SYSTEMATICS		**Past Performance Evaluation Discipline(s)**	Planning, Data Collection, Traffic	
Project name	**WSJTC EFFICIENCY AND EFFECTIVENESS OF WEIGH STATION MANAGEMENT IN WASHINGTON STATE**		**Firm responsibility (prime or sub?)**	Prime	
Project number	N/A	**Owner's name**	Washington State Legislature Joint Transportation Commission		
Project location	Olympia, Washington	**Owner's Project Manager**	Beth Redfield		
Owner's address, phone, email	606 Columbia Street NW, No. 105, PO Box 40937, Olympia, Washington 98504 / 360-786-7327 / beth.redfield@leg.wa.gov				
Services commenced by this firm (mm/yy)	07/15	**Total consultant contract cost ($1,000's)**	$120		
Services completed by this firm (mm/yy)	04/16	**Total consultant services provided by this firm ($1,000's)**	$120		

For the Washington State Legislature Joint Transportation Commission (WSJTC), Cambridge Systematics evaluated the efficiency and effectiveness of weigh station operations and management of capital assets in the State. The project included summarizing the Washington State commercial vehicle enforcement program and weigh station system, reviewing the effectiveness of the program with a focus on inter-agency responsibility and coordination, and identifying best practices for weigh station operations and management.

Cambridge Systematics developed recommendations that align with the policy goals established by the Washington State Legislature of economic vitality, preservation, safety, mobility, environment, and stewardship. The project included developing briefing-level materials suitable for a wide audience that could help improve awareness of and communication regarding the importance of the weigh station system to help meet these goals.

The study recommendations were presented to the Joint Transportation Commission and the Washington State Legislative Transportation Committees.

Key Staff: N/A



17. Firm Experience					
Firm name	CAMBRIDGE SYSTEMATICS		**Past Performance Evaluation Discipline(s)**	Planning, Data Collection, Traffic	
Project name	**TDOS CVISN VIRTUAL WEIGH STATION STUDY**			**Firm responsibility (prime or sub?)**	Prime
Project number	N/A		**Owner's name**	Tennessee Department of Safety	
Project location	Statewide, Tennessee		**Owner's Project Manager**	Douglas Brandon	
Owner's address, phone, email	1150 Foster Avenue, Nashville, Tennessee 37243 / 615-354-4150 / brandon.douglas@state.tn.us				
Services commenced by this firm (mm/yy)	11/13		**Total consultant contract cost ($1,000's)**		$203
Services completed by this firm (mm/yy)	03/15		**Total consultant services provided by this firm ($1,000's)**		$203

For the Tennessee Department of Safety (TDOS), Cambridge Systematics conducted a study to evaluate commercial vehicle enforcement operations and forecast the future commercial vehicle operational environment in the State. Forecasts were made for five, ten, and twenty year time periods. Operations were compared to expected growth and a list of investment opportunities was identified. Cambridge Systematics assessed the previously identified technological investment opportunities and developed a comprehensive virtual enforcement network designed to meet the needs of fixed facility and mobile enforcement operations over a period of 20 years. The network focused on increasing the flexibility and efficiency of enforcement strategies. The final step included synthesizing the results into a concrete and implementable set of technological investment recommendations for supporting commercial vehicle enforcement operations over the next 20 years.

Key Staff: N/A

Tennessee VWS Investment Analysis Sketch Planning Tool
Outcomes Dashboard

Scenario Summary

	Existing Fixed Sites						Large Urban Areas				Outlying Areas by District								TOTAL
	Coffee	Giles	Greene	Haywood	Knox	Robertson	Chattanooga	Knoxville	Nashville	Memphis	1	2	3	4	5	6	7	8	
Identified High Priority Needs	1	1	1	1	1	1	1	0	4	3	2	4	4	5	6	3	3	4	45
Scenario-Selected Locations	0	1	1	1	0	1	1	0	1	1	2	4	3	2	4	3	1	2	28

Scenario Benefits

	Existing	Large Urban	Outlying
Traffic			
Total Average Daily Truck Traffic			269701
Mean ADTT Per New Location			12843
Highest ADTT Location			
Lowest ADTT Location			
Crashes (3-year period)			
Total Fatalities			40
Total Incapacitating Injuries			116
Total "Other" Injuries			380
Total Towaways			1488
Network Coverage			
Number of Districts Included			8
Number of Border Counties			5

Scenario Name:

Scenario Comments:

*Does not account for multiple selections in the same county

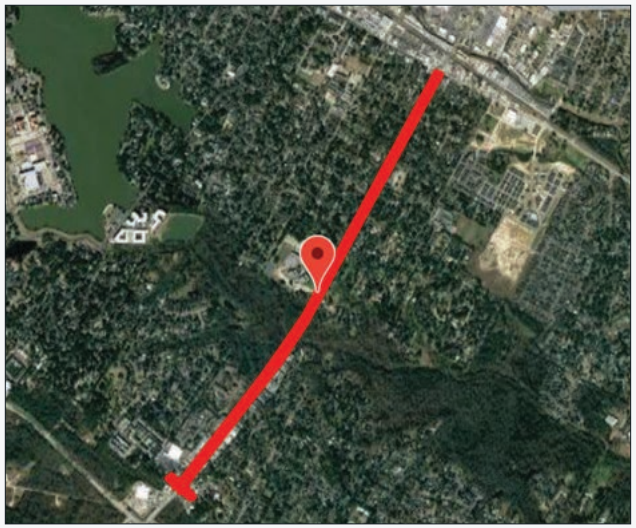
17. Firm Experience:					
Firm name	ELOS environmental a wetland services company		**Past Performance Evaluation Discipline(s)**	Environmental	
Project name	**MOVEBR LEE DRIVE**			**Firm responsibility (prime or sub?)**	Sub
Project number	N/A		**Owner's name**	East Baton Rouge Parish	
Project location	Baton Rouge, Louisiana		**Owner's Project Manager**	Thomas Stephens	
Owner's address, phone, email	1100 Laurel Street, Baton Rouge, Louisiana 70802 / 225-389-3186 ext 5634 / Tstephens@brla.gov				
Services commenced by this firm (mm/yy)	05/21		**Total consultant contract cost ($1,000's)**		$22
Services completed by this firm (mm/yy)	Ongoing		**Total consultant services provided by this firm ($1,000's)**		$22

ELOS was contracted to conduct a Phase I Environmental Site Assessment. ELOS' environmental scientist conducted research according to the American Society of Testing and Materials (ASTM) E1527-13 Standard Practice of Environmental Site Assessment: Phase I ESA Process to satisfy the All-Appropriate Inquiries (AAI) rule.

ELOS completed a review of environmental databases and historical documents including maps, aerials, city directories, and data provided by the client to determine if any current or past uses indicate the potential for past or current recognized environmental conditions (RECs). A site visit was performed to investigate the Subject Property for evidence of past or current RECs and document findings.

As this project evolves, ELOS will perform additional environmental services including wetland delineations and cultural resources investigations

Key Staff: Stehle Harris



17. Firm Experience					
Firm name	FORTE & TABLADA		**Past Performance Evaluation Discipline(s)**	Survey	
Project name	**LADOTD RURAL BRIDGE REPLACEMENT INITIATIVE PHASE I**		**Firm responsibility (prime or sub?)**	Sub	
Project number	H.013954, H.013979, H.013985, H.013992, H.013994, and H.013995.		**Owner's name**	Louisiana Department of Transportation and Development	
Project location	Statewide, Louisiana		**Owner's Project Manager**	Valerie Tourres	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, Louisiana / 225-379-1292 / Valerie.Tourres@la.gov				
Services commenced by this firm (mm/yy)	08/20		**Total consultant contract cost ($1,000's)**	$6,600	
Services completed by this firm (mm/yy)	Ongoing		**Total consultant services provided by this firm ($1,000's)**	$587	

Forte and Tablada was a subconsultant to provide the topographic survey for 17 bridges. While the project is ongoing in the design phase, Forte and Tablada has completed the topographic survey in accordance with LADOTD's Location and Survey Manual. The projects are currently in design and the anticipated Final Plans completion date is May 2022.

The largest challenges to overcome for this project were the bridge locations and the advanced schedule. Forte and Tablada was able to overcome these challenges with its communications software and utilizing multiple field crews and Professional Land Surveyors trained in LADOTD's location and survey field procedures and data collection protocols.

Forte and Tablada is also providing property surveys and right of way mapping as the need arises during the design process.

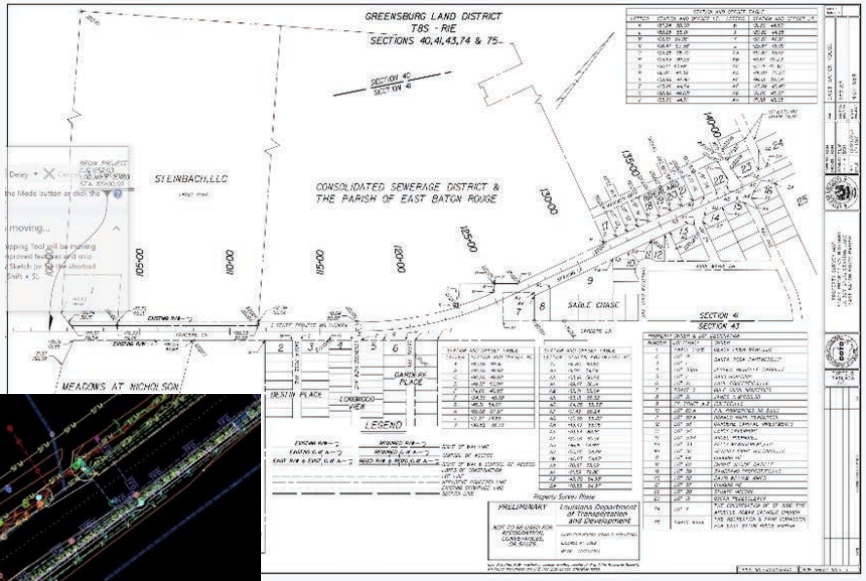
Key Staff: Ross Wilson; Bradley Holleman

17. Firm Experience					
Firm name	FORTE & TABLADA		Past Performance Evaluation Discipline(s)	Survey	
Project name	LADOTD LA 327 SPUR: STARING LANE EXTENSION ROUTE LA 327-S			Firm responsibility (prime or sub?)	Sub
Project number	H.011684.5		Owner's name	Louisiana Department of Transportation and Development	
Project location	East Baton Rouge Parish, Louisiana		Owner's Project Manager	Barrett Smith and Mark Hughes	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, Louisiana / 225-379-1292 / barrett.smith@la.gov; mark.hughes@la.gov				
Services commenced by this firm (mm/yy)	11/18		Total consultant contract cost ($1,000's)	$165	
Services completed by this firm (mm/yy)	Ongoing		Total consultant services provided by this firm ($1,000's)	$165	

Forte and Tablada completed a topographic survey for this project which is located in East Baton Rouge Parish, between the intersections of La 42 (Burbank Dr.) and Staring Ln. and La 327 (Gardere Ln.) and La 30. A complete Topographic survey including all utilities with depths and all drainage was required, along with finish floor elevations of all buildings that fall within the survey limits. The topographic survey was performed under a topographic surveying retainer contract held by Forte and Tablada.

