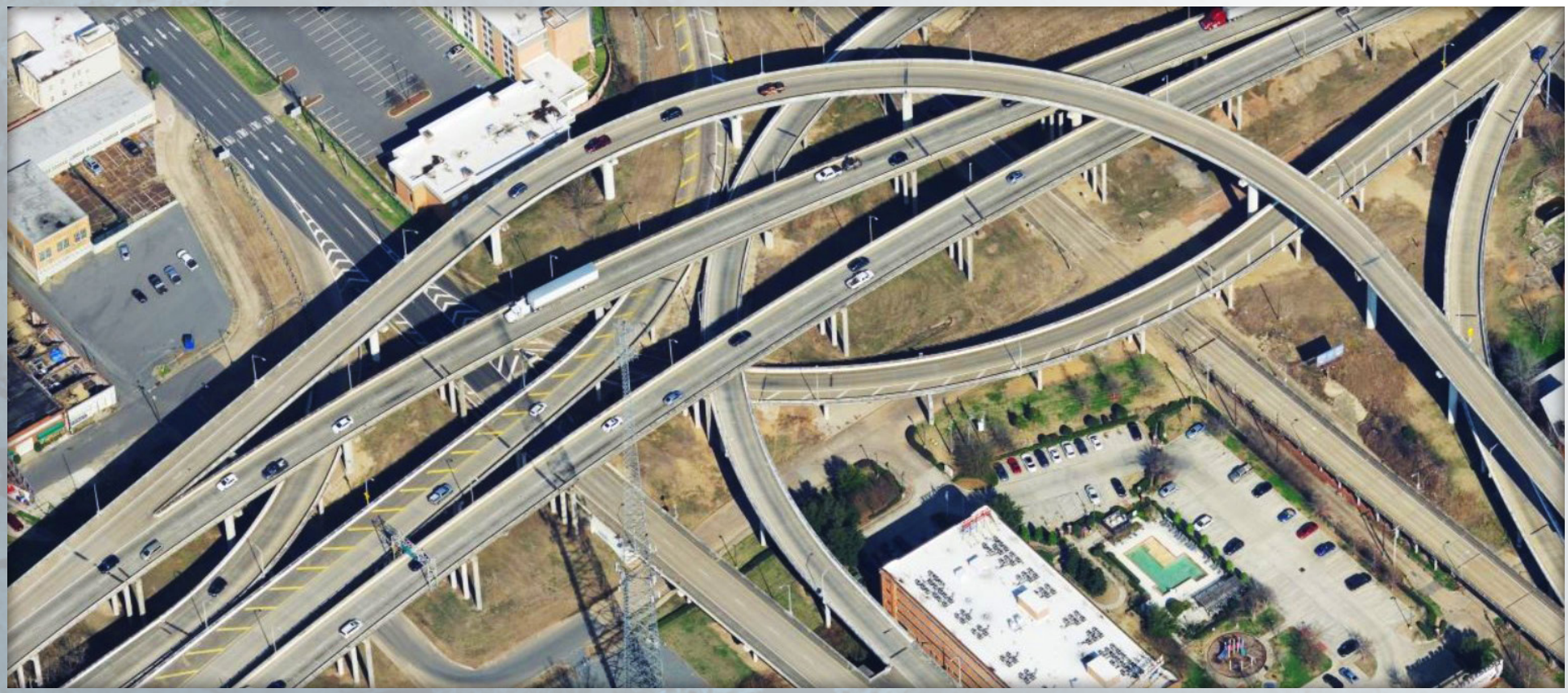
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Hardesty & Hanover

STATEMENT OF QUALIFICATIONS | **CONTRACT Nos. 400024927 AND 4400024928**

IDIQ CONTRACTS FOR ROADWAY DESIGN SERVICES STATEWIDE

October 4th, 2022



IDIQ CONTRACTS FOR ROADWAY DESIGN SERVICES STATEWIDE Contract Nos. 4400024927 and 4400024928

Project Manager
Babak "Bobby" Naghavi, PE, PhD
bnaghavi@hardestyhanover.com
504.605.7970

TEAM

Hardesty & Hanover – Prime Consultant

CD&C Inc – Survey Services

Urban Systems – Traffic Services

Hardesty & Hanover
engineering that moves you

3850 N. Causeway Boulevard, Suite 1850 • Metairie, LA 70002
504.962.9212

www.hardestyhanover.com

October 4, 2022

Electronic Submission to:
DOTDConsultantAds80@la.gov

Hardesty & Hanover (H&H) is excited to present our team's qualifications for your *Roadway Design Services contracts.* Our team is well-qualified with multiple team members with extensive experience in roadway design plans with state, parish, and federal agencies.

Subconsultant/DBE Participation: The H&H Team includes subconsultants with extensive experience in their specialty areas. To meet the 4% DBE participation goal of this contract we have included two highly qualified firms. Civil Design & Construction, Inc. will perform all topographic survey work and Urban Systems Inc. will perform all traffic control design, traffic signal analysis, design work and transportation management plans (TMPs). We have worked with these subconsultants in the past.

Proven Roadway Design Services: H&H's team of highly qualified engineers have extensive experience, are local and available to begin on the project as soon as awarded. Our team of engineers and specialists have decades of roadway and bridge design experience with the Louisiana Department of Transportation and Development. From preparing preliminary and final roadway plans, associated services and beyond, our team is dedicated to meeting and exceeding your expectations through efficiency and skillset.

LADOTD Experience: Our team assigned to these projects have comprehensive experience using LADOTD standards and specifications with several working at LADOTD for over 25 years and/or working on prior LADOTD projects. Because we are thoroughly familiar with LADOTD procedures and design standards, we will be able to work at accurately and swiftly from the beginning of the Roadway Design Services contract. Our staff from H&H meet and exceed all the MPRs required under this contract. H&H would sincerely appreciate an opportunity to work with LADOTD on this important IDIQ Roadway Design Services Contract. We'd appreciate your consideration and look forward to providing top-quality roadway design services. Please do not hesitate to contact us if additional information on our extensive qualifications is needed.

Sincerely,
Hardesty & Hanover

Paul Skelton, PE
Principal-in-Charge

Babak Naghavi, PE, PhD, PH
Project Manager and Point of Contact

DOTD FORM: 24-102

(Revised March 1, 2022)

PROPOSAL TO PROVIDE CONSULTANT SERVICES

1. Contract title as shown in the advertisement	IDIQ CONTRACTS FOR ROADWAY DESIGN SERVICES STATEWIDE
2. Contract number(s) as shown in the advertisement	4400024927 AND 4400024928
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)	Hardesty & Hanover, LLC
5. Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	E.F.0005124
6. Prime consultant mailing address	3850 N. Causeway Boulevard, Ste 1850 Metairie, LA 70002
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	3850 N. Causeway Boulevard, Ste 1850 Metairie, LA 70002
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Babak (Bobby) Naghavi, PhD, PE, PH, Regional Manager 504.605.7940 | bnaghavi@hardestyhanover.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Paul Skelton, PE, Principal 504.962.9212 | pskelton@hardestyhanover.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):  10/4/2022 Date:
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)' %: Percentage per firm will be based on individual TO assignments CD&C Inc. 7.5% Urban Systems, Inc. 7.5%

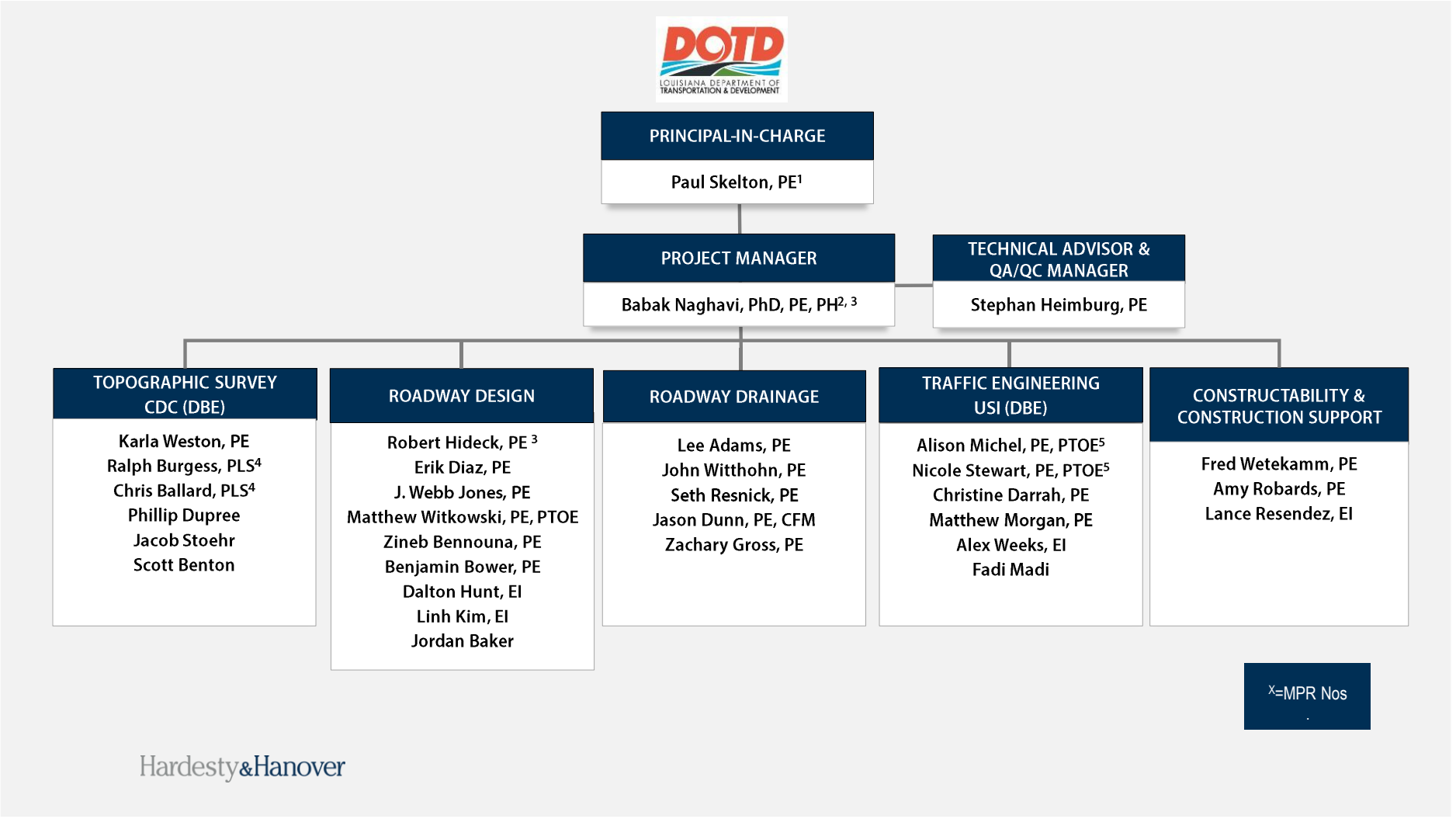
12. Past Performance Evaluation Discipline Table:

Evaluation Discipline(s)	% of Overall Contract	Prime: Hardesty & Hanover	CD&C Inc.	Urban Systems, Inc.	Each Discipline must total 100%
Road	85%	100%			100%
Survey	7.5%		100%		100%
Traffic	7.5%			100%	100%
Identify the percentage of work for the overall contract to be performed by the prime consultant and each sub-consultant.					
Percent of Contract	100%	85%	7.5%	7.5%	

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)
Hardesty & Hanover, LLC	Principal	2	12
	Supervisor – Eng	4	20
	Engineer	4	42
	Engineer - Other	6	224
	Inspector - Bridge	0	38
	Supervisor - Arch	0	2
	Supervisor - Other	0	8
	Engineer Intern	3	46
	Designer	1	42
	Administrative	1	28
Civil Design & Construction, Inc.	Supervisor – Eng	1	1
	Engineer Intern	1	1
	Surveyor	2	2
	Party Chief	3	5
	Instrument Man	2	3
	Rodman	2	2
	CADD-Operator	1	1
	Senior Technician	3	5
	Supervisor - Other	1	1
Urban Systems, Inc.	Supervisor – Eng	2	2
	Engineer	2	2
	Engineer - Other	1	1
	Engineer Intern	2	2
	CADD Technician	1	1
	Technician	2	3

14. Organizational Chart:



15. Minimum Personnel Requirements:

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

MPR No. Do not insert wording from ad	Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license / certification & number	State of license	License / certification expiration date
1	Paul Skelton	Hardesty & Hanover	PE (27039)	LA	3/31/2023
2	Babak Naghavi	Hardesty & Hanover	PE (20745)	LA	9/30/2024
3	Babak Naghavi	Hardesty & Hanover	PE (20745)	LA	9/30/2024
3	Robert Hideck	Hardesty & Hanover	PE (41953)	LA	3/31/2024
4	Ralph Burgess	Civil Design & Construction, Inc.	PLS (5040)	LA	09/30/24
4	Chris Ballard	Civil Design & Construction, Inc.	PLS (5033)	LA	09/30/24
5	Alison C. Michel	Urban Systems, Inc.	PE #30261 PTOE #1023	LA	3/31/2023 11/6/2023
5	Nicole H. Stewart	Urban Systems, Inc.	PE #34750 PTOE #2923	LA	09/30/2023 08/30/2023

16. Staff Experience:

Firm Employed by	Hardesty & Hanover		
Name	**Paul Skelton, PE**	Years of relevant experience with this employer	35
Title	Principal-in-Charge	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			B.E. / 1985 / Mech. Engineering / State University of NY at Stony Brook
Active registration number / state / expiration date			Professional Engineer: 27039 / LA / 3/31/2023
Year registered	1995	Discipline	Mechanical Engineering
Contract role(s) / brief description of responsibilities			**Principal-in-Charge – Meets MPR 1**

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).
06/17-present	**H.002798.6; Bayou Teche Movable Bridge at Oaklawn Rehabilitation, St. Mary Parish, LA – LADOTD** **Principal-in-Charge** for the bridge rehabilitation involving the electrical design, calculations, and plan preparation of the bridge power distribution and relay-based control system for this movable bridge located in St. Mary Parish, LA. Built in 1941, the original historically significant bridge was replaced with a new hydraulically operated swing bridge. The new through girder swing-span rotates with hydraulically actuated slewing (push-pull) cylinders. The project is currently in the post-design phase.
03/18-present	**SR 609 Bascule Bridge Rehabilitation, Ocean Springs, MS – Mississippi DOT** **Principal-in-Charge** responsible for full rehabilitation of SR 609 bascule bridge, as a task-order to the IDIQ Master Bridge Contract which includes developing standard and special bridge services, statewide for MDOT. Scope of work includes inspection and rehabilitation of structural, mechanical, and electrical components of the bridge, as well as the roadway approaches and development of maintenance and repair plans. All designs are in accordance with AASHTO, FHWA and MDOT guidelines and specifications.
01/20-present	**Almonaster Avenue Bridge Rehabilitation and New Connector Road, New Orleans, LA – Port of New Orleans** **Principal-in-Charge** for the bridge assessment, complete rehabilitative engineering design, and road design services required for the partial replacement of the Almonaster Avenue Bridge and a new connector road. H&H's 2019 assessment of the circa-1920, eligible for the National Register of Historic Places bridge revealed that improvements to the electrical and mechanical systems, superstructure, and the connecting roads were required to return this bridge to its full operating capability. The road design services included a new alignment for the connecting road including all drainage structures. H&H also developed a hydraulic study and a site plan that included several retention ponds for drainage improvements. Other services included environmental, geotechnical, and pavement design.

01/19-present	**Lapalco Boulevard Bridge over Harvey Canal, Westwego, LA – Jefferson Parish DPW** **Principal-in-Charge** for the pre-design inspection, the rehabilitation and widening of the existing four-lane Lapalco Boulevard to provide a facility carrying three lanes of traffic in each direction, and the design of a new three-lane double bascule bridge crossing of Harvey Canal. project includes rehabilitation to the existing four-lane bridge with three lanes of traffic and a new pedestrian/bike lane. The scope of services also includes the design of a new bridge to be constructed as an independent structure immediately adjacent and north of the existing bridge with a new operator house. Improvements to bridge and roadway approaches for eastbound and westbound traffic as well as the development of a Traffic Control Plan is also included in scope.
01/16-10/21	**SR-A1A/North Causeway Bridge over ICWW, Fort Pierce, FL - Florida DOT** **Principal-in-Charge** for the 4000-foot-long bridge replacement project which replaces a bascule span with a high-level fixed bridge that has 85-foot vertical clearance over the navigable channel. The preferred replacement fixed bridge alternative includes the FIB superstructure and spans over Old Dixie Hwy and the FEC Railway. In addition, the project includes extending Juanita Ave east from US-1 to Old Dixie Hwy and provisions for a new access roadway for the businesses south and north of the new bridge along SR A1A.
10/15-06/19	**Marine Parkway/Gil Hodges Memorial Vertical Lift Bridge Rehabilitation, Brooklyn/Queens, NY – MTA Bridges & Tunnels** **Principal-in-Charge** for bridge rehabilitation services which included a deck replacement study and design. Deck widening was accomplished by relocating the sidewalk with new brackets. Our emphasis on constructability during design and extensive prefabrication strategies facilitated fast-track construction. Work also entailed major electrical upgrades, repainting of the structure, and complete lead abatement. The completed bridge includes a widened modular precast lightweight concrete deck on the deck truss spans, a widened open grating deck on the through trusses and lift span, and a lightweight sidewalk located on the new cantilever brackets extending out from the existing floor beams. The cellular abutments were also repaired and re-decked. Ancillary work included extensive electrical facility design as well as lighting and draining upgrades.
07/16-10/16	**Warsaw Road Swing Bridge, St. Peterborough, Ontario, Canada – Public Works and Government Services Canada** **Principal-in-Charge** responsible for rehabilitation of a swing bridge located on Parkhill Road, in the City of Peterborough. It was constructed in 1956. The Warsaw Road Bridge is approximately 31.1m long, unequal arm, through-plate girder swing bridge. The short arm of the bridge is approximately 10.0m, and the long arm is approximately 21.1m. The width of the bridge is approximately 10.3m with a roadway of approximately 7.3m. The work involves structural, electrical, and mechanical rehabilitation of the bridge.
08/08-08/13	**Judge Seeber (Claiborne Ave) Vertical Lift Bridge over Industrial Canal Rehabilitation, New Orleans, LA – LA DOTD** **Principal-in-Charge** for bridge rehabilitation services for this Preservation Priority Bridge. Services included vertical lift bridge assessment and rehabilitation design for miscellaneous structural repairs, replacement of the entire electrical system and replacement of the counterweight ropes. The electrical system was replaced in-kind using secondary resistance control operated with a drum switch as preferred by the owner. The vertical lift ropes were replaced using an innovative design connecting the rope socket to the lifting girder. The new socket allows the ropes to be shimmed using a vertically elongated pin hole that allows for rope length adjustment to help ensure equal load distribution to each lifting rope.

16. Staff Experience:

<table>
<tr><td rowspan="3">  </td><td>Firm Employed by</td><td colspan="3">Hardesty & Hanover</td></tr>
<tr><td>Name</td><td colspan="2">Babak Naghavi, PhD, PE, PH</td><td>Years of relevant experience with this employer</td><td>5</td></tr>
<tr><td>Title</td><td colspan="2">Regional Manager</td><td>Years of relevant experience with other employer(s)</td><td>35</td></tr>
<tr><td colspan="3">Degree(s) / Years / Specialization</td><td colspan="3">PhD / 1993 / Civil Engineering / Louisiana State University
MS / 1982 / Civil Engineering / Louisiana State University
BS / 1979 / Civil Engineering / Louisiana State University</td></tr>
<tr><td colspan="3">Active registration number / state / expiration date</td><td colspan="3">Professional Engineer: 20745 / LA / 9/30/2024
NEPA Transportation Decision Making Workshop
ATSSA Traffic Control Supervisor Refresher – ATSSA Flagger
Highway Safety Manual Workshop</td></tr>
<tr><td>Year registered</td><td>1983</td><td>Discipline</td><td colspan="3">Civil and Environmental Engineering</td></tr>
<tr><td colspan="3">Contract role(s) / brief description of responsibilities</td><td colspan="3">Project Manager – Meets MPR 2 and 3</td></tr>
<tr><td>Experience dates (mm/yy–mm/yy)</td><td colspan="5">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).</td></tr>
<tr><td>08/20-present</td><td colspan="5">I-10 & I-12 College Drive Flyover Ramp Design-Build - LA DOTD
Project Quality Manager overseeing design and construction quality control/quality assurance for this flyover ramp design-build project which is located at the I-10 West exit to College Drive, in advance of the I-10 & I-12 West merge. H&H serves as Design-Builder's Construction Quality Control Firm (CQCF) and oversees all Design Quality Control and Construction Quality Control activities for the project. Responsibilities include the development and implementation of Comprehensive Quality Plan to ensure the design and construction conforms to all specified requirements. H&H will also develop, maintain, and update Contractor Quality Management Plan and provide all necessary qualified Inspectors, material sampling, testing, independent testing labs to ensure contractors and off-site fabrication facilities meet project specifications.</td></tr>
<tr><td>11/21-present</td><td colspan="5">Sidewalk Improvements to Conform to ADA Guidelines – LA DOTD
Project Manager for various design services including preliminary plans, final plans, construction engineering, project proposal plans, and inspection for LADOTD Sidewalk Improvements to Conform to ADA Guidelines. The project begins at the intersection of LA 1091 (Robert Boulevard) with US 190 (Gause Boulevard) in the city limits of Slidell, Louisiana, then continues North along LA 1091 for 2.0+/- miles to a location 175’ North of the intersection of LA 1091 with Country Club Boulevard. The survey will extend along all major side roads 50’ from the PT of the curbing in each direction. The project includes providing various design services including preliminary plans, final plans, construction engineering, project proposal plans, and inspection for LADOTD Sidewalk Improvements to Conform to ADA Guidelines.</td></tr>
</table>

01/18-present	**Lapalco Boulevard Movable Bridge Over Harvey Canal, Westwego, LA – Jefferson Parish DWP** **Principal-in-Charge** for the pre-design inspection, the rehabilitation and widening of the existing four-lane Lapalco Boulevard to provide a facility carrying three lanes of traffic in each direction, and the design of a new three-lane double bascule movable bridge. Project includes rehabilitation to the existing four-lane bridge with three lanes of traffic and a new pedestrian/bike lane. The scope of services also includes the design of a new bridge to be constructed as an independent structure immediately adjacent and north of the existing bridge with a new operator house. Improvements to bridge and roadway approaches for eastbound and westbound traffic as well as the development of a Traffic Control Plan.
05/13-02/17	**Glen Oaks Drive (Plank Road to McClelland Drive) – Baton Rouge DPW** **Project Manager** for the $10M engineering design for the construction of a three-lane concrete curb and gutter roadway with sidewalks and subsurface drainage on Glen Oaks Drive from Plank Road to McClelland Drive. Glen Oaks Drive was a one-mile existing Urban Collector roadway. The project also included improvements to several intersections, full topographic survey, subsurface drainage system and outfalls, and hydrologic and hydraulics analysis for the outfalls.
05/12-11/15	**S.P. No. 737-99-1024: Safe Routes to School Project – LA DOTD** **Project Manager** providing design and construction engineering and inspection services for selected projects involving sidewalks and related drainage modifications, curb extensions, signing, and striping. Work included sidewalk, signage, and marking improvements in the vicinity of several school areas including Daspit Elementary School in New Iberia, LA; two schools in DeRidder, LA; three schools in Orleans Parish, LA; Mandeville Elementary School in Mandeville, LA; and Hammond Junior High in Hammond, LA
01/09-08/10	**USACE Contract. W912P8-07-D-0055: Causeway Boulevard Overpass Complex - USACE** **Project Manager** for this project that involved the design of north and south roadway approaches for the overpass structures at Causeway Boulevard located at Jefferson Parish, LA. The scope of work included precast concrete piles; cast-in-place pile bent caps and concrete decks; approach slabs; and a storm-water drainage pumping station.
02/81-07/87	**Road Design Section, Hydraulics Unit – LA DOTD** **Senior Hydraulics Engineer** responsible for the review and design of the numerous roadway and drainage projects including the drainage design of roadway and bridge structures, scour analysis of bridges; and stabilization of stream banks and shorelines. Also developed the Hydraulic Design Manual and all the hydraulics and hydrologic computer programs that were used by the LADOTD, other government agencies, and the consultant community to design the hydrologic and hydraulic structures.
06/16-02/17	**Jefferson Parish Streets Canal Safety Study – Jefferson Parish DPW** **Project Manager** for analysis of safety concerns of canals at Veterans Memorial Boulevard and West Napoleon Avenue. The study included safety study of these two major arterial roads, compiling accident data, developing several corrective measures, recommending solutions, and developing a comprehensive conceptual plan to alleviate safety concerns of these canals. The plan also included the development of a cost estimate for the proposed solutions.