In December 2021, Forte and Tablada completed the title takeoffs and property survey for this project under a right of way mapping retainer contract. The property map consisted of conducting field and office analysis to determine the existing right of way and property lines in accordance with Louisiana's Standards of Practice to produce a set of property survey maps, according to LA DOTD specifications, for design.

Key Staff: Ross Wilson; Bradley Holleman



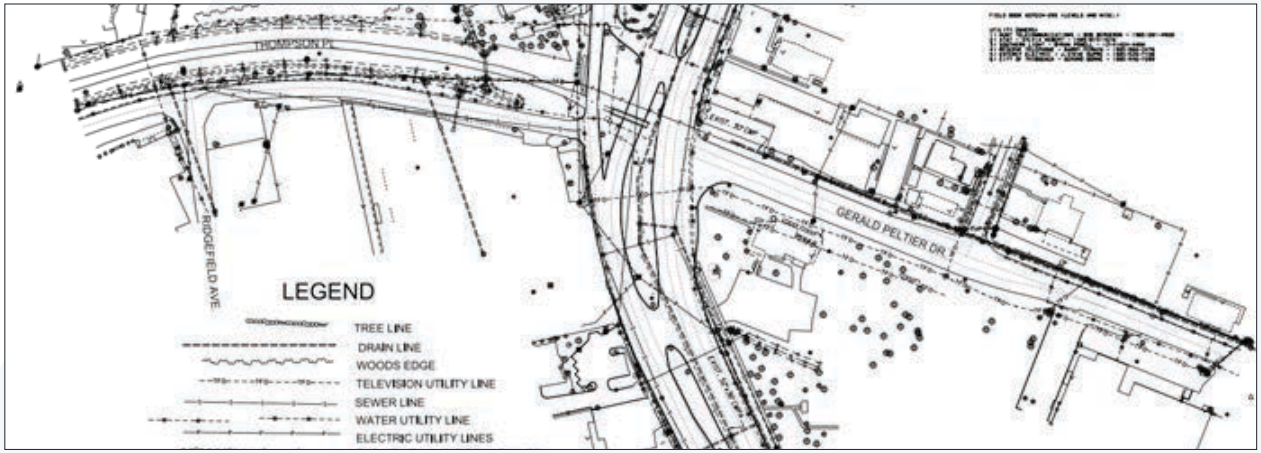
17. Firm Experience					
Firm name	GOTECH, INC. Consulting Engineers		**Past Performance Evaluation Discipline(s)**	Data Collection, Planning, ITS, Survey	
Project name	**LADOTD ACADIAN ROAD ROUNDABOUT, LA 20 (CANAL BOULEVARD) AND LOCAL ROUTES**		**Firm responsibility (prime or sub?)**	Sub	
Project number	4400004485; H.009320		**Owner's name**	Louisiana Department of Transportation and Development	
Project location	Thibidaux, Louisiana		**Owner's Project Manager**	Mark Chenevert	
Owner's address, phone, email	1201 Capitol Access Road, Room 405-E, Baton Rouge, LA 70802-4438 / 225-379-1591 / mark.chenevert@la.gov				
Services commenced by this firm (mm/yy)	04/15		**Total consultant contract cost ($1,000's)**	$204	
Services completed by this firm (mm/yy)	09/19		**Total consultant services provided by this firm ($1,000's)**	$195	

GOTECH, Inc. provided a complete topographic survey required for the design of a roundabout at the existing intersection located in Thibodaux, LA.

The survey was completed in accordance with LADOTD Standards and included all utilities with depths, all drainage structures, and DTM for the survey area.

The project survey control and horizontal alignment was based on the Louisiana State Plane Coordinate System, (NAD-83-92) as determined by G.P.S. observation. The project also included ROW surveys and the preparation of ROW maps.

Key Staff: Robert Price

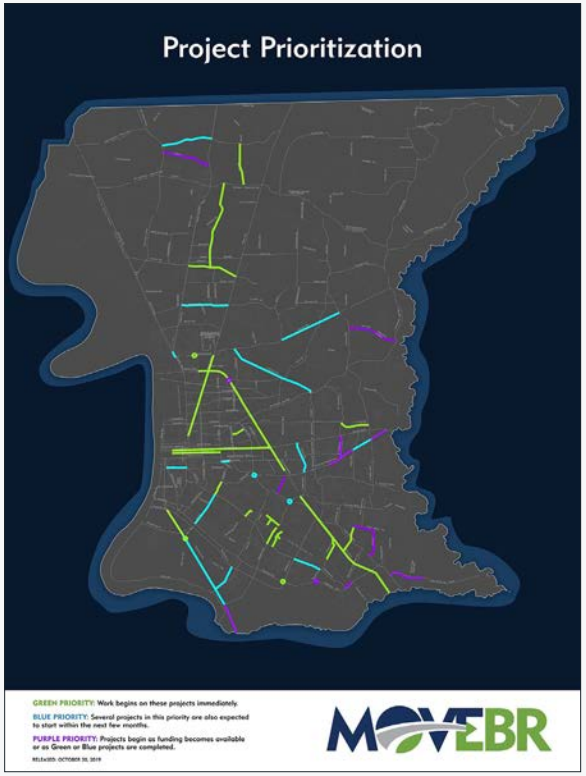


17. Firm Experience					
Firm name	MANNING Architecture Interiors Planning		Past Performance Evaluation Discipline(s)	Other	
Project name	**EAST BATON ROUGE PARISH MOVEBR COMMUNITY ENHANCEMENTS**		Firm responsibility (prime or sub?)	Sub	
Project number	N/A		Owner's name	East Baton Rouge Parish	
Project location	Baton Rouge, Louisiana		Owner's Project Manager	Thomas Stephens	
Owner's address, phone, email	1100 Laurel Street, Baton Rouge, Louisiana 70802 / 225-389-3186 ext 5634 / Tstephens@brla.gov				
Services commenced by this firm (mm/yy)	07/19		Total consultant contract cost ($1,000's)	$96	
Services completed by this firm (mm/yy)	Ongoing		Total consultant services provided by this firm ($1,000's)	$96	

MOVEBR is a parish wide program that will improve mobility throughout the entire Baton Rouge metropolitan region over the coming years. It represents the single largest infrastructure initiative in the history of the City-Parish. Manning is on a program management team tasked with community enhancements along 22 designated corridors.

Approaching these projects through a Complete Streets lens, corridor improvements will increase safety and comfort for pedestrians, bikers, transit riders, and drivers alike. Manning provided direction throughout the creation of the design guidelines that will inform all future corridor improvements and has collaborated with the project team on the production of preliminary design concepts for each corridor.

Key Staff: Tighe Kirkland

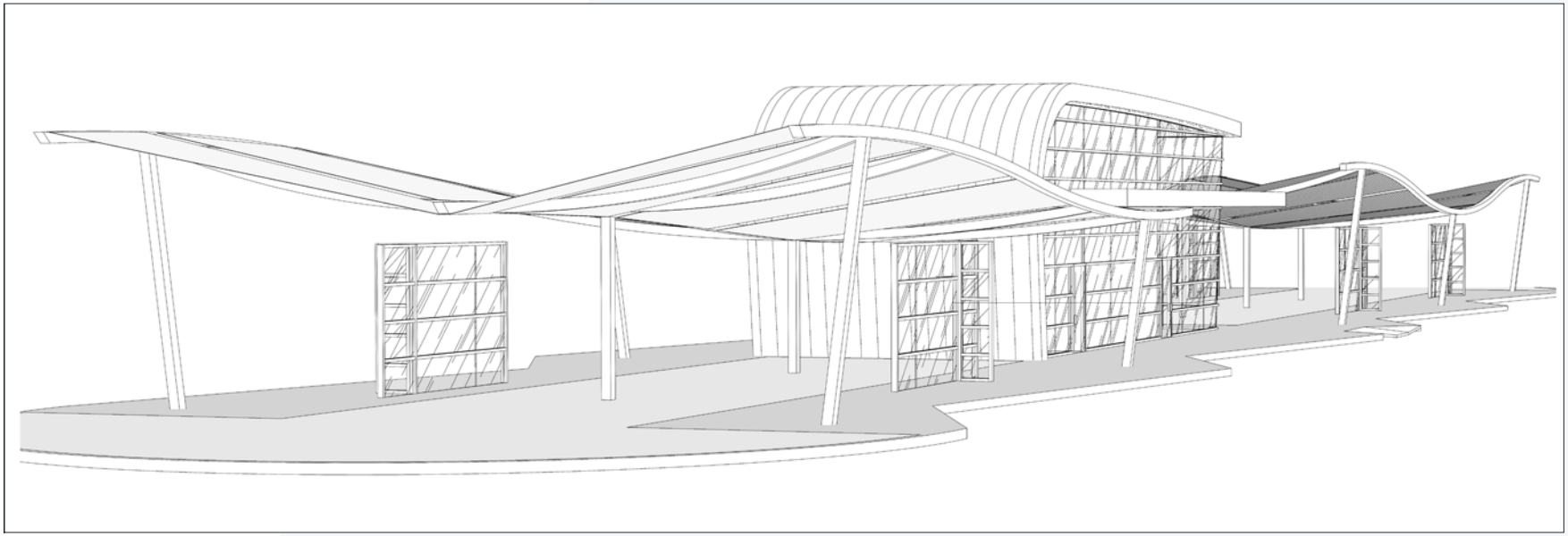


17. Firm Experience					
Firm name	MANNING Architecture Interiors Planning		**Past Performance Evaluation Discipline(s)**	Other	
Project name	**CAPITAL AREA TRANSIT SYSTEM BRCATS TRANSFER STATION DESIGN**		**Firm responsibility (prime or sub?)**	Sub	
Project number	N/A		**Owner's name**	Capital Area Transit System (CATS)	
Project location	Baton Rouge, Louisiana		**Owner's Project Manager**	Melissa Glasscock	
Owner's address, phone, email	1100 Laurel Street, Room 136, Baton Rouge, Louisiana 70802 / 225-389-3186 / Mglascock@brla.gov				
Services commenced by this firm (mm/yy)	12/21		**Total consultant contract cost ($1,000's)**	$287	
Services completed by this firm (mm/yy)	Ongoing		**Total consultant services provided by this firm ($1,000's)**	$287	

Manning performed the architectural design of the inaugural transfer station for the Capital Area Transit System (CATS) Bus Rapid Transit (BRT).

The transfer station connects eastern Baton Rouge to downtown on the Plank Road BRT line. Designs include the station structure, canopy, floor plan, and programming. This is the first newly designed station since 1991 and will serve as an architectural and design precedent for future CATS stations.

Key Staff: Tighe Kirkland



Section 18:
Approach and Methodology

18. Approach and Methodology

INTRODUCTION AND PROJECT UNDERSTANDING

The HNTB team is uniquely qualified to provide the LADOTD with a comprehensive, forward looking and sustainable weigh station assessment, rehabilitation and plan development statewide program. We offer you a **full-service team** with local staff and relationships backed by national expertise with recent, relevant experience to drive program success. Our experience enables us to efficiently evaluate, plan, design and **implement solutions** enabling LADOTD to increase mobility and safety on the state highway system, generating economic prosperity while ensuring asset preservation. Finally, our industry **leaders in emerging technologies** will keep the program looking towards the future and agile to the accelerating pace of technology adoption.