16. Staff Experience:

<table>
<tr><td rowspan="3">  </td><td>Firm Employed by</td><td colspan="2">Hardesty & Hanover</td><td></td></tr>
<tr><td>Name</td><td>Stephan Heimburg, PE</td><td>Years of relevant experience with this employer</td><td>13</td></tr>
<tr><td>Title</td><td>Chief Engineer</td><td>Years of relevant experience with other employer(s)</td><td>25</td></tr>
<tr><td colspan="3">Degree(s) / Years / Specialization</td><td colspan="2">BS / 1984/ Civil Engineering / Georgia Institute of Technology</td></tr>
<tr><td colspan="3">Active registration number / state / expiration date</td><td colspan="2">Professional Engineer: 41934/ FL</td></tr>
<tr><td>Year registered</td><td>1989</td><td>Discipline</td><td colspan="2">Civil Engineering</td></tr>
<tr><td colspan="3">Contract role(s) / brief description of responsibilities</td><td colspan="2">Technical Advisor & QA/QC Manager</td></tr>
<tr><td>Experience dates (mm/yy–mm/yy)</td><td colspan="4">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).</td></tr>
<tr><td>08/16-06/18</td><td colspan="4">I-75 SB Exit Design from S of Bypass Canal to EB/WB – Florida DOT
Principal-in-Charge/Quality Control Officer responsible for project oversight of plans preparation and engineering documentation. This two-mile roadway improvement project included the addition of a new auxiliary lane for southbound I-75 from south of the Bypass Canal to the southbound off-ramp and widening the I-75 southbound off-ramp from one to two lanes. A unique aspect of the design approach was the incorporation of this design into a long-term buildout of the interchange. This project was expedited for construction based on no right-of-way acquisition or impacts to Florida Gas Transmission lines.</td></tr>
<tr><td>05/17-11/19</td><td colspan="4">Orlando South Ultimate Interchange Improvements – Florida’s Turnpike Enterprise
Project Manager responsible for concept development, coordination, and project oversight of a complex interchange, including system and service movements. This project includes an evaluation of a complex interchange that provides both direct and indirect ramping between Orange Blossom Trail and the adjacent two limited access highways. Project goal included: construction of direct connection ramps between freeways, an ultimate 10-lane typical section of the turnpike, implementation of AET, consideration of express direct connections, and improvement of surface street operations with two new reliever interchanges. The recommended configuration included improvements to the systems interchange, modification to two adjoining interchanges, and new proposed service interchanges.</td></tr>
<tr><td>04/13-09/14</td><td colspan="4">Pinellas Trail from Ponce De Leon Blvd. to Woodlawn Ave. – Pinellas County
Chief Engineer responsible for project oversight for a study of the severe embankment erosion aggravated by Hurricane Debbie along the Pinellas Trail. The study resulted in a recommendation for stabilization with geotextiles and final plans to repair the trail.</td></tr>
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02/15-06/18	**44th Avenue, E from 45th Street E to 44th Avenue Plaze E, Braden River Segment – Manatee County** **Chief Engineer** responsible for oversight of roadway and traffic control plans design. This project includes the design for the reconstruction and extension of 44th Avenue East from 45th Street East to 44th Avenue Plaza East. The design plans include widening from a two-lane roadway to a four-lane divided urban roadway. As part of this project, a new bridge will be designed to cross over the Braden River and the realignment of Morgan Johnson Road and Caruso Road will provide route continuity. Alternative intersection designs, including a roundabout and stage construction were considered.
01/07-03/14	**Veterans Expressway (SR 589) Widening from Memorial Highway to Gunn Highway – Florida's Turnpike Enterprise** **Project Manager, Chief Engineer and Subconsultant** responsible for design coordination and maintenance of traffic support. This project included the widening of more than 6.5 miles of a tolled principal urban arterial in northwest Hillsborough County from four to eight lanes, including the addition of express lanes. As part of the expansion, the existing conventional cash toll collection method was converted to an AET collection method. The project included two full interchanges and four partial interchanges. Due to the proximity to the Tampa International Airport, aviation permits were required throughout the project corridor and extensive coordination was required with the FAA and Hillsborough County Aviation Authority (HCAA). This activity included meeting with aviation agency staff and the design team to adjust design element locations and/or elevations for the acquisition of FAA determinations required for HCAA permits. The project also included the milling and resurfacing of the existing roadway, as well as widening and reconstruction.
10/98-12/99	**Hurricane Georges Emergency Resigning (PRHTA GEC Contract) – Puerto Rico Highway and Transportation Authority** **Senior Engineer** responsible for leading the development of multiple plan packages, coordination of efforts to ensure replacement signage, and criteria updates based on Manual on Uniform Traffic Control Devices (MUTCD) requirements. This fast-tracked task assignment entailed field inventory for more than 3,100 miles (5,000 kilometers) of roads plus planned production for more than 41,000 signs damaged by Hurricane Georges. The assignment was completed in ten weeks and required collective efforts of 12 offices.
03/12-05/16	**Tampa Interstate Express Lane Master Plan – Florida DOT** **Chief Engineer** responsible for conceptual design efforts and criteria development for implementing tolled express lanes for high volume segments of I-275 and I-4, from the Howard Frankland Bridge to 50th Street and SR 60 between I-275 and SR 589. Coordinated interfaces with adjoining segments on I-275 to the west and north and I-4. Florida DOT District 7 initiated development of an express lane master plan that expanded on the geographic limits of express lanes, defined in the TIS FEIS, and changed their operation with the addition of tolls. Conceptual design efforts included a stage construction plan from "starter" projects of individual segments through buildout of three systems interchanges and assessments of new and changed access.
04/11-06/15	**SR 211 (Beach Boulevard) Landscaping from St. Johns Bluff Road to San Pablo Road – Florida DOT** **Chief Engineer** responsible for traffic control plans and constructability oversight. The project involved roadway design for over 5.6 miles, including landscaping and irrigation improvements for proposed bold landscaping within existing medians on Beach Boulevard, from St. Johns Bluff Road to San Pablo Road in Jacksonville.

16. Staff Experience:

Firm Employed by	Hardesty & Hanover		
Name	Robert Hideck, PE	Years of relevant experience with this employer	7
Title	Senior Roadway Engineer	Years of relevant experience with other employer(s)	11

Degree(s) / Years / Specialization			B.S. / 2002 / Civil Engineering / University of Pittsburgh
Active registration number / state / expiration date			Professional Engineer: 41953 / Louisiana / 3/31/2024
Year registered	2017	Discipline	Roadway Engineering
Contract role(s) / brief description of responsibilities			**Roadway Design Engineer – Meets MPR 3**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
11/20-present	**Almonaster Avenue Bridge Rehabilitation and New Connector Road, New Orleans, LA – Port of New Orleans** **Roadway Design Engineer** for the bridge assessment, complete rehabilitative engineering design, and road design services required for the partial replacement of the Almonaster Avenue Bridge and a new connector road. H&H's 2019 assessment of the circa-1920, eligible for the National Register of Historic Places bridge revealed that improvements to the electrical and mechanical systems, superstructure, and the connecting roads were required to return this bridge to its full operating capability. The road design services included a new alignment for the connecting road including all drainage structures. H&H also developed a hydraulic study and a site plan that included several retention ponds for drainage improvements. Other services included environmental, geotechnical, and pavement design.
01/14-present	**Districtwide Interstate Program Manager (IPM) – Florida DOT** **Project Engineer** assisting with the development and review of concept designs. This multi-discipline, indefinite quantity contract provided as-needed services to support the Florida DOT work program for all interstate highway improvements in the five-county FDOT District region. The geographic limits include over 150 miles of I-275, I-4, and I-75 and key contributing arterials.
04/17-05/21	**SR 75 (US 231) Reconstruction, SR 30A (US 98) to South Pipeline Road, Panama City, FL – Florida DOT** **Roadway, Signing and Pavement Markings, and Traffic Control Plans/Engineer of Record** responsible for design and preparation of roadway, signing and pavement marking, and temporary traffic control plans. H&H is providing design services for the single point urban interchange (SPUI) at SR 77 over US 231 and CSX RR improvement project. Work includes design for roadway and drainage design of the intersection, lighting design for the entire project, and bridge design for a new 840-foot steel bridge.
03/07-10/13	**Veterans Expressway (SR 589) Widening from Memorial Highway to Gunn Highway – Florida's Turnpike Enterprise** **Project Engineer** responsible for roadway design, preparation of plans, coordination of subconsultants and multiple disciplines, post-design services, and civil/site design for six toll sites. As part of the expansion, the existing conventional cash toll collection method was converted to an AET collection method. The project included two full interchanges and four partial interchanges. Due to the proximity to the Tampa International Airport, aviation permits were required throughout the project corridor and extensive coordination was required with the FAA. This activity included meeting with aviation agency staff and the design team to adjust design element locations and/or

	elevations for the acquisition of FAA determinations required for HCAA permits. The project also included the milling and resurfacing of the existing roadway, as well as widening and reconstruction.
12/13-05/19	**Homestead Extension of Florida's Turnpike (SR 821) - S of Killian Parkway to N of Sunset Drive, Miami, FL – Florida's Turnpike** **Roadway Engineer** responsible for roadway and TTC design for Kendall Drive and Sunset Drive and the mainline HEFT. This design-build project comprised the widening of the mainline HEFT (SR 821) from south of Killian Parkway to just north of Sunset Drive. The project also included development of express lanes, relocation of ramp tolling, and operational improvements to the Kendall Drive interchange as well as resurfacing and other minor improvements.
03/15-03/17	**Fort Hamer Bridge Approaches, Upper Manatee River Road to Fort Hammer Road, Manatee County, FL – Manatee County** **Project Roadway Engineer** responsible for roadway and temporary traffic control plans. This project included the design of over a mile of approach roadway for a new bridge over the Manatee River, connecting Upper Manatee River Road with Fort Hamer Road. The project was designed for stage construction with the two lanes being delivered with initial construction.
04/17-03/20	**SR 75 (US 231) from SR 30A (US 98) to Pipeline Road, Panama City, FL – Florida DOT** **Roadway, Signing and Pavement Markings, and TTCP Engineer of Record** responsible for design and preparation of roadway, signing and pavement marking, and traffic control plans for the single point urban interchange at SR 77 over US 231 and CSX RR improvement project. Work includes bridge, roadway, drainage, and lighting design.
09/15-12/18	**44th Avenue E from 45th Street E to 44th Avenue Plaza E, Braden River Segment, Manatee County, FL – Manatee County** **Roadway Engineer of Record/Senior Roadway Engineer** responsible for roadway and traffic control design and plans preparation. Project included the design for the reconstruction and extension of 44th Avenue East from 45th Street East to 44th Avenue Plaza East. The design plans include reconstruction from a two-lane roadway to a four-lane divided urban roadway. A new bridge was designed to cross over the Braden River, as well as a realignment of Morgan Johnson Road and Caruso Road to provide route continuity.
01/16-05/18	**I-75 SB Off-Ramp from S of Bypass Canal to EB/WB I-4, Hillsborough County, FL – FDOT** **Project Engineer** responsible for the roadway and temporary traffic control (TTC) design and plans preparation for this two-mile roadway improvement project that included ramp widening, an extension of the ramp to provide off-line queueing, and an extended auxiliary lane on I-75. A unique aspect of the design team's approach was incorporation of operational improvements into a long-term buildout. This project was expedited for construction based on no right-of-way acquisition or impact to Florida Gas Transmission lines.
04/22-present	**Orlando South Ultimate Interchange Improvements – Florida's Turnpike Enterprise** **Project Engineer** responsible for concept development, coordination, and project oversight of a complex interchange, including system and service movements. This project includes an evaluation of a complex interchange that provides both direct and indirect ramping between Orange Blossom Trail and the adjacent two limited access highways. Project goal included: construction of direct connection ramps between freeways, an ultimate 10-lane typical section of the turnpike, implementation of AET, consideration of express direct connections, and improvement of surface street operations with two new reliever interchanges. The recommended configuration included improvements to the systems interchange, modification to two adjoining interchanges, and new proposed service interchanges.
03/06-12/07	**Starkey Road Final Design – Pinellas County Government** **Engineering Intern** responsible for design and development of plans and development of cross sections. This project included the widening of three segments of Starkey Road from a four-lane rural section roadway to a six-lane urban section roadway for a total length of 10.7 miles.

16. Staff Experience:

Firm Employed by	Hardesty & Hanover		
Name	**Erik Diaz, PE**	Years of relevant experience with this employer	2
Title	Sr. Structural Engineer	Years of relevant experience with other employer(s)	11

Degree(s) / Years / Specialization			B.S., 2008, Civil Engineering, Louisiana State University
Active registration number / state / expiration date			Professional Engineer: 37712 / LA / 09/30/2023 Maintenance & Rehabilitation of Historic Bridges (LADOTD)
Year registered	2013	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Roadway 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).
07/16–07/17	**Two US-11 Bascule Bridges over Lake Pontchartrain Rehabilitation, Jefferson and St. Tammany Parishes, LA – LA DOTD** **Senior Movable Bridge Structural Engineer** for the comprehensive rehabilitation of one bascule and replacement of another bascule bridge over Lake Pontchartrain. Work on this project included the inspection of old spans, the rehabilitation design development for the north bascule span and fender, as well as the design of construction plans for a new south bascule span.
10/14-12/15	**Bridge Ratings for 110 Bridges, Statewide – LA DOTD** **Movable Bridge Structural Engineer** responsible for developing spreadsheets and processes for rating bridge substructures. Also, performed ratings for bridge superstructures and substructures using AASHTOWare and Excel. Wrote bridge rating reports.
12/12-10/15	**Houma Navigation Canal Bridge Rehabilitation, Houma, LA – LA DOTD** **Movable Bridge Structural Engineer** responsible for performing bridge inspections to identify repairs for rehabilitation as well as providing bridge rating to identify areas for strengthening. Also, designed and detailed various elements for bridge rehabilitation.
10/08-04/13	**Huey P. Long Bridge Over the Mississippi River, Bridge City, LA - New Orleans Public Belt Railroad and LA DOTD** **Movable Bridge Structural Engineer** responsible for checking and approving shop drawings as well as performing various construction support calculations. The project was a major widening of the bridge including HPL trusses and approaches.
08/15-02/19	**Vermillion River Vertical Lift Bridges Rehabilitation, Vermillion Parish, LA – LA DOTD** **Senior Structural Engineer** for the inspection, rating, and final rehabilitation recommendations report for two steel vertical lift bridges over the Vermillion River. Work on this project included inspection and load rating to identify components of the bridge to be rehabilitated. Evaluation of various alternatives for strengthening the bridge and increasing vehicular vertical clearance. Produced engineers cost estimate for repairs, and prepared final report of recommendations.

01/20-present	**Almonaster Avenue Bridge Rehabilitation and New Connector Road, New Orleans, LA – Port of New Orleans** **Structural Engineer** for the bridge assessment, complete rehabilitative engineering design, and road design services required for the partial replacement of the Almonaster Avenue Bridge and a new connector road. H&H's 2019 assessment of the circa-1920, eligible for the National Register of Historic Places bridge revealed that improvements to the electrical and mechanical systems, superstructure, and the connecting roads were required to return this bridge to its full operating capability. The road design services included a new alignment for the connecting road including all drainage structures. H&H also developed a hydraulic study and a site plan that included several retention ponds for drainage improvements. Other services included environmental, geotechnical, and pavement design.
08/19-present	**Lapalco Boulevard Movable Bridge over Harvey Canal, Jefferson Parish, Louisiana – Jefferson Parish DPW** **Structural Engineer** for the pre-design inspection and design of a new three-lane double bascule movable bridge crossing of Harvey Canal and the widening of the existing four-lane Lapalco Boulevard to provide a facility carrying three lanes of traffic in each direction. The new bridge is constructed as an independent structure immediately adjacent and north of the existing bridge with a new operator house. Project includes rehabilitation to the existing four-lane bridge with three lanes of traffic and a new pedestrian/bike lane, improvements to bridge and roadway approaches, and development of a Traffic Control Plan.
11/18-08/19	**Comite River Diversion East, Baton Rouge Parish, LA – UPRR & USACE** **Structural Engineer Representative** for KCS Railroad bridge portion of the project that provided flood relief for the Comite River through the construction of a diversion canal connected to the Mississippi River. The project included peer review of plans, calculations and constructability, using AREMA requirements, for a new railroad bridge that intersects with the diversion canal.
11/21-present	**Sidewalk Improvements to Conform to ADA Guidelines – LA DOTD** **Project Engineer** for various design services including preliminary plans, final plans, construction engineering, project proposal plans, and inspection for LADOTD Sidewalk Improvements to Conform to ADA Guidelines. The project begins at the intersection of LA 1091 (Robert Boulevard) with US 190 (Gause Boulevard) in the city limits of Slidell, Louisiana, then continues North along LA 1091 for 2.0+/- miles to a location 175' North of the intersection of LA 1091 with Country Club Boulevard. The survey will extend along all major side roads 50' from the PT of the curbing in each direction. The project includes providing various design services including preliminary plans, final plans, construction engineering, project proposal plans, and inspection for LADOTD Sidewalk Improvements to Conform to ADA Guidelines.
11/18-12/19	**Lake Pontchartrain Causeway Safety Bay Improvements CE&I – Greater New Orleans Expressway Commission** **Structural Inspector** responsible for providing construction engineering and inspection services required during the safety bay improvement project for fabrication of pre-stressed piles and girders, caps and decks as well as all other construction activities including field monitoring, documentation, preparation of daily reports, participation in construction progress meetings, construction close-out, etc.

16. Staff Experience:

Firm Employed by	Hardesty & Hanover		
Name	Matthew Witkowski, PE, PTOE	Years of relevant experience with this employer	7
Title	Transportation Planning	Years of relevant experience with other employer(s)	20

Degree(s) / Years / Specialization			BS / Civil Engineering / 1999 / University of Delaware MBA / 2001 / Civil Engineering / University of Delaware
Active registration number / state / expiration date			Professional Engineer: 41787 / Louisiana / 9/30/2023
Year registered	2001	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Roadway Design**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/16-present	**Intersection Improvements at Route 38 and South Church Street – New Jersey DOT** **Traffic Engineer** in charge of preliminary engineering phase for $8 million intersection improvement project to improve operation and capacity. Three new interconnected traffic signals as well as the widening of approximately One-mile section of Route 38 and adjacent side streets will provide necessary dedicated turning lanes as well as appropriate deceleration lane lengths. Design effort includes development of horizontal and vertical geometrics including 'best fitting' of new Route 38 baseline to minimize right-of-way impacts. Highway sections were prepared to detail proposed roadway lane configurations. Pavement cores were utilized to identify the limits of existing underlying concrete pavement to remain and to establish limits for full depth pavement reconstruction versus concrete pavement repair and placement of a new overlay. Controlling Substandard Design Elements (CSDEs) to remain were identified and a Design Exception Report will be developed and submitted to NJDOT and Federal Highway for approval. In addition to construction, traffic signing and striping plans, traffic signal plans, highway lighting plans are required. Traffic control and staging plans will be developed and will include a temporary traffic signal. Drainage and utility designs will also be prepared for the project.
08/18-present	**Resurfacing of Route 46 from Bergen Blvd. to Main Street – New Jersey DOT** **Traffic Engineer** for the rehabilitation of bridge decks to seven structures located within this 2-1/4-mile resurfacing project. Structures, ranging from one to four spans, all carry the Rte. 46 mainline over Rte. 17 NB & SB, NJ Transit railroad, local roadways, and a stream. Work includes deck patching of concrete decks, deck joint repairs, and bridge-mounted guide rail upgrades. Responsible for Responsible for the redesign of one traffic signal and upgrades at another including ADA compliant pushbuttons and pedestrian signal heads.

05/16-07/18	**SR-710 / Beeline Highway Interchanges from Northlake Blvd to Blue Heron Blvd – Florida DOT** **Traffic Engineer** responsible for performing a Traffic Signal Warrant analysis using FDOT District 4 and MUTCD standards. Provided oversight for the design and development of traffic signal plans at four (4) intersections and coordination with electrical engineer performing lighting analysis and design. Project involves the expansion and reconstruction of a 3-mile divided suburban highway segment, increasing from 4 to 6 lanes in each direction, incorporating highway widening improvements, upgraded traffic signals, and a new traffic signal at a previously unsignalized location. The Turnpike Bridge over SR-710 will be replaced.
03/15-03/17	**Roadway Improvements for County Route 537 Corridor – Monmouth County** **Lead Traffic Engineer** responsible for the redesign of five existing traffic signals. Traffic task manager for federally funded improvements to the CR 537 corridor between Sentinel Road and the U.S. Route 9 Interchange. Provided oversight for the analysis of existing and future conditions and for highway lighting and ITS design initiatives. Project included implementation of ADA facilities fully compliant with Federal ADAAG standards and close coordination with Monmouth County engineering staff.
01/12-11/14	**Conceptual and Final Design for I-295 / I-76 / Route 42 Direct Connection – New Jersey DOT** **Traffic Engineering Task Manager** for conceptual design, alternative analysis, environmental document, and final design for this $900 million project for one of the largest and most congested interchanges in southern New Jersey. Responsible for performing freeway, arterial, and intersection operational analyses for Contract 1. Designed two permanent traffic signals along a County Route and one temporary traffic signal that operated as a two-way, one-lane movement over a bridge under reconstruction. Developed maintenance of traffic plans, including temporary guide signs, and two interim traffic signals. Worked closely with NJDOT Bureau of Traffic Engineering and Resident Engineer to maintain design and construction schedules.
07/08-07/12	**Route 30 / 130 Collingswood Circle, Phase B – New Jersey DOT** **Traffic Engineer** responsible for traffic analysis for no build and build condition for multiple intersections along Route 30/130 which included the design of an upgraded traffic signal for the $40.5 million Cooper River Bridge replacement and improvements at North Park Drive. Included creating a separate northbound right turn lane, minor widening of the east approach to accommodate three standard lanes and the addition of a second receiving lane to the east of the intersection, with minor widening of the west approach to accommodate two standard lanes. Assisted in the development and oversight of maintenance of traffic plans and designed a temporary traffic signal utilizing wood poles and span wires for multiple construction stages.
11/15-02/17	**Region 8 Design-Build of Bundled Bridges – New York State DOT** **Traffic Engineer** responsible for providing detour route analyses and temporary signal design services to subconsultant design-build team for six fixed bridge and culvert crossings in rural locations. Detour routes were analyzed for bridge closure alternatives. Synchro/SimTraffic analysis software was used, and traffic signal timing modifications and geometric modifications were recommended for impacted locations. Temporary traffic signals were designed for locations with a projected increase in volume, including multiple two-way, one-lane systems.

16. Staff Experience:

<table>
<tr><td rowspan="4">  </td><td>Firm Employed by</td><td colspan="3">Hardesty & Hanover</td></tr>
<tr><td>Name</td><td>J. Webb Jones, III, PE</td><td>Years of relevant experience with this employer</td><td>8</td></tr>
<tr><td>Title</td><td>Senior Highway Engineer</td><td>Years of relevant experience with other employer(s)</td><td>24</td></tr>
<tr><td colspan="2"></td><td colspan="3"></td></tr>
<tr><td colspan="3">Degree(s) / Years / Specialization</td><td colspan="3">B.S. / 2001 / Civil Engineering / University of South Florida</td></tr>
<tr><td colspan="3">Active registration number / state / expiration date</td><td colspan="3">Professional Engineer: 56950 / Florida / 2/28/2023</td></tr>
<tr><td>Year registered</td><td>2001</td><td>Discipline</td><td colspan="3">Civil Engineering</td></tr>
<tr><td colspan="3">Contract role(s) / brief description of responsibilities</td><td colspan="3">Roadway Design</td></tr>
<tr><td>Experience dates (mm/yy–mm/yy)</td><td colspan="5">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).</td></tr>
<tr><td>07/14-06/19</td><td colspan="5">Orlando South Ultimate Interchange, Orange County, FL - Florida’s Turnpike Enterprise
Deputy Project Manager responsible for concept development of alternatives. This project includes an evaluation of a complex interchange that provides both direct and indirect ramping between Orange Blossom Trail and the adjacent two limited access highways. Project goal included: construction of direct connection ramps between freeways, an ultimate 10-lane typical section of the turnpike, implementation of AET, consideration of express direct connections, and improvement of surface street operations with two new reliever interchanges. The recommended configuration included improvements to the systems interchange, modification to two adjoining interchanges, and new proposed service interchanges.</td></tr>
<tr><td>01/16-12/17</td><td colspan="5">I-75 (SR 93A) SB Off-Ramp form S of Bypass Canal to EB/WB I-4, Hillsborough County, FL - Florida DOT
Project Manager/Engineer of Record responsible for project coordination and oversight. This two-mile roadway improvement project included the addition of a new auxiliary lane for southbound I-75 from south of the Bypass Canal to the southbound off-ramp and widening the I-75 southbound off-ramp from one to two lanes. A unique aspect of the design approach was the incorporation of this design into a long-term buildout of the interchange. This project was expedited for construction based on no right-of-way acquisition or impacts to Florida Gas Transmission lines.</td></tr>
<tr><td>01/15-10/17</td><td colspan="5">SR 826/Sunny Isle Twin Bridge Improvements, Sunny Isle, FL – Florida DOT
Roadway Design Lead/Signing and Pavement Marking Engineer of Record responsible for signing and pavement marking and roadway design, as well as temporary traffic control (TTC) plans. The project included a vibration study of the bridge control house; design recommendations for improvements, public involvement, permitting, TTC plans, roadway, drainage, signing and pavement markings analysis and plans, and construction cost estimates. Both four-lane bridges have 16 spans with pre-stressed American Association of State Highway and Transportation Officials (AASHTO) concrete and steel beams and a double-leaf trunnion bascule span.</td></tr>
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11/16-02/19	**Gateway Express Improvements, Pinellas County, FL – Florida DOT** **Project Engineer** responsible for technical oversight of temporary traffic control plans. This project will deliver limited and controlled access connections from the Bayside Bridge on the north, US 19 on the west, and the St. Pete Clearwater International Airport to I-275 general purpose and new express lanes. H&H's scope on this design build project includes contributing to FDOT's Alternative Technical Concepts (ATC) process; developing temporary traffic control (TTC) plans design for Segments 2 and 4; project tolls design (four sites) for Segments 1, 2 and 4; and structures design for four bridges in Segment 4.
12/13-01/16	**Pinellas Trail from Ponce De Leon Blvd. to Woodlawn Ave. – Pinellas County** **Project Engineer** responsible for project oversight for a study of the severe embankment erosion aggravated by Hurricane Debbie along the Pinellas Trail. The study resulted in a recommendation for stabilization with geotextiles and final plans to repair the trail.
01/14-10/17	**Gandy Boulevard Bridge Approaches, Pinellas Count, FL - Florida DOT** **Senior Engineer** responsible for QA/QC for the traffic control plans for the construction of a 2.5-mile-long segment of improved grade-separated lanes to increase capacity on the Gandy Bridge approach using design-build delivery. The project is 2.5 miles long, includes three grade separations and is being delivered substantially under budget with design-build delivery.
09/02-11/04	**Thomas B. Manuel Bridge Replacement, Martin County, FL – Florida's Turnpike Enterprise** **Project Engineer** responsible for design and preparation of traffic control and roadway plans for new bridge construction over the Okeechobee Waterway. This Florida Turnpike project was delivered as a design-build project.
03/02-09/03	**CR 545 Bridge Replacement at I-4, Osceola County, Fl – Florida DOT** **Project Engineer** responsible for the design and preparation of temporary traffic control plans. This project included design services for a bridge replacement over I-4. Design included the removal of the existing two-lane bridge and the installation of a new bridge.
04/17-03/20	**SR 75 (US 231) from SR 30A (US 98) to Pipeline Road, Panama City, FL – Florida DOT** **Senior Engineer** responsible for preparation of roadway and temporary traffic control plans. The project consists of providing design services for the single point urban interchange (SPUI) at SR 77 over US 231 and CSX RR improvement project. Work includes roadway and drainage design of the intersection, lighting design for the entire project, and design for new 840-foot steel bridge.
05/14-05/20	**Districtwide Interstate Program Manager (IPM) – Florida DOT** **Senior Engineer** responsible for concept development and review of plans. This multi-discipline, indefinite quantity contract provided as-needed services to support the Florida DOT work program for all interstate highway improvements in the five-county FDOT District region. The geographic limits include over 150 miles of I-275, I-4, and I-75 and key contributing arterials.

16. Staff Experience:

Firm Employed by	Hardesty & Hanover		
Name	Zineb Bennouna, PE	Years of relevant experience with this employer	6
Title	Roadway Engineer	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			B.S. / 2015 / Civil Engineering / University of Central Florida
Active registration number / state / expiration date			Professional Engineer: 90952 / Florida / 2/28/2023
Year registered	2021	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Roadway 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).
12/16-06/20	**Orlando South Ultimate Interchange, Orange County, FL – Florida's Turnpike Enterprise** **Engineering Intern** responsible for documenting project alternatives as well as the TOC evaluation for this complex interchange. This project includes an evaluation of a complex interchange that provides both direct and indirect ramping between Orange Blossom Trail and the adjacent two limited access highways. Project goal included: construction of direct connection ramps between freeways, an ultimate 10-lane typical section of the turnpike, implementation of AET, consideration of express direct connections, and improvement of surface street operations with two new reliever interchanges. The recommended configuration included improvements to the systems interchange, modification to two adjoining interchanges, and new proposed service interchanges.
01/16-12/17	**I-75 (SR 93A) SB Off-Ramp from S of Bypass Canal to EB/WB I-4, Hillsborough County, FL - Florida DOT** **Engineering Intern** responsible for preparation of roadway design plan sheets. This two-mile roadway improvement project included the addition of a new auxiliary lane for southbound I-75 from south of the Bypass Canal to the southbound off-ramp and widening the I-75 southbound off-ramp from one to two lanes. A unique aspect of the design approach was the incorporation of this design into a long-term buildout of the interchange. This project was expedited for construction based on no right-of-way acquisition or impacts to Florida Gas Transmission lines.
09/15-12/18	**44th Avenue E. from 45th Street E. to 44th Avenue Plaza Braden River Segment -Manatee County Government** **Engineering Intern** responsible for assisting with roadway design and plans preparation. This project includes the design for the reconstruction and extension of 44th Avenue East from 45th Street East to 44th Avenue Plaza East. The design plans include widening from a two-lane roadway to a four-lane divided urban roadway. As part of this project, a new bridge will be designed to cross over the Braden River and the realignment of Morgan Johnson Road and Caruso Road will provide route continuity. Alternative intersection designs, including a roundabout and stage construction were considered. Alternative intersection designs, including a roundabout and stage construction were considered as part of the design package.

07/14-12/19	**I-75/SR 50 Interchange Bridge Replacement and Widening, Hernando County, FL - Florida DOT** **Engineering Intern** provided traffic control support for the design and plan preparation services. This project widened I-75 from a four- to six-lane facility, including complete interchange reconstruction at SR 50 to a single point urban interchange. The project also included the widening and reconstruction of SR 50 to a six-lane urban typical section constructed using concrete pavement.
11/2019-present	**SR 789 (Ringling Bridge) Bird Key Drive to Sarasota Harbor West PD&E and Design – Florida DOT** Engineering Intern responsible for assisting with roadway design and plans preparation. H&H is providing concurrent PD&E and final design services for the Little Ringling Bridge Replacement Project for FDOT D1. The project involves a PD&E study to evaluate the potential reconstruction or rehabilitation of the SR 789 (Little Ringling) bridges in Sarasota County to address structural and operational deficiencies. The bridges cross the Coon Key Waterway and provides the only connection from downtown Sarasota to St. Armand's Key and Lido Key. The current prestressed stringer bridge is the second bridge that has existed at this location, original replaced in 1958. Several sections of the deck were replaced on the northbound bridge in 2016 along with other repair-type work throughout the years.
08/17-08/20	**Sand Lake Road Interchange, Orange County, FL - Florida's Turnpike Enterprise** **Engineering Intern** responsible for plan sheet preparations and revising corrections made by project engineers. As a subconsultant, H&H is currently preparing the temporary traffic control plans design for the construction a new interchange located on the Florida Turnpike and Sand Lake Road (SR 482) in Orange County, Florida. As part of H&H's innovative design, ramp construction will take place early to allow mainline traffic to be diverted during off peak hours while bridge reconstruction over the Turnpike is ongoing. This project also includes coordination with FDOT District 5 for the reconstruction of Sand Lake Road.
04/17-10/21	**SR 75 (US 231) from SR 30A to Pipeline Road, Bay County, FL - Florida DOT** **Engineering Intern** providing support for the roadway, drainage, and TTC design and plan preparation. This project involved the improvement design for an 840-foot steel bridge, including a single point urban interchange (SPUI) at SR 75 crossing US 231 and the CSX railroad and roadway approached. H&H also assisted with the development of a 3D model.
11/16-07/18	**Beckett Bridge Replacement, Tarpon Springs, FL – Pinellas County Government** **Engineering Intern** responsible for assisting in the design and plan preparations for roadway approaches for this project. This project involved the historic bridge replacement with a new 360-foot single-leaf, rolling-lift, bascule bridge that carries Riverside Drive over Whitcomb Bayou and features two traffic lanes, shoulders, and a sidewalk. Project elements included relay-based control system, approximately a quarter mile of roadway, drainage, bridge architecture, and public involvement**.**
12/13-05/19	**Homestead Extension of Florida's Turnpike (HEFT) (SR821) S of Killian Pkwy to N of Sunset Dr – Florida's Turnpike Enterprise** **Engineering Intern** responsible for assisting with roadway and traffic control design for Kendall Drive, Sunset Drive, and the HEFT mainline. This design-build project comprises the widening of the HEFT mainline from south of Killian Parkway to just north of Sunset Drive. The project included development of express lanes, relocation of ramp tolling, and operational improvements to the Kendall Drive interchange, as well as resurfacing and other minor improvements.

16. Staff Experience:

<table>
<tr><td rowspan="3">  </td><td>Firm Employed by</td><td colspan="3">Hardesty & Hanover</td></tr>
<tr><td>Name</td><td>Benjamin Bower, PE</td><td>Years of relevant experience with this employer</td><td>5</td></tr>
<tr><td>Title</td><td>Engineer I</td><td>Years of relevant experience with other employer(s)</td><td>0</td></tr>
<tr><td colspan="2">Degree(s) / Years / Specialization</td><td colspan="3">B.S. / 2017 / Civil Engineering / University of Central Florida</td></tr>
<tr><td colspan="2">Active registration number / state / expiration date</td><td colspan="3">Professional Engineer: 92137 / Florida /</td></tr>
<tr><td>Year registered</td><td>2021</td><td>Discipline</td><td colspan="2">Civil Engineering</td></tr>
<tr><td colspan="2">Contract role(s) / brief description of responsibilities</td><td colspan="3">Roadway Design</td></tr>
<tr><td>Experience dates (mm/yy–mm/yy)</td><td colspan="4">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).</td></tr>
<tr><td>6/17-03/21</td><td colspan="4">Orlando South Ultimate Interchange at SR 91 (Florida’s Turnpike) and SR 528 (Beachline Expressway) PD&E Study – Florida’s Turnpike Enterprise
Engineering Intern responsible for assisting with concept development. H&H was prime consultant for this PD&E study for this complex systems interchange with imbedded service movements. Project goals included: construction of direct connection ramps between freeways, a planned ultimate 10-lane express typical section of the Turnpike, implementation of All Electronic Tolling, consideration of express direct connections, and modification of service movements to reduce interchange weaving. Constraints included a developed environment, adjacent major utilities, nearby interchanges, and the need to maintain traffic and tolling operations during construction. On a schematic b01/16-12/17asis, approximately 249 configurations were analyzed. The recommended configuration includes:
• New direct systems ramps, braided ramps and a Collector Distributor Roadway
• Two new reliver interchanges on the Turnpike and Beachline Expressway
Modification to two adjoining interchanges, including reconfiguration of Consulate Drive as a Diverging Diamond Interchange</td></tr>
<tr><td>01/16-12/17</td><td colspan="4">I-75/SR 93A SB Off-Ramp S of Bypass Canal to EB/WB I-4 – Florida DOT
Engineering Intern responsible for assisting with design and plans preparation. This two-mile roadway improvement project included the addition of a new auxiliary lane for southbound I-75 from south of the Bypass Canal to the southbound off-ramp and widening the I-75 southbound off-ramp from one to two lanes. A unique aspect of the design approach was the incorporation of this design into a long-term buildout of the interchange. This project was expedited for construction based on no right-of-way acquisition or impacts to Florida Gas Transmission lines.</td></tr>
<tr><td>06/21-present</td><td colspan="4">Design of SR91 and SR528 Interchange MP 253 to S. of Sand Lake Rd (MP 257.25) – Florida’s Turnpike Enterprise
Engineer assisting with roadway analysis and plans development. H&H is prime consultant for this complex 4-level interchange in a constrained environment. The project includes new direct systems ramps, braided ramps, a relocation of SR 528, and modifications to</td></tr>
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	adjoining interchanges, including a Diverging Diamond interchange on the first level. As part of the design development, the design team worked closely with Turnpike traffic engineers to refine the design to include: • An additional southbound Collector Distributor Road to relocate weaving from the mainline • Reconfiguration of a low-volume ramp to economize the design • Development of a 3-project phasing plan to deliver incremental improvements as needed with packaging less $200 million, In addition to managing the design of the project, H&H is responsible for roadway, bridge, drainage signing and pavement markings, and toll design, which includes six new All Electronic Tolling Sites
05/21-present	**46th Avenue N Sidewalk Design – Pinellas County** **Engineering Intern** responsible for assisting with roadway design and plans preparation. This project consists of reconstruction of the existing roadway, extension of the existing box culvert in both directions, construction of ADA compliant sidewalks, curb ramps and driveways on both sides of road and incidental work along 46th Avenue North, from West of Drainage Outfall along 55th Street North right-of-way corridor to 49th Street North (a length of approximately 0.5 miles). H&H is responsible for roadway/sidewalk design, structural design, traffic control, signing and pavement marking.
02/14-02/17	**SR 968/SW 1st Street Bridge at Miami River – Florida DOT** **Engineering Intern** responsible for assisting with roadway approaches and temporary traffic control (TTC) design. SR 968 is an Urban Minor Arterial. This bridge replacement project is along the SW 1st Street corridor from SW 6th Avenue to SW 2nd Avenue. The existing four-lane, one-way bridge was replaced with a new three-lane, one-way bridge, and included roadway improvements east and west of the bridge, bike lanes, sidewalks, and signing and pavement markings. The roadway east and west of the bridge was reconstructed to provide an urban roadway section with a revised profile using new curb, three through lanes, an eight-foot parking lane along both sides, and variable width sidewalks against the back of curb on both sides of the road. This project was located in constrained right-of-way conditions where there could not be impacts to adjacent properties.
11/16-02/19	**Gateway Expressway Improvements Design-Build – Florida DOT** **Engineering Intern** responsible for assisting in the development of the preliminary design to this improvement project. For this design-build project H&H is developing TCPs for Segments 2 and 4; TCP coordination among Segments 1 through 4; tolls design for Segments 1, 2, and 4; and structure design for four bridges in Segment 4.
10/19-present	**27th Street East – Manatee County** **Engineering Intern** responsible for assisting with roadway design and plans preparation, including signing and pavement marking. This project proposes improvements to 27th Street East between 26th Avenue East and 38th Avenue East along this urban collector by way of pedestrian and bicycle facilities, roadway improvements, turn lanes, lighting, drainage, and signalization improvements.

16. Staff Experience:

Firm Employed by	Hardesty & Hanover		
Name	Dalton Hunt, EI	Years of relevant experience with this employer	1
Title	Civil Designer	Years of relevant experience with other employer(s)	1

Degree(s) / Years / Specialization			B.S. / 2021 / Civil Engineering / Louisiana State University
Active registration number / state / expiration date			Engineer In Training: 0035118 / Louisiana / 09/30/2024
Year registered	2022	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Roadway 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).
03/22-present	**I-10 & I-12 College Drive Flyover Ramp Design- Build - LADOTD** **Engineer Intern** for design and construction quality control/quality assurance for this flyover ramp design-build project which is located at the I-10 West exit to College Drive, in advance of the I-10 & I-12 West merge. H&H serves as Design-Builder's Construction Quality Control Firm (CQCF) and oversees all Design Quality Control and Construction Quality Control activities for the project. Responsibilities include the development and implementation of Comprehensive Quality Plan to ensure the design and construction conforms to all specified requirements. H&H will develop, maintain, and update Contractor Quality Management Plan and provide qualified Inspectors, material sampling, testing, independent testing labs to ensure contractors and off-site fabrication facilities meet project specifications.
04/22-present	**IDIQ Contract for ADA Design Projects Statewide – LADOTD** **Engineer Intern** Responsible for the evaluation and consideration of current sidewalk features of Robert Blvd. in Slidell Louisiana. Plans were designed and revised in house in preparation of the overhaul of sidewalks and adding of ADA compliant handicap ramps and landing areas along the roadway to bring the sidewalks up to current LADOTD standards.
02/22-present	**Almonaster Avenue Bridge Rehabilitation and New Connector Road, New Orleans, LA – Port of New Orleans** **Engineer Intern** for the bridge assessment, complete rehabilitative engineering design, and road design services required for the partial replacement of the Almonaster Avenue Bridge and a new connector road. H&H's 2019 assessment of the circa-1920, eligible for the National Register of Historic Places bridge revealed that improvements to the electrical and mechanical systems, superstructure, and the connecting roads were required to return this bridge to its full operating capability. The road design services included a new alignment for the connecting road including all drainage structures. H&H also developed a hydraulic study and a site plan that included several retention ponds for drainage improvements. Other services included environmental, geotechnical, and pavement design.

16. Staff Experience:

Firm Employed by	Hardesty & Hanover		
Name	Linh Kim, EI	Years of relevant experience with this employer	2
Title	Civil Designer	Years of relevant experience with other employer(s)	4

Degree(s) / Years / Specialization			B.S. / 2017 / Civil Engineering / University of New Orleans
Active registration number / state / expiration date			Engineer in Training: 0033538 / Louisiana / 3/31/2024
Year registered	2017	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Roadway 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).
08/20-present	**Almonaster Avenue Bridge Rehabilitation and New Connector Road, New Orleans, LA – Port of New Orleans** **Engineer Intern** for the bridge assessment, complete rehabilitative engineering design, and road design services required for the partial replacement of the Almonaster Avenue Bridge and a new connector road. H&H's 2019 assessment of the circa-1920, eligible for the National Register of Historic Places bridge revealed that improvements to the electrical and mechanical systems, superstructure, and the connecting roads were required to return this bridge to its full operating capability. The road design services included a new alignment for the connecting road including all drainage structures. H&H also developed a hydraulic study and a site plan that included several retention ponds for drainage improvements. Other services included environmental, geotechnical, and pavement design.
08/20-present	**I-10 & I-12 College Drive Flyover Ramp Design- Build - LADOTD** **Engineer Intern** for design and construction quality control/quality assurance for this flyover ramp design-build project which is located at the I-10 West exit to College Drive, in advance of the I-10 & I-12 West merge. H&H serves as Design-Builder's Construction Quality Control Firm (CQCF) and oversees all Design Quality Control and Construction Quality Control activities for the project. Responsibilities include the development and implementation of Comprehensive Quality Plan to ensure the design and construction conforms to all specified requirements. H&H will also develop, maintain, and update Contractor Quality Management Plan and provide all necessary qualified Inspectors, material sampling, testing, independent testing labs to ensure contractors meet project specifications.
11/21-present	**Sidewalk Improvements to Conform to ADA Guidelines – LA DOTD** **Engineer Intern for** various design services including preliminary plans, final plans, construction engineering, project proposal plans, and inspection for LADOTD Sidewalk Improvements to Conform to ADA Guidelines. The project begins at the intersection of LA 1091 (Robert Boulevard) with US 190 (Gause Boulevard) in the city limits of Slidell, Louisiana, then continues North along LA 1091 for 2.0+/- miles to a location 175' North of the intersection of LA 1091 with Country Club Boulevard. The survey will extend along all major side roads 50' from the PT of the curbing in each direction. The project includes providing various design services including preliminary plans, final plans, construction engineering, project proposal plans, and inspection for LADOTD Sidewalk Improvements to Conform to ADA Guidelines.

16. Staff Experience:

Firm Employed by	Hardesty & Hanover		
Name	Jordan Baker	Years of relevant experience with this employer	5
Title	Designer	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			B.S. / 2015 / Civil Engineering / Widener University
Active registration number / state / expiration date			
Year registered		Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Roadway Designer**

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).
04/17-02/18	**Route 38 / S. Church Street Intersection Improvements – New Jersey DOT** **Engineer Tech** during the preliminary engineering phase for an $8 million intersection improvement project. Three new interconnected traffic signals as well as the widening of an approximately one-mile section of Route 38 and adjacent side streets will provide necessary dedicated turning lanes as well as appropriate deceleration lane lengths. Design effort includes the development of horizontal and vertical geometrics including the 'best-fitting' of new Route 38 baseline to minimize right-of-way impacts. Traffic control and staging plans will be developed and will include a temporary traffic signal. Drainage and utility designs will also be prepared for the project.
06/18-02/20	**SR-710/Beeline Highway Interchanges from Northlake to Blue Heron Boulevards - Florida DOT** **Engineer Tech** for developing engineering design plans for the expansion and reconstruction of a three-mile divided suburban highway segment, increasing from four to six lanes in each direction, incorporating highway widening improvements along the Turnpike and total replacement of the Turnpike Bridge over SR-710.
06/16-07/18	**ADA Central, Contract 1 - New Jersey DOT** **Engineer Tech** for preliminary engineering for the bridge replacement of Route 42 Bridges over Blackwood Railroad Trail. The PPA is to replace the existing bridges with a precast arch system and retaining walls while maintaining traffic in each direction as well as address roadway deficiencies.
05/15-02/17	**CR 537 Corridor Improvements – Monmouth Count** **Engineer Tech** for preliminary engineering phase for improvements to County Route 537 Corridor between Sentinel Road and US Route 9. The project includes the widening of the CR 537 roadway throughout the corridor and the installation of upgraded traffic signals to improve overall operation and safety.

16. Staff Experience:

Firm Employed by	Hardesty & Hanover		
Name	**Joseph Lee Adams, PE**	Years of relevant experience with this employer	12
Title	Senior Highway Engineer	Years of relevant experience with other employer(s)	13

Degree(s) / Years / Specialization			BS / 1995/ Highway Engineer
Active registration number / state / expiration date			Professional Engineer: 41739 / LA / 9/30/2023
Year registered	2017	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Roadway Drainage**

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).
09/16-present	**Route 38 & Church Street Intersection Improvements – New Jersey DOT** **Project Engineer and Lead Design Engineer** for hydrology and bridge hydraulics, and stormwater management evaluation. Performed watershed hydrologic analysis for South Branch of the Pennsauken Creek. Performed the evaluation of 11 stormwater management collection systems and designed CMP removal/rehabilitation improvements for each. Evaluated outfall stability, designed roadside swale improvements, conduit outlet protection and ensured gutter spread requirements were satisfied for maintenance of roadway safety. Project involves preliminary engineering of significant intersection capacity improvements for a five-approach arterial and land surface highway intersection adjacent to a fluvial waterway with bridge replacement, widening, and traffic signal upgrades.
12/12 – 0/13	**Rumson – Seabright Bridge Over Shrewsbury River, Monmouth County, NJ – North Jersey Transportation Planning Authority** **Hydraulics & Hydrology Engineer** responsible for evaluating scour vulnerability for the existing Rumson Road Bridge S-32 and several replacement alternatives during the Local Concept Development Phase. Prepared cost estimates for scour countermeasure alternatives and performed field condition inspection of bridges and culverts. Performed hydraulic vulnerability analysis per NJDOT guidance and developed hydraulic modeling per FHWA's HEC-25 guidance. During Preliminary Design, responsible for assessing storm water management NJDEP regulatory requirements, evaluating existing system capacity, and designing stormwater system improvements for the Preliminary Engineering Phase of work. Prepared final design stormwater system improvements and prepared the final bridge hydraulics analysis, including modeling tidal hydraulic conditions during the stages of construction, and supported the engineering effort necessary for NJDEP Waterfront Development, USCG, and USACE permitting.
05/17 – 12/20	**Route 25A Bridge Over Brackett Brook, Grafton County, NH – New Hampshire DOT** **Supervising Hydraulic Engineer** for the rehabilitation or replacement of this NHDOT Red Listed bridge. Responsible for supervising the hydrologic and hydraulic analysis necessary to define the floodplain, floodway, and existing conditions; determine design loads, scour depths; and provide quality control. The two-span concrete deck bridge was in poor condition and was considered scour critical during floods. Scope of work included an engineering feasibility study and report detailing type, span, and location (TS&L); preliminary and final design; permitting; and construction support services.

10/17-10/18	**Rehabilitation of Route 202 Bridge over Housatonic River, Litchfield County, CT – Connecticut DOT** **Lead Hydraulic Engineer** for the rehabilitation of the Connecticut DOT Route 202 over Housatonic River. The bridge (#00901) is a single span simply supported Pratt through truss variant carrying two lanes of traffic over the Housatonic River. This steel truss bridge was constructed in 1953 and is comprised of a combination rolled and built-up truss members framed into riveted gusset plates. The site is subject to flood flows that carry woody debris and inundate the span. Mr. Adams assessed the debris loading risk, modeled design flows, and estimated lateral hydraulic forces on the superstructure to assist the structural design team with bridge seat structural rehabilitation design.
02/14 – 08/16	**Jersey Avenue over Mill Creek, Jersey City, NJ – NJ Turnpike Authority** **Hydraulic Engineer** responsible for evaluating scour conditions, determining wave height and wave force on superstructure, designing stormwater management improvements for environmental compliance, and design standards. Project involves design of a new single span structure over a tidally influenced tributary of the Upper Hudson Bay, subject to extreme coastal storm conditions. Coastal conditions were evaluated according to FHWA's HEC-25 and HEC-18. Stream stability evaluation performed per HEC-20 guidance. Scour countermeasures designed for wave attack using HEC-23. Hydrologic modeling using TR-55 procedures in HEC-HMS, water surface profiles modeled in HEC-RAS for both design purposes and NJDEP Flood Hazard Area permitting.
07/16-08/18	**Route 31 over Peter's Brook, Hunterdon County, NJ – New Jersey DOT** **Hydraulic Engineer** responsible for the hydraulic analysis related to final design engineering services for the superstructure replacement of a 42-foot single span bridge on Route 31 in East Amwell, Hunterdon County, NJ. The bridge crossing is located along a rural but heavily travelled two-lane highway over a small, steep, boulder strewn cut. Extreme event design flows inundate low chord and therefore require hydraulic force estimation for bridge lateral force restraint design. Construction utilized accelerated bridge construction techniques over three to four weekend closures. Mr. Adams was also responsible for soil erosion and sediment control design and permitting which included stream diversions and dewatering operations.
05/16 – 06/20	**Bridge Street Bridge over Passaic River, Newark & Harrison, NJ – North Jersey Transportation Planning & Authority** **Hydraulics & Hydrology Team Leader** responsible for evaluating stream stability and coastal site conditions for the existing bridge and replacement alternatives for the federally funded Local Concept Development (LCD) phase for major rehabilitation or replacement of this deteriorating swing span bridge. Mr. Adams also evaluated stormwater management system operation, capacity impacts, and environmental permitting implications for same.
04/16-10/16	**Moravia Road Evaluation – Maryland Transportation Authority (MDTA)** **Project Engineer** responsible for investigation/evaluation of the site's substandard highway and safety features. MDTA is assuming maintenance responsibilities from the City of Baltimore for approximately 2.8 miles of interchange roadway on Moravia Road at Pulaski Highway and I-895. Hardesty & Hanover (H&H) inspected the conditions of the site focusing on the major highway infrastructure features. These features include: Geometry, Stormwater Management, Roadside Safety, Highway Lighting, Traffic Signals, Pavement Conditions, and Signing & Striping. Mr. Adams assembled and guided the investigatory design team in the preparation of a report that documents and presents the findings from the field assessment and provides cost estimates for the identified improvements. The report provides data for the MTDA to prioritize, plan, and program necessary improvements for the site.

16. Staff Experience:

Firm Employed by	Hardesty & Hanover		
Name	**John Witthohn, PE, CME, CFM**	Years of relevant experience with this employer	5
Title	Highway Engineer	Years of relevant experience with other employer(s)	13

Degree(s) / Years / Specialization			BS / 2003 / Civil Engineer
Active registration number / state / expiration date			Professional Engineer: 41575 / LA / 9/30/2023
Year registered	2017	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Roadway Drainage**

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).
07/16-present	**Route 38 & Church Street Intersection Improvements – New Jersey DOT** **Hydraulic Engineer** for hydrology and bridge hydraulics, and stormwater management evaluation. Performed watershed hydrologic analysis for South Branch of the Pennsauken Creek. Performed the evaluation of 11 stormwater management collection systems and designed CMP removal/rehabilitation improvements for each. Evaluated outfall stability, designed roadside swale improvements, conduit outlet protection and ensured gutter spread requirements were satisfied for maintenance of roadway safety. Project involves preliminary engineering of significant intersection capacity improvements for a five-approach arterial and land surface highway intersection adjacent to a fluvial waterway with bridge replacement, widening, and traffic signal upgrades.
05/16-present	**CR 537 Corridor Improvement, Freehold, NJ – New Jersey DOT** **Hydraulic Engineer** for preliminary engineering for improvements to County Route 537 Corridor between Sentinel Road and US Route 9. The project includes widening of CR 537 roadway and upgrades to the existing storm sewer systems to provide added capacity and eliminate existing gutter drainage issues. Existing and proposed conditions stormwater runoff analysis was performed for six existing pipe networks in the 2.4 miles of roadway improvements, including 230 acres of offsite urban land draining directly to the county-owned pipe networks. New storm sewer pipes, inlets, and stormwater management BMPs were designed throughout the project corridor to meet NJDOT and County requirements, and the NJ Stormwater Rules found in N.J.A.C. 7:8. Final Design Phase is anticipated to begin in early 2019.
12/18-present	**Route 179 Bridge Replacement over Back Brook, Hunterdon County, NJ – New Jersey DOT** **Hydraulic Engineer** for the Conceptual Design of the replacement of Route 179 Bridge over Back Brook. Responsible for hydrologic and hydraulic analysis of existing and proposed bridge hydraulics, and the design of a wider bridge opening to provide natural stream banks and terrestrial species passage in compliance with NJDEP Flood Hazard Area rules on threatened and endangered species in fragmented habitat, in accordance with NJAC 7:13.

05/17-12/20	**Route 25A Bridge Over Brackett Brook, Grafton County, NH – New Hampshire DOT** **Hydraulic Engineer** for the preliminary design of the replacement of Rt 25A Bridge over Brackett Brook. Responsible for hydrologic and hydraulic analysis of existing 45°skewed bridge and two proposed bridge spans alternatives in accordance with NHDOT Bridge Design Manual; the design of a wider bridge opening in compliance with NHDES Stream Crossing Guidelines for wildlife continuity and terrestrial species passage; and scour analysis and countermeasure design on the selected alternative. Also prepared the hydraulic sections of the Rehabilitation Study Report (RSR) and the Type Size & Location (TSL) Study Report, currently under review by NHDOT.
07/15-07/18	**NJ Route 17, Sprout Brook Culvert Replacement, Paramus, NJ – New Jersey DOT** **Hydraulic Engineer** responsible for Preliminary Engineering Phase and Final Design Phase of hydrologic and hydraulic analysis of existing and proposed drainage conditions of this bridge replacement and highway widening project, and the design of the proposed stormwater management system. The project involves replacing a pair of three-span, fixed bridges conveying the NB and SB freeways over the former railroad ROW, with a single tunnel structure, in accordance with NJDOT and NJDEP requirements.
02/14-08/16	**NJ Route 42 Bridges over Blackwood Railroad Trail, Camden County – New Jersey DOT** **Hydraulic Engineer** responsible for evaluating scour conditions, determining wave height and wave force on superstructure, designing stormwater management improvements for environmental compliance, and design standards. Project involves design of a new single span structure over a tidally influenced tributary of the Upper Hudson Bay, subject to extreme coastal storm conditions. Coastal conditions evaluated according to FHWA's HEC-25 and HEC-18. Stormwater management system and water quality structure improvements designed according to State, local and Turnpike Authority design standards. Two hydrodynamic separator style MTDs were proposed to achieve water quality compliance. Coastal conditions were evaluated according to FHWA's HEC-25 and HEC-18. Stream stability evaluation performed per HEC-20 guidance. Scour countermeasures designed for wave attack using HEC-23. Riverine design flows estimated using TR-55 procedures in HEC-HMS (replaces HEC-1), water surface profiles modeled in HEC-RAS (current HEC-2) for both design purposes and NJDEP Flood Hazard control compliance. Design process included highway storm water drainage spread calculations to determine proper inlet spacing. As part of the Storm Water Management Plan & Report, a low impact development checklist documented alternate Best Management Practices (BMPs).
05/14-06/15	**Broadacres Drive Culvert Replacement, Camden County, NJ – Confidential owner** **Hydraulic Engineer** responsible for design replacement of twin 63"x87" CMPA below municipal roadway with pecast box culvert, downstream spillway structure, and stream bank armoring. Performed initial inspection and assessment, developed proposal, and served as project manager during implementation of contract for engineering and design services. Performed all hydraulic analysis and design calculations, development of constructions plans and specifications for municipal, NJEIT, and NJDEP approval. Prepared Flood Hazard Area permit, reports, and plans for NJDEP approval.