Certification of size and weight enforcement is required by Title 23 of the United States Code of Federal Regulations (CFR) Parts 657 and 658. We understand that in 2010 the Louisiana Legislature transferred the Stationary Scales Division (SSD), who is responsible to ensure compliance with Federal and State regulations related to weight, length, width and permitted oversize and overweight loads, from the LADOTD to the Louisiana State Police. Senate Bill Number 190 from the 2021 regular legislative session transferred the SSD back to LADOTD beginning in 2022 with the creation of the Weights and Standards Stationary Scales Police Force. In response to this requirement, the LADOTD is seeking consultant programmatic and project specific support.

PROJECT APPROACH

The HNTB team was specifically assembled to address the diverse needs associated with this contract. With the recognition that LADOTD is in responsible charge of designing, maintaining and operating the weigh stations, we have developed a three-phase approach.

Our approach to evaluate, plan and deploy is outlined below and shown in the schedule on page 88.

1. Evaluate (Stage 0: Feasibility Studies): The contract will kick-off with a site-specific inventory and condition assessment (I&CA) to establish the baseline for the 21 existing weigh station facilities. We will leverage existing data where possible, including the statewide LIDAR data collection, supplemented with HNTB's GIS-based mobile application developed specifically for weigh stations. The I&CA will document the existing facility features, including technology deployments used in the screening of commercial vehicles, such as static scales, WIM, USDOT readers, license plate recognition (LPR) and the presence of bypass provider equipment (PrePass and Drivewyze). A detailed inventory of the inspection buildings, including heating, ventilation and air conditioning (HVAC), windows, operator ergonomics, information technology (IT) infrastructure, general building features and restroom facilities will also be captured. The HNTB team will capture documentation of utility infrastructure, including power, potable water sources, sanitary sewer or septic and communication for future analysis.

The application includes the asset condition assessment, which will support project prioritization and facility upgrade recommendations. Right of way (ROW) will be obtained through available information; full boundary survey will be completed during design phases. Desktop screening for environmental parameters will be conducted to determine potential constraints or necessary environmental considerations for inclusion in program scheduling. The team will also review the transportation plan for programmed projects that may be leveraged for improvements, such as lengthening of ramps, installation of lighting or upgrading of signs.

The HNTB team will use the IC&A and traffic data from the concurrent **Statewide Transportation Plan** and **Statewide Travel Demand Model**, both of which are being performed by **HNTB** and our partner **Cambridge Systematics**, to evaluate rehabilitation efforts as well as the need for new or relocated facilities to accommodate emerging freight corridors.

We understand the I-10 Toomey facility in particular, is critical, as it serves as a port of entry for commercial vehicles from Texas. This facility will be an initial focus area to address recent saltwater intrusion issues. During the initial assessment phase, the team will identify opportunities to leverage Federal Motor Carrier Safety Administration (FMCSA) Innovative Technology Deployment (ITD) grants to provide "quick fix" solutions to increase the efficiency in operation of the facilities. We will also identify opportunities to leverage the Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law (BIL), to provide additional sources of funding. These solutions could include upgrading of non-operational equipment or installation of new equipment that increases screening capabilities, such as mainline WIM, to increase efficiencies until more involved rehabilitation efforts can be planned and deployed. To prepare for and be eligible to capture these funding opportunities, we will review and provide the necessary updates to the ITD Program Plan/ Top Level Design (PP/TLD) for approval for future funding requests.

Following the condition assessment, the team will perform a feasibility study for each of the existing facilities, as well as perform a gap analysis for future system expansion that could include full static facilities, VWIM or a combination of the two. The feasibility study will investigate the necessary improvements or relocation of facilities to support the projected commercial vehicle traffic and associated static inspection facilities requirements, provide for the safety and ergonomics of the stationary scale police officers, environmental analysis and ROW requirements. These considerations

will also support the State Enforcement Plan, required by 23 CFR 657, ensuring Louisiana receives full federal funding.

The feasibility study will analyze the following criteria as it relates to the necessary rehabilitation efforts of the weigh stations. The feasibility will analyze the needed improvements as compared to a "best practices" facility, which includes mainline and ramp WIM, internal bypass ramp, two scale system with an over-dimensional lane and truck parking for out-of-service carriers. The feasibility will address which option or combination of options yield the highest return on investment for the location, based on forecast traffic.

The cumulation of the feasibility studies will result in project prioritization and cost estimates necessary to build a program capital improvement plan. The program plan will account for funding requirements, including ROW acquisition, utility adjustment, roadway, lighting, drainage, architectural construction and technology deployment and integration as well as long-term operations and maintenance, including required equipment calibration. Throughout this process, the I&CA database will be updated and expanded to function as a program management tool which will support performance measures. A purposefully developed critical path method (CPM) schedule will account for LADOTD resource requirements for review and approval of PS&E documents, construction letting and oversight in support of the program plan.

Public Outreach

2. Plan (Stage 1: Planning/Environmental): Stakeholder engagement and the establishment of a collaborative intra- and interagency partnership team will drive the success of the program. An initial meeting with key stakeholders, including representatives from the Planning, Engineering and Operations divisions as well as the Office of Multimodal Commerce will support alignment of LADOTD goals and strategies with the Five-Year Strategic Plan. Inclusion of stakeholders from partner agencies, including FMCSA, Louisiana Office of Motor Vehicles, Louisiana State Police and the Louisiana Motor Transport Association builds further program awareness and consensus building. The initial engagement meeting will foster collaboration, with annual meetings established to report progress and garner additional feedback. Goals of these meetings include coordination of issues such as the impacts of construction projects on the weigh stations, enhancements to technology to support commercial vehicle operations and emerging technologies, including automated trucks and their impacts on daily operations. Coordination with partner agencies also supports ITD goals of data exchange opportunities, including potential IFTA and permit electronic screening.

Upon project kickoff, we will update various manuals, including the oversize and overweight permits and standard operating procedures. These documents will provide clear direction and guidance to staff to uniformly apply enforcement criteria in daily activities. A system to monitor the daily activities of staff provides key insight into the performance of facilities and can alert for the need for refresher training at locations. This can be configured like the Weight Inspector Reporting Application (WIRA) developed for the FDOT. WIRA allows for real time analytics of station performance on topics such as the number of permits validated, or which types of citations are being issued. By monitoring and evaluating these metrics, adjustments can be made in areas of training or technology deployments, providing the feedback loop for continuous improvement.

Data Management

Systems engineering and data management is the future of size and weight enforcement efficiency. As evidenced by LADOTD's Expanded ITD functionality we know we must continue the progress made and ensure consistency in data management and exchange. We understand the department has enhanced the oversize/overweight permitting system, funded in part through a $1.65 million fiscal year 2020 FMCSA ITD Expanded grant. We will focus on continued data management including connections with the Safety and Fitness Electronic Records (SAFER) system for carrier information and screening as well the establishment of a Commercial Vehicle Information Exchange Window (CVIEW) system. Through our development of the Freight Operations eXchange (FOX) platform for FDOT we are acutely aware of the requirements for connecting with and reporting information on commercial vehicle data and citations. Similarly, we support the Commercial Vehicle Review Board for FDOT where citations can be protested and we know the importance of accurately capturing and maintaining information associated with citations.

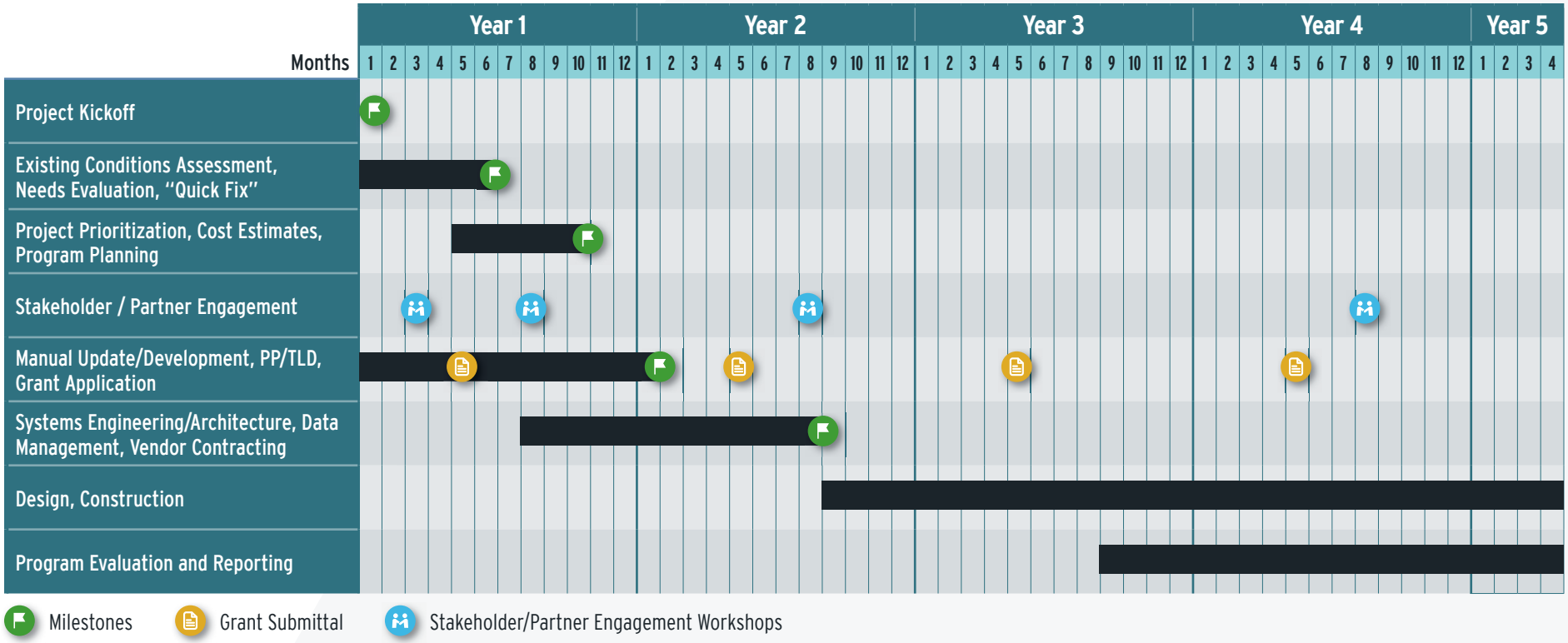
We understand the static scales are currently maintained by either Mettler Toledo or IRD, depending upon the location. It is suggested a single vendor be selected for the scale operating software. A single vendor for the operating software will provide consistency in operations throughout the state, simplifying training activities for staff. Data collected by the scale operations should be aggregated in a centralized data repository, preferably in "near real-time" for sharing among the stations and with partner agencies. The BIL will provide opportunities to increase broadband fiber optic communication which will support this high-speed transmission of data. Through integration of device data throughout the state, advanced screening algorithms will be developed to further support bypass of compliant motor carriers. Taking this a step further, HNTB is actively working with FMCSA and the Commercial Vehicle Safety Alliance (CVSA) to develop an expanded regional data exchange platform. This supports enhanced operations, not only for LADOTD, but also for the industry, encouraging industry expansion and economic development for the State. By exchanging data, downstream facilities can lookup approaching vehicle records based on LPR or other unique identifiers and determine if they have been recently screened and the status of that screening. If they fall within prescribed travel times between facilities, they can be given bypass signals through mainline device deployments. Similarly, the data can be applied throughout LADOTD for multiple use cases, including pavement design, planning, active work zone management and traffic operations. While the initial focus is on the upgrading of facilities, by including these forward thinking approaches early in the process, efficiencies will be realized and return on investments maximized by leveraging the data gathered.

Design and Construction

3. Deploy (Stage 3: Design and Stage 5: Construction): Design and construction activities will follow the program plan and include the elements previously noted. Preliminary Plans will follow the line and grade verification during the feasibility study. Any revisions to the roadway geometry to accommodate WIM systems will be designed in accordance with ASTM E1318 criteria for data accuracy. A roadway typical section for the mainline and internal ramps will be furnished to the LADOTD at the Pre-Design Planning conference and will consider over-dimensional truck movements. Portland cement concrete pavement will be utilized for long-term durability to accommodate the loading associated with commercial vehicle traffic. Specific details will be provided for the transition from the weigh station ramp to mainline pavement at the intersections of different pavement structures to reduce displacements and pavement degradation at the joint.

The ramps will be designed to accommodate deceleration and acceleration onto the mainline as well as to support projected truck queen lengths based on the traffic volume projections and processing time associated with the weigh station layout. To aid in the efficiency of these activities, standard plans will be developed for consistent application and long-term maintenance activities. These standards will include signing and pavement markings, device layout (including cabinet configuration, IP schemas, conduit configuration and color, including spares, etc.) and electric and communication infrastructure. Specific details to clearly delineate the in-ground components will be provided to differentiate systems such as electrical for lighting from ITS. The HNTB team will use the Louisiana Standard Specifications for Roads and Bridges; however, for specialized devices such as WIM, LPR and over-dimensional devices, we have experts who can develop special specifications, including the potential for sole source justification for consistency in functionality and integration into the scale operating software, as well as streamlined future maintenance activity. The inclusion of Arcadis to our team brings local and intimate LADOTD knowledge and will incorporate design considerations for future maintenance and expansion of the ITS infrastructure. Static scale considerations will include lengthened platforms (decks) to allow for the weighing of over-dimensional vehicles without having to reposition.

Access to the static scale platform pits will provide for inspection of the end walls and piers and will consider confined space criteria. Standardizing the static scale load cells for all locations will allow for stockpiling of components to facilitate rapid repair and efficiency. Buildings will be designed in accordance with local building codes as well as Americans with Disabilities Act (ADA) requirements to provide safe accessibility for staff with secure separation for drivers. Bullet resistant windows that provide for clear line of sight for approach ramps allow staff to ensure the technology is properly functioning and to visual identify if queueing of vehicles is occurring and not detected by the system.



The HNTB team will coordinate utility requirements including provisions for potable water and sanitary sewer that may be provided by the owner of the utility. Adequate parking will be incorporated where feasible based on ROW considerations, noting specifically that technology such as tire and brake monitoring systems can result in many vehicles placed out of service. Inspection buildings for additional Level 1 inspection will include proper ventilation as well as an in-ground pit for undercarriage inspection. An appropriate survey, including property and topographic, will be performed for each design, and we will leverage advanced techniques including Lidar for safety and efficiency. Specific maintenance of traffic control plans will be developed for each location.

Should the need for public engagement be required during design, we will leverage our Public Involvement Management Application, a modern web platform designed for collaboration. This tool allows LADOTD to electronically manage and visualize stakeholder feedback on project issues. The HNTB team will evaluate environmental and hydraulic conditions at each location, including a Phase II environmental site assessment, noting specifically the intrusion of salt water that has occurred at the Toomey location. Before projects move into final plans, the HNTB team will ensure that all environmental criteria has been cleared. Final plans will include updated construction cost estimates. We will follow our critical path method schedule, developed as part of the overall program plan, during the construction proposal phase, including the eight-week duration for approval and additional six weeks prior to scheduled letting. HNTB will support construction with review of RFIs and shop drawings within the prescribed RFQ terms. Integration of weigh station technology requires a team with the knowledge of component device requirements. HNTB will leverage our industry relationships with the vendors of modern technology to support the integration efforts during construction so that the systems operate efficiently and effectively.

THE HNTB TEAM

HNTB has assembled a team with the breadth of resources and national expertise to drive success of this program. Further, our long-standing relationships and working history foster a collaborative and efficient team. Our team includes **Cambridge Systematics**, a partner on the **Louisiana Statewide Transportation Plan** and **Statewide Travel Demand Model** which will provide keen insight into commercial vehicle growth and directly support evaluation of future needs. We have worked with Cambridge Systematics across the nation and have a long-standing history of delivering quality projects, including **TxDOT's Weigh in Motion and Vehicle Classification Strategic Plan**. We have included a team with Louisiana roots, relationships and experience with **Arcadis US, Inc.** for ITS and roadway design, **APS Engineering and Testing, LLC** for geotechnical and subsurface exploration activities, **Forte and Tablada, Inc.** for survey and ROW mapping with **GOTECH, Inc.** providing advanced survey data acquisition techniques. **ELOS Environmental** will provide environmental support during the feasibility study as well as preliminary and final plans development. **Manning, APC** was specifically included for building design. Specific roles and experience of each member of the team are included in the organizational chart.

Program Management Approach

The HNTB team knows multiple tasks must be undertaken concurrently to meet the requirements of this Weigh Station program. As a result, we have organized the HNTB team with **Craig Toth, PE**, as Project Manager with support from local office Deputy Project Manager **Rick Hathaway, CCM**. As a vice president and group director of the disciplines associated with HNTB on this contract, Craig's leadership brings a successful track record of delivering similar projects. Coupled with Rick's LADOTD knowledge of PS&E development and delivery, the team will employ a comprehensive Weigh Station program that drives implementable and cost-efficient solutions. The team, leveraging years of industry experience in freight operations, policy and enforcement, will deliver strategic and implementable solutions that builds stakeholder and industry consensus and drives the future of mobility for the state.

CONCLUSION

The HNTB team is uniquely qualified to deliver this unique and diverse contract through our:

- **Full-service team** led by subject matter experts with a core of local staff with established LADOTD relationships.
- **Focus on implementable solutions** that drive success and provide cost efficient operations.
- **Industry leadership in emerging technologies** that leverage investments in ITS and can enable future mobility enhancements.

Most importantly, our top priority is assisting LADOTD with the successful transition into the roles and responsibilities of stationary enforcement activities. We are excited to have the opportunity to continue our partnership on this weigh station program.

Section 19:
Workload

19. Workload				
Firm	**Past Performance Evaluation Discipline(s)**	**State project number**	**Project name**	**Remaining unpaid balance**
HNTB Corporation	Environmental	H.003931	I-10 Calcasieu NEPA Restart (Lake Charles, LA)	$519,569
	Bridge	State Contract No. 44-13321	**IDIQ Contract for In-Depth Bridge Inspection**	
		H.009730.5	Calcasieu, EBR, and West Feliciana Parishes In Depth Inspections for I-10 Calcasieu, I-10 Baton Rouge and John James Audubon Bridge	$1,065,643
	Bridge	State Contract No. 4400005772	**Bridge Preservation Retainer**	
	Other	State Contract No. 4400010060	**Retainer Contract for Trust Indenture Services and Engineering Services for LA 1 Toll Facilities**	
			Task Order No. 1: LA 1 Program Support	$360,410
			Task Order No. 10: LA Post Ida Repairs	$30,261
			Task Order No. 7: RTCS and Interim BOS	$8,120
	Other	State Contract No. 44-17329	**IDIQ Contract for Innovative Procurement Support Services**	
			Task Order No. 1: 1-12 Managed Lane Conversions	$174,742
			Task Order No. 2: EOR	$169,077
			Task Order No. 3: Jimmie Davis DB Procurement	$369,153
			Task Order No. 4: I-10 Calcasieu Toll Support	$92,885
	Bridge	State Contract No. 44-17264	**Retainer Contract for Bridge Preservation**	
		H.014588.5	I-20: Orange Street Overpass Repair	$46,747
		H.010319.5	I-110: North Street to Plank Road	$10,458
		H.001166.6	Caddo Lake CRES	$138,327
	Bridge	H.014324.6	LA 3250: I-49/UP RR Overpass Repair	$53,948
		H.014454.6	Boeuf River Bridge CRES	$85,801
		H.011965.5	LA 47 Cleaning and Inspection	$937,939
		H.014672.6	I-12: LA 1032 Overpass Repair	$44,221
		H.012083.5	I-10: Calcasieu River Bridge Int. Repairs	

19. Workload				
Firm	**Past Performance Evaluation Discipline(s)**	**State project number**	**Project name**	**Remaining unpaid balance**
Arcadis US, Inc.	Environmental	H.002397.2	LA 16 (Pete's Hwy) Interstate 12 Interchange Route	$20,109
	Environmental	H.011328.2	I-49 South (Ricohoc to Berwick)	$828,788
	Traffic	H.011328.2	I-49 South (Ricohoc to Berwick)	$176,056
	Road	H.011328.2	I-49 South (Ricohoc to Berwick)	$353,273
	ITS	H.013868.5	ITS Program Management and Operations (2021)	$171,274
	ITS	H.013868.6 (A)	ITS Routine Maintenance Engineering and Inspection (ME&I) (2021)	$75,276
	ITS	H.013868.6 (B)	ITS Responsive/Emergency Maintenance Engineering and Inspection (ME&I) (2021)	$49,298
	ITS	H.013868.5	ITS Program Management and Operations (2022)	$668,651
	ITS	H.013868.6 (A)	ITS Routine Maintenance Engineering and Inspection (ME&I) (2022)	$674,471
	ITS	H.013868.6 (B)	ITS Responsive/Emergency Maintenance Engineering and Inspection (ME&I) (2022)	$154,105
	ITS	see the next column	PO No. 2000588785 Scott Tower Cable and Grounding Repair, PO No. 2000609725 I-10 @ Louisiana Ave CCTV & Elec Repair, PO No. 2000610683 I-110 @ US61 Mini-Split AC Install, PO No. 2000620009 LA 3040 @ Hollywood Rd Elec Serv. Install, PO No. 2000617303 I-10 @ Picardy CCTV Upgrade, PO No. 2000617304 US 61 @ Greenwell Springs Bluetoad Install, PO No. 2000634022 I-60 @ Canal CCTV Upgrade, PO No. 2000634027 I-20 @ I-220 CCTV Repair For The Site in Shreveport, LA, PO No. 2000635990 LaPlace Microwave Tower CCTV Install, PO No. 2000635996 I-10 @ Claiborne DMS Electrical Service Vandalism Repair	$47,300
	CE&I/OV	H.011220.6-1	I-10 CBD2 Carrollton-Lafitte Ave and Supplement No. 1	$120,499
	CE&I/OV	H.012876.6	US 90Z (I-10 Magnolia Street) Supplement No. 1	$36,153
	CE&I/OV	H.013710.6	I-10: US 61 to Laplace ITS Deployment	$542,651
	Environmental	H.009932	US 80 Widening: Vancil Road to Well Road Environmental Assessment	$5,343
	Traffic	H.003370	I-220/I-20 Interchange IMP & BAFP Access Design Build	$15,000
	Traffic	H.004100.5	I-10: LA 415 to Essen Lane on I-10 and I-12	$790,927