16. Staff Experience:

<table>
<tr><td rowspan="4">  </td><td>Firm Employed by</td><td colspan="3">Hardesty & Hanover</td></tr>
<tr><td>Name</td><td>Seth Resnick, PE</td><td>Years of relevant experience with this employer</td><td>4</td></tr>
<tr><td>Title</td><td>Highway Engineer</td><td>Years of relevant experience with other employer(s)</td><td>3</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="3">Degree(s) / Years / Specialization</td><td colspan="2">BS / 2015/ Civil Engineering</td></tr>
<tr><td colspan="3">Active registration number / state / expiration date</td><td colspan="2">Professional Engineer: 24GE05708400 / NJ / 4/30/2024</td></tr>
<tr><td>Year registered</td><td>2021</td><td>Discipline</td><td colspan="2">Civil Engineering</td></tr>
<tr><td colspan="3">Contract role(s) / brief description of responsibilities</td><td colspan="2">Roadway Drainage</td></tr>
<tr><td>Experience dates (mm/yy–mm/yy)</td><td colspan="4">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).</td></tr>
<tr><td>11/20-present</td><td colspan="4">Final Design for County Route 537 Roadway Improvements - County of Monmouth
Highway Engineer for preliminary engineering phase for improvements to County Route 537 Corridor between Sentinel Road and US Route 9. The project includes widening of the CR 537 roadway throughout the corridor and installation of upgraded traffic signals to improve overall operation and safety.</td></tr>
<tr><td>01/19-08/19</td><td colspan="4">Final Design ADA Central, Various Municipalities - New Jersey DOT
Highway Engineer for needs assessment and design of ADA compliant features along numerous state highway corridors. Improvements include design of 675 new ADA ramps, associated sidewalk improvements and ADA upgrades to 50 signalized intersections including provision of PBIs and countdown pedestrian heads. All designs conform to the Federal Americans with Disabilities Act Accessibility Guidelines (ADAAG) and NJDOT Guidance for Americans with Disabilities Act Project Design Standards. Deliverables consist of a completed CED document, Design Exception Request and Preliminary Engineering Submission (plans, construction schedule and engineer’s cost estimate.</td></tr>
<tr><td>12/19-present</td><td colspan="4">Hunts Point Interstate Access Improvement, Design-Build - New York State DOT
Highway Engineer for this three-phase project to improve access between the Hunts Point Peninsula and the Sheridan and Bruckner Expressways for vehicular traffic and to address structural and operations deficiencies related to the existing infrastructure. The project includes 12 bridges and viaduct structures, and the site covers more than 1.5 miles of existing infrastructure, including highways, expressways, services roads and city streets, and parkland, movable bridges, and pedestrian accessways. The project required a full EIS and significant interagency coordination.</td></tr>
</table>

10/19-01/20	**Replacement of the Saugus Drawbridge - Massachusetts Bay Transportation Authority** **Highway Engineer** for this project to rehabilitate or replace the Saugus Drawbridge. The H&H led team has completed the initial, conceptual design phase of the rehabilitation or replacement of Saugus River Draw Bridge for MassDOT-MBTA. Services include topographic survey; environmental investigations and planning; bridge inspection, load rating of the bridge structure, alternatives evaluation; conceptual design engineering for structures, track, civil, communications & signals; comparative cost and construction time determination estimates; and coordination with third parties.
01/16-06/18	**Pavement Reconstruction for Guide Rail Replacement - STV Incorporated** **Highway Engineer** responsible for managing team members in the completion of the Camden County, NJ pavement reconstruction project and the Burlington County, NJ guide rail replacement project. Seth was responsible for developing roadway plans, profiles, grading, storm water, traffic control, cross sections, and earthwork calculations for Federal and local transportation authorities, including South Jersey Transportation Authority (SJTA); Camden and Burlington Counties; Southeastern Pennsylvania Transportation Authority (SEPTA), Pennsylvania Department of Transportation (PennDOT), and City of Ottawa, PA. He also assisted in structural engineering calculations and reviewing structural shop drawings for submission on SEPTA's Frazier Yard. He performed quantity takeoffs, cost estimates, and field data collections for multiple projects and prepared civil plans and helped in the reconstruction design of several curb ramps to be Americans with Disabilities Act (ADA) compliant for Camden County, NJ. Additionally, Seth provided quality control procedures for roadway plans and calculations and markups and assistance in the CAD drafting phases of highway plans.
07/18-present	**Route 42 Bridges over Blackwood Railroad - New Jersey DOT** **Highway Engineer** responsible for the preliminary and final design for the replacement of the EB and WB Route 42 Bridges. The work included the development of a complicated staging scheme required to replace the bridges while keeping 3 lanes of traffic in each direction flowing on a highly congested freeway as well as complicated utility relocations. The work includes the design of a precast concrete arch constructed under the existing bridges without impacting traffic. Then, using six main MPT stages, sequencing filling, and constructing roadway over the arch in sections using temporary side walls and shifting traffic as necessary to complete the work. Work will include the preparation of the final contract documents including plans, specifications, estimate, construction staging schemes coordinating traffic, utility relocation and structural removal.
10/18-present	**Final Design for the Replacement of the Gordon Street Bridge over Conrail - County of Union** **Highway Engineer** as a part of the team selected to design a steel stringer approach span as well as provide additional services including traffic signal design and intersection lighting. The key issues on the project include site congestion with overhead utilities, maintenance of traffic and construction staging. There are also significant community involvement concerns including historic preservation and the potential relocation of the original structure.

16. Staff Experience:

Firm Employed by	Hardesty & Hanover		
Name	Jason W. Dunn, PE CFM, ENV SP, LEED AP	Years of relevant experience with this employer	4
Title	Senior Drainage Engineer	Years of relevant experience with other employer(s)	16

Degree(s) / Years / Specialization			B.S. / 2006 / Civil Engineering / University of Florida
Active registration number / state / expiration date			Professional Engineer: 65309 / Florida / 2/28/2023
Year registered	2006	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Roadway Drainage**

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).
0/19-02/22	**SR 75 (US 231) Reconstruction, SR 30A (US 98) to South Pipeline Road, Panama City, FL – Florida DOT** **Drainage Engineer** for the new 840-foot steel bridge on SR77 crossing US 231 and the CSX railroad. H&H is providing design services for the single point urban interchange (SPUI) at SR 77 over US 231 and CSX RR improvement project. Work includes design for roadway and drainage design of the intersection, lighting design for the entire project, and bridge design for new major steel structure.
03/19-10/20	**I-75 SB Off-Ramp from S of Bypass Canal to EB/WB I-4, Hillsborough County, FL – FDOT** **Drainage Engineer** responsible for the post-design of roadway and temporary traffic control (TTC) for this two-mile roadway improvement project that included ramp widening, an extension of the ramp to provide off-line queueing, and an extended auxiliary lane on I-75. A unique aspect of the design team's approach was incorporation of operational improvements into a long-term buildout. This project was expedited for construction based on no right-of-way acquisition or impact to Florida Gas Transmission lines.
08/20-present	**Orlando South Ultimate Interchange at SR 91 (Florida's Turnpike) and SR 528 (Beachline Expressway), Orange County, FL – Florida's Turnpike Enterprise** **Drainage Engineer of Record** responsible for the drainage design and environmental permitting. This interchange reconfiguration project includes the construction of direct connection ramps between freeways, an ultimate 10-lane typical section of the mainline turnpike, implementation of AET, consideration of express direct connections, and improvement of surface street operations. The drainage design includes 16 stormwater management facilities, floodplain analysis, cross drain extensions and storm sewer design.
10/21-present	**35th St. & 46th Ave. Railroad Crossing Improvements – Pinellas County Government** **Project Manager** responsible for overseeing roadway design. This project involved developing plans and specifications and performing all other professional engineering design work for reconstruction of the 35th Street & 46th Avenue Railroad Crossings in Pinellas County.

01/22-resent	**Almonaster Avenue Bridge Rehabilitation and New Connector Road, New Orleans, LA – Port of New Orleans** **Lead Drainage Engineer** for the bridge assessment, complete rehabilitative engineering design, and road design services required for the partial replacement of the Almonaster Avenue Bridge and a new connector road. H&H's 2019 assessment of the circa-1920, eligible for the National Register of Historic Places bridge revealed that improvements to the electrical and mechanical systems, superstructure, and the connecting roads were required to return this bridge to its full operating capability. The road design services included a new alignment for the connecting road including all drainage structures. H&H also developed a hydraulic study and a site plan that included several retention ponds for drainage improvements. Other services included environmental, geotechnical, and pavement design.
12/18-present	**46th Avenue N Sidewalk Design, Pinellas County, FL – Pinellas County** **Project Manager/Senior Engineer** responsible for project management, roadway design, sidewalk alignment, and utility coordination. This project consists of reconstruction of the existing roadway, extension of the existing box culvert in both directions, construction of Americans with Disabilities Act (ADA) compliant sidewalks, curb ramps, and driveways on both sides of the road. The project also involves incidental work along 46th Avenue North, from west of drainage outfall along 55th Street to 49th Street North (a length of approximately 0.5 miles). H&H is responsible for roadway and sidewalk design, structural design, traffic control, and signing and pavement marking.
07/14-06/19	**SR 9 (I-95) Overland Bridge Design-Build Replacement, Jacksonville, FL – Florida DOT** **Drainage Engineer** responsible for design, environmental permitting, coordination, and quality control. The primary focus was the design of five stormwater management facilities and urban stormwater collection systems. This project included the reconstruction of 2.5 miles of roadway, bridges, and interchanges in Jacksonville, Florida.
05/15-06/17	**Districtwide Miscellaneous Design Contract, Brevard and Lake Counties, FL – Florida DOT** **Drainage Engineer** responsible for miscellaneous drainage engineering services driven by task orders generated from this contract. These services included hydraulic design of highway drainage and water management systems, obtaining environmental and water management district permits, performing hydraulic studies and various survey, geotechnical and video inspection services, preparing plans and compiling contract documents for the rehabilitation, and repairing the existing storm drainage structures and facilities, as well as verifying field conditions. Projects performed under this contract include Town of Melbourne Beach Flooding Evaluations, US 1 and Riverside Drive Stormwater Pond Evaluation, SR 44 and US 27 Drainage Restoration, and the Lake Harris Regional Pond Study.
03/17-11/19	**I-95 at Viera Boulevard, Diverging Diamond Interchange, Brevard County, FL – Florida DOT** **Drainage Engineer** responsible for temporary drainage design. This project will deliver limited and controlled access connections from the Bayside Bridge on the north, US 19 on the west, and the St. Pete Clearwater International Airport to I-275 general purpose and new express lanes. H&H's scope on this design-build project includes developing temporary traffic control (TTC) plans design for Segments 2 and 4; project tolls design (four sites) for Segments 1, 2 and 4; and structures design for four bridges in Segment 4.
05/16-08/17	**SR 30 (US 98) Widening from CR 457 (Mack Bayou Road) to CR 30A West, Walton County, FL – Florida DOT** **Drainage Engineer**, working as a subconsultant, responsible for the drainage design and permitting requirements. This capacity improvement project involved widening SR 30 from a four-lane roadway to a six-lane roadway. The project also included resurfacing, signalized intersection redesign, stormwater management capacity evaluation, landscaping, and Americans with Disabilities Act upgrades to pedestrian features. The addition of sidewalk and/or multi-use path was analyzed throughout the project limits on both sides of SR 30.

16. Staff Experience:

Firm Employed by	Hardesty & Hanover		
Name	Zachary Gross, PE, CFM	Years of relevant experience with this employer	2
Title	Drainage Engineer	Years of relevant experience with other employer(s)	12

Degree(s) / Years / Specialization			B.S. / 2009 / Civil Engineering / University of South Florida
Active registration number / state / expiration date			Professional Engineer: 77005 / Florida / 2/28/2023
Year registered	2014	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Roadway Drainage**

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).
07/20-present	**Orlando South Ultimate Interchange at SR 91 (Turnpike) & SR 528 (Beachline Exp.) PD&E Study – Florida's Turnpike Enterprise** Drainage Engineer **responsible for drainage design and plans preparation.** H&H was prime consultant for this PD&E study for this complex systems interchange with imbedded service movements. Project goals included: construction of direct connection ramps between freeways, a planned ultimate 10-lane express typical section of the Turnpike, implementation of All Electronic Tolling, consideration of express direct connections, and modification of service movements to reduce interchange weaving. Constraints included a developed environment, adjacent major utilities, nearby interchanges, and the need to maintain traffic and tolling operations during construction. On a schematic basis, approximately 249 configurations were analyzed. The recommended configuration includes new direct systems ramps, braided ramps and a Collector Distributor Roadway; two new reliver interchanges on the Turnpike and Beachline Expressway; and modification to two adjoining interchanges, including reconfiguration of Consulate Drive as a Diverging Diamond Interchange
09/18-03/20	**Turnpike Spur (SR 91) I-95 to Golden Glades Toll Plaza, Miami-Dade County, FL - Florida's Turnpike Enterprise and Florida Drainage Engineer of Record** responsible for drainage design and permitting, including updating the FTE portion of the global ICPR4 model for the GGI-North ERP. This project involved modifications to the Golden Glades Interchange (GGI) in Miami-Dade County. The over-all interchange has been divided into multiple roadway improvement projects. This project is identified as Segment 5. The scope includes the addition of northbound and southbound express lanes from the Turnpike mainline to the project limits of the I-95 ramps at the SR 826 overpass. The addition of the express lanes requires reconstruction of the ramp bridge carrying traffic to the Turnpike from I-95. Additionally, the northbound ramps from NW 167th St and SR 826 and the southbound ramp to NW 167th Street will require reconstruction.
08/16-12/19	**SR 821 (Heft) Widening from West of 57th Ave to East of 27th Ave (Miramar) , Various Counties, FL – Florida's Turnpike Enterprise Lead Drainage** responsible for drainage design documentation and drainage plans. Prepared documents and attended meetings and field reviews and Engineer of Record for 47th Avenue Bridge Hydraulics Report. The project involved design services for the widening of a four-mile segment of HEFT. This unique project uses the forward-thinking concept of adding managed lanes within an existing tolled

	facility. The project will provide eight lanes, three general use lanes, one express lane in each direction west of NW 27th Avenue, and six lanes east to the end of the project at the SR 821/SR 91 interchange. The design also calls for the provision of a planned direct-connect express-bus stop along the northbound SW 27th Avenue exit ramp for the future Miami-Dade Transit Park and Ride lot being developed in the southwest quadrant of the interchange.
07/13-03/15	**I-75 Widening from South of North Jones Loop to North of US 17, Punta Gorda, FL – Florida DOT** **Drainage Engineer** responsible for drainage design and permitting, pond siting report, modeling, nutrient removal calculations, floodplain analysis, cross drain analysis, spread, storm sewer design, and drainage plans production. This project involves the widening of approximately four miles of I-75 from south of North Jones Loop Road to the Peace River Bridge. The project involved milling and resurfacing the existing four-lane interstate and adding two new lanes to the median. The existing bridges over North Jones Loop Road and the Seminole Gulf Railway were widened. Services included traffic analysis, roadway design, drainage design, traffic control plans, signing and pavement marking analysis, lighting design, bridge design, environmental permitting, ITS, and noise analysis.
03/15-07/19	**I-75/SR 951 interchange Reconstruction, Naples, FL – Florida DOT** **Drainage Engineer of Record** of Pond Siting Report. Responsible for permitting, design documentation and drainage plans as well as preparing documents and attending meetings and field reviews. This project involved providing design services for reconstruction of the existing diamond interchange to a partial cloverleaf interchange with two flyover connection ramps, from and to CR 951 (Collier Boulevard), to provide for the ultimate configuration. New bridges to accommodate ramp traffic will be constructed adjacent to the existing mainline bridges, as well as new bridges on SR 951 to go over Davis Boulevard will be constructed for direct interstate access. Services included roadway, drainage, bridge, signing, and pavement marking, signalization, lighting, and ITS design; environmental permitting; and noise analysis.
05/15-09/19	**59th Avenue North Drainage Improvements, Pinellas County, FL – Pinellas County Government** **Project Manager/Drainage Engineer of Record** responsible for project management tasks, drainage design documentation and permitting. Under this General Engineering Consultant for Pinellas County, work consisted of roadway, structural, traffic, and drainage safety improvement projects, as well as drainage flooding studies and permitting. The 59th Avenue North drainage improvements alleviated residential flooding in Pinellas Park, Florida by proposing a shallow swale with DBI collection system along 58th Avenue North as well as ditch grading along 59th Avenue North. The project required a major permit modification of the jointly owned Molex Pond, where runoff from the study area drains into.
01/12-07/18	**US 17 Extension, Various, FL – Florida DOT** **Drainage Engineer** responsible for drainage design and permitting, including pond design and modeling, floodplain compensation, ditch design, storm sewer design, cross drains, and plans production. This project involved design services for the new construction of approximately five miles of US 17 from the DeSoto/Hardee County Line to CR 634 (Sweetwater Road). The project involved expanding the existing two-lane facility to a four-lane divided facility with a 64-foot median. The existing bridge over Charlie Creek will be widened and used for the northbound lanes; a new southbound bridge over Charlie Creek will be constructed. The existing bridge over Charlie Creek Overflow was reconstructed and used for the northbound lanes; a new southbound bridge over Charlie Creek Overflow will be constructed. Services included roadway, drainage, bridge, and signing and pavement marking design; environmental permitting; and noise analysis.

16. Staff Experience:

Firm Employed by	Hardesty & Hanover		
Name	**Frederick Wetekamm, PE**	Years of relevant experience with this employer	4
Title	Senior Engineer	Years of relevant experience with other employer(s)	30

Degree(s) / Years / Specialization			ME / 2018 / Construction Engineering Management / University of Alabama - Birmingham BS / 1984 / Civil Engineering / Louisiana State University
Active registration number / state / expiration date			Professional Engineer: 25369 / LA / 3/31/2024 FHWA Stream /Stability and Scour at Highway Bridges for Bridge Inspectors ATSSA Traffic Control Supervisor and Flagger
Year registered	1993	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Constructability & Construction Services Support**

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).
08/20-present	**L H.001498.6; LA 24 and LA 16 Company Canal Vertical Lift Bridge, Bourg, LA – LA DOTD** **Project Engineer** delivering construction engineering and inspection services for a new vertical lift bridge and operator's house. Services include daily monitoring of all construction activities; maintaining all construction field records; coordinating with DOTD, contractor, parish government, and utilities; performing field testing; maintaining records of contractual operations, pay estimates and progress reports; preparing final estimate packages; conducting construction progress meetings; construction close-out, etc.
01/96-12/07	**LADOTD Bridge Maintenance Engineer, LADOTD District 2, LA – LA DOTD** **Bridge Maintenance Engineer** responsible for managing the program for Bridge Inspection, Operations and Maintenance Program, bridge operators, bridge repair crews, and bridge inspectors. The New Orleans Area has over 950 bridges (32 movable bridges), three tunnels, two navigation locks, and three drainage pumping stations. Responsible for creating and distributing repair work orders and coordinating the repairs, materials, equipment, labor, media information, and/or traffic control. Wrote major repair requests and generated project plans and specifications for repair projects and accident damages to the bridges for marine, vehicular, and environmental damages. **Lead Coordinator** for the projects with LADOTD District/statewide forces, contractors, consultants, public officials, media, property owners, and bridge maintenance supervisors. Provided construction inspection and damage assessments (DIR) for federally reimbursed repairs from hurricanes and tropical storms. Experienced with specialized traffic requirements for the bridge/tunnel couplets, District traffic and marine requirements for temporary bridge closures, and permit load crossings.

01/20-present	**Almonaster Avenue Bridge Rehabilitation and New Connector Road, New Orleans, LA – Port of New Orleans** **Sr. Engineer** for the bridge assessment, complete rehabilitative engineering design, and road design services required for the partial replacement of the Almonaster Avenue Bridge and a new connector road. H&H's 2019 assessment of the circa-1920, eligible for the National Register of Historic Places bridge revealed that improvements to the electrical and mechanical systems, superstructure, and the connecting roads were required to return this bridge to its full operating capability. The road design services included a new alignment for the connecting road including all drainage structures. H&H also developed a hydraulic study and a site plan that included several retention ponds for drainage improvements. Other services included environmental, geotechnical, and pavement design.
01/19-present	**Lapalco Boulevard Movable Bridge over Harvey Canal, Westwego, LA – Jefferson Parish DPW** **Senior Bridge Engineer** for the pre-design inspection, the rehabilitation and widening of the existing four-lane Lapalco Boulevard to provide a facility carrying three lanes of traffic in each direction, and the design of a new three-lane double bascule movable bridge crossing of Harvey Canal. project includes rehabilitation to the existing four-lane bridge with three lanes of traffic and a new pedestrian/bike lane. The scope of services also includes the design of a new bridge to be constructed as an independent structure immediately adjacent and north of the existing bridge with a new operator house. Improvements to bridge and roadway approaches for eastbound and westbound traffic as well as the development of a Traffic Control Plan is also included in scope.
10/19-01/20	**Annual Inspection of Almonaster Railroad Bascule Bridge over the Industrial Canal, New Orleans, LA – Port of New Orleans** **Structural Inspection Team Leader** for an annual inspection of the Almonaster Avenue Railroad Bascule, which involved a structural inspection of the fracture critical steel, primary and secondary steel members, an electrical inspection of the electrical systems and controls, and a mechanical inspection of the machinery.
11/21-present	**Sidewalk Improvements to Conform to ADA Guidelines, Slidell, LA – LA DOTD** **Quality Control Engineer** is providing various design services including preliminary plans, final plans, construction engineering, project proposal plans, and inspection for LADOTD Sidewalk Improvements to Conform to ADA Guidelines. The project begins at the intersection of LA 1091 (Robert Boulevard) with US 190 (Gause Boulevard) in the city limits of Slidell, Louisiana, then continues North along LA 1091 for 2.0+/- miles to a location 175' North of the intersection of LA 1091 with Country Club Boulevard. The survey will extend along all major side roads 50' from the PT of the curbing in each direction. The project includes providing various design services including preliminary plans, final plans, construction engineering, project proposal plans, and inspection for LADOTD Sidewalk Improvements to Conform to ADA Guidelines.
08/20-present	**I-10 & I-12 College Drive Flyover Ramp Design-Build, East Baton Rouge Parish, LA – LADOTD** **Construction Quality Control Manager** for construction of this flyover ramp design-build project which is located at the I-10 West exit to College Drive, in advance of the I-10 & I-12 West merge. H&H serves as Design-Builder's Construction Quality Control Firm (CQCF) and oversees all Design Quality Control and Construction Quality Control activities for the project. Responsibilities include the development and implementation of Comprehensive Quality Plan to ensure the design and construction contract specifications.

16. Staff Experience:

<table>
<tr><td rowspan="3">  </td><td>Firm Employed by</td><td colspan="2">Hardesty & Hanover</td><td></td></tr>
<tr><td>Name</td><td>Amy Robards, PE</td><td>Years of relevant experience with this employer</td><td>4</td></tr>
<tr><td>Title</td><td>Bridge Inspection Team Leader</td><td>Years of relevant experience with other employer(s)</td><td>7</td></tr>
<tr><td colspan="2">Degree(s) / Years / Specialization</td><td colspan="3">B.S. / 2012 / Civil Engineering / University of New Orleans</td></tr>
<tr><td colspan="2">Active registration number / state / expiration date</td><td colspan="3">Professional Engineer: 41718 / Louisiana / 9/30/2023
FHWA-NHI 130055/53 Safety Inspection of In-Service Bridges / Refresher 2018
ATSSA Traffic Control Supervisor Refresher – ATSSA Flagger
DOTD Certified Structural Concrete Inspector / LADOTD / 12/13/2023</td></tr>
<tr><td>Year registered</td><td>2017</td><td>Discipline</td><td colspan="2">Civil Engineering</td></tr>
<tr><td colspan="3">Contract role(s) / brief description of responsibilities</td><td colspan="2">NBIS Bridge Inspection Team Leader</td></tr>
<tr><td>Experience dates (mm/yy–mm/yy)</td><td colspan="4">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).</td></tr>
<tr><td>08/20-present</td><td colspan="4">L H.001498.6; LA 24 and LA 16 Company Canal Vertical Lift Bridge, Bourg, LA – LA DOTD
Project Engineer delivering construction engineering and inspection services for a new vertical lift bridge and operator’s house. Services include daily monitoring of all construction activities; maintaining all construction field records; coordinating with DOTD, contractor, parish government, and utilities; performing field testing; maintaining records of contractual operations, pay estimates and progress reports; preparing final estimate packages; conducting construction progress meetings; construction close-out, etc.</td></tr>
<tr><td>03/16-10/17</td><td colspan="4">US 190 Mississippi River Bridge CE&I, Baton Rouge, LA – LA DOTD
Structural Inspector responsible for providing construction engineering and inspection services required during the repairs to the US 190 Mississippi River Bridge approaches in Baton Rouge, Louisiana. Included in the project were assorted repairs as well as the replacement of anchor bolts at concrete footings and other steel approach spans elements.</td></tr>
<tr><td>12/15-05/18</td><td colspan="4">Huey P. Long Bridge over the Mississippi River Annual Inspections– New Orleans Public Belt Railroad and LA DOTD
Structural Engineer/Inspector providing annual inspection services for the main bridge and railroad approaches of the Huey P. Long Bridge, a 2,400-foot-long cantilevered steel through truss bridge that carries a two-track railroad line and three lanes of US 90, as well as the turntable span and maintenance facilities. Inspected the primary members on the deck truss, main spans, piers, towers, and girders using standard climbing techniques and used technical access (rappelling) to inspect the piers. Contributed to the pre-inspection planning, coordination, and writing the final inspection reports.</td></tr>
<tr><td>04/18-05/18</td><td colspan="4">19 Complex Bridge Inspections and Load Rating, Statewide, LA – LA DOTD
Structural Engineer/Inspector provided inspection and evaluation services for 19 complex bridges at various locations throughout Louisiana.</td></tr>
</table>

03/19-10/19	**Seabrook Railroad Bridge Annual / In-Depth Bridge Inspection, Port of New Orleans, LA – Port of New Orleans** **Structural Inspector** responsible for conducting annual inspection of the Seabrook Trunnion Bascule Bridge crossing the IHNC in New Orleans, LA. This inspection included a structural inspection of the fracture critical steel, primary and secondary steel members, an electrical inspection of the electrical systems and controls, and an inspection of the mechanical systems and machinery.
10/18-11/18	**SR 609 Movable Bascule Bridge over Old Fort Bayou Rehabilitation, Ocean Springs, MS - Mississippi DOT** **Structural Inspector** for the inspection of structural elements for full rehabilitation of SR 609 bascule bridge as a task-order to the IDIQ Master Bridge Contract which includes developing standard and special bridge services statewide for MDOT. The scope of work included inspection and rehabilitation of structural, mechanical, and electrical bridge components, roadway approaches, and development of maintenance and repair plans.
08/18-05/19	**William P. Lane Bridge Inspection, Chesapeake Bay, MD – Maryland Transportation Authority** **Structural Inspector** responsible for the biannual inspection of William P. Lane Bridge. This 4.2-mile twin bridge facility carries US 50 / 301 across the Chesapeake Bay. Scope included the hands-on inspection of the three-span suspension span and nine spans of suspended deck truss on the eastbound bridge. Additionally, performed audit inspection of the three-span through truss. Inspected all parts of the deck, substructure, and superstructure including suspension cables, suspender ropes, rocker links and anchorages. Findings and recommendations were input into the owner's asset management system.
12/18-05/19	**Thomas J. Hatem Memorial Bridge, Harford County, MD – Maryland Transportation Authority** **Structural Inspector** responsible for the biannual inspection of the Thomas J. Hatem Memorial Bridge. Performed a quality control inspection consisting of the hands-on inspection of 10% of this 10,362-foot-long bridge. Structure is comprised of multiple deck and through-truss configurations, as well as beam/girder spans and floor beam/stringer systems. Coordinated with multiple inspection teams and access vendors simultaneously operating on the bridge. The structure was accessed using bucket trucks, under-bridge inspection vehicles, manlifts and rigging.
08/20-present	**I-10 & I-12 College Drive Flyover Ramp Design- Build - LADOTD** **Inspection Team Leader for construction quality control/quality assurance** for this flyover ramp design-build project which is located at the I-10 West exit to College Drive, in advance of the I-10 & I-12 West merge. H&H serves as Design-Builder's Construction Quality Control Firm (CQCF) and oversees all Design Quality Control and Construction Quality Control activities for the project. Responsibilities include the development and implementation of Comprehensive Quality Plan to ensure the design and construction conforms to all specified requirements. H&H will also develop, maintain, and update Contractor Quality Management Plan and provide all necessary qualified Inspectors, material sampling, testing, independent testing labs to ensure contractors and off-site fabrication facilities meet project specifications.