19. Workload				
Firm	**Past Performance Evaluation Discipline(s)**	**State project number**	**Project name**	**Remaining unpaid balance**
Arcadis US, Inc. cont'd.	Bridge	H.004100.5	I-10: LA 415 to Essen Lane on I-10 and I-12	$1,454,284
	ITS	H.004100.5	I-10: LA 415 to Essen Lane on I-10 and I-12	$306,165
	Traffic	H.005121	LA 1/LA 415 Connector	$108,947
	Traffic	H.972419.1	SHSP Update and Regional SHSP Marketing/Advertising Support	$31,557
	Road	H.012901.6, H.010634.6	US 90Z (Bodenger Blvd. – Stumpf Blvd.)	$339,654
	Traffic	H.012018.6	Adaptive Traffic Signal Design and Implementation	$12,608
	Traffic	H.014305.1	US 61: Cardinal Drive to Bert Street	$24,979
	Traffic	H.013322.1	LA 3040 Feasibility Study	$80,000
	Environmental	H.012891	LA 300 at Bayou LaLoutre	$12,825
	Environmental	H.014215	LA 20 at 40 Arpent Canal and Drainage Canals	$50,048
	Environmental	H.014213	LA 700 at Indian Bayou and Bayou Grand Marais	$40,179
	Environmental	H.014279	LA 35: Drain Canal Near Lawtell	$32,759
	Environmental	H.014278	LA 85: Patout and Drain Canal Bridges	$39,894
	Environmental	H.014276	LA 975: Creek Bridges	$20,579
	Environmental	H.014216	LA 682 at Norris Canal and Unnamed Tributaries	$48,600
	Environmental	H.014241	LA 10 at Mill Creek	$32,741
	Environmental	H.014251	LA 422: Bridge Over Unnamed Stream	$31,538
	Environmental	H.012565	LA 963 at Redwood Creek and Little Redwood Creek	$14,378
	Environmental	H.014257	LA 68 at Karrs Creek	$33,121
	Environmental	H.014253	LA 421 at Thom Creek	$13,880
	Environmental	H.014256	LA 952 at McKowen Creek and Beaver Creek	$38,383
	Environmental	H.014254	LA 955 at Knighton Bayou, Trib. Olive Branch, White Branch, and Chapman Branch	$55,056
	Environmental	H.012061	LA 1 at Lateral W15#7A and Bayou Moreau	$13,934
	Environmental	H.014252	LA 1054 at Tyner Creek	$11,799

19. Workload				
Firm	**Past Performance Evaluation Discipline(s)**	**State project number**	**Project name**	**Remaining unpaid balance**
APS Engineering and Testing, LLC	Geotech	H.013127	Retainer Contract for Geotechnical Services	$53,996
	Geotech	H.013144	Retainer Contract for Geotechnical Services	$45,457
ELOS Environmental, LLC	Environmental	H.012565	LA 963 at Redwood Creek and Little Redwood Creek	$14,378
	Environmental	H.014257	LA 68 at Karrs Creek	$33,121
	Environmental	H.014253	LA 421 at Thom Creek	$13,880
	Environmental	H.014256	LA 952 at McKowen Creek and Beaver Creek	$38,383
	Environmental	H.014254	LA 955 at Knighton Bayou, Trib. Olive Branch, White Branch, and Chapman Branch	$55,056
	Environmental	H.012061	LA 1 at Lateral W15#7A and Bayou Moreau	$13,934
	Environmental	H.014252	LA 1054 at Tyner Creek	$11,799
	Environmental	H.013996	Rural Bridge Replacement Initiative: LA 1074, LA 1075 Bridges Near Rio	$1,505,000
	Environmental	H.013997	Rural Bridge Replacement Initiative: Local Rd Over Borrow Pit (Blind River)	$568,000
Forte and Tablada, Inc.	Bridge	H.012485.1	IDIQ Contract 4400010099, Task Order No. 4 Off System Bridge Load Rating, Statewide	$ 190,738
	Bridge	H.012485.1	IDIQ Contract 4400010099, Task Order No. 5 Bridge and Culvert Load testing	$276,656
	Survey	H.014628.5	IDIQ Contract 4400010587, Task Order No. 17 Turn Lanes at Rice Mill	$71,418
	Survey	H.014219, H.014222, H.014228, H.014231, H.014236, H.013954, H.013979, H.013985, H.013992, H.013994, H.013995, H.013990	Rural Bridge Replacement Initiative	$54,676
	Survey	H.003931.5	IDIQ Contract 443015237 I-10 Calcasieu River Bridge Replacement	$2,067,730
	Survey	H.004273.5	DOTD I-49 Connector (Lafayette Regional Airport to I-10/US 167 Interchange)	$119,318
	Survey	H.012485.1	IDIQ Contract 4400010099, Task Order No. 3 Metal Culverts Inspection, Statewide	$103,399
	Survey	H.011684	LA 327 Spur: Staring Lane Extension Route LA 327-S	$50,279
	Survey	H012072	LA 60 Drain Bridge	$1,428

19. Workload				
Firm	**Past Performance Evaluation Discipline(s)**	**State project number**	**Project name**	**Remaining unpaid balance**
GOTECH, Inc.	CE&I/OV	Contract No. 4400004631; Task Order No. H.003107.6 *Task Order No. 1 *Task Order No. 2	Retainer Contract for Construction Engineering Management and Staff Augmentation Services for District 62 (St. Helena, Livingston, St. John, Tangipahoa, Washington & St. Tammany Parishes)	 $0 $171,520
	Survey	Project No. H.004791	Belle Chasse Bridge & Tunnel Replacement (Plaquemines Parish)	$40,150
	CE&I/OV	Contract No. 4400017006; Task Order No. H.011670	I-10 / Loyola Interchange Improvements (Jefferson Parish)	$578,549
	CE&I/OV	Contract No. 4400017430; Task Order No. H.001498.6	LA 24 & 316: Company Canal Bridge CE&I (Terrebonne Parish	$304,467
	Planning	Contract No. 4400017327	IDIQ Innovative Procurement & Alternative Delivery Support Services, Statewide	$74,052
	CE&I/OV	Contract No. 4400019950 Task Orders H.003003; H.002151	IDIQ Contracts for Construction Engineering & Inspection Services, Statewide w/Majority of Work in District 03 (Acadia, Lafayette, Evangeline, Iberia, St. Landry, St. Martin, St. Mary & Vermilion Parishes)	$0 $68,000
	Survey	Contract No. 4400011354 Task Orders H.014552.5; H.014553.5; H.014556.5; H.014557.5	IDIQ Electrical LA 31: I-49 Interchange Lighting District 03 (Lafayette)	 $0 $0 $27,538 $48,690
	CE&I/OV	Contract No. 4400019550 SPN: H.001234	LA 1: Port Allen Canal Bridge Replacement Phase 1 (HBI) (CE&I) Route LA 1 (West Baton Rouge Parish)	$787,337

19. Workload				
GOTECH, Inc. cont'd.	CE&I/OV	Contract No. 4400023074 Task Order No. H.010725	IDIQ Contract for Construction, Engineering & Inspection & Staff Augmentation - Pecan Island Rd - District 61 (Hammond)	$82,736
Manning, APC	N/A	N/A	N/A	N/A

Section 20:

Certifications/Licenses

20. Certifications/Licenses

LOUISIANA PROFESSIONAL ENGINEER LICENSE

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

Mr. David Spencer Flanders

License/Certificate Type - Number	Expiration Date
PE.0035264	09/30/2022

Status: Active

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

Mr. Joseph Blasi

License/Certificate Type - Number	Expiration Date
PE.0045149	03/31/2023

Status: Active

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

Mrs. Kate Brady Prejean

License/Certificate Type - Number	Expiration Date
PE.0035036	03/31/2024

Status: Active

FLORIDA PROFESSIONAL ENGINEER LICENSE

THE OFFICIAL SITE OF THE FLORIDA DEPARTMENT OF BUSINESS & PROFESSIONAL REGULATION

dbpr Department of Business & Professional Regulation

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ONLINE SERVICES

- Apply for a License
- Verify a Licensee
- View Food & Lodging Inspections
- File a Complaint
- Continuing Education Course Search
- View Application Status
- Find Exam Information
- Unlicensed Activity Search
- AB&T Delinquent Invoice & Activity List Search

LICENSEE DETAILS *3:29:41 PM 3/14/2022*

Licensee Information

Name:	**TOTH, CHRISTOPHER CRAIG** (Primary Name)
Main Address:	**24155 LONE STAR ROAD TALLAHASSEE Florida 32310**
County:	**LEON**

License Information

License Type:	**Professional Engineer**
Rank:	**Prof Engineer**
License Number:	**58197**
Status:	**Current,Active**
Licensure Date:	**02/01/2002**
Expires:	**02/28/2023**

Special Qualifications	Qualification Effective

20. Certifications/Licenses

TRAFFIC ENGINEERING PROCESS AND REPORT COURSE

Certificate of Completion
presented to
Joe Blasi
for completing the
Traffic Engineering Analysis Process & Report
Module 1
Date: January 29, 2020
Location: Baton Rouge, Louisiana
Professional Development Hours (PDHs) Awarded: 2.5
Authorized Instructor *Authorized Instructor* *Authorized Instructor*
DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion
presented to
Joe Blasi
for completing the
Traffic Engineering Analysis Process & Report
Module 2
Date: January 29, 2020
Location: Baton Rouge, Louisiana
Professional Development Hours (PDHs) Awarded: 3.5
Authorized Instructor *Authorized Instructor* *Authorized Instructor*
DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion
presented to
Joe Blasi
for completing the
Traffic Engineering Analysis Process & Report
Module 3
Date: January 30, 2020
Location: Baton Rouge, Louisiana
Professional Development Hours (PDHs) Awarded: 3.5
Authorized Instructor *Authorized Instructor* *Authorized Instructor*
DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion
presented to
Akhil Chauhan
for completing the
Traffic Engineering Analysis Process & Report
Module 1
Date: June 4, 2018
Location: Baton Rouge, Louisiana
Professional Development Hours (PDHs) Awarded: 4
Authorized Instructor *Authorized Instructor* *Authorized Instructor*
DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion
presented to
Akhil Chauhan
for completing the
Traffic Engineering Analysis Process & Report
Module 2
Date: June 11, 2018
Location: Baton Rouge, Louisiana
Professional Development Hours (PDHs) Awarded: 4
Authorized Instructor *Authorized Instructor* *Authorized Instructor*
DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion
presented to
Akhil Chauhan
for completing the
Traffic Engineering Analysis Process & Report
Module 3
Date: September 10, 2018
Location: Baton Rouge, Louisiana
Professional Development Hours (PDHs) Awarded: 3
Authorized Instructor *Authorized Instructor* *Authorized Instructor*
DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

TRAFFIC CONTROL SUPERVISOR

ATSSA TRAINED
PROOF OF TRAINING
THIS CERTIFICATE HEREBY RECOGNIZES THAT
Clinton R Hathaway
has attended
Traffic Control Supervisor-LA State Specific
Training Course
9/8/2021 to 9/9/2025
Training Valid Through
Baton Rouge, LA
Location
Director of Training
President, CEO
ATSSA American Traffic Safety Services Association ATSSA.com

ATSSA TRAINED
PROOF OF TRAINING
THIS CERTIFICATE HEREBY RECOGNIZES THAT
Kyle LeBlanc
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course
9/10/2021 to 9/10/2025
Training Valid Through
Baton Rouge, LA
Location
Director of Training
President, CEO
ATSSA American Traffic Safety Services Association ATSSA.com

20. **Certifications/Licenses**

FLAGGER

20. Certifications/Licenses

DBE CERTIFICATIONS

RTA

DOTD

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

LOUISIANA UNIFIED CERTIFICATION PROGRAM

Disadvantaged Business Enterprise Program (DBE)

Small Business Element (SBE)

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

APS Engineering & Testing, LLC.

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

NC221310, NC221320, NC541330, NC541370, NC541380, NC541620, NC541690

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

Certificate Eligibility: October 2021 to October 2022

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

Rhonda Wallace

Rhonda Wallace, DBE/SBE Programs Manager

Louisiana Department of Transportation & Development

20. **Certifications/Licenses**

DBE CERTIFICATIONS

Office of the Secretary
PO Box 94245 | Baton Rouge, LA 70804-9245
PH: 225-379-1200 | FX: 225-379-1851

John Bel Edwards, Governor
Shawn D. Wilson, Ph.D., Secretary

August 12, 2021

GOTECH, Inc.
Attn: Rhaoul A. Guillaume, Sr. P.E.
8383 Bluebonnet Blvd.
Baton Rouge, LA 70810

Dear Rhaoul A. Guillaume, Sr.:

We have received your firm's Disadvantaged Business Enterprise (**DBE**) and Small Business Element (**SBE**) annual affidavit. Based on the information which you provided we have concluded that your firm continues to meet the eligibility requirements of our program and remains certified for **only** the following **specific** work categories **that fall under the listed NAICS codes**:

NC541330-Engineering Services
C09-Civil Engineering
NC541340-Drafting Services
C03-Drafting
NC541370-Surveying and Mapping (except Geophysical) Services
C06-Land Surveying
NC541618-Other Management Consulting Services
C74-Construction Management
C21-Construction Inspections
C11-Planning

Please note that per the federal regulations, suppliers only receive 60% goal credit towards the materials they provide. Also note that A Louisiana Contractor's License is required by any contractor performing work in excess of $50,000 with the exception of electrical, mechanical and plumbing which are required to have a license if work is in excess of $10,000. You may contact the State Licensing Board for Contractors at (225) 765-2301 for more information. Your firm's certification will be recognized by all participants of the Louisiana Unified Certification Program. This includes all entities receiving federal transportation funding within the boundaries of our state.

You will be required to submit an annual affidavit with all supporting documents (**Business taxes with all attachments, such as 1098, 1099, K-1's and/or W-2's**) stating your firm continues to meet the eligibility requirements of the program. An email informing you to submit the necessary documentation will be forwarded to you approximately six (6) weeks prior to your anniversary date of **June 30, 2022**. However, should you not receive notification from this office for your annual affidavit, it is your responsibility to contact us. Additionally, you must notify our office immediately regarding any changes which affect the social and economic disadvantage, size, ownership or control of your firm.

The Department has contracted with SJB Group, LLC to provide DBE Supportive Services to all our certified DBE's at no cost to you. This consultant can offer your firm assistance and guidance on areas such as marketing, estimating, bidding, financial preparations, etc. Please feel free to contact Jackie des Bordes or Kenyatta Sparks with the SJB Group, LLC at (225) 769-3400 for any assistance needed to grow your organization.

We reserve the right to withdraw this certification, if at any time, it is determined that **DBE and SBE** certifications was knowingly obtained by the submission of false, misleading or incorrect data. We further reserve the right to request additional information and/or conduct an on-site visit at any time during your certification period.

If further assistance is needed, contact the DBE Certification Unit at (225) 379-1382.

Respectfully,

Paula Merrick Roddy
Compliance Programs Director

20. **Certifications/Licenses**

DBE CERTIFICATIONS

RTA

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

LOUISIANA UNIFIED CERTIFICATION PROGRAM

Disadvantaged Business Enterprise Program (DBE)

Small Business Element (SBE)

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

GOTECH, INC

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

NC541330 NC541340 NC541370 NC541618

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

Certificate Eligibility: June 2021 to June 2022

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

Paula Roddy, Compliance Programs Director

Louisiana Department of Transportation & Development

20. Certifications/Licenses

DBE CERTIFICATIONS

STATE & LOCAL DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

1340 Poydras Street, Suite 1800 | New Orleans, LA 70112

February 18, 2022

VIA EMAIL

Raymond Manning
Manning, APC dba Manning
1006 S. Michigan Ave.
Suite 606
Chicago, IL 60605
wrm@manning.xyz

RE: SLDBE Re-certification Approval

Dear Raymond Manning:

We are pleased to inform you that **Manning, APC dba Manning** has been approved for re-certification as a State & Local Disadvantaged Business Enterprise (SLDBE). This approval represents certification with: City of New Orleans, Sewerage & Water Board of New Orleans, Louis Armstrong New Orleans International Airport and Harrah's New Orleans Casino & Hotel.

Your firm's contact information will be active on the online SLDBE Directory (http://www.nola.gov/economic-development/supplier-diversity/directory/). It will reflect your areas of certification. Your specialties will be listed as:

CERTIFICATION DESCRIPTION: ARCHITECTURAL SERVICES

NAICS 541310: ARCHITECTURAL SERVICES

A re-certification notice will be emailed to you prior to the date of expiration. **However, should you not receive notification from this office for your re-certification, it is your responsibility to contact us.** Submittal of this information is necessary to ensure that there is no interruption in your certified status during your certification period. If a re-certification application is not received, we will proceed with decertification procedures.

We invite you to view City of New Orleans, Sewerage & Water Board of New Orleans, Louis Armstrong New Orleans International Airport and Harrah's New Orleans Casino & Hotel websites for SLDBE opportunities.

If we can be of further assistance, you may contact us at 504-658-4275 or via e-mail at saoliva@nola.gov.

Sincerely,

Sonia Oliva

Sonia Oliva
Certification Coordinator
Office of Supplier Diversity | City of New Orleans

1340 Poydras Street | Suite 1800 | New Orleans, LA 70112

Section 21:
QA/QC Plan

21. QA/QC Plan

Contract No. 4400023812

SAMPLE BRIDGE PROJECT QA/QC MANAGEMENT PLAN

Revised: 04/08/2022

BRIDGE PROJECT QUALITY MANAGEMENT PLAN

INDEX

1.0 INTRODUCTION

1.1 PROJECT INTRODUCTION

This document was developed to provide quality control (QC)/quality assurance (QA) procedures for multiple movable bridge contracts advertised by the LADOTD. The intent of this HNTB QMP is to supplement Part I, Chapter 3 of the LADOTD Bridge Design and Evaluation Manual.

1.2 QUALITY INTRODUCTION

The HNTB doctrine states – sustainability, profitable growth, best business practices and "4 for 4". HNTB's "4 for 4" is our performance standard for each and every project as stated below:

Quality is a key component of this doctrine and is expected in everything we do. HNTB has defined the standard of quality that is to be achieved in our Manual of Professional Practice (MPP) and has established general guidelines for achieving this goal and documenting the results.

The HNTB team is aware that QC and QA is our responsibility, not the responsibility of the LADOTD. We are committed to providing high-quality, accurate work on all deliverables associated with this contract.

The **Bridge QMP** establishes planned and systematic processes necessary to provide adequate confidence that this project will conform to the established quality requirements. It consists of two key components, QC and QA.

This QMP provides an understanding of basic quality processes set forth for the project and the procedures established for implementing those processes. The general procedures outlined herein are recommended for use on all tasks including the management of our subconsultant's work products. These procedures are intended to serve as guidelines and are not intended to be a replacement for sound professional judgment.

The following QMP was developed in accordance with HNTB Gulf Coast District QMP and Part I, Chapter 3 of the LADOTD Bridge Design Manual "Policy for quality control and quality assurance (QC/QA)".

1.3 DEFINITION OF TERMS AND POSITIONS

QC: Procedure for checking the accuracy and consistency of the calculations and the drawings, detection and correcting design omissions and errors before the design plans are finalized, and verifying the specification for the load-carrying members are adequate for the service and operation loads.

QA: Procedure for reviewing the work to ensure the QC procedures are in place and effective in preventing mistakes, and consistency in the development of the bridge design plans and specifications.

Designer: Engineer directly responsible for the development of design calculations, drawings, special provisions and cost estimates. Must be either a licensed professional engineer or engineer intern.

Checker: Engineer responsible for performing a full technical review of the design calculations, special provisions, drawings, and cost estimates. Must be either a licensed professional engineer or engineer intern, however, if the designer is a engineer intern the design checker must be a professional engineer.

Design Back-Checker: Typically the designer. If designer is unavailable, the design back-checker must coordinate with the checker to ensure all noted changes are agreed to. Must be either a licensed professional engineer or engineer intern, however, if the checker is an engineer intern, the design back-checker must be a professional engineer.

Detail Back-Checker: Engineer responsible for performing a full review of the drawings. Must be either a licensed professional engineer or engineer intern, however, if the checker is an engineer intern, the detail back-checker must be a professional engineer.

Updater: Individual responsible for updating the design calculations or plans to reflect all agreed upon changes. (For design calculations, typically the designer; for plans, typically the detailer.)

Verifier: Individual (usually the checker) responsible for verifying that all changes or additions to a drawing, calculation, report or graphic element have been accurately incorporated.

Reviewer: Engineer responsible for ensuring that the QC process has been followed as outlined.

Detailer: Individual responsible for preparing drawings.

Supervisor or Team Leader: Project manager or task assignee responsible for overseeing the project and staff on the project.

Engineer of Record (EOR): The engineer responsible for supervision and/or preparation of plans, sealing calculations, plans, and special provisions if required.

Quality Project Manager (QPM)/Quality Task Manager (QTM): Individual responsible for conducting audits and ensuring QC plans are adhered to. The QPM is responsible for the entire project and all aspects and the QTM are responsible for each discipline.

Independent Technical Reviewer: Engineer who completes an independent review of the drawings and/or calculations. Independent technical reviewer is part of the consultant team but is not part of the design team. Engineer must have experience reviewing tasks that meet or exceed those of the designer and or checker.

Peer Review: Independent engineering entity, with no prior involvement in the project, performs a check of the designs by producing an independent set of calculations based on the drawings or performs the review as specified in the scope of work. Peer reviewer may not be employed by the same consultant with whom the designer or design checker is employed. Peer reviews are typically performed between 60% to 98% final plans stage depending on the scope of the review. It is not within the scope of services for this project.

Audit: A systematic, independent and documented activity performed to verify that applicable elements of the QMP have been effectively implemented and documented in accordance with the specific requirements.

Constructability Review: A design review performed by the contractor or appropriate construction services personnel to assess the feasibility of the proposed design from a construction perspective.

Design Criteria: A set of project-specific parameters that define the design requirements, specifications and functional classifications of the project.

Inter-Discipline Review: A discipline specific design review of a design package by all applicable design disciplines.

Quality Records: A completed document or recordkeeping evidence of successful implementation of any given aspect of the QMP.

Stet: No change required.

1.4 SUBCONSULTANTS

Any work performed by a subconsultant to HNTB shall be held to the same quality standards as described herein for HNTB produced work. The subconsultant will be responsible for following the Movable Bridge QMP. As part of the HNTB team project kick-off, all team members will participate in a quality training session to ensure all parties understand QC/QA requirements and expectations. At a minimum, additional quality training sessions will be held yearly to reinforce quality processes and introduce processes to any new team members.