16. Staff Experience:

<table>
<tr><td rowspan="4">  </td><td>Firm Employed by</td><td colspan="3">Hardesty & Hanover</td></tr>
<tr><td>Name</td><td>Lance Resendez, EI</td><td>Years of relevant experience with this employer</td><td>1</td></tr>
<tr><td>Title</td><td>Civil Designer</td><td>Years of relevant experience with other employer(s)</td><td>2</td></tr>
<tr><td colspan="2">Degree(s) / Years / Specialization</td><td colspan="3">B.S. / 2021 / Civil Engineering / Louisiana State University</td></tr>
<tr><td colspan="2">Active registration number / state / expiration date</td><td colspan="3">Engineer-in-training: 34896/ Louisiana / 9/30/2023</td></tr>
<tr><td>Year registered</td><td>2021</td><td>Discipline</td><td colspan="2">Civil Engineering</td></tr>
<tr><td colspan="3">Contract role(s) / brief description of responsibilities</td><td colspan="2">Civil Designer</td></tr>
<tr><td>Experience dates (mm/yy–mm/yy)</td><td colspan="5">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).</td></tr>
<tr><td>07/22-present</td><td colspan="5">Company Canal Vertical Lift Bridge Replacement CE&I – LA DOTD
Engineer Intern providing contract administration and construction engineering inspection for a newly designed 100-foot-long vertical lift bridge and operator’s house. The scope of the project includes improving the safety and vehicular movements within the project corridor by realigning approximately 405 feet of L A 316 to the west to avoid conflict with the new bridge structure and approach slabs. During the construction of the new vertical lift bridge and operator house, Mr. Resendez is providing construction contract administration and construction engineering inspection services typically performed by the DOTO Project Engineer and their staff.</td></tr>
<tr><td>04/22-07/22</td><td colspan="5">Lakeview North Group C (RR085) – Sewerage and Water Board New Orleans
Engineer Intern contributed to the project as a construction inspector. The project consisted of street paving, sidewalks, accessible ramps, driveways, drainage structures, drainage point repairs, and water line replacement within a 38-block range (Robert E Lee to Filmore and West End to Orleans).</td></tr>
<tr><td>01/22-04/22</td><td colspan="5">Octavia Street Project – Department of Public Works, New Orleans
Engineer Intern contributed as a construction inspector for the project consisting of the reconstruction of all utilities, the roadway, driveways, and sidewalks for the blocks of Octavia St. from 2300 block to 2900 block. The project is a total footage of about 2400 feet. The project had many characteristics to it from air spading for trees to Type C Adjustments for the catch basins. Mr. Resendez oversaw multiple crews daily.</td></tr>
<tr><td>10/21-01/22</td><td colspan="5">Lafitte Greenway Project – Sewerage and Water Board of New Orleans
Engineer Intern contributed construction inspection for the destruction and rebuild of a pedestrian bridge on the Lafitte Greenway walking path. The project consisted of complete destruction and replacement of bridge and reconstruction of roadway on south side of Conti Street as well as the addition of adding replacement drains in the area.</td></tr>
</table>

16. Staff Experience:

Firm employed by	**Civil Design & Construction, Inc. (CD&C)**			
Name	Karla E. Weston, PE		Years of relevant experience with this employer	17
Title	President		Years of relevant experience with other employer(s)	6
Degree(s) / Years / Specialization			Bachelor of Science / 1999 / Civil Engineering	
Active registration number / state / expiration date			31010 / Louisiana / March 31, 2024	
Year registered	2004	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities			Mrs. Weston will oversee the firms' role as a sub-consultant and make sure the work is completed to LADOTD standards.	
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).			
02/16-09/19	**H.003047 Pecue Lane/I-10 Interchange, Baton Rouge, LA**: Mrs. Weston's served as Principal-in-Charge for the firm's role as a sub-consult for the engineering design services of the West Bound on Ramp to I-10, the West Bound Off Ramp from I-10, the extension to Rieger Road and Pecue Lane Extension. She has worked to oversee the firms design, coordinate with the prime consultant and government agencies.			
12/13-10/19	**H.02960 Gramercy Bridge, St. James Parish, LA**: Mrs. Weston served as Principal-in-Charge for the firm's role as a subconsultant for the engineering design elements of the plans including Hydraulic Analysis and Design, Typical Sections, and Graphical Grades for the project			
02/14-02/15	**H.010620 I-49 Design Build, Lafayette, LA**: Mrs. Weston provided QA/QC review for the Roadway Design Plans on this Design-Build Project for part of the I-49 South Corridor.			
05/13-05/14	**H.009288.5 LA 1 Railroad Bridge at DOW, WBR Parish, LA**: Mrs. Weston served as Principal-in-Charge for the firm's role as a sub-consult for the engineering design elements of the plans including Hydraulic Analysis and Design, Typical Sections, and Graphical Grades for the project. She has worked to oversee the firms design, coordinate with the prime consultant and government agencies.			
01/06-12/12	**EBR City/parish Project No. 06-CS-HC-0018, Fairchild-Badley Roadway, EBR Parish, LA**: Mrs. Weston served as Principal in Charge for this project that was approx. 1.25 miles in length along Fairchild-Badley Road and also included approximately 600 linear feet of Elm Grove Garden Dr. CD&C designed the upgrade to the existing narrow roadway to a typical section of 2-11' lands with a 2' barrier curb and gutter, and a 6' adjacent sidewalk. This included the design of a new sub-surface drainage system throughout the length of the project as well.			

03/12-07/12	**H.009104.5 - Sunshine Bridge Phase 2:** Ms. Weston served as Project Manager and Engineer for CD&C's portion of this Bridge Rehab Retainer Contract project which included the Traffic Management plans for the project. CD&C provided the Traffic Control design plans including detour maps of local road network for the repairs and widening to the Sunshine Bridge.
05/11-04/12	**Red River – Jackson Street Bridge, Alexandria, LA:** Ms. Weston served as Project Manager and Engineer for CD&C's portion of this Bridge Rehab Retainer Contract project which included the Traffic Management plans for the project. CD&C provided the Traffic Control design plans including detour maps of local road network for the replacement of the Jackson Street Bridge over the Red River.
06/12-10/12	**H.009986 – Paths 2 Progress. Jefferson, Orleans, Plaquemines, St. Bernard, and St. Tammany Parishes – Group 33** Ms. Weston served as the Principal-in-charge/Project Manager for this roadway rehabilitation project of roads in Jefferson Parish. This included field reconnaissance to determine severity of inundated roadways due to Hurricane Katrina, preparation and detailing of roadway rehabilitation plans, typical sections, providing quantity calculations, etc.
12/11-04/12	**H.005902.5 - Consulting Services for the Permanent Repair to Federal Aid Eligible Roads as a Result of Damage due to Hurricane Katrina in 2005. Jefferson, Orleans, Plaquemines, St. Bernard, and St. Tammany Parishes – Group 29** Ms. Weston served as the Principal-in-charge/Project Manager for this project which included survey, field reconnaissance to determine severity of inundated roadways due to Hurricane Katrina in the City of New Orleans, preparation and detailing of roadway rehabilitation plans, typical sections, providing quantity calculations, etc.
01/06-07/06	**Picardy Avenue Extension–City/Parish of East Baton Rouge:** Mrs. Weston served as Principal-in-Charge for this extension of Picardy Avenue, connecting Bluebonnet Blvd. with I-10 West. Duties included project layout and design as wells as subsurface drainage design for approximately ½ mile.

16. Staff Experience:

Firm employed by	**Civil Design & Construction, Inc. (CD&C)**			
Name	Ralph Burgess, PLS		Years of relevant experience with this employer	11
Title	Principal Land Surveyor		Years of relevant experience with other employer(s)	12
Degree(s) / Years / Specialization			BS / 2004 / Industrial Design & Supervision, Southeastern LA University	
Active registration number / state / expiration date			5040 / Louisiana – September 30, 2024	
Year registered	2010	Discipline	Land Surveyor	
Contract role(s) / brief description of responsibilities.			**Mr. Burgess will serve as the Survey Manager and meets MPR 4**	

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).
07/20-04/21	**H.001352.5 and H.002273.5 Comite River Diversion Bridge at LA 67, LA 19 and LA 19 Railroad Bridge, East Baton Rouge Parish**: Mr. Burgess was the Survey Manager for this project. CD&C as a sub-consultant on this project was responsible for topographic surveying the LA 67 and LA 19 sites of the Comite River Diversion project. This included merging of data from a previous survey on one portion of the site and field verifications of that data. The topographic data for this project was collected traditionally.
01/18-01/20	**H.004100 I-10: LA 415 to Essen Lane on I-10 and I-12, West and East Baton Rouge, LA**: . Burgess was the surveying Manager for this project. CD&C as a sub-consultant on this project is responsible for topographic surveying the portion of I-10 in West Baton Rouge Parish beginning at the start of the project limits to a point just before the approach of the I-10 Bridge and the limits of the project along LA 415 including work on Tributaries of the Intercoastal Canal. This work included using 3D Scanning for the bridge at I-10 bridge @ LA 415 as well as scanning every 500' for control verification and incorporation of the Mobile Lidar for the I-10 pavement.
7/17-12/18	**H.010960.5-2, LA 30 Roundabout at Tanger I-10, Ascension Parish, LA**: Mr. Burgess served as Survey Manager for the project. Duties included meeting with LADOTD & Cardno, Inc for utility locations, coordination of crews and 3D terrestrial scanning crew along with office personnel, coordination. Special duties were merging of two state projects with project survey for final submittal to combine all projects together.
01/16-08/16	**H.005733.5 US 190 Superstreet, St. Tammany Parish, LA**: Mr. Burgess served as Survey Manager for the project. Duties included complete topographic survey and drainage map for this project including all utility coordination. The survey began at the intersection of US 190 and Holiday Square Frontage Road. From this point, the survey proceeded in a northerly direction along US 190 for approximately 2.9 miles to a point that is 700 feet South of Intersection of US 190 and E. Boston St. in Covington, LA. This project also included work in the Abita River and utilized 3D Terrestrial Scanning for the main route.

10/15-12/18	**H.003184.5 I-10 Texas State Line –East of Coone Gully, Calcasieu Parish, LA**: Mr. Burgess served as Survey Manager for the project. Duties included meeting with LADOTD, coordination of traditional crews and 3D terrestrial scanning crew, coordination of utility companies on the project, review and verification of drainage crossing I10, merging of existing topographic survey of bridges from LADOTD and final review of all survey data for submittals.
08/16-12/17	**H.011235 I-49 South at Verot School Road, Lafayette, LA**: Mr. Burgess served as the Survey Manager for the project. Duties included meeting with LADOTD, and all consultants on the team, coordination of both traditional crews and 3D terrestrial scanning crew, coordination of survey crews with Cardno, Inc, utility locations on the project, met and review right of entry with landowners for project, review of drainage map, merging of existing topographic survey of the I-49 Connector project from LADOTD with current survey of project, review of apparent right of way mapping for prime consultant, and final review of all survey data.
07/14-10/15	**H.011088.5 I-110 North Street to Plank Road, EBR Parish, LA**: Mr. Burgess served as Survey Manager for the project. Duties included meeting with LADOTD, coordination of traditional crews and 3D terrestrial scanning crew, review, and verification of drainage map, merging and final review of all survey data for submittals. Other special duties were coordinating with LADOTD District 61 for a rolling lane closure for location of drainage located in the interior of the project along the existing crash wall. Also, coordination with LADOTD Records and EBR City Parish regarding the research of all drainage structures that enter and leave the project area.
04/17-07/17	**H.010006.5-3 LA 58 Petit Caillou Bridge Rehabilitation (Sarah Bridge), Terrebonne Parish, LA**: Mr. Burgess served as Survey Manager on this project which included a complete topographic survey, utility coordination, channel cross-sections and the scanning of the existing vertical lift bridge for the design of its repairs/replacement. Project included data collection of the topography via traditional means and methods along with 3D terrestrial scanning and hydrographic surveying.
03/14-06/14	**H.008369 Cleo Road Roundabout, St. Tammany Parish, LA**: Mr. Burgess served as the project manager for the project. CD&C was responsible for topographic survey from approximately 2400 ft. NW of intersection of I-59 and US Hwy 1090 and ended approximately 1000 ft. NW of intersection of I-59 and US Hwy 1090. The survey included 500 ft. of Cleo Road and 175 ft. of Ave D.
05/13-07/13	**H.009288 LA 1 Railroad Bridge at DOW, West Baton Rouge, LA**: Survey Manager for this project located in West Baton Rouge Parish. The intent is to create a grade separation at the intersection of LA 1 and the R/R spur for DOW. CD&C is performing all of the topographic survey for this project including utility coordination and R/R coordination and permits so that CD&C can survey the spur and parallel line.
02/14-03/17	**H.010620 I-49 Design Build**: Mr. Burgess managed and supervised all field work, utility coordination, and review of existing survey data for final topographic survey submittal. CD&C also produced ROW maps for the project. Mr. Burgess's duties for this portion also included title reports, review of property surveys and final submittal of final existing right of way plans.

16. Staff Experience:

Firm employed by	**Civil Design & Construction, Inc. (CD&C)**			
Name	Chris Ballard, PLS		Years of relevant experience with this employer	6
Title	Survey Project Manager		Years of relevant experience with other employer(s)	19
Degree(s) / Years / Specialization			BS / 2004 / Biological Science / Southeastern LA University	
Active registration number / state / expiration date			5033 / Louisiana – September 30, 2024	
Year registered	2010	Discipline	Land Surveyor	
Contract role(s) / brief description of responsibilities.			**Mr. Ballard will serve as the Survey Project Manager for this project and meets MPR4.**	

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).
09/18-01/20	**H.004100 I-10: LA 415 to Essen Lane on I-10 and I-12, West and East Baton Rouge, LA**: Mr. Ballard is the Surveying Project Manager for this project. CD&C as a sub-consultant on this project is responsible for topographic surveying the portion of I-10 in West Baton Rouge Parish beginning at the start of the project limits to a point just before the approach of the I-10 Bridge and the limits of the project along LA 415 including work on Tributaries of the Intercoastal Canal. This work included using 3D Scanning for the bridge at I-10 bridge @ LA 415 as well as scanning every 500' for control verification and incorporation of the Mobile Lidar for the I-10 pavement.
04/17-07/17	**H.010006.5-3 LA 58 Petit Caillou Bridge Rehabilitation (Sarah Bridge), Terrebonne Parish, LA**: Mr. Ballard served as the firms Survey Project Manager on this project which included a complete topographic survey, utility coordination, channel cross sections, and the scanning of the existing vertical lift bridge for the design of its repairs/replacement. Project included data collection of the topography via traditional means and methods along with 3D terrestrial scanning and hydrographic surveying.
02/19-09/19	**Bridge Replacements in East Feliciana Parish, Rural East Feliciana Parish, LA**: Mr. Ballard is serving Survey Project Manager for this project for East Feliciana Parish Police Jury. It includes the replacement of 2 bridges which were damaged from flooding and the repairs to many rural roadways throughout the parish. These projects are being funded thru FEMA and all documentation has to be in accordance with FEMA's policies and procedures.

01/17-12/17	**East Baton Rouge Parish Bridges, East Baton Rouge Parish, LA:** In 2017, CD&C has performed topographic surveys for at least 4 Bridge Replacement Projects throughout East Baton Rouge Parish. Mr. Ballard served as Survey Project Manager on each of these projects which included cross-sectioning and tracing the channel at each location. These included bridges over Dawson Creek, Claycut Bayou, Copper Mill Bayou, and Cypress Bayou.
10/16-11/16	**H.012728.5 LA 443: Tangi River Bridge Replacement, Tangipahoa Parish, LA**: Mr. Ballard served as the Project Manager for this Project. Among the duties performed for the project were review of the crew work conditions, review & processing of the survey data, verification, and review of final submittal. CD&C completed a topographic survey which included all utilities with depths, all drainage, all building information including finish floor elevations, and all super/substructure of the bridge over the Tangipahoa River. Additional information regarding the river was located by traditional means upstream and downstream for the engineer's design of the new bridge. To utilize data collection of the failed bridge, **3D Terrestrial Scanning** was incorporated in conjunction with traditional means to complete the topographic survey. Due to the nature of the project being an Emergency Bridge replacement all staff worked on this project non-stop until field work was completed in less than 3 weeks.
09/17-09/17	**H.012650.5-1 District 62 Bridges, Livingston and Tangipahoa Parishes, LA**: Mr. Ballard served as a Survey Project Manager for this project which included 5 bridge sites in District 62. In addition to all of the existing data for the bridge and roadway at each site, each channel was cross-sectioned both upstream and downstream of the bridge. These included bridges over the US 190 Bridge over Gray's creek, 2 bridges on LA 442 both crossing East Hog Branch, LA 1063 over the Natalbany River, and US 51 over Ponchatoula Creek. Several of these bridges including the US190 one was surveyed utilizing **3D Terrestrial Scanning**.
10/15-12/18	**H.003184.5 I-10 Texas State Line – East of Coone Gully, Calcasieu Parish, LA**: Mr. Ballard served as the Survey Project Manager on this project which is a 6-lane widening of I-10. Duties performed on this project included the review of the survey information from crew, verification of project delivery schedule, processing of data and final review of submittal of project. 3D Terrestrial Scanning was used in conjunction with traditional means and methods for the completion of this project.
01/16-08/16	H**.005733.5 US 190 Superstreet, St. Tammany Parish, LA**: Mr. Ballard served as the Survey Project Manager on this project. CD&C provided a complete topo survey & drainage map along with utility coordination for the project. Project duties included **processing** of data, review of field notes and weeklies, & performing final punch list. This project also included work in the Abita River utilized **3D Terrestrial Scanning** for the main route.
10/15-01/16	**H.011773 Hanks Dr/Landis Drive Pedestrian Improvements, East Baton Rouge Parish, LA**: Mr. Ballard served as the Survey Project Manager on this project that included a topographic survey and establishment of the ROW for Hanks Dr. for installation of new sidewalk.
06/11-09/13	**260-01-0028, H.002372 LA 42 Widening and Improvements, Ascension Parish, LA**: Mr. Ballard worked as a PLS on this project which included boundary and topography, establishing the existing ROW and acquisition of additional ROW.
07/17-12/18	**H.010960.5-2, LA 30 Roundabout at Tanger I-10, Ascension Parish, LA**: Mr. Ballard served as the Survey Project Manager on this project that includes a complete topo survey, utility coordination and drainage, along with finish floor elevations of all buildings that fall within the survey limits. Project included data collection of the topography via traditional means and methods along with **3D terrestrial scanning.**

16. Staff Experience:

Firm employed by	**Civil Design & Construction, Inc. (CD&C)**		
Name	Philip Dupree	Years of relevant experience with this employer	10
Title	Survey Party Chief	Years of relevant experience with other employer(s)	30
Degree(s) / Years / Specialization			
Active registration number / state / expiration date	NSPS Certified Survey Technician, Level III, Boundary Cert. No. 0799-1106 Nationwide; ATSSA Certified as Registered Flagger ATSSA Certified Traffic Control Tech & Traffic Control Supervisor		
Year registered		Discipline	
Contract role(s) / brief description of responsibilities	Mr. Dupree is the Senior Survey Party chief who will work to oversee a crew as well as aide in coordinating all crews with Survey PM.		

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).
07/20-04/21	**H.001352.5 and H.002273.5 Comite River Diversion Bridge at LA 67, LA 19 and LA 19 Railroad Bridge, East Baton Rouge Parish**: r. Dupree was the Senior Party Chief & Field Coordinator for this project. CD&C as a sub-consultant on this project was responsible for topographic surveying the LA 67 and LA 19 sites of the Comite River Diversion project. The topographic data for this project was collected traditionally.
01/18-02/20	**H.004100 I-10: LA 415 to Essen Lane on I-10 and I-12, West and East Baton Rouge, LA:** Mr. Dupree is the Survey Party Chief for this project. CD&C as a sub-consultant on this project is responsible for topographic surveying the portion of I-10 in West Baton Rouge Parish beginning at the start of the project limits to a point just before the approach of the I-10 Bridge and the limits of the project along LA 415.
07/17-12/18	**H.010960.5-2, LA 30 Roundabout at Tanger I-10, Ascension Parish, LA:** Mr. Dupree is serving as Field coordinator on this project by working specifically to set the control on the job and overseeing field crews as they work to complete the topography.
10/15-12/18	**H.011235 I-49 South at Verot School Road, Lafayette, LA:** Mr. Dupree served as Field coordinator on this project. He resurrected the original control set on the project and oversaw the checking of it. Mr. Dupree was the field coordinator with the R/R and also the SUE contractor on the project. He oversaw all field crews and ensured that the project was completed accurately and timely.

01/16-08/16	**H.005733.5 US 190 Superstreet, St. Tammany Parish, LA:** Mr. Dupree served as Field coordinator on this urban roadway topography project that included 3D scanning in addition to traditional topography. He oversaw the daily progress of both traditional field crews and scan crews and completed the project accurately and on schedule.
02/14-03/17	**H.010620 I-49 Design Build**: Mr. Dupree served as the Senior Party Chief for this project working to collect all field data as required by the project. CD&C also produced ROW maps for the project. Mr. Dupree also was the lead Party Chief for the property surveys on this project.
10/16-11/16	**H.012728.5 LA 443: Tangi River Bridge Replacement, Tangipahoa Parish, LA**: Mr. Dupree served as Field coordinator on this project. CD&C completed a topographic survey which included all utilities with depths, all drainage, all building information including finish floor elevations, and all super/substructure of the bridge over the Tangipahoa River. Additional information regarding the river was located by traditional means upstream and downstream for the engineer's design of the new bridge. To utilize data collection of the failed bridge**,** 3D Terrestrial Scanning was incorporated in conjunction with traditional means to complete the topographic survey.
07/14-10/15	**H.010319.5 I-110 North St. to Plank Road, Baton Rouge, LA:** Mr. Dupree served as Field coordinator on this heavily traveled Interstate project that included 3D scanning in addition to traditional topography. He oversaw the daily progress of both traditional field crews and scan crews and completed the project accurately and on schedule. He also coordinated with the district and state police to oversee the rolling lane closure that was required to obtain the drainage invert data.
05/13-07/13	**H.009288 LA 1 Railroad Bridge at DOW, West Baton Rouge, LA**: Mr. Dupree served as Senior Party Chief for this project located in West Baton Rouge Parish. The intent is to create a grade separation at the intersection of LA 1 and the R/R spur for DOW. CD&C is performing all of the topographic survey for this project including utility coordination and R/R coordination and permits so that CD&C can survey the spur and parallel line.
10/14-12/14	**H.011088.5 West Prien Lake, Lake Charles, LA**: Mr. Dupree served as the Senior Party Chief for this project working to collect all field data as required by the project. This project was to provide topographic survey for a new route to be constructed. Topographic survey and DTM was required along the proposed alignment including all utilities and all drainage with the survey limits.

16. Staff Experience:

Firm employed by	**Civil Design & Construction, Inc. (CD&C)**		
Name	Jacob Stoehr	Years of relevant experience with this employer	7
Title	Survey Party Chief	Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization			
Active registration number / state / expiration date		ATSSA TCS, TCT, Flagger	
Year registered		Discipline	
Contract role(s) / brief description of responsibilities		Mr. Stoehr will serve as a Survey Party Chief managing a crew to collect topographic data in the field in accordance with LADOTD Location and Survey means and methods.	

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).
01/18-01/20	**H.004100 I-10: LA 415 to Essen Lane on I-10 and I-12, West and East Baton Rouge, LA:** Mr. Stoehr served as a Survey Party Chief for this project. CD&C as a sub-consultant on this project is responsible for topographic surveying the portion of I-10 in West Baton Rouge Parish beginning at the start of the project limits to a point just before the approach of the I-10 Bridge and the limits of the project along LA 415.
07/17-12/18	**H.010960.5-2, LA 30 Roundabouts at Tanger I-10, Ascension Parish, LA:** Mr. Stoehr served as one of the Survey Party Chiefs on this project by managing a crew in the collecting of topographic data in the field utilizing LADOTD Field Codes.
08/16-01/18	**H.011235 I-49 Verot School Road, Lafayette, LA:** Mr. Stoehr served as one of the Survey Party Chiefs on this project by managing a crew in the collecting of topographic data in the field utilizing LADOTD Field Codes.
05/17-07/17	**H.011909.5-2 Roundabout US 171 at Boone Street, Vernon Parish, LA:** Mr. Stoehr served as one of the Survey Party Chiefs on this project by managing a crew in the collecting of topographic data in the field utilizing LADOTD Field Codes.
01/16-08/16	**H.005733.5 US 190 Superstreet, St. Tammany Parish, LA:** Mr. Stoehr served as one of the Survey Party Chiefs on this project by managing a crew in the collecting of topographic data in the field utilizing LADOTD Field Codes.
10/15-12/18	**H.003184.5 I-10 Texas State Line East of Coone Gully:** Mr. Stoehr served as one of the Survey Party Chiefs on this project by managing a crew in the collecting of topographic data in the field utilizing LADOTD Field Codes.
10/16-11/16	**H.012728.5 LA 443 Emergency Bridge Replacement, Tangipahoa Parish, LA:** Mr. Stoehr served as one of the Survey Party Chiefs on this project by managing a crew in the collecting of topographic data in the field utilizing LADOTD Field Codes.

16. Staff Experience:

Firm employed by	**Civil Design & Construction, Inc. (CD&C)**		
Name	Scott Benton	Years of experience with this firm/employer	5
Title	Senior Technician	Years of experience with other firm(s)/employer(s)	5
Degree(s) / Years / Specialization			
Active registration number / state / expiration date		ATSSA Traffic Control Supervisor, Technician & Flagger |	
Year registered		Discipline	
Contract role(s) / brief description of responsibilities		Mr. Benton serves as a Senior Technician specializing in 3D Terrestrial Scanning, processing, and extraction.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc.
12/19-01/20	**H.004100 I-10: LA 415 to Essen Lane on I-10 and I-12, West and East Baton Rouge, LA:** Mr. Benton served as a #3D Scanning Technician for this project. CD&C as a sub-consultant on this project is responsible for topographic surveying the portion of I-10 in West Baton Rouge Parish beginning at the start of the project limits to a point just before the approach of the I-10 Bridge and the limits of the project along LA 415.
03/14-06/14	**H.008369 Cleo Road Roundabout, St. Tammany Parish, LA**: Mr. Benton served as a Senior Technician on this project processing survey field data. CD&C was responsible for the topographic survey that began approximately 2400 ft. NW of intersection of I-59 and US Hwy 1090 and ended approximately 1000 ft. NW of intersection of I-59 and US Hwy 1090. The survey also included 500 ft. of Cleo Road and 175 ft. of Avenue D.
05/13-07/13	**H.009288 LA 1 Railroad Bridge at DOW, West Baton Rouge, LA**: Mr. Benton served as a Survey Crew Instrument Man and later as a technician on this project processing survey field data. The intent is to create a grade separation at the intersection of LA 1 and the R/R spur for DOW. CD&C is performing all of the topographic survey for this project including utility coordination and R/R coordination and permits so that CD&C can survey the spur and parallel line.
02/13-06/13	**H.005693 LA 447, Walker, LA**: Mr. Benton served as a Survey Crew Instrument Man and later as a technician on this project processing survey field data. CD&C's responsibilities included all field work, utility coordination, review of existing survey data provided by LADOTD and all office work to produce the final product; this includes merging of supplied survey from LADOTD and survey by CD&C.. Performed the tie-in of the new survey to the existing survey provided by LADOTD to produce an overall deliverable to be utilized in this design.
10/14-12/14	**H.011088.5 West Prien Lake, Lake Charles, LA**: Mr. Benton served as Survey technician on this project processing survey field data. This project was to provide topographic survey for a new route to be constructed. Topographic survey and DTM was required along the proposed alignment including all utilities and all drainage with the survey limits.

16. Staff Experience:

Firm Employed by	Urban Systems, Inc.		
Name	Alison Michel PE, PTOE, PTP, RSP1	Years of relevant experience with this employer	21
Title	President / Transportation Engineer	Years of relevant experience with other employer(s)	3

Degree(s) / Years / Specialization			BS / 1997 / Civil Engineering
Active registration number / state / expiration date			30261 / Louisiana / 03/31/2023
Year registered	2002	Discipline	Professional Engineer: Civil Engineering
Active registration number / state / expiration date			1023 / Louisiana / 11/06/2023
Year registered	2002	Discipline	Professional Traffic Operations Engineer
Active registration number / state / expiration date			626 / Louisiana / 11/20/2023
Year registered	2017	Discipline	Professional Transportation Planner
Active registration number / state / expiration date			115 / Louisiana / 12/21/2024
Year registered	2018	Discipline	Road Safety Professional
Contract role(s) / brief description of responsibilities			**Professional In Charge of Traffic Engineering Tasks**

Ms. Michel is Professional In Charge of Traffic Engineering Tasks and meets MPR5.

10/03-10/20	**EBR Signals – Phases 4a, 4b, 5a and 5b Baton Rouge, LA (LADOTD & EBR Parish)** Ms. Michel began as a design engineer for a project that included design for full upgrades to twenty-four (24) traffic signals along Choctaw Dr, S. Choctaw Dr and S. Foster Ave in Baton Rouge, LA in 2003. The signals were owned and operated by both LADOTD and EBR City-Parish which required close coordination on the different standards and equipment requirements. The project was split into multiple phases over the years for reasons such as funding, Right-Of-Way acquisition, geometric changes and railroad permitting. The design included full signal upgrades, ADA ramps, fiber interconnect, railroad preemption including pre-signals and striping. Standards and pay items changed over time and the final design plans were completed in late 2020 with Ms. Michel as Principal in Charge.

01/06-04/09	**LA 385 and (Ryan) Street at Prien Lake Road Intersection Improvements Lake Charles, LA** (**LADOTD)** Ms. Michel was the project manager responsible for the preparation of roadway widening and signal design plans for this LADOTD project. First a CORSIM analysis of various intersection improvement strategies was conducted to determine the optimum lane configuration and signal operations. Once the preferred conceptual layout was identified, construction documents based on LADOTD standards were prepared to add turn lanes to both Ryan Street and Prien Lake Road within limited Right of Way. In addition to the traffic signal modifications, the design included modification to drainage, reconfiguration of driveways, improving corner radii, widening concrete pavement and an asphalt overlay. Preliminary and Final plans, specifications and a cost estimate using LADOTD pay items were prepared under Ms. Michel's direction. The project was constructed successfully.
11/08-11/12	**Interstate 10 at LA 44 and LA 44 at Edenborne Pkwy Traffic Signal Design Gonzales, LA (LADOTD & RPCC)** Ms. Michel was the Principal in Charge responsible for the management and QA-QC of the design of the new traffic signals for the River Parish Community College (RPCC) based development. The design included interconnection between the signals and connected into LADOTD's mainline fiber network. She coordinated between the developer and the LADOTD District Traffic Engineer to obtain a permit for the construction. This included coordinating with both LADOTD Traffic Engineering Management on use of the latest TSI forms and with the LADOTD Intelligent Transportation System office regarding tying into the fiber optic communication lines along Interstate 10.
01/14-08/19	**US 90 (I-49 South) Albertson's Parkway to Ambassador Caffery Design-Build Project**, **Lafayette Parish, LA** (**LADOTD)** Ms. Michel was a member of the key personnel for this design-build project as the Traffic Engineer. The project included converting US 90 to a controlled access facility by converting at-grade intersections to an interchange. The bridge structure had to span the intersection and a railroad. She supervised the design and analysis and performed QA-QC for temporary and permanent signal plans, permanent signage plans, temporary traffic control plans and the Transportation Management Plan. Signal plans were prepared using the DOTDs latest TSI format. Analysis included developing design hour volumes for the design year and modeling signals in Synchro. Phasing and timing were developed for both permanent and temporary signal operation.

16. Staff Experience:

	Firm Employed by	Urban Systems, Inc.		
	Name	Nicole Stewart, PE, PTOE	Years of relevant experience with this employer	17
	Title	Vice President / Transportation Engineer	Years of relevant experience with other employer(s)	2

Degree(s) / Years / Specialization			BS / 2004 / Civil Engineering and BS / 2004 / Physics
Active registration number / state / expiration date			34750 / Louisiana / 09/30/2023
Year registered	2009	Discipline	Professional Engineer: Civil Engineering
Active registration number / state / expiration date			2923 / Louisiana / 08/2023
Year registered	2009	Discipline	Professional Traffic Operation Engineer
Contract role(s) / brief description of responsibilities			**Traffic Engineering/ Design Analysis, and TMPs**

Ms. Stewart will be responsible for the Traffic Engineering/Design Analysis and TMPs for this project and meets MPR5.

05/09-07/12	**Lakefront/Holy Cross Traffic Signal / ITS Signal System New Orleans, LA (City of New Orleans & LADOTD)** A system engineering analyses was prepared by Ms. Stewart to determine the requirements for a self-healing fiber network between the traffic signals and video system detectors in the Lakefront and Holy Cross New Orleans neighborhoods. This project included forty-six (46) signalized intersections in two systems, Lakeview/Gentilly and the 9th Ward. Ms. Stewart prepared plans to provide connectivity to the City of New Orleans Department of Public Works (DPW) and the new Regional Traffic Management Center (RTMC). The communications system design included tie-ins to the city's Ethernet network allowing full operation of the system from City Hall. The plans and specs were designed for LADOTD who selected the contractor for the project. Ms. Stewart was also the engineer responsible for construction administration during the project. This included coordinating with the LADOTD District Construction Engineer and submitting the required reports in LADOTD format.
09/10-08/11 and 03/12-11/13	**MacArthur Interchange Signal Modification/ Signage & Striping / Traffic Control Devices Plans Harvey, LA (LADOTD)** The traffic study to evaluate the existing and projected operating conditions of the lower Westbank Expressway was prepared by Ms. Stewart. In the Design Phase, Ms. Stewart designed the new traffic signals for the interchange and neighboring intersections. She prepared the striping and signage plans to accommodate the ramp changes and prepared Traffic Control Devices Plans for the various stages of construction.

05/18-04/19	**TMP for I-10: West of 108 to I-210 Interchange: Rubblize and Overlay Lake Charles, LA (LADOTD)** As the lead engineer for this Traffic Management Plan, Ms. Stewart was responsible for the preparation of the safety analysis. She conducted the analysis per the guidelines set forth by LADOTD in *Guidelines for Crash Data Analysis* for this TMP in Lake Charles, LA. She conducted queue analysis to identify when lane closures would be permitted, identified the construction impact area, and reviewed crash data for more than 350 collisions. Ms. Stewart identified trends and calculated crash rates and determined that the section of I-10 that was going to be rubblized had a crash rate that was higher than the statewide average and required mitigation.
01/14-08/19	**US 90 (I-49 South) Albertson's Parkway to Ambassador Caffery Design-Build Project Lafayette, LA (LADOTD and Design Builder)** Ms. Stewart prepared the Traffic Control Device Plans for all phases of construction. Ms. Stewart was responsible for the design of the permanent signage for the new portion of I-49 within the project limits. Traffic Control Devices and Signage plans were prepared to be in accordance with the Manual of Uniform Traffic Control Devices and the most current LADOTD standards. Throughout construction, Ms. Stewart was available to meet with contractor and visit the construction site on an as needed basis. Ms. Stewart provided timely responses to RFI's and prepared plan changes to address concerns raised in the field. She also prepared As-Built plans once the project was complete in August 2019.
02/15-06/16	**Bridge Preventative Maintenance District 61 Port Allen, LA (LADOTD)** Ms. Stewart was the principal in charge for Traffic Management Plans (TMP) for bridge replacement and repairs for various locations in Louisiana. This included developing various levels of TMP's based on LADOTD EDSM guidelines. Tasks included conducting capacity analysis, safety analysis, detour analysis and developing proposed mitigations where applicable. For the reconstruction of the LA 1 bridge over the Intracoastal Waterway, a detailed Level 3 TMP was prepared. For this TMP, detailed work zone impact management strategies were developed to help minimize the project's impact on mobility.

16. Staff Experience:

Firm Employed by	Urban Systems, Inc.		
Name	Christine Darrah, PE	Years of relevant experience with this employer	8
Title	Transportation Engineer	Years of relevant experience with other employer(s)	19

Degree(s) / Years / Specialization			BS / 1994 / Civil Engineering
Active registration number / state / expiration date			25828 / Louisiana / 09/30/2023
Year registered	2009	Discipline	Professional Engineer: Civil Engineering
Contract role(s) / brief description of responsibilities			**Transportation Engineer/ Design Analysis, and QA/QC**

Mrs. Darrah is a Transportation Engineer and will be responsible for design analysis and QA/QC for this project.

11/10-09/15	**Pecue Lane / I-10 Interchange Environmental Assessment Baton Rouge, LA (LADOTD)** Ms. Darrah assisted with design and QA/QC for the Pecue Lane / I-10 Interchange traffic signals for the diverging diamond and the signal at the intersection of Pecue Lane at Reiger Road. The signal plans were prepared on the latest LADOTD TSI format. The interstate ramp terminal intersection signals were designed per LADOTD standards and the Reiger Road signal was designed per East Baton Rouge Parish standards. This required close attention to detail given the different equipment requirements and coordination to obtain pay item numbers for East Baton Rouge signal specifications. She reviewed the opinion of probable cost.
09/14-12/14	**SELA 26 Widening of Florida Ave. Canal Phase II and III New Orleans, LA (LADOTD)** Ms. Darrah designed Traffic Control Devices Plans to meet US Army Corps of Engineers, LADOTD and MUTCD standards. The plans and specifications included, but were not limited to, the proper placement of temporary Traffic Control Devices (signs, barricades, drums, roadway markings, etc.) to facilitate traffic safely and efficiently through the traffic control zone. Haul routes were designated when necessary.
09/15-10/18	**Picardy-Perkins Traffic Signal East Baton Rouge, LA (EBR, LADOTD)** Ms. Darrah was the design engineer for two (2) traffic signals for the Picardy-Perkins Connector Project. In this role she worked closely with the prime consultant, LADOTD, and East Baton Rouge Parish to design the traffic signal operation and identify locations for signal equipment for the permanent signal plans. Signal requirements included video detection, pedestrian accommodations, and advanced warning due to limited sight distance at the railroad underpass. The 98% plans are currently under review by Baton Rouge City-Parish and LADOTD.

06/21-10/21	**MSY Entrance Road Capacity, North Terminal Louis Armstrong New Orleans International Airport, Jefferson Parish, LADOTD)** Ms. Darrah prepared temporary and permanent striping and signage plans for the widening of the Southbound Airport Access Roadway, realignment of TNC Road, and widening of Northbound Airport Access Rd. As part of this project, she performed a comprehensive review of the adjacent Airport Access Rd Improvements included in the I-10/Loyola Interchange Improvement project. The proposed improvements required temporary closure of one lane of the airport roundabout, roundabout slip lane and right lane of Northbound Airport Access Rd.
09/14-08/16	**LA 415 Stage 0 Corridor Study West Baton Rouge Parish, LA (LADOTD)** Ms. Darrah was the team leader for the Stage 0 Corridor study to develop an alternative plan to improve mobility and safety on LA 415 in Port Allen, LA for normal conditions as well as increase the capacity for throughput during an I-10 mainline detour. The study included traffic volume collection, growth rate development, alternative development, modeling, safety analysis, Tier 1 analysis, and report preparation. VISSIM was used to model the corridor. Modeling the alternatives required base model creation, calibration, development of projected model for each alternative. She also managed the sub-consultant who prepared the geometric layouts.
08/19-01/20	**Citrus Boulevard Turn Lane Harahan, LA (LADOTD)** Ms. Darrah was the lead engineer and project manager for the new turn lane on Citrus Boulevard for the Amazon Distribution Facility in Harahan, Louisiana. The purpose of the project was to provide an eastbound left turn lane and reduce the existing median opening at the facility main entrance. Plans and specifications included typical sections, geometric layout, grading, and required signage and striping. Tasks included design, Auto-turn analysis, construction administration, and coordination with Jefferson Parish, utility companies, surveyors, and geotechnical engineer.
05/21-present	**Complete Streets Group C- Bicycle Boulevard Orleans Parish, LA (LADOTD)** The striping, signage, and wayfinding plan preparation for new Bicycle Boulevards on 15 corridors in Uptown and Downtown areas of New Orleans were prepared by Ms. Darrah. She oversaw data collection for 48-hour vehicular counts, pedestrian and cyclist counts, and radar speed studies. Ms. Darrah worked closely with the project team and City of New Orleans DPW to evaluate data collected and develop potential improvements to prioritize cyclist on the existing road network. Her final striping and signage designs provide clear, concise direction for cyclist, pedestrian, and motorist

16. Staff Experience:

Firm Employed by	Urban Systems, Inc.		
Name	Matthew Morgan, PE	Years of relevant experience with this employer	9
Title	Transportation Engineer	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			BS / 2009 / Civil Engineering
Active registration number / state / expiration date			47060 / Louisiana / 08/11/2023
Year registered	2022	Discipline	Professional Engineer: Civil Engineering
Contract role(s) / brief description of responsibilities			**Transportation Engineer**

Mr. Morgan is proficient: PetraPro, TraxPro, MetroCount, AutoCAD, Synchro, HCS, SIDRA, VISSIM, CORSIM, Adobe suite.

01/18-01/19	**LA 46- St. Claude Bridge Bicycle Accommodation (Port of New Orleans & LADOTD)** Mr. Morgan developed short term and long-term alternatives for safely accommodating bicyclists across the raised portion of LA 46 at the St. Claude Bridge and over the Inner Harbor Navigational Canal lift span. To accomplish this task, he conducted field observations which included sight distance evaluations, identifying existing equipment to be modified/removed, collecting classification data for pedestrians, vehicles, and bicycles using the roadway/lift span, and collecting vehicular speed data. Mr. Morgan assisted with the cost estimate, and the formation of a technical memorandum to implement these alternatives for the Port of New Orleans.
03/21-01/22	**North Blvd Baton Rouge, LA (MoveBr & LADOTD)** Mr. Morgan was the project manager for a traffic study for enhancing North Blvd from I-110 to Foster St for pedestrians and bicycles. He led the data collection effort which included 7-day classification counts, 48-hour classification counts, turning movement counts, spot speed studies, and driveway spot counts. He also led the effort collecting safety information from LADOTD crash websites for local and state roads. Mr. Morgan conducted safety analysis to identify the Level of Service of Safety (LOSS) and overrepresented crashes.
10/17-12/17	**Calcasieu Pass TIA Cameron Parish, LA (Developer & LADOTD)** Mr. Morgan led the data collection team for the Calcasieu Pass TIA. This data collection included vehicle volume and classification counts in the surrounding study area. He assisted with preparing figures representing the data, intersection analysis, deliverables, and also tracking quality control.

03/16-present	**I-10/Loyola Interchange Improvement IMR New Orleans, LA (LADOTD)** Mr. Morgan led data collection efforts on I-10 and surrounding roadways for the I-10/Loyola Interchange improvements. He organized counting roadways and turning movements using video camera and pneumatic tubes. He also assisted in the collection of speed data using hand-held radar devices. Mr. Morgan helped review crashes associated with the project, analyze crash characteristics, and examine trends in crashes for the study years. He assisted with capacity analysis for existing and future alternative conditions using HCS, Synchro, and Vissim analysis software. Mr. Morgan helped write/QAQC reports, and appendixes based on the results of these analyses.
11/20-07/21	**Manhattan Signals (Target and Gretna) (Jefferson Parish)** Mr. Morgan's participation in the project included temporary and permanent signal design for changes to accommodate an additional northbound travel lane on Manhattan Blvd at the intersections of the Target Driveway and Gretna Blvd. Mr. Morgan helped with the relocation of existing traffic equipment and the addition of new equipment where needed. He helped with the development of plan sheets that would include signal timing and phasing changes as well as present the relocation of old signal equipment.
04/18-07/18	**Marconi Dr Traffic Study (Orleans Parish)** Mr. Morgan was a team member for a traffic study focused on increasing safety for pedestrians, cyclists, and drivers on Marconi Dr. His role was to evaluate the existing conditions on Marconi Drive including vehicular, bicycle and pedestrian traffic and to identify potential improvements. Mr. Morgan led the acquisition and documentation of traffic data for the study area. He also led the analysis of the study intersections creation of graphic representation of existing and alternative scenarios. Mr. Morgan met schedule deadlines and assisted with the generation of the report and appendix.

16. Staff Experience:

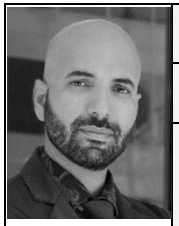
Firm Employed by	Urban Systems, Inc.		
Name	Alex Weeks, E.I.	Years of relevant experience with this employer	1
Title	Engineer Intern	Years of relevant experience with other employer(s)	1

Degree(s) / Years / Specialization			BS / 2020 / Civil Engineering
Active registration number / state / expiration date			34593/LA/ 3/31/23
Year registered	2020	Discipline	Civil Engineer Intern
Contract role(s) / brief description of responsibilities			Transportation Engineering – Assisting P.E's

Ms. Weeks has two (2) years of experience in Traffic and Transportation Engineering. Her project experience so far has included safety studies, Transportation Management Plans with and without site-specific traffic control devices plans, operational improvement studies for both corridors and intersections, and signal design. Her signal design project experience included use of LADOTD's TSI format, design guidelines and pay items. She is proficient using Highway Capacity Software (HCS), Synchro, SIDRA and TruTraffic.

06/21-09/21	**US 90 (Jefferson) at Causeway Jefferson Parish, LA (Jefferson Parish & LADOTD)** Ms. Weeks was on the USI team to study potential improvements to the intersection of US 90 (Jefferson Hwy) at Causeway Blvd. Ms. Weeks reviewed 267 crashes reports, wrote crash descriptions, and input corrected information into the LADOTD CAT scan tool. Ms. Weeks also prepared the safety analysis report that identified crash trends, compared the observed crash numbers of vs statewide averages, and determined of Level of Service of Safety (LOSS).
11/21-04/22	**LA 621 at Roddy Rd Intersection Evaluation Control (ICE) Ascension Parish, LA (Move Ascension & LADOTD)** Ms. Weeks assisted with this project to evaluate the intersection of LA 621 at Roddy Rd based on LADOTD EDSM VI.1.1.1.2 Intersection Control Evaluation (ICE). Ms. Weeks utilized SIDRA to calculate capacity results. Ms. Weeks also wrote sections of the report per the LADOTD TEPR guidelines.
03/21-present	**US 190 Bus (Florida Blvd) Segment 2 Enhancement Baton Rouge, LA (MoveBr & LADOTD)** Ms. Weeks conducted safety analysis for this project corridor with a focus on pedestrian and bicycle crashes. Ms. Weeks reviewed crash reports, updated crash information in the LADOTD Crash tool, and wrote crash descriptions. Ms. Weeks also prepared sections of the report per the LADOTD TEPR guidelines.

16. Staff Experience:



Firm Employed by	Urban Systems, Inc.		
Name	Fadi Madi (Ontario) P.Eng	Years of relevant experience with this employer	1
Title	Transportation Designer & Analyst	Years of relevant experience with other employer(s)	10

Degree(s) / Years / Specialization			B.App.Sc (Honors) / 2011 / Civil Engineering
Active registration number / state / expiration date			100174071/Ontario (Canada)/ 11/30/22
Year registered	6	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			Transportation Engineering – Assisting P.E.'s

Mr. Madi is a Project Manager at Urban Systems, Inc. He is proficient in Synchro, HCS and TruTraffic Software and completed the LADODTD TEPR certification modules.

10/21-present	**Violet Terminal Traffic Study St. Bernard Parish, LA (Port of New Orleans & LADOTD)** Mr. Madi was a lead engineer for a Traffic Impact Analysis for the proposed Port of New Orleans Terminal in Violet, Louisiana. At its peak he assisted in estimating the proposed terminal will have increase to both truck traffic and passenger vehicles on state highways LA 39 and LA 46 in St. Bernard Parish. Mr. Madi developed an excel-based tool to estimate future traffic volumes and separate background volumes from Port traffic. Mr. Madi conducted operational analysis using HCS software to identify when proposed improvements will be required and prepared the report that summarized the findings .
10/21-present	**Florida Blvd Segment 2 Enhancement (US 190: N22nd Street to N Beck Street) - East Baton Rouge Parish, LA (MoveBr & LADOTD)** Mr. Madi assisted with a study for this portion of US 190 (Florida Blvd) that was identified as needing improved access for pedestrians and cyclists. Potential intersection and signal improvements, sidewalk connections, and transit stop improvements were considered. Mr. Madi organized the collection of peak periods turning movement counts and field observations. He obtained growth rate data and applied it to existing volumes to forecast No Build volumes. Mr. Madi developed a methodology to re-route traffic volumes based on the proposed improvements, conducted No Build and Build analysis using HCS software and summarized the findings in a technical memorandum.

10/21-present	**Dakin Street Improvements – Jefferson Hwy to Earhart Expressway At Grade Improvements Traffic Study (Jefferson Parish & LADOTD)** Mr. Madi was the lead engineer to study the impact of a proposed new off-ramp on Earhart Expressway (LA 3139) Eastbound to US 90 (Jefferson Highway) on the roadway network. Mr. Madi used output from the RPC TransCAD model to estimate traffic volumes. He was responsible for developing alternatives to mitigate adverse impacts to vehicular traffic operation and access on Jefferson Highway. Mr. Madi conducted HCS analysis of the alternatives for comparison and also evaluated the impact on safety. Mr. Madi prepared the report submittals in accordance with LADOTD TEPR guidelines. He also assisted with the design phase and collaborated between Jefferson Parish and LADOTD Traffic Engineers.
11/21-present	**Jefferson Hwy @ Corporate (Intersection Improvements) (MoveBr)** The traffic engineering for the Jefferson Highway at Corporate Boulevard Intersection Improvements project of extending existing and incorporating additional turning lanes, where necessary, to increase storage length and improve capacity was conducted by Mr. Madi. In addition to turning lane improvements, pedestrian facility (sidewalks, crosswalks, etc.) and driveway access enhancements were considered to improve safety, pedestrian connectivity to transit facilities, and access management. Mr. Madi is responsible for leading the technical analysis and preparation of deliverables.
11/21-02/22	**Loyola University Institutional Master Plan – Traffic Impact Analysis Addendum (City of New Orleans & LADOTD)** Mr. Madi conducted a traffic study as part of Loyola University's Institutional Master Plan filing with the City of New Orleans, as required by the Comprehensive Zoning Ordinance. An addendum was prepared to supplement the original Traffic Impact Analysis. Mr. Madi estimated the potential impacts of the proposed changes to the original master plan on the surrounding street network. Mr. Madi used the projected volumes from the original study, estimated trip generation and conducted HCS analysis for various scenarios and summarized the findings in a traffic report.

17. Firm Experience:

Firm name	Hardesty & Hanover, LLC		Past Performance Evaluation Discipline(s)*	Road	
Project name	**I-10 & I-12 College Drive Flyover Ramp Design Build**		Firm responsibility (prime or sub?)	Sub	
Project number	H.013897	Owner's name	Louisiana Department of Transportation & Development		
Project location	Baton Rouge, LA		Owner's Project Manager	Catherine Mastin	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70804 | 225.379.1652 | Catherine.mastin@la.gov				
Services commenced by this firm (mm/yy)	09/20	Total consultant contract cost ($1,000's)		$ 2,500	
Services completed by this firm (mm/yy)	On-going	Cost of consultant services provided by this firm ($1,000's)		$ 2,000	

Hardesty & Hanover is overseeing the project design and plan delivery, and construction quality control/quality assurance, for this flyover ramp design-build project, which is located in Baton Rouge, La at the I-10 West/ I-12 West junction to College Drive.

The project includes the design and construction of a new three lane I-10 West bridge, new two lane I-12 West roadway design, bridge rehabilitation of the flyover bridge from I-12 West exit to I-10 East, connecting ramps and associated roadways, and rehabilitation of the Essen Lane bridge in advance of the project.

H&H serves as Design-Builder's Construction Quality Control Firm (CQCF) and oversees all Design Quality Control and Construction Quality Control activities for the project. Responsibilities include the development and implementation of a Comprehensive Quality Management Plan to ensure the design and construction conforms to all specified requirements.

H&H also develops, maintains, and updates the Contractor Quality Management Plan and provides all necessary Qualified Inspectors, Material Sampling and Testing, Independent Testing Labs to ensure that the contractors' work, and off-site fabrication facilities meet project specifications. H&H manages all document control to include daily diaries, collection of material certifications, NCRs, and weekly and monthly project reports.

Key members: Fred Wetekamm, PE; Babak Naghavi, PE; Amy Robards, PE; Linh Kim, EI; Dalton Hunt, EI; Angelo Pecoraro, EI

Performed in LA: 100%

17. Firm Experience:

Firm name	Hardesty & Hanover, LLC		Past Performance Evaluation Discipline(s)*	Road	
Project name	**IDIQ for Sidewalk Improvements to Conform to ADA Guidelines (Districts 02, 61, and 62)**		Firm responsibility (prime or sub?)	Prime	
Project number	4400011199	Owner's name	Louisiana Department of Transportation & Development		
Project location	Slidell, LA		Owner's Project Manager	Brett Brabham, PE	
Owner's address, phone, email	1201 Capitol Access Rd. Baton Rouge, LA 70802 | 985.375.0165 | brett.brabham@la.gov				
Services commenced by this firm (mm/yy)	11/21	Total consultant contract cost ($1,000's)	$ 163		
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)	$ 93		

Project Background

This IDIQ is for to perform all engineering and related services to perform initial site investigation, prepare a scoping report, survey, prepare preliminary and final plans, perform traffic engineering studies, construction proposal, and construction inspection for selected sidewalk improvement and handicapped ramp projects to conform to ADA Guidelines. The majority of these projects are located in Districts 02, 61, and 62. As a part of this IDIQ, Hardesty & Hanover is currently providing these design services for a 2.1 miles long project on LA1091 from US 190 to the Country Club Drive intersection.