1.5 FILE MANAGEMENT

SharePoint will be used to manage electronic files between HNTB, ELOS, BDI, GPI, Forte and Tablada, Alliance, GOTECH, Volkert, Manning and LADOTD. Separate folder structures will be created for each structure. ProjectWise will be used to transfer data between LADOTD and HNTB. CADD drawings will be created and modified on local servers. Once complete, all team members will upload PDF CADD files to SharePoint to initiate quality reviews. HNTB will upload final CADD and PDF files will be uploaded to ProjectWise.

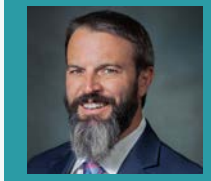
1.6 CADD

All drawings will be developed in Microstation V8i and be CADD conformed to LADOTD standards.

1.7 RESPONSIBILITIES OF THE LADOTD BRIDGE TASK MANAGER

LADOTD bridge task manager will not be responsible for QC/QA of HNTB or our subconsultant's work. The LADOTD bridge task manager will be responsible for items listed in Section 3.3.2 of Part I, Chapter 3 of the Bridge Design Manual. Some, but not all, items are listed below:

- Develop scope.
- Approve design criteria submitted by HNTB.
- Review and approve bridge type, size and location (TS&L) and ensure design criteria is updated as project progresses.
- Review consultant submittals. Selectively check dimension and details as a cursory review of the plans for constructability, consistency, and clarity but not as QC/QA of HNTB work.
- Monitor project schedule – HNTB is ultimately responsible for maintaining schedule or communicating concerns with LADOTD PM.
- Monitor budget - HNTB is ultimately responsible for maintaining budget or communicating concerns with LADOTD PM.



Ben Goodner, PE, will serve as this contract's Quality Project Manager (QPM). Ben is a project manager in the Baton Rouge Office's Bridge Department and formerly served as the Quality Manager of the entire Baton Rouge office. His thorough understanding of LADOTD Bridge Section process and procedure uniquely qualifies him to manage the critical facet of the project. Ben's knowledge and leadership will ensure all assignments are completed with the utmost level of quality.

2.0 QUALITY CONTROL PROCESS

QC is defined as the procedures and processes established to meet the project requirements for quality as stated in the QMP and the accepted standard of care. It is our basic checking procedures for ensuring accuracy and completeness. The following are the standard checking formats for hard copy documents (such as hand calculations, program input files and plans) and electronic documents (such as word documents) that should be implemented for all QC processes:

Design Calculations and LADOTD Approved Design Programs

QC starts first with the designer. The designer is responsible for reviewing all calculations prior to being checked.

A copy of the original document is made for documentation of all review activities. For checking of design programs, a printout of the input and output should be provided to the checker, however, the checker is only responsible for checking the input and reviewing the output to verify the input.

Review of the document for correctness and completeness is performed by the **checker**.

- Changes are **marked in red**.
- Correct items are **highlighted in yellow**.
- Correct full paragraphs (or pages) are marked with a **yellow diagonal**.
- Input files are 100% checked. Controlling values of output files will be verified as an additional check.
- When the checker is complete, all text will be either **highlighted in yellow** or **marked in red**. By doing so, the QPM can easily verify if the entire document has been checked.

A back-check of all comments/proposed changes is performed by the design **back-checker** (usually the **originator**).

- Agreement is shown with a **green check mark** ✓.
- Disagreement is discussed with **checker** and noted with a **green STET** (no change required) upon concurrence with original value.

All agreed upon changes are made to the original document by the **updater**.

- Items are **circled in blue** to show that the change has been made.

All updates to the document are verified for completeness and correctness by the **verifier** (usually the **checker**).

- **Blue circles** are **highlighted in yellow** to show that updates were made.

Once complete, there should be two copies of the design calculations. One yellow highlighted copy with changes noted in red, agreement in green, blue circle to note the change is made and yellow over the blue indicating the change has been verified. The second copy is the corrected copy and should have the checker and back-checker initials. The corrected copy will be included as part of the design calculation book submitted to LADOTD. Both files shall be uploaded to the Team SharePoint site.

Electronic Documents (Word, PDFs, etc.) (Not Design Programs)

A review of the document for correctness and completeness is performed by the **checker**.

- Changes are shown in an inserted comment box or using track changes in a Word Document.
- Correct items are **highlighted with yellow**.
- Correct full paragraphs (or pages) are **highlighted in yellow**.
- Checker will save a version of the checked file once checking is complete.

A back-check of all comments/proposed changes is performed by the **back-checker** (usually the **originator**).

- Agreement is shown by typing "concur" and initialing in comment box or accepting changes (Word Document).
- Disagreement is discussed with **checker** and noted with a STET in comment box with initials of both parties or by rejecting changes (Word Document) upon concurrence with original value.
- Back-checker will save a version of the file once back-checking is complete.

All agreed upon changes are made to the original document by the **originator** (or **updater** if track changes was not used). A version will be saved once updating is complete.

All updates to the original document are verified for completeness and correctness by the **verifier** (usually the **checker**). The final, clean version will be saved once verification is complete. Associated files shall be uploaded to the Team SharePoint site.

Plans (All Submittals to LADOTD)

A set of plans is printed to PDF and each sheet stamped with a PDF checking print stamp (see Appendix).

Review of the plans for correctness and completeness is performed by the checker. The preference is this checking process occur within Bluebeam, but printing paper copies and hand marking is acceptable.

- Changes are **marked in red**.
- Correct items are **highlighted in yellow**.
- If **checker** has significant comments and changes, plans shall be updated accordingly and checking process restarted.
- **Checker** must be a professional engineer or engineer intern and cannot be the **designer** of the plans.

The **detail back-checker** (usually the **designer**) will perform a back-check of all comments/ proposed changes. **Back-checker** is responsible for reviewing all items on the drawing including items marked by **checker**.

- Agreement is shown with a **green check mark** ✓.
- Disagreement is discussed with **checker** and noted with a **green STET** upon concurrence with original value.

All agreed upon changes are made to the original document by the **updater**.

- Items are **circled in blue** to show that the change has been made.

All updates to the document are verified for completeness and correctness by the **verifier** (usually the **checker**).

- **Blue circles** are **highlighted in yellow** to show that updates were made.

Once complete, there should be two copies of the plans. One yellow highlighted copy with changes noted in red, agreement in green, blue circle to note the change is made and yellow over the blue indicating the change has been verified. The second copy is the clean, corrected copy and will be the official deliverable document. Both files shall be uploaded to the Team SharePoint site.

A basic checking procedure is displayed below:

2.1 LEVELS OF REVIEW

There are two levels of review that are utilized within the QC process, as defined below. A given project task could receive a Level 1 or a Level 2 review, or both as deemed appropriate by the supervisor or team leader.

Level 1 - 100% checking of a produced document to include drawings, calculations, spreadsheets, special provisions, tables within reports, program input, graphic elements for reports or presentations, design programs, CADD modeling input.

Level 1 - 100% Document Check

- Check everything on a sheet.
- Use the appropriate standard checking format.
- Document checking procedures on an attached check print sign off sheet or by check print stamp (see Appendix for examples).
- Copy and upload original checked documents as color PDF files to the project QC directory, to await audit.

Level 1 - 100% Input Check

- Checking is only for input data.
- Use the appropriate standard checking format
- Verify that the software or spreadsheet used is appropriate.
- LADOTD pre-approved software does not require validation.
- Verify any previously prepared MathCad and Excel spreadsheets.
- Document checking procedures on an attached check print sign off sheet (see Appendix).
- Copy and upload original checked documents as color pdf files to the project "QC" directory, to await audit.

Level 2 - Peer or senior technical review of documents to include drawings, calculations, report text, CADD documents, shop drawings and RFIs, presentation materials and QA checklists; inter-disciplinary, constructability and independent technical reviews; review and oversight of subconsultant submittals.

- Check or validate only specific items as determined by the supervisor or team leader
- Use the appropriate standard checking format.
- Document checking procedures on an attached check print sign off sheet or by check print stamp (see Appendix for examples).
- Copy and upload original checked documents as color PDF files to the project QC directory, to await audit.

3.0 QUALITY ASSURANCE PROCESS

QA is defined as the systematic activities implemented to provide confidence that the QC processes are followed in compliance with the QMP. These are our audit processes for verifying that the appropriate checking procedures have been performed and documented, and our corrective action plans for addressing problems have been identified within the processes. The keys to an effective quality program lie in the accountability, compliance and continual improvement of the program.

Once the QC processes have been performed, a QA process must be implemented to confirm that the QC procedures were performed to the expectations documented in the QMP. The following procedures should be part of the assurance/validation process.

3.1 Audits

Each consultant shall be responsible for uploading their quality checked files onto SharePoint for QA and notifying the QPM. The QPM will audit the QC records prior to each submission to confirm that all QC procedures have been performed for each task of the deliverable, and record the findings on associated form (see Appendix). Upon approval of the quality documents, the QPM will move each approved document into the project quality records folder and will inform the supervisor or team leader that the submittal is ready for release to the client. The office leader will also receive a hard copy of that verification.

Additionally, the HNTB office quality manager may choose this project for review at an executive level. An audit may be performed similar to the routine project audit, but will also include interviews with staff to determine if the quality management process is clearly understood and is being performed unbiased and independent of the design or production process.

The purpose of the audit is two-fold:

- Identify and correct a breakdown in quality or any instance of noncompliance to established HNTB best practice procedures through a defined corrective action plan.
- Identify opportunities for implementation of preventive action, training and continual improvement processes to enhance quality, efficiency and value to our projects and clients.

All audit findings should be documented as a part of the quality records.

3.2 Corrective Action and Preventive Action Plans

A corrective action plan (CAP) is a strategy for correcting or eliminating a problem impacting project quality or performance that has already occurred or been identified. The focus of the plan is to systematically review the root cause of the problem in an attempt to prevent the problem from recurring. The primary concepts of the plan are as follows:

- Task leads identify the problem and present to PM or QPM
- Determine the cause of the problem or unintended result
- Identify action items or plan to correct to the problem

Preventive actions are implemented in response to the identification of a trend that would potentially impact quality and lead to a project issue or problem. Preventive action is considered as a proactive undertaking. For example, if we anticipate a potential problem and take action to eliminate the causes and prevent the occurrence of that problem, this is considered to be preventive action.

If a problem or breakdown in quality is discovered during an audit, the PM will be notified immediately. The PM and QPM will perform a root cause analysis to determine the extent of the problem and develop a CAP for implementation. A follow-up meeting will be conducted with all responsible individuals to convey the CAP expectations. If a resolution cannot be reached, the office leader will become involved in the process.

4.0 QUALITY MANAGEMENT IMPLEMENTATION

For a quality program to be effective, it must be planned and implemented as part of the project work plan, and budgeted accordingly. A QMP log - Form 1.0 (see Appendix) should be filled out by the PM for every project, incorporated into the Project Work Plan and forwarded to the QPM for execution.

Proper documentation of the process throughout is also key to successfully managing quality. The following file structure should be set up within the project directory for each project:

\Job_Folder\QMP\Deliverable Name\QC (local server)

\Job_Folder\QMP\Deliverable Name\QA (SharePoint)

\Job_Folder\QMP\Deliverable Name\Quality Records (SharePoint)

\Job_Folder\QMP\Deliverable Name\Client Deliverable (SharePoint)

The **QMP** folder will contain the QMP log (Form 1.0) and all project specific quality requirements, checklists, etc.