H&H Scope

The project begins at the intersection of LA 1091 (Robert Boulevard) with US 190 (Gause Boulevard) in the city limits of Slidell, Louisiana, then continues North along LA 1091 for 2.0+/- miles to a location 175' North of the intersection of LA 1091 with Country Club Boulevard. The project provides a combination of new and rehabilitated ADA compliant ramps, sidewalks, driveways, and crosswalks. The project includes over 9,000sy of new and rehabilitated sidewalks and driveways in addition to 33 new handicapped ramps, crosswalks, adjustments to manholes, etc.

Key members:
Babak Naghavi, PE; Fred Wetekamm, PE;
Erik Diaz, PE; Linh Kim, EI; Dalton Hunt, EI

Performed in LA: 100%

17. Firm Experience:

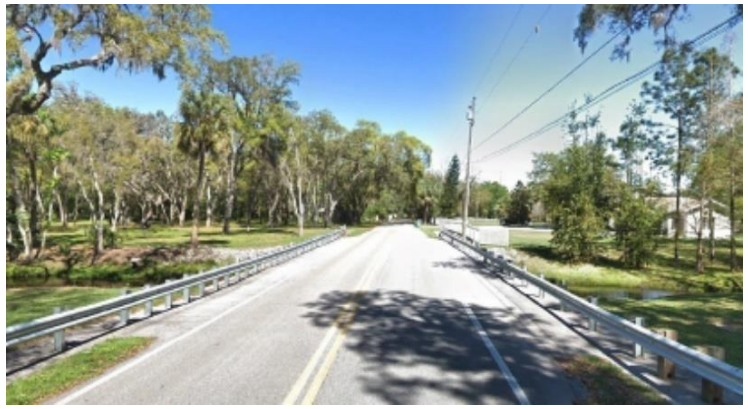
Firm name	Hardesty & Hanover, LLC		Past Performance Evaluation Discipline(s)*	Road	
Project name	**Pinellas County Roadway, Drainage, Structural, Civil and Traffic Engineering Consulting Services**		Firm responsibility (prime or sub?)	Prime	
Project number		Owner's name	Pinellas County Department of Environment & Infrastructure		
Project location	Pinellas County, FL		Owner's Project Manager	Erin Lawson, PE	
Owner's address, phone, email	400 S Fort Harrison Ave Clearwater, FL 33756 | 727-464-3176 | elawson@pinellascounty.org				
Services commenced by this firm (mm/yy)	02/11	Total consultant contract cost ($1,000's)		$ 875	
Services completed by this firm (mm/yy)	05/19	Cost of consultant services provided by this firm ($1,000's)		$ 685	

H&H served as a prime consultant for Pinellas County for professional engineering services for planned infrastructure improvements. Under this project, we have completed multiple Task Work Orders. Key projects are noted below.

Pinellas Trail from Ponce De Leon Blvd to Woodlawn Ave: H&H completed a Preliminary Engineering Report and analysis to study the severe embankment erosion along a portion of the Pinellas Trail. The study resulted in H&H preparing the final design plans, drainage plans, and the SWFWMD and COE permit packages. In addition, H&H is currently involved in post-design services for the construction of this project.

35th St & 46th Ave Railroad Crossing Improvements. H&H provided roadway design and plans preparation, including signing and pavement marking. This project involved developing plans and specifications and performing all other professional engineering design work for reconstruction of the 35th Street & 46th Avenue Railroad Crossings in Pinellas County.
This project illustrates H&H's capabilities for:

- IDIQ Projects
- Small Civil Projects Project Management
- Use of owner specified CADD platform
- Ability to work with a diverse group of County Project Managers



East Lake Drive (CR 77) at Hollin Creek Culvert: H&H prepared design plans for the replacement of the Hollin Creek culvert at East Lake Drive. This project also included the preparation of the Storm Water Pollution Prevention Plan and permit packages for three environmental permits, SWFWMD Notice General Permit, USACE Nationwide Permit 3, and FDEP NPDES permit. This project is currently under construction.

Key Personnel: Stephan Heimburg, PE; Jason Dunn, PE; Robert Hideck, PE; J. Webb Jones, PE

17. Firm Experience:

Firm name	Hardesty & Hanover, LLC		Past Performance Evaluation Discipline(s)*	Road	
Project name	**Orlando South Ultimate Interchange Improvements**		Firm responsibility (prime or sub?)	Prime	
Project number	C9U63	Owner's name	Florida Department of Transportation		
Project location	Orlando, FL		Owner's Project Manager	Pamela Nagot, PE	
Owner's address, phone, email	MP 263 Bldg. 5315, Ocoee, FL 34761 |407.264.3043 | Pamela.Nagot@dot.state.fl.us				
Services commenced by this firm (mm/yy)	07/17	Total consultant contract cost ($1,000's)		$ 885,000	
Services completed by this firm (mm/yy)	06/20	Cost of consultant services provided by this firm ($1,000's)		$ 3,354	

The Orlando South Interchange connects two toll routes Florida's Turnpike (SR 91) and the Beachline Expressway (SR 528) and provides connections to the surface streets. Originally built in 1964, both principal routes have been widened to 8-lanes. Key deficiencies of the interchange were:

- Substantial truck traffic and nearby intersections allow congestion to propagate into system
- Low speed loop ramps are a safety concern
- Need to replace Beachline bridges over the Turnpike for 10-lane expansion
- Existing double trumpet configuration has less desirable weaving operations
- Lack of direct freeway connections for eight movements

Hardesty & Hanover lead the PD&E effort to develop multiple interchange configurations to address needs. The effort included development and screening of hundreds of schematic components to provide three build alternatives for further environmental and engineering analysis. Build Alternatives and no-Build option were presented to the public in a public meeting. Engineering analysis included conceptual design of layout, profiles, bridges, tolling, signing, ITS, pond sites and development of conceptual staging plan. Environmental analysis included evaluation of natural, physical, and cultural features that were documented in a State Environmental Report. The preferred alternative addressed project needs and improved local street operations such that there is a 48% reduction in signalized intersection delay relative to the no-build. Key benefits of the preferred alternative include:

- Systems Continuity and Capacity
  - ◊ New Directional ramps connecting the Beachline Expressway and Florida's Turnpike
  - ◊ Future mainline expansion with longer bridges over the Turnpike
- Systems Operations
  - ◊ Auxiliary lanes and braided ramps between interchanges
  - ◊ Separation of systems and service ramps
- Ramp Safety and Operations
  - ◊ Separation of ramps to eliminate weaving
  - ◊ All Electronic Toll (AET) collections with ORT gantries
- Surface Street Capacity and Operations
  - ◊ New reliever interchanges to disperse traffic demand
  - ◊ Removal of selected ramps to reduce OBT demand
  - ◊ Diverging Diamond Interchange at Consulate Dr. ramps

Key members: Stephan Heimburg, PE; J. Webb Jones, PE; Benjamin Bower, PE; Jason Dunn, PE; Robert Hideck, PE; Zachary Gross, PE; Zineb Bennouna, PE

17. Firm Experience:

Firm name	Hardesty & Hanover, LLC		Past Performance Evaluation Discipline(s)*	Road	
Project name	**Route 38 Church Street CR 607) to Fellowship Rd (CR 673) Intersection Improvements**		Firm responsibility (prime or sub?)	Prime	
Project number	Z0010038317	Owner's name	New Jersey Department of Transportation		
Project location	Moorestown Township, Burlington County, New Jersey		Owner's Project Manager	Andrew Maevsky	
Owner's address, phone, email	1035 Parkway Ave. Trenton, NJ 08625 | 609.530.2472 | Andrew.Maevsky@dot.nj.gov				
Services commenced by this firm (mm/yy)	01/15	Total consultant contract cost ($1,000's)		$ 2,100	
Services completed by this firm (mm/yy)	02/20	Cost of consultant services provided by this firm ($1,000's)		$ 1,500	

H&H performed Preliminary and Final Engineering Phase for the Route 38 Intersection Improvements, from South Church Street (CR 607) to Fellowship Road (CR 673).

The project location included the 2nd highest ranked signalized intersection on the NJDOT Congestion Management System (CMS). Lack of capacity results in congestion on Route 38 and lengthy queues on S. Church Street and Fellowship Road during the PM peak period. Accident frequency significantly exceeds the statewide average. The project purpose was to improve safety and operation by increasing capacity. The Preliminary Preferred Alternative (PPA) achieved this by widening and resurfacing the intersection approaches to provide more travel lanes.

Milling and resurfacing of the existing roadway surfaces were used to accomplish cross slope modifications and to address existing areas with poor skid resistance, roughness, and surface distress. Full depth pavement was constructed for widened portions of the roadways and to replace existing shoulder areas found to be substandard, based on designs developed in DARWIN. Guide rail designs were prepared to provide protection for clear zone encroachments such as drainage basins.

Construction employed two primary stages In Stage 1, all widening work including installation of new signal equipment and drainage will be completed while existing traffic patterns are maintained. During Stage 2, traffic was shifted onto newly constructed areas to establish off-peak lane closures to complete milling/resurfacing of the existing pavement.

Key Members: Lee Adams, PE; Ray Mankbadi, PE; John Witthohn, PE; Matt Witkowski, PE; Jordan Baker

17. Firm Experience:

Firm name	Civil Design & Construction, Inc.		Past Performance Evaluation Discipline(s)*	Survey	
Project name	I-10 TX State Line East of Coone Gully		Firm responsibility (prime or sub?)	Sub	
Project number	H.003184.5	Owner's name	LADOTD / Stanley Ard, PLS		
Project location	Calcasieu Parish, LA		Owner's Project Manager	Stanley Ard, PLS	
Owner's address, phone, email	1201 Capital Access Rd., Baton Rouge, LA70802/225-379-1232/Stanley.ard@la.gov				
Services commenced by this firm (mm/yy)	10/15	Total consultant contract cost ($1,000's)		N/A	
Services completed by this firm (mm/yy)	12/18	Cost of consultant services provided by this firm ($1,000's)		$443	

This was a 6-lane widening project on I-10 in Calcasieu Parish. The project limits extended from the foot of the Sabine River Bridge (approximately 0.5 miles east of the state line) to a point approximately 2000 feet east of the beginning of the existing 6-lane section (located East of Coone Gully). The survey width of the project was from apparent right of way to apparent right of way and 500 feet past the gore along each of the on and exit ramps.

In 2018, CD&C was supplemented to extend the original limits of this survey approximately 1500' and to pick up several other areas of additional topographic updates.

CD&C performed a complete topographic survey in accordance with the Location and Survey Manual and all current accepted Location and Survey Automation Procedures for this project. A topographic survey was already completed at all bridge sites located within the limits. The survey included all utilities with depths and information, all drainage structures, and all survey DTM and improvement features that fell inside the survey limits. Due to traffic concerns 3D Terrestrial Scanning was utilized for the location of roadways and traditional means and methods were used to complete the topographic survey on this project. The final submittal of the survey was a combination of the supplied data from LADOTD for the bridges with the current survey that was completed for this project.

Members Involved: Karla E. Weston, P.E.; Ralph Burgess, PLS; Chris Ballard, PLS

Performed in LA: 100%

17. Firm Experience:

Firm name	Civil Design & Construction, Inc.		Past Performance Evaluation Discipline(s)*	Survey	
Project name	I-10: LA 415 to Essen Lane on I-10 and I-12		Firm responsibility (prime or sub?)	Sub	
Project number	H.004100	Owner's name	LADOTD		
Project location	West and East Baton Rouge, LA		Owner's Project Manager	Nicholas Olivier	
Owner's address, phone, email	1201 Capital Access Rd, Baton Rouge, LA 70802 / 225-379-1232 / Nicholas.olivier@la.gov				
Services commenced by this firm (mm/yy)	01/18	Total consultant contract cost ($1,000's)		N/A	
Services completed by this firm (mm/yy)	ongoing	Cost of consultant services provided by this firm ($1,000's)		$296	

This project located in West Baton Rouge and East Baton Rouge Parishes in the cities of Port Allen and Baton Rouge, LA. A complete Topographic survey including all utilities (ASCE 38-02, QL "B") with depths and all drainage is required, along with Finish floor elevations of all buildings that fall within the survey limits. The survey begins 1,500 feet West of the western most entrance/exit ramps of the LA 415 and I-10 Interchange. From the I-10, I-12 split the survey shall proceed in southerly and easterly directions along the existing main alignment of I-10 for approximately 1.5 miles & I-12 for approximately 1.5 miles to end the route limits.

CD&C as a sub-consultant on this project is responsible for topographic surveying the portion of I-10 in West Baton Rouge Parish beginning at the start of the project limits to a point just before the approach of the I-10 Bridge and the limits of the project along LA 415. **This work included using 3D Scanning for the bridge at I-10 bridge @ LA 415 as well as scanning every 500' for control verification and incorporation of the Mobile Lidar for the I-10 pavement.**

Members Involved: Karla E. Weston, P.E.; Ralph Burgess, PLS, Christopher Ballard, PLS; Phil Dupree; Jacob Stoehr

Performed in LA: 100%

17. Firm Experience:

Firm name	Civil Design & Construction, Inc.		Past Performance Evaluation Discipline(s)*	Survey	
Project name	Verot School Road		Firm responsibility (prime or sub?)	Sub	
Project number	H.011235	Owner's name	LADOTD		
Project location	Lafayette, LA		Owner's Project Manager	Thomas Gattle (Huval & Assoc.	
Owner's address, phone, email	922 W. Point Des Mouton Rd., Lafayette, LA 70507/337-234-3798/tgattle@huvalassoc.com				
Services commenced by this firm (mm/yy)		08/16	Total consultant contract cost ($1,000's)	N/A	
Services completed by this firm (mm/yy)		01/18	Cost of consultant services provided by this firm ($1,000's)	$435	

This project is located in Lafayette Parish between Lafayette Regional Airport and Broussard, LA. The project is for the proposed widening of US 90/I-49 South and realignment of Verot School Road. A topographic survey was performed along the entire proposed route as well as an existing drainage map.

CD&C performed a complete topographic survey of the project site by using **3D Terrestrial Scanning in conjunction with traditional means to complete the survey. Control was set for the scanning throughout the project limits.** Coordination with Cardno, Inc. (Team member) was necessary for the location of all utilities in the project area. CD&C also coordinated with all the property owners for access to the properties and also meet with safety advisors for the industrial business that were impacted. The survey included coordination with the ongoing I-49 Connector project and merging of that survey to the CD&C survey in order to make a complete project for the area**. CD&C also researched and compiled an existing right of way linework for the prime consultant to use for exhibits for the project and is tasked to complete Final ROW Maps**. In order to complete the survey CD&C also had to coordinate with BNSF railroad for access to BNSF's rail.

Members Involved: Karla Weston, PE; Ralph Burgess, PLS; Christopher Ballard, PLS; Phil Dupree; Jacob Stoehr

Performed 100% LA

17. Firm Experience:

Firm name	Urban Systems, Inc.			Past Performance Evaluation Discipline(s)*	Traffic
Project name	**US 90 (I-49 South) Albertson's Parkway to Ambassador Caffery Design / Build**			Firm responsibility (prime or sub?)	Sub
Project number	SP H.010620	Owner's name	LADOTD		
Project location	Lafayette Parish, LA		Owner's Project Manager	Peggy Jo Paine, P.E.	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, Louisiana, 70802, 225-379-1065, peggy.paine@la.gov				
Services commenced by this firm (mm/yy)	01/14	Total consultant contract cost ($1,000's)	n/a		
Services completed by this firm (mm/yy)	08/19	Cost of consultant services provided by this firm ($1,000's)	$232.6K		

Urban Systems, Inc. was part of the Design/Build team under the engineering task for this project. The project included upgrading a portion of US 90 from a four-lane facility to a six-lane facility with controlled access. The project also included providing a system of frontage roads to provide connectivity. Urban Systems was responsible for a variety of tasks including developing a signage plan, traffic signal plans, temporary traffic control plans (TCDP), traffic analysis and a Level 3 Traffic Management Plan (TMP) based on **LADOTD EDSM VI.1.1.8.**

Signage and Traffic Signal Plans

As part of the definitive design portion of this project, USI developed signage and traffic signal plans based on LADOTD requirements. The traffic signal plans were also developed in the latest LADOTD TSI format. These plans were updated during the construction phase of the project as unforeseen issues arose. USI worked closely with the contractor, team members and local entities throughout the construction phase.

Temporary Traffic Control Plans (TCDP)

Temporary traffic control plans were developed for the various phases of construction. These plans also included temporary traffic signals for some of the phases. These plans were developed to meet the current LADOTD standards. Additional traffic control plans were developed during the construction phase of the project as required by the contractor. Some of these plans involved complicated detours and devices to not affect traffic while completing construction.

Traffic Study and TMP

Traffic analysis was conducted during the project to determine the impact construction and the proposed configuration would have on traffic conditions. Traffic volumes were re-routed for each phase on construction and capacity analysis was conducted for each scenario. A unique part of this TMP is that the initial models developed will continue to be modified throughout construction to analyze the not only each phase of construction, but also for any changes to the originally proposed sequence.

Key members:
Alison Michel, PE, PTOE
Nicole Stewart, PE, PTOE

Performed 100% in LA

17. Firm Experience:

Firm name	Urban Systems, Inc.	Past Performance Evaluation Discipline(s)*	Traffic
Project name	**EBR Signals -5b**	Firm responsibility (prime or sub?)	Sub
Project number	USI Prj # 20-075-1	Owner's name	Baton Rouge Parish
Project location	East Baton Rouge Parish, Louisiana	Owner's Project Manager	Ingolf Partenheimer,
Owner's address, phone, email	225-389-3246		
Services commenced by this firm (mm/yy)	12/16	Total consultant contract cost ($1,000's)	n/a
Services completed by this firm (mm/yy)	11/20	Cost of consultant services provided by this firm ($1,000's)	$109K

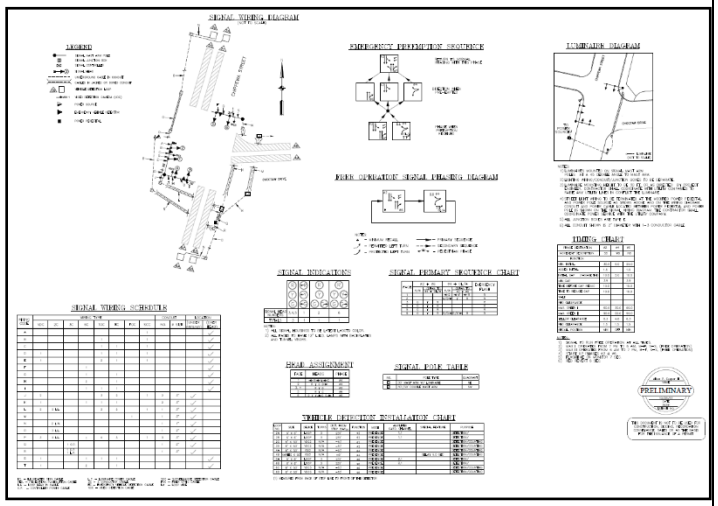
Urban Systems was a sub-consultant tasked with designing traffic signal plans for twenty-four (24) intersections along Choctaw Dr, S. Choctaw Dr and S. Foster Ave in East Baton Rouge Parish, Louisiana. The design consisted of full upgrades for twenty-two (22) of the traffic signals including mast arms and foundations, signal controller and cabinet, video detection, railroad preemption, fiber interconnect, and ADA compliance. The remaining two (2) intersections included the installation of fiber interconnect to the existing signal controller.

The original phase of this project also included data collection and development of new signal phasing and timing for optimum intersection operation. Progression analysis was performed to develop coordination parameters.

After the completion of preliminary plans, this project was put on hold for multiple years due to lack of funding. Upon restarting the project, Urban Systems updated the design plans based on current field conditions and LADOTD/City-Parish requirements.

Multiple field visits were conducted with the prime consultant, LADOTD, the City-Parish and the railroad company to verify existing conditions and identify/confirm locations for new equipment.

Cost estimates and quantities were updated from the LADOTD's 2006 Spec Items to the LADOTD's 2016 Spec Items.



Key members: Alison Michel, PE, PTOE; Nicole Stewart, PE, PTOE
Matthew Morgan, PE; Christine Darrah, PE

Performed 100% in LA

17. Firm Experience:

Firm name	Urban Systems, Inc.		Past Performance Evaluation Discipline(s)*	Traffic	
Project name	**Lakefront / Holy Cross Plan Revisions Computerized Traffic Signals Phase II**		Firm responsibility (prime or sub?)	Sub	
Project number	SP No. 700-30-0247	Owner's name	City of New Orleans / LADOTD		
Project location	Orleans Parish, LA		Owner's Project Manager	Karl Rothermel	
Owner's address, phone, email	1300 Perdido Street New Orleans, LA				
Services commenced by this firm (mm/yy)	06/09	Total consultant contract cost ($1,000's)	n/a		
Services completed by this firm (mm/yy)	08/10	Cost of consultant services provided by this firm ($1,000's)	$58K		

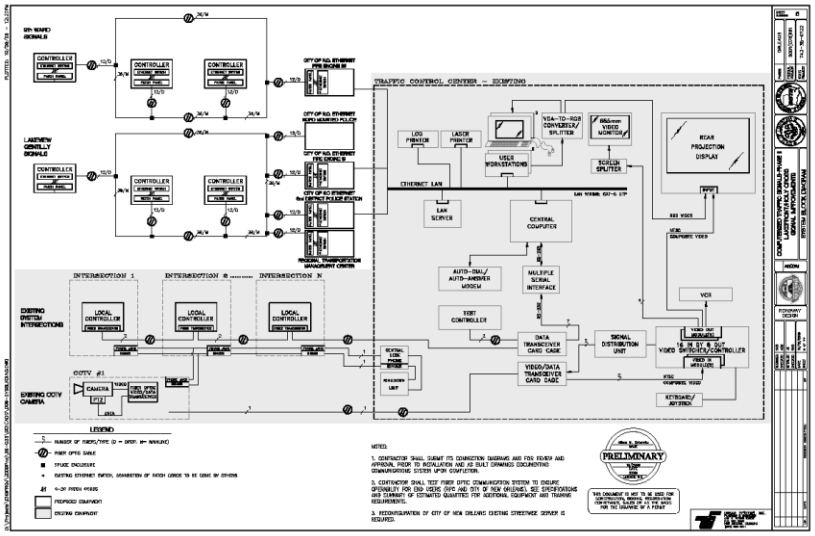
The project included a communications study and plan preparation for the Lakefront and Holy Cross signal systems. The objective of the Communications Study was to determine requirements for a self-healing fiber network between the traffic signals and video system detectors included in this project to the City of New Orleans Department of Public Works (DPW) and the new Regional Traffic Management Center (RTMC).

The project included forty-six (46) signalized intersections in two systems, Lakeview/Gentilly and the 9th Ward, and provided connectivity to DPW and RTMC. The communications system design included tie-ins to the city's ethernet network allowing full operation of the system from City Hall.

Preliminary and Final Plans were prepared for the communications system that included modification to existing traffic signal controller/cabinets. Cost estimates and quantities were updated from the LADOTD's 2006 Spec Items to the LADOTD's 2016 Spec Items.

Key members:
Alison Michel, PE, PTOE
Nicole Stewart, PE, PTOE

Performed 100% in LA



18. Approach and Methodology:

UNDERSTANDING

Hardesty & Hanover (H&H) understands one of the most valuable contracting tools available to DOTD for project delivery is the statewide IDIQ Contract for Roadway Design Services. It engages our team quickly and easily for time sensitive roadway infrastructure projects. The H&H Team includes sub-consultants that we have worked with in the past with extensive experience in their specialty areas. Civil Design & Construction Inc. (CD&C) will perform all topographic survey and Urban Systems Inc. (USI) will perform all traffic control design, traffic signal analysis, design work and transportation management plans (TMPs). Our team is committed to partnering with DOTD and project stakeholders to create a robust approach and cost-efficient response and delivery. We will be responsive to your needs, looking for innovations and cost savings with all Task Orders (TO) presented to us.

We have a good understanding of the project types that will be included in this IDIQ. Examples of projects that could possibly be administered via this IDIQ include interstate re-surfacing projects, roadway reconstructions, roadway widenings, possible roundabouts, and intersection improvements. Our goal is to team with DOTD as a qualified full-service engineering firm to provide general roadway design engineering services across the state. While services required will vary by project, it is anticipated that commonly required services will include:

- Topographic Surveys
- Traffic Control Designs, Traffic Signal Analysis and Designs
- Roadway Design
- Hydraulic Analysis and Design
- Roadway Design Services During the Environmental Process
- Special Provisions
- TMPs
- Quality Plan Reviews
- Construction Support

APPROACH

For each TO, our goal is simple: follow Project Delivery Process and the Road Design Manual, coordinate with project stakeholders, deliver quality projects, and understand contracting mechanisms to define TO needs. From this we provide a thoughtful approach, reduce risk for all parties, maximize cost savings, provide quality design & plans, protect people, and complete the project on-time meeting DOTD's schedule. Given our extensive roadway IDIQ contract experience we understand continuity of the project team, adequately staffing the project, depth of project managers, accurate work hour estimates, effective coordination, and communication among the project team, controlling the project costs, and meeting project schedules are the keys to the success of any individual project. Our approach and process to delivering a successful IDIQ contract and completion of TOs is summarized in the following steps:

- Implement Understanding of DOTD's Needs and Goals
- Execute the Task Order Promptly
- Engage Qualified Team Resources
- Identify and Connect with Stakeholders
- Promote Good Communication
- Manage Critical Path Elements
- Maintain Budget
- Maintain Quality
- Meet Schedules
- Contract Management

METHODOLOGY

H&H has a strong understanding of DOTD's Plan Delivery Process. The methodology for each TO will include:

SCOPING At the onset of any TO, our project Manager will coordinate with the DOTD PM to understand the project completely so that we can develop our Project Management Plan (PMP). Our PMP includes: a detailed scope of the project; a detailed schedule including the number of anticipated milestone submittals, plan review meetings, and project coordination meetings; the project design criteria; the anticipated project delivery milestones; our quality control plan; a project risk

register; identification of any special coordination or utility needs (e.g., railroad crossing, duct banks, transmission lines); our communications plan; and the road design report. This plan allows us to gather all the project information efficiently to review and coordinate with the DOTD PM at the kickoff meeting and will help the design process run more smoothly. This PMP is maintained through the life of the project so that as more information is developed and critical risks or concerns become apparent, they can be documented.

KICKOFF MEETING After the issuance of a TO, the H&H Team will coordinate a kickoff meeting with the DOTD PM and pertinent DOTD technical staff to discuss the primary goals of the project as well as review the PMP that we have already developed. This will be an opportunity for the H&H team and DOTD staff to clarify any questions or concerns from either party so that we can prepare for a smooth design process. This kickoff meeting will also be used as an opportunity to collect any available existing information pertinent to the project, such as: As-built Plans; Feasibility Studies/Traffic Studies; Environmental Documents; and Existing Utility Information. After the minutes from this meeting have been distributed, our team will coordinate with the DOTD PM to make a field visit to the site, and coordinate/meet with the district personnel to discuss their priorities and get any additional information from them once we have our boots on the ground.

DATA COLLECTION/FIELD VISITS During the Data collection phase, our team would begin the process of developing the necessary information on which we will base the design. Our team member CD&C will be responsible for the completion of any survey needed for these projects. CD&C has extensive experience performing DOTD surveys and has completed numerous surveys for various DOTD projects throughout the state. With CD&C's current backlog they are able to take on multiple surveys concurrently, which provides some redundancy if multiple TOs should come out in rapid succession. During this data collection phase, the H&H team will make our first site visit to assess any design risks that need to be mitigated and consider any obstacles that will need to be overcome in the design. Some possible examples of these may be utility access points that have been paved or grown over, significant drainage structures, project clearance issues, proximity to existing R/W or structures, existing drainage problems, areas of damaged pavement indicative of failed base or other structures, pedestrian traffic patterns, etc. This site visit will also give us the opportunity to coordinate directly with the district to get their understanding of the goals of the project. This upfront field investigation allows us to anticipate potential design issues that typically come up at the 95% preliminary Plan-In-Hand meeting and prevent rework later which can impact the schedule. All information from the field will be compiled and anything that needs to be added to the PMP will be tracked to keep a consistent track of all factors.

TRAFFIC ENGINEERING/ SIGNAL PLAN DEVELOPMENT/ TMPs USI's expertise is in Traffic Engineering, and they have been working with LADOTD's **Traffic Engineering Process** since its inception**.** The USI's staff knowledge of the DOTD's Access Management policies and their experience in developing design techniques to mitigate impacts will result in a project that will enhance the quality of life for the surrounding community. The **Traffic Signal Plans** will be developed based on the latest DOTD Traffic Signal Design and Traffic Engineering Manuals as well as to meet the requirements of the Manual of Uniform Traffic Control Devices. USI's experience with various DOTD projects at all the different phases will prove invaluable during the implementation of the project. USI also has a great deal of experience in the development of **Traffic Management Plans** for various types of projects including interchange modifications. These have included all TMP levels (1, 2, 3, 4). The TMP defines management strategies and describes how they will be used to manage the work zone impacts of a road project. These strategies for a work zone include temporary traffic control measures and devices, public information and outreach, and operational strategies such as travel demand management, signal retiming and traffic incident management.

PRELIMINARY PLAN DEVELOPMENT We anticipate using DOTDs Road Design Manual for all construction plan development and project delivery. As such, we acknowledge the following submittal stages: 30%, 60%, 95%, & 100% Preliminary Plans as well as 60%, 95%, 98%, and 100% Final Plans included in the Road Design Manual. This information as well as discussing the road design report, and what plan sections will be included with each submittal will also be discussed at the kickoff meeting to make sure that all plan delivery expectations are set prior to plan development. Designs will be in accordance with DOTD design criteria including the Road Design Manual, Design Criteria Guidelines, the DOTD Hydraulics Manual, and all other applicable road design manuals. The concept of practical designs will also be leveraged to the benefit of the project and DOTD. This may require utilization of the design exception process, but the H&H team has extensive experience coordinating with DOTD to obtain these approvals. We understand the use of crash modification factors (CMFs) to compare the relative impacts to safety

of different design feature alternatives. If design guidance is needed that is not available via DOTD documentation for a particular issue, H&H leans on our knowledge of the AASHTO "Green Book" for geometrics, the AASHTO Roadside Design Guide for roadside safety issues, the AASHTO Guidelines for Geometric Design of Low-Volume Roads, and the MUTCD for Signing and striping as needed. The H&H Team is proficient in using DOTD's current preferred software including InRoads SelectSeries II, CADConform, and HYDRWin. With the knowledge that Bentley is sunsetting InRoads SelectSeries II, we have already started with its transition to Bentley's OpenRoads platform; a unique advantage once implemented.

60% PRELIMINARY PLANS This retainer contract may offer an assortment of different types of design that vary from one project to the next depending on the type and scope of each project, but for a typical road design project during the 60% Preliminary Plans phase we may be expected to develop horizontal and vertical geometry, roadway drainage design, preliminary hydraulics report, striping layouts, preliminary required right-of-way locations and 3d modeling. The plan sheets that will be delivered with each submittal stage will follow Figure 1-03 from the Road design Manual. We will also provide any additional sheets early that are requested or are believed to be time critical.

95% & 100% PRELIMINARY PLANS The 95% preliminary plan set is critical for its use in the Plan-In-Hand (PIH) meeting and field visit where we will have an opportunity to go through the plans with DOTD staff to discuss anything they may have questions, comments, or concerns about. This is also an opportunity to directly coordinate with the district on any constructability concerns they may have at this time. If utility companies are present, then we can also coordinate any known impacts at this time. Additional plan sheet development and design will be ongoing at this stage. For 95% preliminary plans we will have developed our preliminary sequence of construction for discussion at the PIH meeting, our master summary of quantities, and have the necessary QA/QC checklists completed. For the 100% Preliminary delivery we will have addressed all comments received to this point, provide our final right-of-way lines (if necessary), provide our engineering cost estimate, provide any permit sketches that have been requested to this point, and have submitted any necessary design exceptions/waivers. The 100% Preliminary Submittal may also contain proposed traffic signal hardware locations and proposed new signal timings if included in the scope of work. A separate 30% Final Plan submittal could also be delivered to accommodate these traffic signal related tasks.

FINAL PLAN DEVELOPMENT Upon receipt of NTP, our team will move into the final plan development. As a kickoff e, our team will redistribute any updated overall project delivery plan information to the DOTD PM and coordinate to cover any updates. This will again establish expectations for the final plans and allow for a smooth and transparent progression to project completion. The final plan stages include 60% Final, 95% Final, 98% Final, and 100% Final plans. The final plans stages will be when we develop our more detailed construction plan sheets and information, and finalize any outstanding permits, and finalize design exceptions.

60% FINAL PLANS For the 60% final plans stage, any outstanding drainage design plans should be included with the set and the finalized hydraulic report should be submitted as well. Additionally, our team will be in the final stages of any detailing sheets necessary for the project such as graphical grades, joint layouts, sequencing notes, and permanent signage and sign structures. For projects including traffic signals, proposed signal wiring, a list of items for signal work, and special foundation designs (if required) will be included with this milestone. we will also be coordinating and attending any Joint Plan Review to coordinate with the final right-of- way maps if any are required for the project.

95% (ACP) FINAL PLANS For the 95% final plans stage, all outstanding design and plan development will be completed, and a complete plan set distributed to DOTD. We will attend and assist in coordinating the final Advance Check Prints meeting. We will utilize this opportunity to discuss any final questions or observation with the district personnel, DOTD staff, and any stakeholders that may attend. We will also provide a constructability report if one is desired as well as an ACP meeting. This submittal will also serve as an opportunity for the plans to be reviewed by the plan checker unit if that unit chooses to look at the project. We will also have design exception and design report approvals at this point in the plan delivery process.

98% & 100% FINAL PLANS The 98% final plan submittal will include the complete plan set having addressed all comments received, as well as the engineers final cost estimate and any special provisions necessary for the letting or construction of the project. Similarly, the 100% final submittal will include a complete stamped and signed plan set, stamped hydraulic report, and the final engineering estimate.

SCHEDULE

We have carefully developed the following example schedule which identifies major milestones necessary to complete the project plans for a typical project, assuming a medium sized project. Smaller projects would likely have a shorter duration and larger projects a longer duration.

TYPICAL ROAD DESIGN PROJECT DELIVERY SCHEDULE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Field Work, Data Collection, and Project Plan Development																				
Scoping and Project Plan Delivery Plan Development	■																			
Kickoff Meeting		■																		
Field Visit & Data Collection		■	■																	
Topographic Survey		■	■	■	■															
Preliminary Plan Development																				
60% Preliminary Plan Development					■	■	■													
Preliminary Right-of-Way Maps (prepared by others)								■	■											
95% Preliminary Plan Development								■	■											
Plan in Hand Meeting										■										
100% Preliminary Plan Development											■	■								
Final Plan Development																				
60% Final Plan Development													■	■	■					
Joint Plan Review Meeting (if necessary)																■				
95% Final Plan Development																■	■			
Advanced Check Print (ACP) Meeting																		■		
98% Final Plan Development																			■	
100% Final Plan Development																				■

QUALITY CONTROL

Quality control is a continual effort. A QA/QC Plan will be prepared by our team and provided to DOTD within 10 business days of award. H&H has committed to fostering the improvement of quality by generating a project specific Quality Management Plan (QMP) for providing guidance to the project team. The objective of the QMP is to provide tools to the project team so that our professional services are performed and delivered in accordance with applicable industry standards of care and to the satisfaction of project scope requirements while remaining within the allocated schedule and budget. The Quality Management Plan includes the H&H standard Quality Assurance and Quality Control Plans. Together these plans form our Quality Management System (QMS) which defines procedures to minimize errors, discrepancies, and omissions in our work products. H&H is continually striving to improve customer satisfaction. Our QMS is a living document that will be continually assessed and revised to reflect best practices and lessons learned. This process includes clarification of design information to support construction or production, correction and prevention of errors and omissions, and response to client feedback.

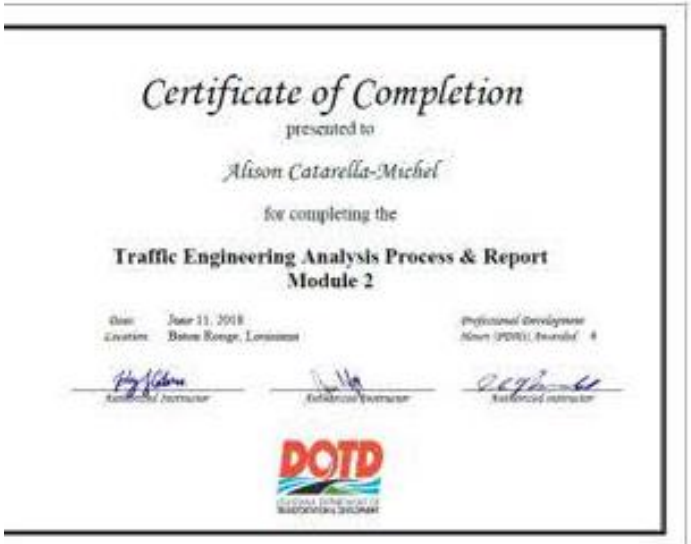
WHY ARE WE THE RIGHT TEAM FOR THIS CONTRACT?

H&H's team of highly qualified engineers have extensive experience with various roadway design projects including interstate widening projects, roadway rehabilitation projects, and drainage improvements. Our local and available staff are ready to start working on your projects as soon as this IDIQ contract is awarded. H&H is committed to provide quality products and has the additional resources committed to delivering your projects within the allocated schedule and budget.

19. Workload:

Firm(s)	Past Performance Evaluation Discipline(s) *	State project number	Project name	Remaining Unpaid Balance**
Hardesty & Hanover	Bridge	H.002798.6	Bayou Teche Bridge at Oaklawn	$55,310
	Road	H.014363.5	Sidewalk Improvements to Conform to ADA – Task Order 1 St. Tammany Parish	$9,000
	CE&I/OV	H.001498.6	LA 24 and LA 316: Company Canal Bridge (CE&I), Terrebonne Parish	$2,299,834
Civil Design & Construction, Inc.	Survey	4400017091/ TO-2	LWI Statewide Modeling R5 – Task Order #2	6,722
	Survey	4400017091/ TO-3	LWI Statewide Modeling R5 – Task Order #3	227,031
Urban Systems, Inc.	Traffic	H.011309.5	Mac Arthur Final Design	$30,687
	Traffic	H.012812	US 190: Northshore and Camp Villere	$5,507
	Traffic	H.004891	Reserve to I-10 Connector	$23,065

20. Certifications/Licenses:



Certificate of Completion

presented to

Alison Catarella-Michel

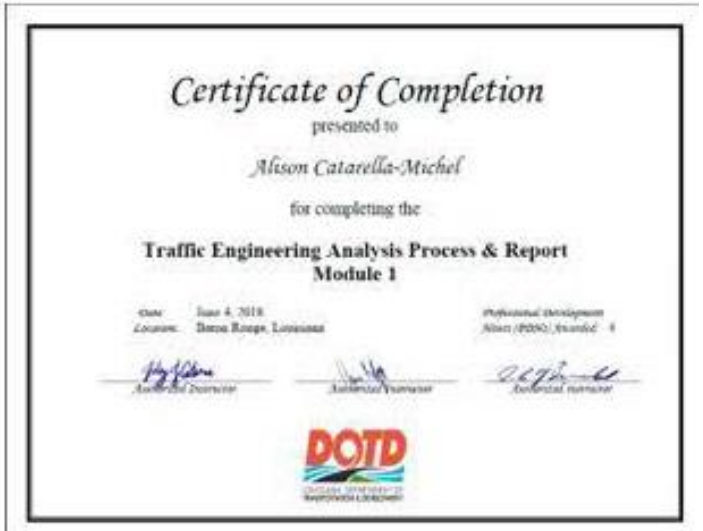
for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: June 11, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDH) Awarded: 4

DOTD



Certificate of Completion

presented to

Alison Catarella-Michel

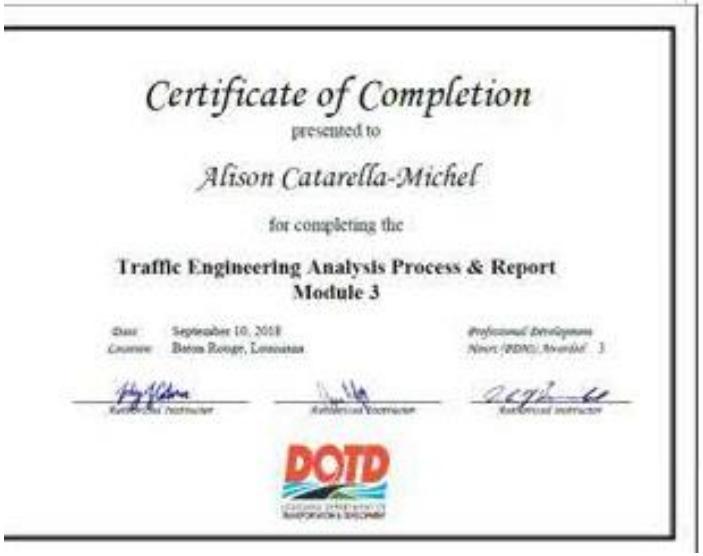
for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: June 4, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDH) Awarded: 4

DOTD



Certificate of Completion

presented to

Alison Catarella-Michel

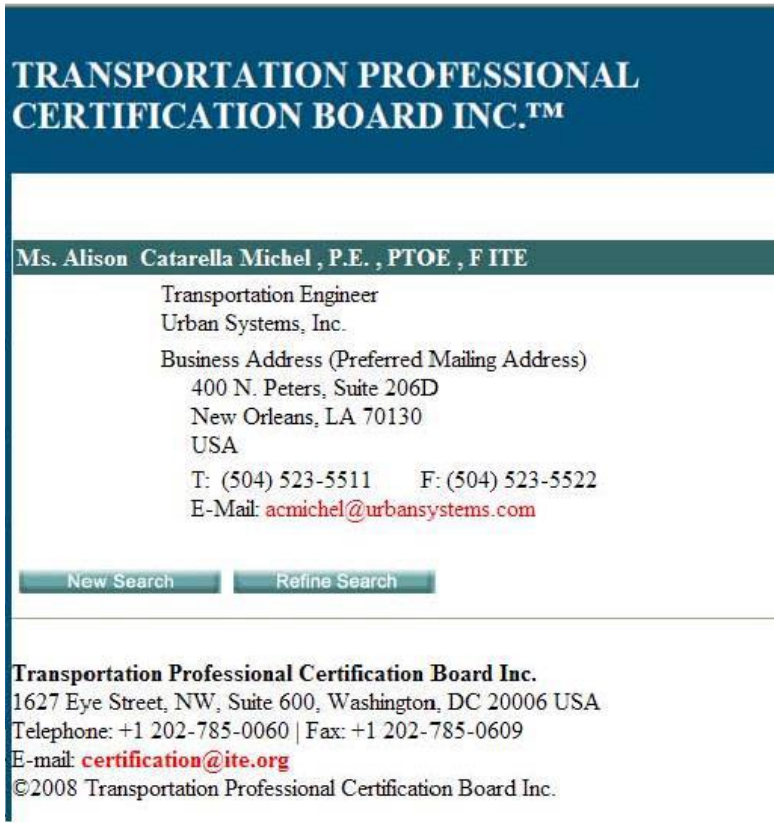
for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: September 10, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDH) Awarded: 3

DOTD



TRANSPORTATION PROFESSIONAL CERTIFICATION BOARD INC.™

Ms. Alison Catarella Michel , P.E. , PTOE , F ITE

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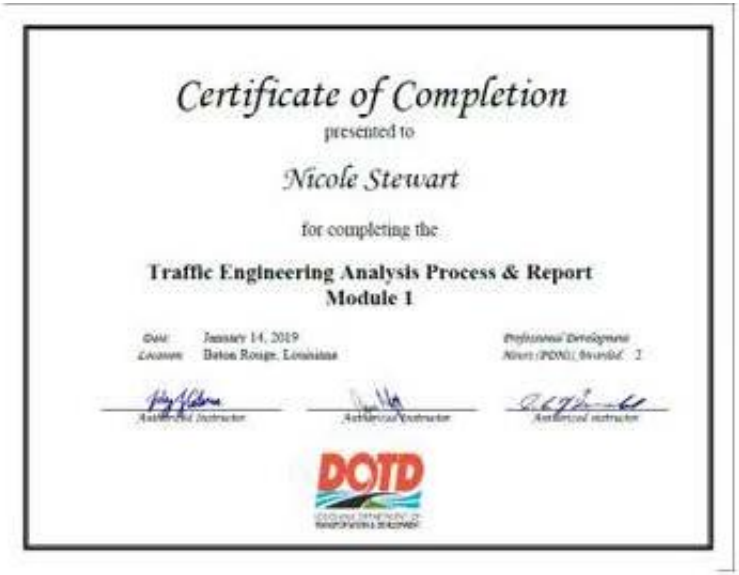
E-mail: **certification@ite.org**

PTOE 1023

Exp. Date 11/06/2023



Certificate of Completion

presented to

Nicole Stewart

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: January 14, 2019
Location: Baton Rouge, Louisiana

Professional Development Hours (PDH) Awarded: 2

DOTD

Certificate of Completion

presented to

Nicole Stewart

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: January 15, 2019
Location: Baton Rouge, Louisiana

Professional Development Hours (PDH) Awarded: 3

DOTD

Certificate of Completion

presented to

Nicole Stewart

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: January 14, 2019
Location: Baton Rouge, Louisiana

Professional Development Hours (PDH) Awarded: 3

DOTD

TRANSPORTATION PROFESSIONAL CERTIFICATION BOARD INC.™

Mrs. Nicole H. Stewart , P.E. , PTOE , M ITE

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Transportation Professional Certification Board Inc.
1627 Eye Street, NW, Suite 600, Washington, DC 20006 USA
Telephone: +1 202-785-0060 | Fax: +1 202-785-0609
E-mail: **certification@ite.org**

PTOE 2923 –
Expiration date 8/2023

Certificate of Completion

presented to

Christine Darrah

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: October 7, 2020
Location: Baton Rouge, Louisiana

Professional Development Hours (PDH's) Awarded: 2.5

Authorized Instructor | Authorized Instructor | Authorized Instructor

DOTD

Certificate of Completion

presented to

Christine Darrah

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: October 7, 2020
Location: Baton Rouge, Louisiana

Professional Development Hours (PDH's) Awarded: 3.5

Authorized Instructor | Authorized Instructor | Authorized Instructor

DOTD

Certificate of Completion

presented to

Christine Darrah

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: October 8, 2020
Location: Baton Rouge, Louisiana

Professional Development Hours (PDH's) Awarded: 3.5

Authorized Instructor | Authorized Instructor | Authorized Instructor

DOTD

Certificate of Completion

presented to

Matthew Morgan

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Certificate of Completion

presented to

Matthew Morgan

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Certificate of Completion

presented to

Matthew Morgan

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Certificate of Completion

presented to

Fadi Madi

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: October 7, 2020
Location: Baton Rouge, Louisiana
Professional Development Hours (PDH) Awarded: 2.5

DOTD

Certificate of Completion

presented to

Fadi Madi

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: October 8, 2020
Location: Baton Rouge, Louisiana
Professional Development Hours (PDH) Awarded: 3.5

DOTD

Certificate of Completion

presented to

Fadi Madi

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: October 7, 2020
Location: Baton Rouge, Louisiana
Professional Development Hours (PDH) Awarded: 3.5

DOTD

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

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

April 11, 2022

Civil Design & Construction, Inc.
Attn: Karla Weston
PO Box 857
Port Allen, LA 70767

Dear Karla Weston:

The Louisiana Department of Transportation and Development (LADOTD) Compliance Programs Section have received your firm's Disadvantaged Business Enterprise (**DBE**) and Small Business Element **(SBE)** annual affidavit. Based on the information, which you provided, it has been confirmed 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
C05-Structural Engineering
C09-Civil Engineering
NC541340-Drafting Services
C03-Drafting
NC541350-Building Inspection Services
C21-Construction Inspections
NC541370-Surveying and Mapping (except Geophysical) Services
C06-Land Surveying
C12-Right-of-Way
727-Mobilization
740-Construction Layout
CSL-Construction Layout Design

Please note that per the federal regulations, suppliers only receive 60% goal credit towards the materials they provide. Also, note that any contractor performing work in excess of $50,000 with the exception of electrical, mechanical and plumbing requires A Louisiana Contractor's License, 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. All participants of the Louisiana Unified Certification Program will recognize your firm's certification. 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 **March 31, 2023.** 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 LADOTD has contracted SJB Group, LLC to provide DBE Supportive Services to all certified DBEs, in the LAUCP, at no cost to you. This consultant can offer your firm assistance and guidance on areas such as marketing, estimating, bidding, financial preparations, etc. Contact Jackie des Bordes or Kenyatta Sparks with the SJB Group, LLC at (225) 769-3400 for any assistance needed to grow your organization.

The Louisiana UCP certifying entity reserves 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. The Louisiana UCP certifying entity also reserves the right to request additional information and/or conduct an on-site visit at any time during your certification period.

We are pleased to have you as a participant in the LAUCP and wish you much success.

If you have any questions regarding the content of this letter, contact the LADOTD DBE Certification Unit at (225) 379-1382.

Respectfully,

Rhonda Wallace

Rhonda Wallace
DBE/SBE Programs Manager

Enclosure (Certificate)

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)

Civil Design & Construction, Inc.

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

NC541330, NC541340, NC541350, NC541370

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

Certificate Eligibility: March 2022 to March 2023

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

Rhonda Wallace

Rhonda Wallace, DBE/SBE Programs Manager

Louisiana Department of Transportation & Development

R. Kyle Ardoin
Secretary of State

State of Louisiana Secretary of State

COMMERCIAL DIVISION
225.925.4704

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

Trade Name Details

Type(s) Registered: TRADE NAME
Registered Name: URBAN SYSTEMS, INC
Applicant: URBAN SYSTEMS ASSOCIATES, INC.
2000 TULANE AVENUE, SUITE 200
NEW ORLEANS, LA 70112
Type Of Business: ENGINEERING FIRM
Book #: 65-5513
Current Status: ACTIVE

Dates

Registration Date: 11/13/2014
Expiration Date: 11/13/2024
Date First Used: 11/13/2014
Date First Used (in La.): 11/13/2014

Current Classes

No Current Classes

Expired Classes

No Expired Classes

Amendments On File

No Amendments on file

Print

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)

Urban System Associates, Inc.

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

NC541330, NC541340, NC541990

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

Certificate Eligibility: (February 2022 to February 2023)

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

Rhonda Wallace

Rhonda Wallace, DBE/SBE Programs Manager

Louisiana Department of Transportation & Development

WBENC
WOMEN'S BUSINESS ENTERPRISE NATIONAL COUNCIL

JOIN FORCES. SUCCEED TOGETHER.

hereby grants

National Women's Business Enterprise Certification

to

URBAN SYSTEMS ASSOCIATES, INC. DBA Urban Systems, Inc.

who has successfully met WBENC's standards as a Women's Business Enterprise (WBE).
This certification affirms the business is woman-owned, operated and controlled and is valid through the date herein.

Certification Granted: May 22, 2020
Expiration Date: May 31, 2023
WBENC National Certification Number: WBE2001268

WBENC National WBE Certification was processed and validated by Women's Business Enterprise Council - South, a WBENC Regional Partner Organization.

Authorized by Phala Mire, President Women's Business Enterprise Council - South

WBECSOUTH
WOMEN'S BUSINESS ENTERPRISE COUNCIL

NAICS: 541330, 541340
UNSPSC: 70131701, 80101605, 81101500, 81101502, 81101510, 81101524, 81102201

WBENC
WOMEN'S BUSINESS ENTERPRISE NATIONAL COUNCIL
JOIN FORCES. SUCCEED TOGETHER.

HEREBY GRANTS
WOMAN OWNED SMALL BUSINESS (WOSB) CERTIFICATION TO

URBAN SYSTEMS ASSOCIATES, INC. DBA Urban Systems, Inc.

The identified small business is an eligible WOSB for the WOSB Program, as set forth in 13 C.F.R. part 127 and has been certified as such by an SBA approved Third Party Certifier pursuant to the Third Party Agreement, dated June 30, 2011, and available at www.sba.gov/wosb.

The WOSB Certification expires on the date herein unless there is a change to the SBA's regulation that makes the WOSB ineligible or there is a change in the WOSB that makes the WOSB ineligible. If either occurs, this WOSB Certification is immediately invalid. The WOSB must not misrepresent its certification status to any other party, including any local or State government or contracting official or the Federal government or any of its contracting officials.

Majority Female Owner: ALISON MICHEL
NAICS: 541330, 541340 UNSPSC: 70131701, 80101605, 81101500, 81101502, 81101510, 81101524, 81102201
Certification Number: WOSB200724
Renewal Date: May 31, 2023
WOSB Regulation Expiration Date: 5/31/2024

WBEC SOUTH
WOMEN'S BUSINESS ENTERPRISE COUNCIL

Phala Mire, Women's Business Enterprise Council - South President

Pamela Prince-Easton, WBENC President & CEO

LaKesha White, Vice President, Certification

LED | LOUISIANA ECONOMIC DEVELOPMENT

DIVISION OF SMALL BUSINESS SERVICES

This certification acknowledges that

Urban Systems Associates, Inc.
DBA: Urban Systems, Inc.

is Certified-Active as a Small Entrepreneurship with
Louisiana Economic Development's Hudson Initiative.

This certification is valid from 6/14/2022 to 6/14/2023.

Certification No. 19041

Stephanie Hartman,
Director, Entrepreneurial Services

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

Not Applicable. Will be submitted at time of contract award.

22. Sub-consultant information:

Firm Name (as registered with Louisiana's Secretary of State)	Address	Point of Contact and email address	Phone Number
Civil Design & Construction, Inc.	P O Box 857 Port Allen, LA 70767 3251 Southern Pacific Road	Karla E. Weston, PE kweston@cdcbr.com	225.765.1802
Urban Systems, Inc.	2000 Tulane Ave. Suite 200 New Orleans, LA 70112	Alison Michel acmichel@urbansystems.com	504.569.3958

23. Location:

Not Applicable

3850 N. Causeway Blvd, Suite 1850
Metairie, LA 70002
T: 504.962.9212
la@hardestyhanover.com