The **QC** sub-folder will receive each task item or deliverable that has been produced and is ready for review. Each deliverable will be accompanied by either Form 2.0 or Form 3.0, as determined by the PM or task leader. All assigned checkers will go here to get their assigned documents.

The **QA** sub-folder will receive each completed item or deliverable from the QC folder along with a completed Form 2.0 or Form 3.0. The PQM will go here to find all documents ready for QA.

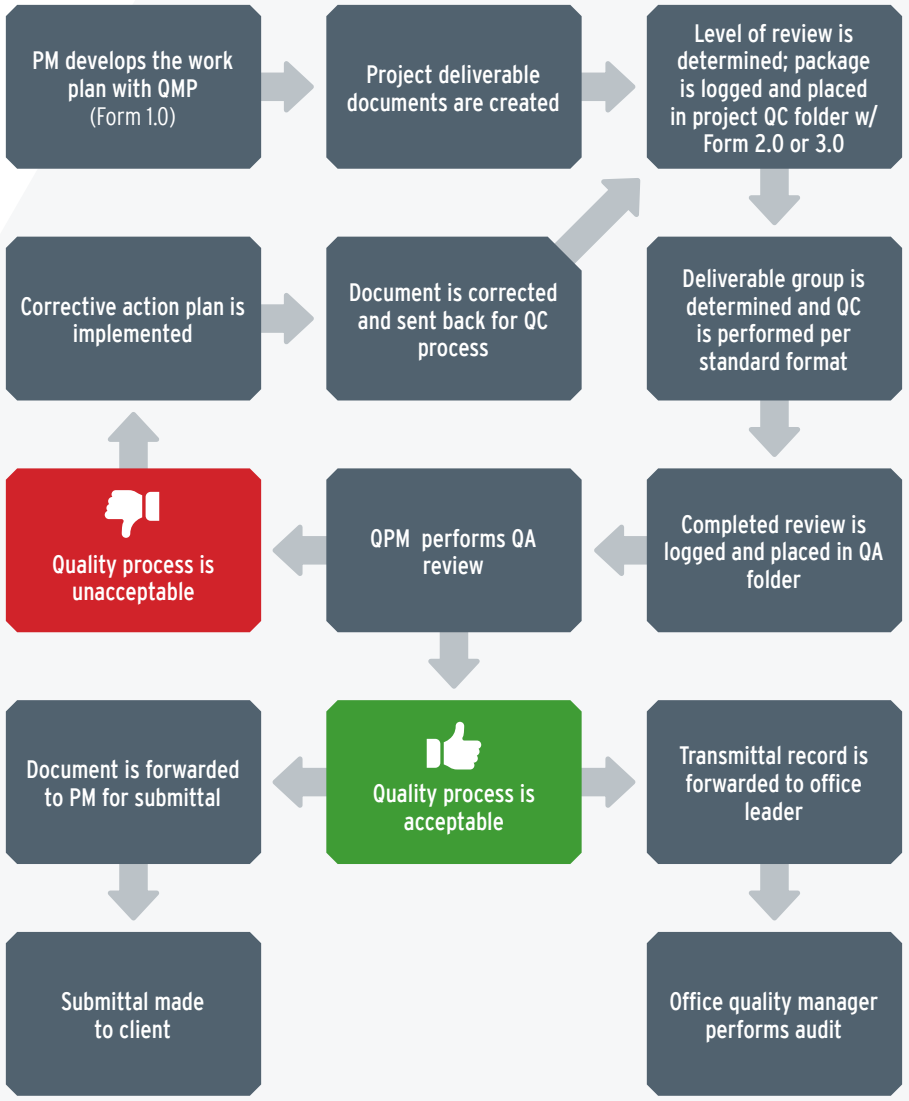
The **Quality Records** sub-folder houses all completed quality documentation that has been signed off by the QPM and the PM, all audit findings and CAP documentation.

The Client Deliverable folder houses only clean files which have completed QC/QA procedures that are to be submitted to the client.

4.1 QMP Process Diagram

The diagram depicts all key activities and the work flow required for the quality management process. This diagram is only intended as a guide and can be supplemented as required by the PM or QPM, based upon project complexity or client requirements.

Quality Process Diagram



5.0 DELIVERABLES

All deliverables submitted to the LADOTD will be subject to QC/QA as described in our QMP. A specific list of deliverable and milestones will be developed and described in the contract scope of work.

6.0 APPENDIX

FORM 1.0 – QUALITY MANAGEMENT PLAN LOG

FORM 2.0 - LEVEL 1 CHECK PRINT SIGN-OFF SHEET

FORM 3.0 – LEVEL 2 REVIEW MEMORANDUM

FORM 4.0 – QUALITY AUDIT CHECKLIST

FORM 5.0 – CORRECTIVE ACTION LOG/ PREVENTIVE ACTION LOG

Sample Check Print Stamps

Sample Quality Plan from Work Plan

LADOTD QC/QA Certification

LADOTD Consultant Submittal QC/QA Certification

HNTB **FORM 1.0**

Quality Management Plan Log

Project Description:	Job No. PM:
Project Fee:	QA/QC Budget:

Deliverable		QA/QC Budget	Review Level	Reviewer	Date	Completed

HNTB

Movable Bridge Quality Management Plan **FORM 2.0**

LEVEL 1 CHECK PRINT SIGN-OFF SHEET

Client Name: _____

Job Title: _____

Job Number: _____

Document Title: _____

Check Level (Mark One):

- ☐ 1 - 100% Document Check
- ☐ 1 - 100% Input Check (When Pre-Validated Software in Used)

		Name	Received Date	Completion Date
Originated By:	☐			
Checked By:	☐			
Backchecked By:	☐			
Verified By:	☐			

Comments:

HNTB

Movable Bridge Quality Management Plan **FORM 3.0**

LEVEL 2 REVIEW MEMORANDUM

Client Name: _____

Job Title: _____

Job Number: _____

Document Title: _____

Check Level (Mark One):

- ☐ Studies or Report Type Documents
- ☐ Documents Prepared by Others
- ☐ Checklist
- ☐ CADD QC Audit
- ☐ Other

Specify below:

		Name	Received Date	Completion Date
Reviewed By:	☐			

Review Findings:

HNTB

FORM 4.0

QUALITY AUDIT CHECKLIST

AUDITED AREA:	**DATE(S) OF AUDIT:**
AUDITOR:	**AUDIT:**

AUDIT ITEM	REFERENCE	METHOD OF VERIFICATION	CONFORMS	
			YES	NO
1. Have computer programs utilized been validated?	QMP Group D	Review validation records.		
2. Are calculation check prints available?	QMP Group B	Review originals and check prints		
3. Were calculations checked prior to drawing checking?	QA Folder, QMP Log	Review check prints.		
4. Are drawing check prints available?	QMP Group E	Review record set and check prints.		
5. Are check prints of specifications available?	QMP Group A	Review record set and check prints.		
6. Is checking of input to computer programs being accomplished?	QMP Group B	Review originals and check prints		
7. Are check prints of studies or report-type documents available?	QMP Group A	Review check prints.		
8. Are procedures for marking up check prints being followed? Checker - Yellow/Red Backchecker - Green Updater - Blue Verifier - Yellow	QA Folder	Review check prints.		
10. Are check prints properly signed and dated?	QA Folder	Review check prints.		
11. Are plan reviews completed?	QMP Log	Review package to verify that comment sheets are available.		
12. Are the review comments incorporated into the final documents or disposed of as otherwise noted?	QA Folder	Review for verification that Design Reviews comments have been incorporated. Review for verification that comments from prior Design Reviews have been incorporated.		
13. Are check prints of graphic elements available?	QMP Group C	Review check prints.		
14. Are all checklists validated?	QMP Group D	Review check prints.		

Corrective Action Log

Form 5.0

HNTB - Quality Manager:

Project #	PM or PQM	Issue Summary	Corrective Action	Implemented
12345	Joe Smith	Subs delayed project submittal	Updated schedule for additional time for subs; weekly conference calls initiated	1/1/2012

Preventative Action Log

HNTB - Quality Manager:

Project #	PM or PQM	Issue Summary	Preventative Action	Implemented
12345	Joe Smith	Task 50% complete - 65% spent	Weekly monitoring by PM	1/1/2012

Sample Check Print Stamps

CHECKING PRINT

Checked by_____ Date_____
Back Checked by_____ Date_____
Corrected by_____ Date_____
Tracing Signed by_____ Date_____

AUXILIARY
CHECKING PRINT NO._____

Checked by_____ Date_____
Back Checked by_____ Date_____
Corrected by_____ Date_____
Tracing Signed by_____ Date_____

DOTD QC/QA Certification

Project No.: H.0XXXXX
Project Name: XXXXXXXXXXX

We, the undersigned designers, detailers, checkers and reviewers for this project, have reviewed and accepted the calculations, plans, quantities, special provisions, and cost estimate prepared for the project. We certify that the work for which we are responsible has been completed in accordance with the LADOTD Bridge Design Section policy on QC/QA.

Team Members	Name	PE Registration No.	Responsible Plan Sheets	Responsible Special Provisions	Construction Cost Estimate	Signature
Designers						
Design Checkers						
Detailers						
Detail Checkers						
Reviewers						
Peer Reviewer						
Geotechnical Engineer						
Hydraulic Engineer						
EOR						

DOTD Consultant Submittal QC/QA Certification

Project No.: H.0XXXXX
Project Name: XXXXXXXXXXX

I, the undersigned Supervisor or Team Leader for this project, certify that the information included in this submittal has been prepared in accordance with the QC/QA plan documents and LADOTD Bridge Design Section policy on QC/QA and the information presented is accurate and meets the requirements of this submittal. All CAD drawings meet LADOTD CAD standards.

_____
Submittal Description

_____ _____ _____
Supervisor or Team Leader Name Signature Date

Section 22:
Subconsultant Information

22. **Subconsultant Information**			
Firm Name (as registered with Louisiana's Secretary of State)	Address	Point of Contact and email address	Phone Number
APS Engineering and Testing, LLC	1645 Nicholson Drive Baton Rouge, LA 70802	Sergio Aviles, PE sergio@aps-testing.com	225.456.5714
Arcadis US, Inc.	10352 Plaza Americana Drive Baton Rouge, LA 70816	Akhil Chauhan, PE, PTOE, PTP, PMP akhil.cahuhan@arcadis.com	225.292.1004
Cambridge Systematics	101 Station Landing, Suite 410 Medford, MA 02155	Steve Capecci scapecci@camsys.com	781.539.6724
ELOS Environmental, LLC	607 W. Morris Avenue Hammond, LA 70403	Lucas Watkins lwatkins@elosenv.com	985.662.5501
Forte and Tablada, Inc.	9107 Interline Avenue Baton Rouge, LA 70809	Brad Holleman, PLS, EI bholleman@forteandtablada.com	225.927.9321
GOTECH, Inc.	8383 Bluebonnet Boulevard Baton Rouge, LA 70810	Rhaoul A. Guillaume, Sr., PE rhaoul@gotech-inc.com	225.766.5358
Manning, APC	650 Poydras Street, Suite 1250 New Orleans, LA 70130	Tighe Kirkland, Assoc. AIA tbk@manning.xyz	504.412.2000

Section 23:
Location

23. Location